



शरीरमाद्यं खलु धर्मसाधनम्

63rd Annual Report 2018-2019



**All India Institute of Medical Sciences
New Delhi - 110029**

**63rd
AIIMS
ANNUAL REPORT
2018–2019**



शरीरमाद्यं खलु धर्मसाधनम्

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

NEW DELHI - 110029

Edited jointly by:

Dr Sandeep Agarwala, Department of Paediatric Surgery

Dr Nasreen Akhtar, Department of Physiology

Dr Neetu Bhari, Department of Dermatology and Venereology

Dr Anjan Dhua, Department of Paediatric Surgery

Dr Bhavuk Garg, Department of Orthopaedics

Dr Rakesh Garg, Department of Oncoanaesthesia, Dr B.R. Ambedkar IRCH

Dr Vivek Gupta, Dr R.P. Centre for Ophthalmic Sciences

Dr Tony George Jacob, Department of Anatomy

Dr Sidharth Jain, Department of Urology, JPNA Trauma Centre

Dr Rajeev Kumar, Associate Dean (Academics) and Department of Urology

Dr Rakesh Lodha, Department of Paediatrics

Dr R. Lakshmi, Department of Cardiac Biochemistry

Dr Sanjeev Lalwani, Registrar

Dr Kalpana Luthra, Department of Biochemistry

Dr Purva Mathur, Department of Laboratory Medicine, JPNA Trauma Centre

Dr Peush Sahni, Department of Gastrointestinal Surgery and Liver Transplantation

Dr Siddharth Sarkar, National Drug Dependence Treatment Centre

Dr Pratap Sharan, Department of Psychiatry

Dr Alpana Sharma, Department of Biochemistry

Dr K Aparna Sharma, Department of Obstetrics and Gynaecology

Dr Deepti Vibha, Department of Neurology

Mr M. K. Vishwakarma, Librarian

Ms Neetu Priya, Librarian

**The Hindi translation was done and supervised by the AIIMS Hindi Section
led by Mr P.S. Tomar**

All India Institute of Medical Sciences

The All India Institute of Medical Sciences (AIIMS) was established in 1956 as an institution of national importance by an Act of Parliament to develop patterns of teaching in undergraduate and postgraduate medical education in all its branches so as to demonstrate a high standard of medical education to all medical colleges and other allied institutions in India; to bring together in one place educational facilities of the highest order for the training of personnel in all important branches of health activity and to attain self-sufficiency in postgraduate medical education.

The Institute has comprehensive facilities for teaching, research and patient care. AIIMS conducts teaching programmes in medical and para-medical courses both at the undergraduate and postgraduate levels and awards its own degrees. Teaching and research is conducted in nearly 100 disciplines. AIIMS is a leader in the field of medical research with over Rs 100 crores in extramural grants received by its researchers in a year. AIIMS also runs a College of Nursing.

Various departments and centres manage practically all types of disease conditions with support from para-clinical departments. AIIMS also runs a 50-bedded hospital and the Comprehensive Rural Health Centre at Ballabgarh in Haryana and provides health cover to nearly 8 lakh people through the Centre for Community Medicine.

Content

Annual Report 2018–2019

1.	Director’s Review	3
2.	The Institute and Its Committees	8
3.	Academic Section	12
4.	Examination Section	19
5.	General Administration	24
6.	Hospital	26
6.1	Medical Records Department.....	27
6.2	Dietetics	37
6.3	Hospital Billing Section.....	39
6.4	Nursing Services.....	39
6.5	Welfare Unit	45
6.6	Medical Social Welfare Unit.....	46
7.	College of Nursing	54
8.	Research Section.....	64

Departments

9.1.	Anaesthesiology, Pain Medicine and Critical Care	69
9.2.	Anatomy	88
9.3.	Biochemistry	104
9.4.	Biomedical Engineering	119
9.5.	Biophysics	122
9.6.	Biostatistics	130
9.7.	Biotechnology	139
9.8.	Centre for Community Medicine.....	147
9.9.	Dermatology and Venereology	166
9.10.	Emergency Medicine	173
9.11.	Endocrinology and Metabolism	180
9.12.	Forensic Medicine and Toxicology	188
9.13.	Gastroenterology and Human Nutrition Unit.....	192
9.14.	Gastrointestinal Surgery and Liver Transplantation	202
9.15.	Geriatric Medicine	208
9.16.	Haematology	211
9.17.	Hospital Administration.....	219
9.18.	Laboratory Medicine	224
9.19.	Medicine.....	234
9.20.	Microbiology.....	241
9.21.	Nephrology.....	257
9.22.	Nuclear Magnetic Resonance.....	265
9.23.	Nuclear Medicine.....	273
9.24.	Obstetrics and Gynaecology.....	279

9.25.	Orthopaedics.....	304
9.26.	Otorhinolaryngology	316
9.27.	Paediatrics	329
9.28.	Paediatric Surgery.....	368
9.29.	Pathology.....	378
9.30.	Pharmacology.....	400
9.31.	Physical Medicine and Rehabilitation	407
9.32.	Physiology.....	414
9.33.	Plastic, Reconstructive and Burns Surgery	435
9.34.	Psychiatry	439
9.35.	Pulmonary Medicine and Sleep Disorders.....	459
9.36.	Radiodiagnosis	465
9.37.	Reproductive Biology.....	485
9.38.	Rheumatology	491
9.39.	Surgical Disciplines.....	496
9.40.	Transfusion Medicine and Blood Bank.....	510
9.41.	Transplant Immunology and Immunogenetics	512
9.42.	Urology.....	517

Centres

10.1.	Cardiothoracic Sciences Centre	527
10.2.	Centre for Dental Education and Research.....	568
10.3.	Dr BR Ambedkar Institute Rotary Cancer Hospital.....	588
10.4.	Dr Rajendra Prasad Centre for Ophthalmic Sciences	632
10.5.	Jai Prakash Narayan Apex Trauma Centre.....	678
10.6.	National Drug Dependence Treatment Centre.....	710
10.7.	Neurosciences Centre	727

Central Facilities

11.1.	B.B. Dikshit Library.....	777
11.2.	Cafeteria	780
11.3.	Central Animal Facility.....	781
11.4.	Central Workshop.....	782
11.5.	Computer Facility	785
11.6.	Electron Microscope Facility (Department of Anatomy).....	794
11.7.	Hostel Section.....	797
11.8.	Ethics Committee.....	799
11.9.	K.L. Wig Centre for Medical Education, Technology and Innovation (CMETi)	800
11.10.	Media and Protocol Division.....	805
12.	Publications.....	813

Finance Division

13.1.	Budget and Finance.....	905
13.2.	Audit Report	1090

AIIMS AT A GLANCE

2018–2019

Year of establishment 1956

Teaching Departments and Centres	42+7	Medical graduates	3209
Faculty members (Sanctioned 1042)	671	Postgraduates	10399
Non-faculty staff (Sanctioned 11,266)	9956	Nursing/paramedical graduates	3334
Undergraduate students	985	Publications in journals/abstracts	1855
Postgraduate students	1991	Chapters in books/books	341

Hospital Services

Hospital/Centre	Outpatients (including casualty)	Admission	Surgery (Operations/ procedures)	Beds		
				General	Private	Total
Main Hospital	16,56,329	1,17,169	97,900	997	165	1,162
Dr RP Centre	5,70,061	47,356	49,576	288	22	310
Dr BRA IRCH	1,81,566	46,405	12,069	167	15	182
Cardiothoracic Centre	2,07,276	11,534	3,961	226	33	464
Neurosciences Centre	1,23,754	9,744	3,346	174	31	
NDDTC*	2,21,947	1,341	–	50	–	50
CCM†	3,51,704	12,608	2,142	50	–	50
JPNATC	1,28,799	7,080	8,672	226	22	248
CDER**	2,28,659	1,189	23,496	17	–	17
NCI, Jhajjar	1,435	179	13	–	–	–
Outreach outpatients, Badsa, Jhajjar	1,43,196	–	617	–	–	–
Total	38,14,726	2,54,605	2,01,792	2,195	288	2,483

*inclusive of Trilokpuri, Sunder Nagri & Kotla Mubarakpur

†inclusive of PHC Dayal Pur

** Including 30 Triage beds

Hospital performance indices

Parameters	Main Hospital		Cardiothoracic and Neurosciences Centre		Jai Prakash Narain Apex Trauma Centre	
	2018–19	2017–18	2018–19	2017–18	2018-19	2017-18
Average length of stay (days)	9.5	9.3	10.2	9.8	10	8
Average bed occupancy rate (%)	86.8	86.4	84.9	87.9	80	68
Net death rate (%)	1.7	1.8	2.9	2.8	6	6
Combined crude infection rate (%)	5.8%	6.0%	–	–	–	–

CCM: Centre for Community Medicine

CDER: Centre for Dental Education and Research

Dr BRA IRCH: Dr B.R. Ambedkar Institute Rotary Cancer Hospital

Dr RP Centre: Dr Rajendra Prasad Centre for Ophthalmic Sciences

JPNATC: Jai Prakash Narain Apex Trauma Centre

NCI: National Cancer Institute

NDDTC: National Drug Dependence Treatment Centre

1. Director's Review

I feel privileged to present the Sixty-third Annual Report and audited statement of accounts for the year 2018–2019.

The All India Institute of Medical Sciences, Delhi (AIIMS) was created in 1956 as an autonomous institution through an Act of Parliament to serve as a nucleus for nurturing excellence in all aspects of healthcare. Today, it flourishes thanks to educators, students, scientists, practitioners, staff and clients, who embody the same passion as its founders. The Institute understands that while individual brilliance is important, the cumulative consultative competence of a team combining their efforts to work towards a common goal is often what makes all the difference. I am beholden to this extraordinary community for the extraordinary work they do day in and day out.

Our achievements reflect our shared dedication to education, science and care, and I am pleased to highlight in this report some of the past year's remarkable accomplishments.

Future-Ready Infrastructure

A masterplan for redevelopment of AIIMS estimated at Rs 9,053-crore received the approval of the Union Cabinet on February 28, 2019. Under this plan, AIIMS will more than double its institutional and clinical facilities and take the number of hospital beds from 2,084 at present to at least 5,000 by 2024. The plan, named 'One-AIIMS' will integrate the fragmented campus spread across five land parcels separated by Delhi's arterial roads. The redevelopment focuses on increasing patient services by reorganizing land use, vertical expansion and consolidation to optimise the infrastructure for patient care, teaching, research, and administration. An integrated expansion effort was long overdue as patient numbers and human resources have grown about 10-fold over the six decades of our existence, while the infrastructural development has not kept pace.

The Honourable Prime Minister of India, Shri Narendra Modi ji dedicated the AIIMS, Delhi's—National Cancer Institute, Jhajjar (NCI) to the country on February 12, 2019. Built at an expenditure of Rs 2,035 crores, NCI is the largest investment by the Indian Government in a single hospital project and holds the unique distinction among mega healthcare projects to be completed in a record time of 3 years. The NCI has 710 patient care beds and 25 operation theatres dedicated for cancer prevention, treatment, research and education. It is equipped with cutting edge technology in the form of linear accelerators, PET, MRI and CT scanners, and brachytherapy equipment. The NCI will also host the first public sector proton facility as well as robotic core clinical laboratory that can perform over 60,000 tests in a day and has the capability to give reports in two hours. The NCI will also employ advanced digital integration of hospital critical care systems and door to discharge paperless patient records. The NCI shall focus on translational research on India specific cancers which shall enable early detection of cancers and better treatment outcomes. Various countries like USA, France, UK, etc., have entered into research collaborations with NCI and research projects in related areas have already started. The NCI has also collaborated with Department of AYUSH for research into the role of Indian Systems of Medicine in prevention and cure of cancers. In addition, the NCI will act as an apex body for the network of State Cancer Institutes (SCIs) and Tertiary Care Cancer Centres (TCCCs) in India to help develop and mentor cancer-related activities.

AIIMS is set to shift its outpatient department (OPD) into a more spacious location in the adjacent Masjid Moth area. The new OPD constructed according to green and energy conservation norms will be able to accommodate 10,000 patients at a time. AIIMS is also building a new block specifically to offer multi-specialty healthcare to the older population. The National Centre for Ageing, a 200-bed block with a dedicated operation theatre is being constructed at a cost of Rs 330 crores. The Department of Orthopaedics has set up a state-of-the-art modular operation theatre complex for performing advanced surgeries, thus expanding the existing facilities to reduce the waiting list of patients. The facility will provide for robotic spine surgeries and support live streaming of surgeries for educational purposes.

AIIMS has signed a Memorandum of Understanding (MoU) with the National Health Agency (NHA) for the implementation of the Pradhan Mantri Jan Arogya Yojana (PM-JAY). The Institute will provide all diagnostic and treatment facilities to the entitled beneficiary patients admitted in the hospital as per the approved packages and in accordance with the provisions of the scheme. To facilitate patient movement across the Institute, a new app named 'AIIMS Information' with GPS-guided routing has been launched. The app will also help patients in getting online appointments and view their laboratory reports using the unique hospital ID through existing websites. Registered patients can also check if they are eligible for the insurance scheme under the PM-JAY. In addition, the app provides maps of nearby government hospitals along with emergency contact numbers for patients who may need to be shifted from AIIMS.

Nurturing the Next-Generation of Medical Leaders

AIIMS ranked first among India's medical colleges in the National Institutional Ranking Framework of the Ministry of Human Resource Development (MHRD) as well as independent surveys conducted by India Today and the Outlook in the year 2018-19. AIIMS is also the only medical institution from India in the top 1,000 degree-granting institutions of higher education worldwide according to the Centre for World University Rankings. Our educators are ensuring that our dynamic curriculum, which blends basic, translational and clinical science, is producing the next generation of leaders in healthcare.

With its 7 centres comprising of various teaching departments and facilities and 42 stand-alone Departments, and a manpower of over 10,000 including nearly 700 faculty members, AIIMS produces a large number of medical graduates, specialists (MD/MS), super-specialists (DM/MCh), PhD scholars and allied health and basic sciences experts, including nurses and paramedical professionals. During the year, we enrolled 1,015 scholars in various courses. The Institute also provided training to 694 trainees. AIIMS continued to play a mentorship role for the other AIIMS and conducted entrance examinations and counselling leading to final selection of students to the MBBS and BSc (Honours) Nursing courses for them.

The Department of Anaesthesiology, Pain Medicine and Critical Care has started a Bachelor of Science course in Operation Theatre Services and a one-year fellowship in Pain Medicine.

AIIMS exposes clinician and science leaders working in healthcare fields to the real-world settings of medicine to new trends in science and health care delivery. The Institute offered Continuing Medical Education to thousands of physicians and healthcare professionals to help improve skills, knowledge and performance. We organized/hosted over 200 workshops, symposia, conferences and training programmes in collaboration with various national and international agencies. The Centre for Medical Education and Technology (CMET) at AIIMS organized 112 in-house training programmes for different cadres of staff members.

The Skills, E-Learning and Telemedicine (SET) Facility was inaugurated in July 2018. It is a State-of-the-Art facility set up to modernise and update medical education at the Institute. It imparts skill-based learning to medical undergraduates, postgraduates and nursing staff so that they are better prepared when managing patients in wards and clinics. The facility has active involvement of faculty members from various clinical and non-clinical departments who develop the training modules and teaching content and impart hands-on training to the students. The facility has a *Dry Skill Lab* equipped to impart basic and advanced medical skills and a *Wet Lab* that supports cadaveric and other surgical skill development workshops. In addition, the SET Facility hosts three modern studios with capability to link with over 50 medical institutions across India. The facility is developing e-learning modules to impart education through telemedicine linkages with medical colleges and hospitals across India. The Academic Section has also started a trial run of software 'SARAL' (Student Advanced Resources and Learning) for online training and student management.

AIIMS and Indian Institute of Technology-Delhi (IIT-D) have signed a MoU with an overall objective of building a more robust healthcare system through engineering and technology interventions. The two institutions have decided to initiate 20 joint projects in the areas of application of nanotechnology, robotics, artificial intelligence, precision engineering, advanced materials and polymers for drug delivery, surgical methods and medicine. The six broad areas of collaboration under the MoU include regular joint colloquiums, faculty interdisciplinary research, providing a platform for interaction among the undergraduate students of both institutes, a joint PhD/supervision programme and building a Biomedical Research Park in Jhajjar, Haryana. AIIMS has also signed a MoU with IIT-Kharagpur, for institutional collaboration in education, research outreach programme and medical services. AIIMS also has MoUs with the Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa Rigpa and Homoeopathy (AYUSH), Council for Scientific and Industrial Research (CSIR), Institute of Genomics and Integrative Biology (IGIB), and Translational Health Science and Technology Institute (THSTI). Twenty-five projects have been sanctioned under the AIIMS-IIT-Delhi collaboration and 9 projects under the AIIMS-THSTI collaboration.

AIIMS has entered into a partnership with the University College London (UCL) to enable collaborations in research and increase the number of academic and student exchange opportunities between the institutions. As part of this collaboration, AIIMS has joined the International Centre for Genomic Medicine in Neuromuscular Diseases (ICGMN), led by UCL. The ICGMN is a 5 million pounds initiative, bringing together skills and resources from five countries that aims to advance the genetic diagnosis and therapy for patients with muscle wasting neuromuscular diseases, including motor neurone disease and muscular dystrophy.

AIIMS sets a high value on student diversity. The Department of Biotechnology, AIIMS has started a Student mentorship programme and Career awareness programme to cater to the needs of students from various backgrounds to support the learning outcomes among the students.

Studies from across the world show that medical doctors and students are under stress owing to long work hours, extensive academic load, difficult work environment, and constant exposure to life and death situations. Acknowledging this, AIIMS has started a wellness clinic for its medical students and doctors. The clinic is operational for 12 hours a day and is supported by dedicated e-helpline and 24x7 m-helpline.

Serving the Nation

The Centre for Community Medicine (CCM), AIIMS continues to provide technical support to national health programmes including training, development of resource materials and field-based activities. CCM has conducted faculty development on Operational Research under the Human Resource Development Health Research Scheme of the Government of India. It was designated as the National Centre of Excellence and Advanced Research on Anaemia Control and re-designated as the World Health Organization (WHO) Collaborating Centre for Capacity Development and Research in Community-Based Non-Communicable Disease (NCD) Prevention and Control. The Department has collaborative projects with Center for Disease Control (CDC) Atlanta to elucidate the epidemiology of acute respiratory infections and viral pathogens in India.

Cause of death data is critical for governments to plan and monitor the effectiveness of their health programmes; however, most deaths in India, especially in rural areas are not medically certified. The CCM has developed MINERVA (Mortality in India established through Verbal Autopsies), an online cause of death coding platform for the Registrar General of India (RGI) office under the Ministry of Home Affairs.

The Department of Emergency Medicine, AIIMS is developing guidelines for comprehensive primary health care for burns and trauma as well as for Emergency Departments at District Hospitals under the aegis of MoHFW. In collaboration with South East Asia Regional Office of WHO, the department is also involved in formulating guidelines on road safety, injury prevention, as well as integration of emergency and trauma care in India.

The Department of Medicine was designated as a WHO Collaborating Centre for Training and Research in Tuberculosis. The Department of Paediatrics hosts two WHO collaborating centres (on Newborn Training and Research in Newborn Care & Training in Clinical and Laboratory Genetics). The Division of Neonatology of the Department of Paediatrics in partnership with Postgraduate Institute of Medical Education and Research, Chandigarh, Government Medical College and Hospital, Chandigarh, and Public Health Foundation of India is attempting to improve the quality of care of preterm neonates being treated in special newborn care units (SNCU) in 4 states of the country. The major objective of this activity is to reduce the incidence of retinopathy of prematurity (ROP) in preterm neonates by implementing evidence-based practices. The work is funded by the Queen Elizabeth Diamond Jubilee Trust, UK.

The Department of Haematology played a pivotal role in development of the national policy for control of thalassaemia and haemoglobinopathies and haemophilia by MoHFW.

A nation-wide study commissioned by the Ministry of Social Justice and Empowerment (MoSJE) and led by the National Drug Dependence Treatment Centre (NDDTC) at AIIMS has revealed that 5.7 crore Indians suffer from alcohol related problems; 72 lakh individuals need help for their cannabis use problems; and 22 lakh individuals need help for inhalant abuse and dependence. Further, about 2.5% of the Indian adult population uses opioids and about 8.5 lakh people inject drugs. The report also showed that usage of psychoactive substances such as cannabis (bhang and ganja/charas), opioids (opium, heroin and pharmaceutical opioids), cocaine, amphetamine type stimulants (ATS), sedatives, inhalants and hallucinogens have increased over the previous 15 years; and that a large portion of affected people do not have access to treatment. The survey will aide MoSJE in formulating a national guideline after detailed consultations with stakeholders to counter the drug menace in India. The NDDTC also launched mobile methadone clinics to provide daily observed treatment (DOT) to persons with opioid use disorders in inner city neighbourhoods in Delhi to improve access to treatment and reduce treatment dropout. Till now, less than 2% of the population needing this form of treatment in India according to WHO guidelines is receiving it. Based on the success of this initiative, this new approach can be scaled-up in different parts of the city and country.

Cleft lip and cleft palate are conditions wherein the two sides of the lip and roof of the mouth (palate) do not completely fuse together during foetal (intra uterine) development. These conditions are among the visible deformities recorded under the Rashtriya Bal Swasthya Karyakram. A multi-centre study led by Centre for Dental Education and Research (CDER) showed that nutritional deficiencies and exposure to tobacco/smoke, alcohol, over-medication and radiation during the first few weeks of pregnancy could lead to cleft lip and cleft palate in newborns. A web-based recording system, “IndiCleft” tool was developed with the help of the National Informatics Centre to track these conditions in the population. The CDER has also initiated a nationwide oral health survey in collaboration with the MoHFW to obtain representative data on common dental diseases in the country like dental decay, gum diseases, dentofacial deformities, cancerous lesions, dental fluorosis and dental trauma.

A multi-institutional team led by the Department of Cardiology conducted a survey in four Indian states that revealed that about 23% of primary and secondary school students in rural areas had high blood pressure. The study highlighted the need for screening and management programmes since high blood pressure in childhood can lead to early onset of heart diseases in adulthood.

The Department of Pharmacology is running the Adverse Drug Reaction (ADR) monitoring centre (ADR-AMC) under Pharmacovigilance Programme of India (PvPI) and Medical Device Monitoring Centre (MDMC) for Materiovigilance Programme of India (MvPI) by the MoHFW.

Research and Innovation

This era is marked by the remarkable pace of new discoveries and the proliferation of ever-advancing technologies. Our Institute is at the epicentre of a dynamic network of research and discovery related to biomedicine. AIIMS-Delhi continues to be the top medical institution in terms of research output in India. It published nearly 1900 research papers in national and international journals and over 300 monographs, books and chapters in books during the year.

The Research Section serves as a catalyst for research at AIIMS-Delhi. We are expanding and deepening our research infrastructure, investing in cross-disciplinary collaborative research, and enhancing therapeutically oriented and translational research education. The faculty and scientists at the institute conducted over 627 funded research projects that attracted

more than Rs 128 crores worth of extramural research grants. In addition, the research section disbursed grants amounting to Rs 3.72 crores for 81 new Intramural Research Projects to fast forward fledgling research careers and 30 collaborative scheme projects to support cross-disciplinary research. The Research Section also organized a Research Day to showcase the work of young researchers at AIIMS. An exciting addition is the MBBS mentoring scheme, under which 26 research projects involving 68 students were initiated.

Highly sensitive and specific diagnostic tests for pulmonary TB (tuberculosis of the lungs), pleural TB (tuberculosis of the covering of the lungs) and TB meningitis (tuberculosis of the covering of the brain) have been developed by a multi-institutional team led by the Department of Biotechnology at AIIMS. The diagnostic tests make use of a DNA aptamer (a small single-stranded DNA molecule that binds to a specific target molecule) that shows high binding affinity to a TB antigen. The team has also developed cheap and rapid portable tests, which can be used for screening pulmonary TB and TB meningitis in high-risk groups. The aptamer-based diagnosis is superior to standard screening tests like gene Xpert, smear microscopy, X-ray and ELISA. The investigators have applied for a patent for the aptamer reagent and plan to initiate a start-up around it.

An estimated 1.5 million people suffer from traumatic brain injury every year in India. The Department of Emergency Medicine at Jai Prakash Narain Apex (JPNA) Trauma Centre in collaboration with IIT-Hyderabad has tested a biomarker (Human ubiquitin C-terminal hydrolase-1) to accurately predict the severity of brain injury. This could enable doctors at smaller hospitals to diagnose brain injury through a bedside blood test in the absence of advanced neuroradiological (CT or MRI) facilities and refer them to centres that can treat such patients.

A Department of Paediatrics-led multi-institutional team of researchers has developed a machine-learning algorithm (artificial intelligence-based model) that can predict setting-in of haemodynamic shock (insufficient oxygen supply to organs) in children almost 12 hours before doctors can diagnose it clinically. Early detection can help prevent organ failure and death. The researchers were able to use the machine-learning algorithm because the Paediatric Intensive Care Unit (ICU) at AIIMS allows for big data warehousing (data of each patient in the ICU is captured every second), the first of its kind facility in India.

Cancer surgeons (surgical oncology) at AIIMS have developed a new technique to operate patients diagnosed with abdominal cancer. This method called the two parallel curvilinear incision technique, increases the survival rate of the patient and minimises flap necrosis without compromising safety.

A study conducted by the Department of Dermatology and Venereology along with Sweden's Lund University, found that occupational exposure to cement (e.g. labourers in construction industry) can cause skin reactions. Major concentrations of chemicals like potassium dichromate hexavalent chromium in cement can lead to skin problems like dermatitis, eczema, rashes and burning sensation, among others. Adding ferrous sulphate to cement can reduce the effect of harmful chemicals. While this might lead to marginal increase in cost of production, it can help in minimising the risk of cement allergy.

Yoga has gained immense popularity nationally and internationally as a tool for health promotion, especially after the UN declared June 21 as International Yoga Day. However, modern day medicine demands evidence of benefit for interventions for its wider acceptance especially among the medical research community. A multi-centre study led by Public Health Foundation of India in collaboration with AIIMS has shown that Yoga based care is an optimum alternative to conventional cardiac rehabilitation programmes for patients with heart attack. It is safe, convenient, affordable and results in a better quality of life. Further the intervention reduced recurrent cardiac events such as heart attacks and stroke, and decreased heart-related emergency hospital admissions by 50 per cent. The results of another study conducted in the Department of Physiology has revealed that breathing in a particular rhythm (Pranayam) has many positive effects on cardiovascular health. Studies funded by the Ministry of AYUSH and coordinated by the Genetic Laboratory of the Department of Anatomy at AIIMS with various other departments of AIIMS (RP Centre for Ophthalmic Sciences, Physiology, Obstetrics and Gynaecology, Psychiatry) have revealed that Yoga and meditation can help lower eye pressure in patients suffering from glaucoma; reduce the incidence of recurrent spontaneous abortion by improving the quality of sperm DNA; and reduce the severity of depression. Patients who underwent meditation therapy also had major changes in stress hormones, disease modifying factors like oxidative stress and genomic integrity; and improvement in wellbeing. The MoHFW plans to introduce Yoga at all the other AIIMS following encouraging results of a survey conducted at AIIMS, on the effect of yoga on patients after surgery.

The Department of Gastroenterology and Human Nutrition Unit was awarded two Centres of Advanced Research Excellence (CARE) in pancreatic diseases and intestinal diseases by the Indian Council of Medical Research. Similarly, the Department of Paediatrics was awarded two ICMR Centres of Advanced Research Excellence (Nephrology & Pulmonology; and Childhood Neurodevelopmental Disorders).

Affordable Quality Care

AIIMS is an institution of national importance and a beacon of hope for millions of economically disadvantaged ailing individuals who throng its portals in the unflinching belief and hope that this is the place where they will receive succour and a resolution of their medical problems.

Practitioners have to incorporate new advances into their clinical care; but they must also provide leadership in terms of directing research towards the most pressing clinical problems and unmet needs. In the current era, where healthcare is proving to be a major challenge because of the high costs of medical treatment, AIIMS continues to provide affordable, yet evidence-based treatment of the highest quality to the poorest of the poor. The AIIMS main hospital and its centres—Cardiothoracic and Neurosciences Centres (CN Centres), JPNA Trauma Centre, Dr BR Ambedkar Institute Rotary Cancer Hospital (BRAIRCH), Dr Rajendra Prasad Centre for Ophthalmic Sciences (RPCOS), CDER, NDDTC—have a total bed strength of 2,483. During the year, AIIMS attended to nearly 4 million outpatients and 2.5 lakh inpatients and performed over 2 lakh surgical procedures at optimal patient care service parameters with average bed occupancy of about 87%, average hospital stay of about 9.5 days; and at a low net death rate of less than 2%. AIIMS serves healthcare needs both within and outside India, particularly in South and Southeast Asia.

RPCOS, which runs the National Eye Bank in AIIMS, has introduced a new Hospital Cornea Retrieval Programme (HCRP) with notification of deaths in real-time to the ORBO (Organ Retrieval Banking Organisation) to facilitate donation and utilisation of corneas. AIIMS has sought government's permission to conduct lung transplant. It involves replacing a diseased lung of a person with the healthy lung received from a deceased donor. The infrastructure for the surgery is available and the institute has conducted cadaveric workshops for training.

The Forensic Department has prepared a mortuary manual for the dignified management of the dead in collaborating with the International Committee of the Red Cross (ICRC), Gujarat Forensic Science University and NGO Earth Saviour Foundation. Besides improvement in infrastructural and procedural aspects, the manual emphasizes provision of emotional support to those who have lost their loved ones.

The Department of Radiodiagnosis added flat panel digital subtraction angiography and C-arm fluoroscopy to its diagnostic armamentarium. The department also acquired a state-of-the-art software for texture analysis of CT and MR images and another software for assessment of bone age. The Department of Pulmonary Medicine and Sleep Disorders at AIIMS has set up Virtual Bronchoscopy Navigation (VBN), an advanced facility for diagnosis and treatment of patients with small tumour-like spots in the lungs. The machine uses the CT scan image of a patient to generate a three-dimensional (3D) view of the windpipe, following which a bronchoscope can be passed through the windpipe to reach the abnormal areas by avoiding puncturing the lung and reducing complications.

Accolades

The Honourable Vice-President, Shri M. Venkaiah Naidu ji conferred lifetime achievement awards to Professors A.K. Saraya, Samiran Nundy, Kamal Buckshee and Gomathy Gopinath during the 46th Annual Convocation.

AIIMS-Delhi won the first prize for the year 2018-2019 for maintaining high standards of sanitation and hygiene under the Ministry of Health and Family Welfare's Kayakalp award for the third year running.

Conclusions

The fact that various independent agencies have ranked us as the best Indian institution for patient care, medical education and biomedical research on multiple yardsticks consistently over the years, is a sign of our institutional strength and a testimony to the effort put in by several generations of educators, learners, researchers and staff. I think this multi-dimensional role for AIIMS needs acknowledgement and recognition.

AIIMS-Delhi remains devoted to producing the knowledge and ideas that promise a healthier world for all people.

Randeep Guleria
Director

2. The Institute and Its Committees

INSTITUTE BODY

1. **Shri Jagat Prakash Nadda** President
Minister of Health and Family Welfare
Nirman Bhawan, New Delhi 110011
2. **Professor Ram Gopal Yadav, MP (Rajya Sabha)** Member
8-A, Lodhi Estate, New Delhi 110003
3. **Shri Ramesh Bidhuri, MP (Lok Sabha)** Member
H.No.179, Sunpath House,
Village Tughlakabad, New Delhi 110044
4. **Shri Parvesh Sahib Singh Verma, MP (Lok Sabha)** Member
1/14B, Shaniti Niketan, New Delhi
5. **Shri R Subrahmanyam** Member
Secretary, Department of Higher Education,
Ministry of Human Resource Development,
Government of India, Shastri Bhawan, New Delhi 110001
6. **Professor MK Bhan** Member
Former Secretary, Department of Biotechnology,
Ministry of Science and Technology, New Delhi
7. **Shrimati Preeti Sudan** Member
Secretary (Health and Family Welfare),
Ministry of Health and Family Welfare, Government of India
Nirman Bhawan, New Delhi 110011
8. **Professor Yogesh Kumar Tyagi** Member (Ex-Officio)
Vice Chancellor, University of Delhi, Delhi 110007
9. **Dr S Venkatesh** Member (Ex-Officio)
Director General of Health Services, Government of India
Nirman Bhawan, New Delhi 110011
Dr Jagdish Prasad (up to 16 June 2018)
10. **Dr DS Rana** Member
Chairman, Board of Management
Sir Ganga Ram Hospital, New Delhi 110060
11. **Dr (Smt) Vijay Laxmi Saxena** Member
Coordinator Bioinformatics
Infrastructure Facility Centre of DBT (Government of India)
Head, Department of Zoology, Dayanand Girls PG College,
Kanpur, Uttar Pradesh
7/182, Swarup Nagar, Kanpur 208002, Uttar Pradesh
Former General Secretary, Indian Sciences Congress Association,
(ISCA), Kolkata, West Bengal
12. **Dr Mahesh B Patel** Member
F-001, Shilalekh Tower, Opposite Police Stadium,
Shahi Baug, Ahmedabad 38004, Gujarat
13. **Dr DG Mhaisekar** Member
Vice Chancellor, Maharashtra University of Health Sciences,
Dindori Road, Mhasrul, Nashik 422004, Maharashtra

14.	Dr N Gopalkrishnan Professor (Nephrology), Madras Medical College, Chennai, Tamil Nadu 600003	Member
15.	Dr DS Gangwar Additional Secretary and Financial Adviser Ministry of Health and Family Welfare, Government of India Nirman Bhawan, New Delhi 110011	Member (from 13 March 2019)
	Shri R K Vats	(from 26 November 2018 to 13 March 2019)
	Shrimati Vijaya Srivastava	(up to 25 November 2018)
16.	Professor Randeep Guleria Director, AIIMS	Member Secretary
17.	Shri Sudhansh Pant Joint Secretary, Ministry of Health and Family Welfare, Government of India, Nirman Bhawan, New Delhi 110011	Special Invitee
18.	Professor V K Bahl Dean, AIIMS	Special Invitee
19.	Dr DK Sharma Medical Superintendent, AIIMS	Special Invitee
GOVERNING BODY		
1.	Shri Jagat Prakash Nadda	President
2.	Professor Ram Gopal Yadav, MP (Rajya Sabha)	Member
3.	Shri Ramesh Bidhuri, MP (Lok Sabha)	Member
4.	Shrimati Preeti Sudan	Member
5.	Shri R Subrahmanyam	Member
6.	Dr DS Rana	Member
7.	Dr S Venkatesh	Member (from 17 June 2018)
	Dr Jagdish Prasad	Member (up to 16 June 2018)
8.	Dr Mahesh B Patel	Member
9.	Dr DG Mhaisekar	Member
10.	Dr DS Gangwar	Member (from 13 March 2019)
	Shri RK Vats	(from 26 November 2018 to 13 March 2019)
	Shrimati Vijaya Srivastava	(up to 25 November 2018)
11.	Professor Randeep Guleria Director, AIIMS	Member Secretary
12.	Professor VK Bahl Dean, AIIMS	Special Invitee

13. **Dr DK Sharma** Special Invitee
Medical Superintendent, AIIMS

STANDING FINANCE COMMITTEE

1. **Shrimati Preeti Sudan** Chairperson
2. **Shri Parvesh Sahib Singh Verma, MP (Lok Sabha)** Member
3. **Dr S Venkatesh** Member (from 17 June 2018)
Dr Jagdish Prasad Member (up to 16 June 2018)
4. **Shri R Subrahmanyam** Member
5. **Dr MK Bhan** Member
6. **Dr DG Mhaisekar** Member
7. **Dr DS Gangwar** Member (from 13 March 2019)
Shri RK Vats (from 26 November 2018 to 13 March 2019)
Shrimati Vijaya Srivastava (up to 25 November 2018)
8. **Professor Randeep Guleria** Member Secretary

STANDING ACADEMIC COMMITTEE

1. **Dr Mahesh B Patel** Chairperson
2. **Dr S Venkatesh** Member (from 17 June 2018)
Dr Jagdish Prasad Member (up to 16 June 2018)
3. **Dr MK Bhan** Member
4. **Shri R Subrahmanyam** Member
5. **Dr DG Mhaisekar** Member
6. **Dr DS Rana** Member
7. **Dr (Smt) Vijay Laxmi Saxena** Member
8. **Professor Randeep Guleria** Member Secretary

STANDING ESTATE COMMITTEE

1. **Professor Ram Gopal Yadav, MP (Rajya Sabha)** Chairman
2. **Shri Parvesh Sahib Singh Verma, MP (Lok Sabha)** Member
3. **Dr DS Rana** Member
4. **Dr S Venkatesh** Member (from 17 June 2018)
Dr Jagdish Prasad Member (up to 16 June 2018)
5. **Professor Yogesh Kumar Tyagi** Member

- | | | |
|----|-----------------------------------|---|
| 6. | Dr DS Gangwar | Member (from 13 March 2019) |
| | Shri R K Vats | (from 26 November 2018
to 13 March 2019) |
| | Shrimati Vijaya Srivastava | (up to 25 November 2018) |
| 7. | Dr N Gopalkrishnan | Member |
| 8. | Professor Randeep Guleria | Member Secretary |

STANDING HOSPITAL AFFAIRS COMMITTEE

- | | | |
|----|---|------------------|
| 1. | Shri Parvesh Sahib Singh Verma, MP (Lok Sabha) | Chairman |
| 2. | Shri Ramesh Bidhuri, MP (Lok Sabha) | Member |
| 3. | Dr DS Rana | Member |
| 4. | Dr (Smt) Vijay Laxmi Saxena | Member |
| 5. | Dr MK Bhan | Member |
| 6. | Dr DG Mhaisekar | Member |
| 7. | Dr N Gopalkrishnan | Member |
| 8. | Professor Randeep Guleria | Member Secretary |

STANDING SELECTION COMMITTEE

- | | | |
|----|----------------------------------|--------------------------------|
| 1. | Dr DS Rana | Chairman |
| 2. | Dr S Venkatesh | Member (from 17 June 2018) |
| | Dr Jagdish Prasad | Member (up to 16 June 2018) |
| 3. | Dr DG Mhaisekar | Member |
| 4. | Professor MK Bhan | Member |
| 5. | Dr Mahesh B Patel | Member |
| 6. | Shri R Subrahmanyam | Member (from 28 February 2018) |
| 7. | Dr N Gopalkrishnan | Member |
| 8. | Professor Randeep Guleria | Member Secretary |

3. Academic Section

VK Bahl

Associate Dean
Rajeev Kumar

Registrar
Sanjeev Lalwani

The Academic Section develops policy and plans, and executes academic activities. These activities encompass the undergraduate, postgraduate and doctoral programmes for medical, nursing and paramedical courses. These activities are conducted by the undergraduate, postgraduate and paramedical cells.

UNDERGRADUATE EDUCATION

The section handles post-admission formalities for new students, develops and revises curricula and administers teaching programmes including internal assessment of undergraduate students admitted to various courses. The courses include MBBS, BSc (Hons) Medical Technology in Radiography, Ophthalmic Techniques, Operation Theatre Technology, BSc Dental Hygiene, BSc Dental Operating Room Assistant (DORA), BSc Nursing (Post-certificate) and BSc (Hons) Nursing courses.

Bachelor of Medicine and Bachelor of Surgery (MBBS)

The pattern of education in MBBS course was reviewed and re-structured in July 2004. The MBBS course is of 5½ years duration and comprises of 3 phases and internship. The details are as follows:

Phase	Duration (years)	Training
First	One	Pre-clinical
Second	One-and-a-half	Para-clinical
Third	Two	Clinical
Internship	One	Compulsory rotation in various departments

In MBBS course, at present, every year 100 Indian students (50 General Category, 15 Scheduled Caste, 8 Scheduled Tribe and 27 Other Backward Classes) are admitted. These admissions were made based on merit through an All-India Entrance Examination. For Orthopaedic Physically Handicapped (OPH) candidates 5% reservation was provided on horizontal basis. For these 100 seats, 3,64,242 applications were received and 2,84,737 candidates appeared in the entrance examination held on 26 and 27 May 2018. The MBBS students on rolls as on 31 March 2019 were 434 including 69 interns. There is a provision for admitting 7 foreign nationals on the recommendations of the Ministry of External Affairs, Government of India and 7 foreign nationals were recommended for admission.

In this year, 9 meritorious MBBS students were awarded scholarships for securing first, second and third positions in the first, second and final phase of professional examinations.

Paramedical and Nursing Education

In 2018-2019, 77 students (39 General Category, 12 Scheduled Caste, 6 Scheduled Tribe and 19 Other Backward Classes, 1 Foreign National) were admitted in BSc (Hons) Nursing course. For BSc Nursing (Post-certificate) course, 26 students (14 General Category, 3 Scheduled Caste, 1 Scheduled Tribe, 7 Other Backward Classes and 1 Foreign National Candidates) were admitted.

For BSc (Hons) Ophthalmic Techniques, 20 students (10 General Category, 3 Scheduled Caste, 1 Scheduled Tribe and 5 Other Backward Classes, 1 Foreign National), BSc (Hons) Medical Technology in Radiography, 10 students (5 General Category, 1 Scheduled Caste, 1 Scheduled Tribe, 2 Other Backward Classes and 1 Foreign National), Operation Theatre Technology 20 students (13 General Category, 2 Scheduled Tribes and 5 Other Backward Classes), BSc Dental Hygiene 4 students (2 General Category, 1 Scheduled Caste and 1 Other Backward Class, and BSc Dental Operating Room Assistant (DORA) 8 students (4 General Category, 1 Scheduled Tribe and 3 Other Backward Classes) were admitted. The number of students on rolls in these courses as on 31 March 2019 were:

Course	Number of students
<i>Nursing</i>	
BSc Nursing (Post-basic)	50
BSc (Hons) Nursing	296
<i>Paramedical</i>	
BSc (Hons) Ophthalmic Techniques	72
BSc (Hons) Medical Technology in Radiography	38
BSc Operation Theatre Technology	20
BSc Dental Hygiene	4
BSc Dental Operating Room Assistant (DORA)	8

POSTGRADUATE EDUCATION

The Academic Section looks after all activities pertaining to admission and training of postgraduate students including junior and senior residents. It handles all activities related to Fellowship, PhD, DM, MCh, MD, MS, MDS, MCh/DM (Direct 6 years course), MBiotechnology (MBiotech) and MSc courses in different disciplines.

Admissions to all postgraduate courses for Indian nationals as well as sponsored candidates are made through an All-India Entrance Examination held twice a year for all postgraduate courses except MSc and MBiotech courses, for which the examination is held once a year. Under sponsored category, foreign nationals are admitted through the same entrance examination. In 2016-2017, 716 students were admitted in various courses. The number of postgraduate and doctoral students on roll as on 31 March 2019 was 1844.

Admissions in various courses

Name of course	July 2018	January 2019	Total
MSc/MBiotech/MSc Nursing (August)*	94	–	94
MD/MS/MDS and MCh/DM (6 years)	223	135	358
DM/MCh	89	98	187
PhD	15	38	53
Fellowship	27	24	51
Total	448	295	743

*Admissions are done once in a year.

Postgraduate students on rolls

S. No.	Name of course	Number of students on roll
1.	PhD	329
2.	DM	389
3.	MCh	180
4.	Fellowship programme	51
5.	MD	720
5.	MS	98
6.	MDS	58
7.	MSc/MBiotech/MSc Nursing	166
	Total	1,991

Subject-wise distribution of PhD students on rolls

S. No.	Subject	Open	Sponsored
1.	Onco Anaesthesiology (Dr BRA IRCH)	4	1
2.	Anaesthesiology	2	0
3.	Anatomy	24	0
4.	Biochemistry	47	0
5.	Biophysics	19	0

S. No.	Subject	Open	Sponsored
6.	Biostatistics	2	0
7.	Biotechnology	3	0
8.	Blood Bank	1	1
9.	Cardiac Anaesthesiology	2	0
10.	Dermatology and Venereology	5	0
11.	Cardiac Biochemistry	1	0
12.	Cardiothoracic Centre (Stem Cell)	6	0
13.	College of Nursing	2	0
14.	Centre for Community Medicine	3	0
15.	Community Ophthalmology (Dr RP Centre)	5	0
16.	Dental Surgery	2	0
17.	Cardiothoracic and Vascular Surgery	1	0
18.	Cardiology	1	0
19.	Endocrinology and Metabolism	5	0
20.	Forensic Medicine	3	0
21.	Gastroenterology and Human Nutrition Unit	5	0
22.	Gynaecology	1	0
23.	Haematology	1	0
24.	Laboratory Medicine	4	0
25.	Laboratory Oncology	5	0
26.	Medical Oncology (Dr BRA IRCH)	4	0
27.	Medical Physics (Dr BRA IRCH)	4	0
28.	Medicine	1	0
29.	Microbiology	13	1
30.	Neurobiochemistry	1	0
31.	Neuropsychology (Neurosciences)	3	0
32.	Neurology	16	0
33.	Neurosurgery	5	0
34.	Nuclear Magnetic Resonance	9	1
35.	Nuclear Medicine	1	0
36.	Neuroradiology	1	0
37.	Ocular Biochemistry (Dr RP Centre)	3	0
38.	Ocular Microbiology (Dr RP Centre)	1	0
39.	Ocular Pathology (Dr RP Centre)	4	0
40.	Ocular Pharmacology (Dr RP Centre)	4	0
41.	Paediatrics	7	0
42.	Paediatric Surgery	1	0
43.	Pathology	6	0
44.	Pharmacology	15	0
45.	Physiology	32	0
46.	Psychiatry	11	0
47.	Pulmonary Medicine and Sleep Disorders	5	0
48.	Reproductive Biology	8	0
49.	Radiotherapy	1	2
50.	Surgery	6	1
51.	Transplant Immunology and Immunogenetics	6	0
	Total	322	7

Subject-wise distribution of DM students on rolls

S. No.	Subject	Open	Sponsored
1.	Addiction Psychiatry (NDDTC)	12	2
2.	Cardiac Surgical Intensive Care	1	0
3.	Cardiac Anaesthesiology	15	1
4.	Cardiology	22	4
5.	Clinical Haematology	12	2
6.	Clinical Pharmacology	3	2
7.	Critical Care Medicine	19	2
8.	Endocrinology	8	3
9.	Gastroenterology	19	5
10.	Haemato-Pathology	8	3
11.	Infectious Diseases	16	3
12.	Medical Genetics	5	0
13.	Medical Oncology	24	3
14.	Neonatology	9	3
15.	Nephrology	10	4
16.	Neuro-Anaesthesiology and Critical Care	17	2
17.	Neurology	35	3
18.	Neuroimaging and Interventional Neuroradiology	6	1
19.	Onco-Anaesthesia, Dr BRAIRCH	20	0
20.	Paediatric Cardiology	5	2
21.	Paediatric Nephrology	3	3
22.	Paediatric Neurology	8	2
23.	Paediatric Pulmonology and Intensive Care	4	2
24.	Paediatric Oncology	3	1
25.	Pulmonary, Critical Care and Sleep Medicine	12	3
26.	Reproductive Medicine	3	1
27.	Therapeutic Medicine	7	1
28.	Vascular Radiology	11	1
	Total	317	59

Subject-wise distribution of DM (6 years course) on rolls

S. No.	Subject	Open	Sponsored
1.	Infectious Diseases	13	0
	Total	13	0

Subject-wise distribution of MCh students on rolls

S. No.	Subject	Open	Sponsored
1.	Breast, Endocrine and General Surgery	6	2
2.	Cardiothoracic and Vascular Surgery	28	1
3.	Gastrointestinal Surgery	12	2
4.	Gynaecologic Oncology	4	3
5.	Head-Neck Surgery and Oncology	5	2
6.	Minimal Access Surgery and General Surgery	11	2
7.	Neurosurgery	16	3
8.	Paediatric Surgery	6	3
9.	Plastic and Reconstructive Surgery	14	1

10.	Surgical Oncology	12	3
11.	Trauma Surgery and Critical Care	14	3
12.	Urology	7	3
	Total	135	28

Subject-wise distribution of MCh (6 years course) on rolls

S. No.	Subject	Open	Sponsored
1.	Neurosurgery	11	0
2.	Paediatric Surgery	6	0
	Total	17	0

Subject-wise distribution of fellowship students on rolls

S. No.	Subject	Open	Sponsored
1.	Bariatric and Metabolic Surgery	1	0
2.	Renal Transplant Surgery	1	0
3.	Anaesthesiology–Pain Medicine	5	0
4.	Epilepsy Surgery and Functional Neurosurgery	2	0
5.	Spine Surgery	3	0
6.	Skull Base and Cerebrovascular Surgery (NS)	2	0
7.	Advanced Gastrointestinal Endoscopy	1	0
8.	Skull Base Surgery (ENT)	1	0
9.	Uro-Oncology	1	0
10.	Minimal Invasive Urology (Laparoscopic and Robotics)	2	0
11.	Genitourinary Reconstructive Surgery (Adult)	1	0
12.	GI Radiology	2	1
13.	Thoracic Radiology	2	0
14.	Paediatric Radiology	2	0
15.	Minimally Invasive Gynaecological Surgery	1	2
16.	Uro-Gynaecology	2	1
17.	Blood and Marrow Transplantation	1	0
18.	Stroke	1	0
19.	Cleft and Craniofacial Orthodontics	2	0
20.	Neuro-Critical Care	3	0
21.	Aortic Surgery	1	0
22.	Maternal Foetal Medicine	1	1
23.	Clinical Research Methodology and Evidence Based Medicine	2	0
24.	Arthroscopy	2	0
25.	Joint Replacement	2	0
26.	Musculoskeletal Oncology	1	0
27.	Pelvic–Acetabular Trauma	1	0
	Total	46	5

Subject-wise distribution of MD/MS/MDS students on roll

S. No.	Subject	Open	Sponsored
1.	Anaesthesiology	56	3
2.	Anatomy	18	0
3.	Biochemistry	14	0
4.	Biophysics	13	0
5.	Community Medicine	23	1

6.	Conservative Dentistry and Endodontics	9	1
7.	Dermatology and Venereology	18	3
8.	Emergency Medicine	32	2
9.	Forensic Medicine	9	1
10.	Geriatric Medicine	17	3
11.	Hospital Administration	8	3
12.	Infectious Disease-DM (6 years course)	18	0
13.	Laboratory Medicine	7	1
14.	Medicine	55	3
15.	Microbiology	14	0
16.	Neurosurgery-MCh (6 years course)	11	0
17.	Nuclear Medicine	17	3
18.	Obstetrics and Gynaecology	42	2
19.	Ophthalmology	108	3
20.	Oral and Maxillofacial Surgery	12	3
21.	Orthodontics	12	3
22.	Orthopaedics	18	4
23.	Otorhinolaryngology (ENT)	20	3
24.	Paediatric Surgery-MCh (6 years course)	6	0
25.	Paediatrics	33	3
26.	Palliative Medicine	12	2
27.	Pathology	28	3
28.	Pediatrics and Preventive Dentistry	9	0
29.	Pharmacology	13	0
30.	Physical Medicine and Rehabilitation	9	3
31.	Physiology	18	0
32.	Prosthodontics	8	1
33.	Psychiatry	30	3
34.	Radiodiagnosis	25	0
35.	Radiotherapy	9	3
36.	Surgery	56	3
37.	Transfusion Medicine	6	0
	Total	813	63

Subject-wise distribution of MSc students on rolls

S. No.	Subject	Open	Sponsored
1.	Anatomy	10	1 (Foreign National)
2.	Biochemistry	12	2 (Foreign National)
3.	Biophysics	8	0
4.	Pharmacology	10	0
5.	Physiology	10	0
6.	Perfusion Technology	12	0
7.	Biotechnology	27	0
8.	Nuclear Medicine Technology	16	0
9.	Reproductive Biology	10	0
10.	Cardiovascular Imaging and Endovascular Technology	02	0
	Total	117	3

Subject-wise distribution of MSc (Nursing) students on rolls

S. No.	Subject	In-service	Open	Sponsored
1.	Cardiological/CTVS Nursing	1	6	1 (Foreign National)
2.	Neurosciences Nursing	1	5	0
3.	Paediatric Nursing	1	7	0
4.	Psychiatric Nursing	1	5	0
5.	Oncological Nursing	1	6	1 (Foreign National)
6.	Nephrological Nursing	1	5	0
7.	Critical Care Nursing	1	5	0
	Total	7	39	2

TRAINING PROGRAMMES

There is a provision for short term, long term and elective training for students and employees of various organizations in India as well as abroad. During 2018-2019, 694 persons underwent training as listed below:

S. No.	Training	Number of trainees
1.	Short Term Training: Indian nationals	632
2.	Short Term Training: Foreign nationals	36
3.	Long Term Training: Indian nationals	6
4.	Elective Training: Foreign nationals (UG students)	16
5.	WHO Fellows: Indian nationals	2
6.	WHO Fellows: Foreign nationals	2
7.	Permission for organizing Conferences/Workshops	215

COMMITTEE MEETINGS

The Academic Section organized meetings of the Academic Committee, Staff Council, Dean's Committee, Faculty and Research Presentations as per details given below:

S. No.	Committee	Number of Meetings
1.	Academic Committee	1
2.	Staff Council	1
3.	Dean's Committee	1
4.	Faculty (General Discussions)	7
5.	Oration	9
6.	Research Presentations	8

CONVOCATION

The 46th Annual Convocation was held on 7 December 2018 at the Jawaharlal Auditorium, AIIMS, New Delhi. The Honorable Vice-President of India Shri M Venkaiah Naidu addressed the Convocation. He distributed Institute Medals/Awards to outstanding meritorious students and delivered the Convocation address. The President, AIIMS, and Honourable Minister of Health and Family Welfare, Government of India, Shri JP Nadda distributed the degrees.

4. Examination Section

Dean (Examinations)

S Datta Gupta

Associate Dean (Examinations)

Ashok Kumar Jaryal

Assistant Controller of Examinations

OP Sharma

Accounts Officer

DK Gupta

During the period under review (2018-2019), the Examination Section conducted the following Professional and Entrance Examinations:

Postgraduate and Undergraduate Professional Examinations

S. No.	Month and year	Examination	Number of students			
			Intended to appear	Absent	Passed	Failed
1.	May 2018	DM	26	-	26	-
2.	-do-	MCh	15	-	15	-
3.	-do-	MD	121	2	112	7
4.	-do-	MS	14	-	14	-
5.	-do-	MDS	8	-	8	-
6.	-do-	Fellowship programme	10	1	8	1
7.	-do-	MSc courses	26	1	21	4
8.	-do-	MBiotechnology	13	-	13	-
9.	-do-	MSc (Nursing) Phase-I	21	-	21	-
10.	-do-	MSc (Nursing) Phase-II	21	-	21	-
11.	-do-	Second MBBS (Supplementary)	9	-	7	2
12.	-do-	Final MBBS (Supplementary)	3	1	2	-
13.	-do-	BSc Nursing (Post-Certificate) Phase-I	26	-	23	3
14.	-do-	BSc Nursing (Post-Certificate) Phase-II	24	-	24	-
15.	-do-	BSc (Hons) Nursing Phase-I	82	-	65	16 1 NE
16.	-do-	BSc (Hons) Nursing Phase-II	63	-	60	2 1 NE
17.	-do-	BSc (Hons) Nursing Phase-III	78	-	77	1 NE
18.	-do-	BSc (Hons) Nursing Phase-IV	71	-	67	1 3 NE
19.	July 2018	First Professional MBBS	116	4	94	16 2 NE
20.	-do-	Bachelor of Optometry Phase-I	22	1	13	8
21.	-do-	Bachelor of Optometry Phase-II	14	-	12	2
22.	-do-	Bachelor of Optometry Phase-III	16	-	14	2
23.	-do-	BSc (H) Medical Tech. in Radiography Phase-I	12	-	9	3

S. No.	Month and year	Examination	Number of students			
			Intended to appear	Absent	Passed	Failed
24.	-do-	BSc (H) Medical Tech. in Radiography Phase-II	8	-	8	-
25.	-do-	BSc (H) Medical Tech. in Radiography Phase-III	9	-	9	-
26.	August 2018	First MBBS Professional (Supplementary)	19	3	13	3
27.	November 2018	BSc (Hons) Ophthalmic Techniques Phase-I (Supplementary)	8	1	4	3
28.	-do-	BSc (Hons) Ophthalmic Techniques Phase-II (Supplementary)	3	-	3	-
29.	-do-	BSc (Hons) Ophthalmic Techniques Phase-III (Supplementary)	4	-	2	2
30.	-do-	BSc (Hons) Medical Techniques in Radiography Phase-I (Supplementary)	2	-	-	2
31.	December 2018	Second MBBS	76	4	67	5
32.	-do-	Final MBBS	77	1	68	8
33.	-do-	BSc (Post Basic) Nursing Phase-I (Supplementary)	3	-	3	-
34.	-do-	BSc (Hons) Nursing Phase-I (Supplementary)	16	-	15	1
35.	-do-	BSc (Hons) Nursing Phase-II (Supplementary)	4	-	4	-
36.	-do-	BSc (Hons) Nursing Phase-III (Supplementary)	1	-	1	-
37.	-do-	BSc (Hons) Nursing Phase-IV (Supplementary)	18	-	18	-
38.	-do-	DM	57	-	56	1 RW
39.	-do-	MCh	23	-	22	1
40.	-do-	MD	58	-	57	1
41.	-do-	MS	9	-	9	-
42.	-do-	MDS	6	-	6	-
43.	-do-	Fellowship Programme	15	1	14	-
44.	-do-	MSc courses	8	2	6	-
45.	January 2019	Final MBBS (Compartmental Examination)	1	-	1	-
		Grand Total	1,236	22	1,112	93+8+1

Entrance Examinations for Undergraduate and Postgraduate courses

S. No.	Courses	Date of examination	Candidates	
			Applied	Appeared
1.	MD/MS/MDS (AIIMS) July 2018	6 May 2018	35,947	28,939
2.	DM/MCh/Fellowship programme/MD (Hospital Administration) July 2018	7 April 2018	3,318	2,688
3.	Fellowship programme July 2018	14 April 2018	121	81
4.	MBBS (AIIMS) August 2018	26-27 May 2018	4,60,889	3,74,520
5.	Online BSc (Hons) Nursing 2018	24 June 2018	13,831	7,905
6.	Online BSc Nursing (Post-Basic) 2018	2 June 2018	574	386

S. No.	Courses	Date of examination	Candidates	
			Applied	Appeared
7.	Online BSc (Hons) Paramedical Courses 2018	9 June 2018	5,089	2,495
8.	Online MSc Courses 2018	2 June 2018	995	664
9.	Online MSc Nursing 2018	9 June 2018	3,324	2,429
10.	Online MBiotechnology Entrance Examination 2018	2 June 2018	582	381
11.	Senior Residents Recruitment Examination, July 2018 Session	17 June 2018	2,116	1,494
12.	PhD July Session 2018	13 October 2018	360	275
13.	Senior Residents Recruitment Examination January 2019	25 November 2018	1,143	801
14.	MD/MS/MDS (AIIMS) January 2019	18 November 2018	53,245	50,153
15.	DM/MCh/MD (Hospital Administration) January 2019	4 November 2018	3,117	2,391
16.	PhD January 2019	January 2019 Session will be conducted along with July 2019 Session on 21 May 2019		
17.	Fellowship programme, January 2019	11 November 2017	119	67
Grand Total			5,84,770	4,75,669

Candidates who passed PhD Viva-Voce examination: 66 (Sixty-six)

Examinations for Recruitment

S. No.	Name of examination	Online CBT*	Number of applicants	Number of those who appeared
1.	Medical Social Service Officer Grade-II	8 September 2018	285	111
2.	Departmental Examination - Office Superintendent	11 August 2018	12	10
3.	Departmental Examination - Private secretary	18 August 2018	14	12
4.	Departmental Examination - Stenographer	18 August 2018	19	10
5.	Technician Radiology	8 September 2018	841	589
6.	AIIMS Nursing Officer	16 September 2018	55,710	31,502
7.	Ophthalmic Technician Grade-I	23 September 2018	176	95
8.	Assistant Dietician	23 September 2018	156	63
9.	Transplant Coordinator	6 October 2018	235	89
10.	Technical Officer (CWS)	6 October 2018	335	92
11.	Junior Engineer (Civil)	30 November 2018	1,625	485
12.	Junior Engineer (Electrical)	30 November 2018	662	167
13.	Junior Physiotherapist/ Junior Occupational Therapist	22 December 2018	283	155
14.	Technical Assistant (ENT)	12 January 2019	104	36
15.	Technician (Radiotherapy) Grade-II	12 January 2019	153	84
16.	Junior Hindi Translator	31 January 2019	199	99
17.	Tutor in Nursing (CBT)	31 January 2019	1,172	388
18.	Re-examination: Nursing Officer for central government in Delhi	28 February 2019	54,854	34,188
19.	Scientist/Clinical Psychologist	9 March 2019	533	147
20.	Junior Hindi Translator (Stage-2)	25 March 2019	65	56
Total			1,17,433	68,378

*computer based test (CBT)

Entrance Examinations conducted

1. AIIMS PG Entrance Examination for admission to MD/MS/MDS courses was conducted on 6 May 2018 for July 2018 session at 88 centres (Delhi 6, Outstation 82) and 18 November 2018 for January 2019 session at 113 centres (Delhi 9, Outstation 104), respectively. The results were declared on 12 May 2018 and 23 November 2018, respectively.
2. Selections for various Post-Doctoral (super-specialty) courses, viz. DM/MCh/MD (Hospital Administration) for July 2018 and January 2019 sessions and Departmental Assessment were done on 23 April 2018 to 25 April 2018 for July 2018 session and 15 November 2018 to 17 November 2018 for January 2019 session.
3. The Institute also conducted online test for the Post of Senior Residents/Senior Demonstrators for July 2018 session on 17 June 2018 and January 2019 session on 25 November 2018, respectively.
4. Selections of candidates for registration to PhD programme for July 2018 and Departmental Assessment was done on 2 October 2018.
5. The Entrance Examination for admission to MBBS course of AIIMS including eight new AIIMS for August 2018 session was held in 317 (local 14 and outstation 303) centres in 154 cities of India on 26 and 27 May 2018 (in 2 days, 2 shifts each).
6. BSc (Hons) Nursing Entrance Examination was held in Delhi and six AIIMS (Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur and Rishikesh) on 24 June 2018 in CBT online mode.
7. The Entrance Examination for admission to MSc courses and MBiotechnology courses August 2018 session was held in Delhi on 2 June 2018 in online mode.
8. The Entrance Examination for admission to MSc Nursing course was held on 9 June 2018 in Delhi only in CBT online mode. The admission was made by allotment of seats on merit through counseling held on 1 August 2018.
9. BSc Nursing (Post-Basic) Entrance Examination was held in Delhi in CBT online mode on 2 June 2018 followed by the personal assessment of candidates on 20 June 2018.
10. The Entrance Examination for admission to Para-Medical courses, viz. BSc (Hons) in Bachelor of Optometry and BSc (Hons) Medical Technology in Radiography, BSc Course in Dental Operating Room Assistant (DORA), BSc course in Dental Hygiene, BSc course in Operation Theatre Technology (OTT), Medical Laboratory Technology (MLT), BSc in Operation Theatre and Anaesthesiology Technology (OTAT), BSc in Medical Technology and Imaging Therapy for August 2018 session were held in Delhi in CBT online mode on 10 June 2018. The admissions to these two courses were made by allotment of seats on merit through counseling on 10 and 19 July 2018.
11. The Entrance Examination for Fellowship programme for July 2018 session and January 2019 session were conducted in Delhi on 14 April 2018 and 11 November 2018, respectively.

Participation in other events

1. The Examination Section introduced online counseling for admission to AIIMS-PG, MBBS, BSc (Hons) Para-Medical, MSc (Nursing) courses with the participation of Faculty and Staff of Academic Section. Examination Section also actively participated in personal assessment for BSc (Nursing) Post-Certificate course.
2. Examination Section is also providing technical expertise to various Universities and Institutions in India for conduct of their Entrance Examinations.

SIGNIFICANT EVENTS

The Examination Section, AIIMS plays a very pivotal role in conduction of AIIMS Entrance and Recruitment Examinations. It is important to mention here that Academic Entrance Examinations are conducted for Admission of Students in various UG and PG courses of AIIMS, New Delhi. The Recruitment Examinations are conducted for filling the vacant positions of staff starting from Group-C to Group-A of AIIMS, New Delhi. Lastly the Professional Examination are conducted a minimum of twice in a year.

The Academic Entrance Examinations of AIIMS-PG course, MBBS course, BSc Nursing, MSc courses and DM/MCh courses etc. are conducted for Admission of students in various under-graduate and post-graduate courses of AIIMS, New Delhi as well as for other six AIIMS situated at Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur and Rishikesh (MBBS and BSc Nursing for AIIMS-Mangalagiri and Nagpur also) as per the direction of Ministry of Health and Family Welfare, Government of India, New Delhi. Sometimes as per direction of the Ministry, in addition to other examinations some Recruitment Examinations are being conducted to cater the needs of Ministry and other AIIMS. However, from the Academic Year 2019 onwards for MBBS course-2019, the Academic Entrance Examination will be conducted for fifteen AIIMS including AIIMS, New Delhi. The new additions will be AIIMS-Bhatinda, Deoghar, Kalyani, Gorakhpur, Rai Bareilly and Telangana.

To conduct these examinations in more transparent, secure and efficient manner, Examination Section has revamped its conduct of Examination System from 2015 onwards. Since then the entire examinations either entrance or recruitment are

being conducted only through online (CBT) Mode. In the year 2018-2019, Examination Section has held 20 recruitment examinations in addition to 17 Entrance Examinations.

To understand the quantum of work at Examination Section, MBBS Entrance Examination-2018 was conducted through online (CBT) mode in 154 cities, 317 centers spread all over the country for 4,60,889 candidates in two shifts. It was the largest online Examination in Medical Education of India conducted in a single day.

During 2018-2019, the Examination Section witnessed some significant events in improving the quality of conduction of examinations as well as improving the governance in the section. The details are as under:

- To improve the quality of examinations in terms of transparency, vigilness and fairness, the Examination Section has made mandatory installation of CCTVs in all the Entrance and Recruitment Examinations. To further improve transparency, vigil and fairness live streaming of CCTVs has been started for large examinations. For this purpose, a minimum of two examination centres were allocated to one staff on computer in the Examination Control Room at Examination Section, AIIMS, New Delhi and throughout the conduct of the examination. This type of monitoring has happened for the first time in India for any examination. This type of surveillance service has been used in the Nursing Officer examination for Central Government in Delhi held on 28 February 2019 across the country.
- To optimum use of both the Examination Halls situated in the Examination Section, some Online Recruitment and Academic Examinations have conducted in it. Even for Professional Examination, Online MCQ Examinations have also conducted in it
- To improve the payment system during online Registration process in addition to SBI, the Paygov., Payment gateway has been launched. Now, candidates do not have any problem regarding their payment
- The Examination Section has initiated booking hotels and Air tickets for External Examiners, who come from across the country for conducting practical/viva-voce examinations, etc. This process has helped a lot of examiners, departments and other stakeholders as they do not have to pay any money from their pocket. All the processes are completed by the Examination Section through a service provider on credit basis.

5. General Administration

Deputy Director (Administration)

Subhasish Panda

Deputy Secretary

M Bajpai (up to 26 June 2018)

Dhirendra Verma (from 27 June 2018)

Chief Administrative Officer

Sanjay Kumar Arya

Superintending Engineers

Manjul Rastogi

Hridesh Kumar (from 25 February 2019)

Deputy Chief Security Officers

RS Rawat

Deepak Kumar (from 17 September 2018)

Executive Engineers

Vidya Bhushan
Joginder Malhotra

Vindo Kumar Sharma
Harpal Singh (from 5 February 2019)

Senior Administrative Officers

Deo Nath Sah

Narender Kumar (from 24 September 2018)

Renu Bhardwaj (from 24 September 2018)

Administrative Officers

SL Chamoli (from 10 August 2018)
Chakravarthy EVS
Raj Kumar
Nikhil Bhatnagar

Pallav Kumar Chitej
Satish Kumar Singh
Rajendran Pillai G
BK Singh

Lalit Oraon
Bhupinder Singh Gill
Anita Tete
Kushal Kumar (from 13 December 2018)

Ealias PI (from 30 October 2018)

Assistant Administrative Officers

Bhoop Singh
Sasidharan Nair KG
Saroj Pant (from 12 December 2018)

Narender Kumar Gupta
Mohanan PS
RK Sharma (from 17 December 2018)

Senior Stores Officer

Rakesh kumar (from 1 August 2018)

Stores Officers

Narender Kumar
Manohar Arya (from 1 January 2019)

Bhawani Ram
Kamal Singh (from 3 January 2019)

Arvind Kumar Sharma
Archana Sharma (from 1 January 2019)

The General Administration, including Personnel and Establishment Security, Estate, matters related to Engineering Services Department, Stores, Vigilance and Public Relations activities of the Institute are supervised by the Deputy Director (Administration). There are various branches looking after these areas. Each branch is headed by a senior officer with supportive officers and staff members.

Responsibilities of Establishment Section and General Administration include appointments, arranging meetings of the statutory committees, management of estate and property, purchase of equipment, materials and consumables, security arrangements, employees' welfare, etc.

The total sanctioned staff for the institute is 11,767 and includes staff of all the Centres/Main Hospital/D.O. The number of group-wise sanctioned strength and staff in-position is mentioned below:

S. no.	Category/Group	Sanctioned strength	In-position
1.	Faculty	1,042	671
2.	A (Non-faculty)	646	452
3.	B	6,704	5,480
4.	C and erstwhile D	4,958	4,024
	Total	12,308	9,956

SC/ST Cell

- | | | |
|----|------------------------|--|
| 1. | Liaison Officer | Dr Rajpal, Professor of Ophthalmology
Dr RP Centre, AIIMS |
| 2. | Administrative Officer | Ms Anita Tete |
| 3. | Upper Division Clerk | One (outsourced) |

During the year various representation from SC/ST employees were received in the SC/ST Cell, as mentioned below:

Total representations received: 9
Total cases resolved/disposed off: 6
Total cases under consideration: 3

Brief summaries of the cases are:

- Complaint of Shri Ajay Kumar regarding service harassment towards a SC candidate at AIIMS, New Delhi. **The matter has been disposed off.**
- Complaint of Ms Sushil, Nursing Officer, Main OT regarding service harassment towards a SC candidate at AIIMS, New Delhi. **The matter has been disposed off.**
- Representation of Shri Sanjiv Kumar, Masalchi Bearer against Ms Suman Rawat, Stenographer regarding mental torture and humiliation. **The matter has been disposed off.**
- Representations of SC candidates (Ms Shashi Prabha and Mr Bhupender Kumar) against the promotional order issued in respect of Personal Assistant. **The matter has been disposed off.**
- Representations for request to implement DOPT order No. 36012/11/2016-Estt. (Res-I)(Pt. II) dated 15 June 2018 regarding promotion on merits in DPC by the following:
 - Shri Bhawani Singh Meena, TO (MLT), Dr RP Centre
 - Shri Manohar Lal Meena, TO (MLT), Haematology
 - Ms Neelima Sharma, TO (MLT), Dr RP Centre

The above three matters have been disposed off.

- Grievances against mutual respect/dissonance between two employees (Mrs Meena Panda, NS and Mrs Indu Bala Sharma, DNS) in the premises of Dr RP Centre at AIIMS, New Delhi. **The matter is under process with the Redressal Committee to sort out the matter.**
- Representation of Smt Anita Rai Saxena, Senior Hindi Translator regarding denial of promotion to the post of Hindi Officer at AIIMS, New Delhi. **The matter has been disposed off.**
- Representation of Ms Renu Prakash (nee Tigga), PS, Department of Psychiatry, AIIMS, New Delhi in respect of promotion is under consideration with the Recruitment Cell.
- Representation of Dr Biplab Mishra at NCSE case No. 1320/30/02019-1513 regarding service harassment is under consideration with Faculty Cell.

6. Hospital

Medical Superintendent

DK Sharma

Department of Hospital Administration

Professor and Head

Sidhartha Satpathy

Professors

IB Singh

Sanjay Kumar Arya

Associate Professors

Nirupum Madaan

Amit Lathwal

Anoop Daga

Mahesh R

Assistant Professors

Angel Rajan Singh

Vijaydeep Sidharth

Abdul Hakim

Parmeshwer Kumar

Kanika Jain

Jitender Sodhi

(up to 15 March 2019)

(from 18 March 2019)

Sheetal Singh (Contract)

(from 2 January 2019)

Bed Complement

Bed Category	Main Hospital	Centre for Dental Education and Research	Cardiothoracic and Neurosciences Centre
General	836	17	317
ICU	92	-	74
Observation	69	-	09
Private Ward	165	-	64
Total	1,162	17	464

Hospital Performance Indices

Parameters	Main Hospital		CNC		CDER		Inference
	2018-2019	2017-2018	2018-2019	2017-2018	2018-2019	2017-2018	
Average length of stay (days)	9.5	9.3	10.2	9.8	5.6	5.4	Effective utilization of beds for regular admissions
Average bed occupancy rate (%)	86.8	86.4	84.9	87.9	73.6	71.9	Fair occupancy
Net death rate (%)	1.7	1.8	2.9	2.8	-	0.02	Low mortality rate despite a large number of critically ill patients admitted
Combined crude infection rate (%)	5.8%	6.0%	-	-	-	-	Pertains to Main Hospital only

6.1. Medical Records Department

Officer Incharge

Mahesh R

Chief Medical Officer (Acting)

Patty S Lyngdoh (up to 28 February 2019)

Junior Medical Record Officers

Ashok Kumar
Sandeep M Singh

PD Sharma
Roshan Lal-II

EDUCATION

1. A group of 22 MSc (PB) Nursing students visited Medical Record Section, Main Hospital and a brief lecture was delivered on Medical Record Management at AIIMS by the Chief Medical Record Officer (Actg.)/Jr. Medical Record Officer on 19 April 2018
2. A group of 25 BSc (PB) 1st year Nursing students visited Medical Record Section, Main Hospital and a brief lecture was delivered on Medical Record Management at AIIMS by the Chief Medical Record Officer (Actg.)/Jr. Medical Record Officer on 3 August 2018
3. A group of 20 MSc Nursing students visited Medical Record Section, Main Hospital and a brief lecture was delivered on Medical Record Management at AIIMS by the Chief Medical Record Officer (Actg.)/Jr. Medical Record Officer on 25 January 2019

TRAININGS

1. Mrs. Patty S Lyngdoh, Chief M.R.O, Actg. and Mr. Ashok Kumar, Jr. M.R.O attended one day workshop on Cancer Registration System organized by Delhi Cancer Registry, Dr BRA IRCH on 2 May 2018 at AIIMS, New Delhi
2. Mrs. Anju Dixit (M.R.T) was nominated to attend one day workshop on Prevention of Sexual Harassment of Women at work place on 9 May 2018 at AIIMS, New Delhi
3. Mr. Rajbir Singh (M.R.T), Ms. Anju Dixit (M.R.T) and Ms. Neelam Baria (M.R.T) from Medical Record Section, Main Hospital have been nominated for One Day Training Cum Review Meeting for HMIS held on 7 and 8 February 2019 respectively organized by South Distt. DSHM-M&E Cell at Vikash Bhawan II, Civil Lines, Delhi

COURT ATTENDANCE

1. A total number of 661 summons/notices were received in the Medical Record Section (Main Hospital) from various Courts of Delhi and outside Delhi. The concerned doctors/ consultants (as per case) and staffs from the Medical Record Department have been deputed to attend the court on behalf of AIIMS Hospital to depose/settle the case

Aid in Medical Education and Research

1. Approximately 7,246 Medical Case Records (Case Sheets) have been retrieved and issued to the Residents authorized by the concerned consultants for research, education and other official purposes

Computerization and Digitization of Medical Records

1. Digitization of inpatient medical records of Main Hospital was started from the year 2014 for easy retrieval of records. More than 1 Crore images approximately of case records of the patients have been scanned for future reference

In-Patient Services

1. The yearly statistical health bulletin at a glance of Main Hospital, C.D.E.R. and C.N. Centre of AIIMS are given at Appendix-I

- The AIIMS Hospital has maintained its tradition of services and quality of patient care in spite of increasing number of patients who visited the hospital from all over India as well as from abroad. A total number of 1,39,636 patients were admitted during the financial year in various clinical units of Main Hospital, C.N. Centre and C.D.E.R. The details of patient load as per Department-wise, State-wise and Gender-wise, Admissions, Discharges and Average Length of Stay are given at Appendix-II, III and V respectively. The details of deaths as per department-wise and its indices are given at Appendix-IV
- A total number of 1,28,703 Surgical Procedures (Major and Minor) were performed during the year in various Surgical Disciplines of Main Hospital, C.N. Centre and Centre for Dental and Education Research (CDER) is given at Appendix-VI
- Medical Record of indoor patients are systematically classified and categorized for easy retrievals for the purposes of Education, Research/Thesis, Presentation, Insurance, Court Cases etc. These records are stored in the Compactors according to C.R. Numbers. All the In-patient records of Main Hospital, C.N. Centre and Centre for Dental and Education Research (CDER) are maintained separately by Medical Record Section of the Main Hospital
- In addition to the above activities, the following departments have commissioned their special clinics in OPD and inpatient admissions to facilitate the care of health services during this year:

S. No.	Name of Department/Special Clinics	Location
1.	Travel Health and Adult Immunization Clinic under Medicine Department	Every Monday at Medicine OPD
2.	Head and Neck Rehabilitation Clinic under ENT	Room no. 4112-A OPD

Central Admission Office and Hospital Enquiry

- The Central Admission Office and Enquiry (CAO&E) of AIIMS functions round the clock for 365 days without break
- All admissions to the inpatient areas of Main Hospital, C.N. Centre and C.D.E.R. are made through this office. It functions like the heart of the Institute and performing important functions like patient registration for initiation of Admission Slip (Face-Sheet) and issuing of attendant passes etc
- The Admission Office also gives information to several ministries as well as to the higher authorities of AIIMS about the hospitalization of VIPs/VVIPs
- In addition, the office also functions as a general enquiry providing prompt and accurate information regarding the patients and the Institute. The staffs working there are on shift duties and are manned by Receptionists, Jr. Medical Record Officer and Medical Record Technicians etc

Out Patient Department and Specialty Clinics

- A total number of **16,56,329** Patients attended various General Out-Patients Department (OPD), Specialty Clinics and Emergency Department of the Main Hospital, AIIMS. The details of the out-patients load profile are given at Appendix-VII

Other Activities

S. No.	Name of Activity	Total Numbers
1.	Amendments made in the Inpatients Records during the year	875
2.	Amendments made in the Birth Records during the year	357
3.	Amendments made in the Death Records during the year	411
4.	Admission and other charges exempted for Indigent patients and patients admitted under JSSK Scheme in Main Hospital and CDER	20,121
5.	Admission and other charges exempted for Indigent patients and patients admitted under JSSK Scheme in C.N. Centre	957

The statistical data for the year 2018-2019 (Annual Report) has been prepared/compiled by Mr Rajbir Singh, Medical Record Technician under the supervision of Chief Medical Record Officer (Actg.)/Jr. Medical Record Officer.

Table I. Yearly Statistical Health Bulletin

S. No.	Item	Main Hospital		CT and NS Centres		CDER	
		2018-2019	2017-2018	2018-2019	2017-2018	2018-2019	2017-2018
1.	Total Patient Admitted	1,17,169	1,15,276	21,278	21,745	1,189	1,377
	a. Adults and Children	1,14,721	1,12,781	–	–	–	–
	—Regular	34,116	34,940	13,290	13,388	840	838
	—Short	80,605	77,841	7,988	8,357	349	539
	b. Newborn infants	2,448	2,495	–	–	–	–
	Regular	2,448	2,495	–	–	–	–
2.	Patients discharged (including LAMA, absconded, discharge on request and deaths)	1,13,630	1,11,708	20,704	21,249	1,163	1,351
	a. Adults and Children	1,11,236	1,09,284	–	–	–	–
	—Regular	33,027	34,264	12,972	13,118	818	808
	—Short	78,209	75,020	7,732	8,131	345	543
	b. Newborn infants	2,394	2,424	–	–	–	–
	—Regular	2,394	2,424	–	–	–	–
3.	Total days of care	4,13,040	4,15,059	1,39,560	1,37,342	4,918	4,942
	a. Adults and Children	3,96,071	3,97,173	–	–	–	–
	—Regular	3,17,862	3,22,153	1,31,828	1,29,211	4,573	4,399
	—Short	78,209	75,020	7,732	8,131	345	543
	b. Newborn infants	16,969	17,886	–	–	–	–
	—Regular	16,969	17,886	–	–	–	–
4.	Average length of stay of regular patients	9.5	9.3	10.2	9.8	5.6	5.4
	a. Adults and Children	9.6	9.4	–	–	–	–
	b. Newborn infants	7.1	7.4	–	–	–	–
5.	Total patient care days (as per daily census)	3,46,150	3,41,746	1,40,986	1,38,171	4,564	4,454
	a. Adults and Children	3,43,418	3,39,062	–	–	–	–
	b. Newborn infants	2,732	2,684	–	–	–	–
6.	Daily average number of patients (as per daily census)	948	936	386	379	13	12
	a. Adults and Children	941	929	–	–	–	–
	b. Newborn infants	7	7	–	–	–	–
7.	Average bed occupancy	86.8	86.4%	84.9	87.9%	73.6	71.9
	a. Adults and Children	86.7	85.7%	–	–	–	–
	b. Newborn infants	0.1	0.7%	–	–	–	–
8.	Births in Hospital	2,448	2,495	–	–	–	–
	a. Male	1,286	1,284	–	–	–	–
	b. Female	1,159	1,209	–	–	–	–
	c. Intersex	3	2	–	–	–	–
9.	Total inpatient deaths (including newborns)	3,179	3,327	858	887	0	1
	a. Deaths under 48 hours	1,300	1,319	255	307	–	–
	b. Deaths over 48 hours	1,879	2,008	603	580	0	1
	c. Gross death rate (%)	2.8	3.0	4.1	4.2	0	0.02
	d. Net death rate (%)	1.7	1.8	2.9	2.8	0	0.02

10.	Total attendance in casualty	1,49,538	1,51,891	–	–	–	–
	Deaths	1,586	1,609	–	–	–	–
	Brought dead	1,238	1,135	–	–	–	–
11.	OPD attendance including special clinics (Main Hospital)	15,06,791	19,36,280	–	–	–	–
	New cases	7,71,491	7,49,073	–	–	–	–
	Old cases	7,35,300	11,87,207	–	–	–	–

Table II. Department-wise admissions (Main Hospital and CN Centre and CDER)

Department	Admission		Discharges (including LAMA, absconded, OR, deaths)		Total days of care		Average length of stay of regular admissions
	Regular	Short	Regular	Short	Regular	Short	
Anesthesiology (Pain Clinic)	0	810	0	781	0	781	0
Dermatology and Venereology	724	2,182	699	2,123	8,887	2,123	12.7
Endocrinology and Metabolism	456	189	464	186	7,388	186	15.9
Gastroenterology and Human Nutrition	2,069	3,755	1,944	3,691	22,738	3,691	11.7
Gastrointestinal Surgery and Liver Transplantation	789	313	758	303	12,750	303	16.8
Geriatric medicine	880	723	867	687	8,782	687	10.1
Haematology	951	13,977	925	13,756	15,571	13,756	16.8
Medicine I	981	371	985	346	9,682	346	9.8
Medicine II	1,357	617	1,276	584	13,091	584	10.3
Medicine III	1,033	461	1,049	432	10,338	432	9.9
Nephrology	1,125	9,115	1,004	8,900	17,411	8,900	17.3
Newborn	2,448	00	2,394	00	16,969	00	7.1
Neonatal ICU (NICU)	177	25	173	20	1,246	20	7.2
Nuclear Medicine	358	275	341	302	625	302	1.8
Obstetrics and Gynaecology I	2,312	2,182	2,273	2,115	15,541	2,115	6.8
Obstetrics and Gynaecology II	2,293	2,236	2,100	2,206	14,975	2,206	7.1
Obstetrics and Gynaecology III	1,895	1,952	1,909	1,885	14,535	1,885	7.6
Oncology (Main)	389	00	383	00	2,080	00	5.4
Orthopaedics I	1,428	2,280	1,390	2,152	11,544	2,152	8.3
Orthopaedics II	1,359	2,371	1,259	2,265	12,996	2,265	10.3
Otorhinolaryngology I	526	1,327	522	1,246	3,785	1,246	7.3
Otorhinolaryngology II	488	1,216	462	1,150	4,115	1,150	8.9
Otorhinolaryngology III	512	1,195	547	1,130	4,085	1,130	7.5
Paediatrics I	1,255	4,419	1,001	4,434	6,703	4,434	6.7
Paediatrics II	625	1,794	585	1,788	6,112	1,788	10.4
Paediatrics III	976	9,144	950	8,934	9,069	8,934	9.5
Paediatric Surgery	1,389	2,055	1,332	1,929	13,674	1,929	10.3
Physical Medicine and Rehabilitation	41	00	38	00	1,526	00	40.2
Psychiatry	274	00	238	00	8,816	00	37.0
Pulmonary Medicine and Sleep Disorders	907	5,330	851	5,192	9,324	5,192	11.0
Plastic and Reconstructive Surgery	369	238	356	209	2,064	209	5.8
Radiotherapy	6	00	5	00	11	00	2.2
Rheumatology	9	1,490	7	1,460	38	1,460	5.4
Surgical Disciplines I	882	683	913	595	8,998	595	9.9

Surgical Disciplines II	1,220	648	1,317	532	9,174	532	7.0
Surgical Disciplines III	925	531	999	439	8,577	439	8.6
Surgical Disciplines IV	1,487	930	1,428	815	8,967	815	6.3
Urology	1,649	5,771	1,677	5,622	12,644	5,622	7.5
Total (Main)	36,564	80,605	35,421	78,209	3,34,831	78,209	9.5
Cardiology	4,088	4,063	4,101	3,982	29,564	3,982	7.2
Cardiothoracic and Vascular Surgery	3,362	21	3,272	10	37,108	10	11.3
Neurology I	1,060	853	1,036	815	9,213	815	8.9
Neurology II	895	765	831	767	9,350	767	11.3
Neurology III	884	775	843	748	9,018	748	10.7
Neurosurgery I	1,388	801	1,294	774	18,284	774	14.1
Neurosurgery II	1,425	506	1,410	454	18,159	454	12.9
Neuroradiology	188	204	185	182	1,132	182	6.1
Total (CNC)	13,290	7,988	12,972	7,732	1,31,828	7,732	10.2
CDER	840	349	818	345	4,573	345	5.6

Figure 1. Department-wise average length of stay

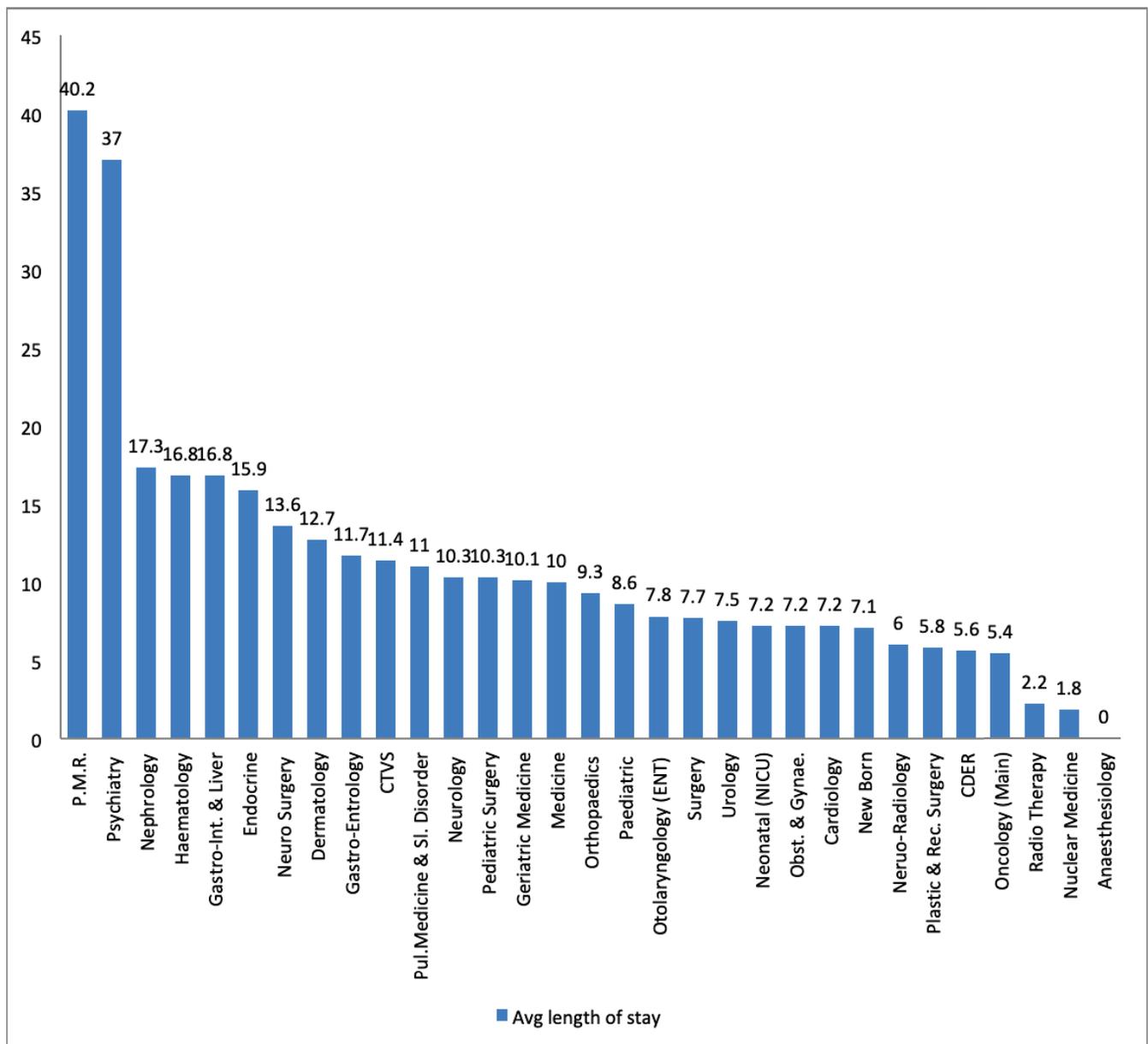


Figure 2. Gender-wise inpatients in Main Hospital, CN Centre and CDER

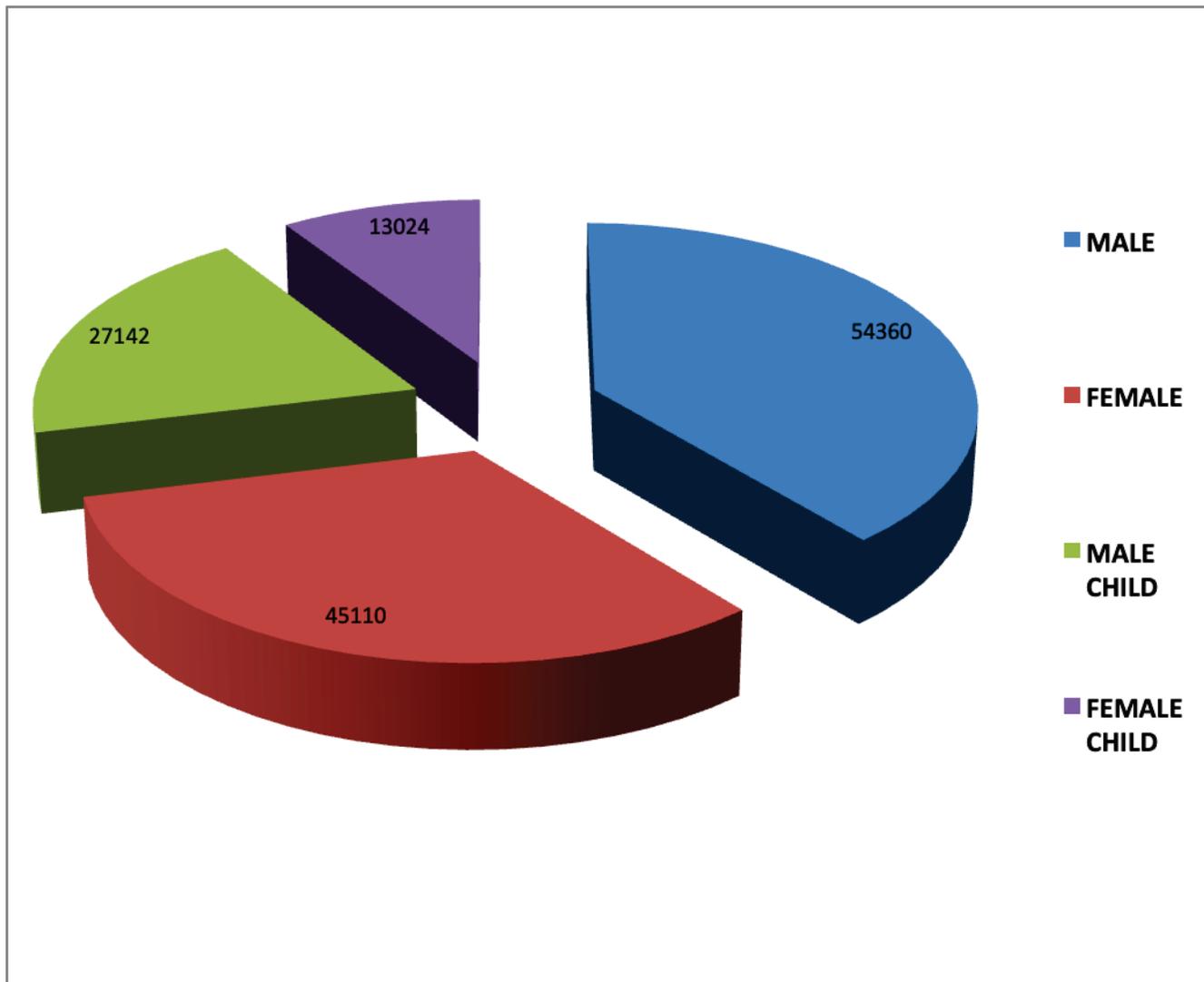


Table III. Department-wise deaths in Main Hospital and CN Centre

Department	Discharges	Total Deaths	Deaths under 48 hrs.	Deaths Over 48 hrs.	Gross Deaths Rate in %	Net Deaths Rate in %
Anesthesiology (Pain Clinic)	781	00	00	00	0.0	0.0
Dermatology and Venereology	2,822	7	2	5	0.2	0.2
Endocrinology and Metabolism	650	8	2	6	1.2	0.9
Gastroenterology and Human Nutrition	5,635	561	261	300	10.0	5.6
Gastrointestinal Surgery and Liver Transplantation	1,061	82	18	64	7.7	6.1
Geriatric medicine	1,554	211	68	143	13.6	9.6
Haematology	14,681	312	135	177	2.1	1.2
Medicine I	1,331	315	154	161	23.7	13.7
Medicine II	1,860	331	147	184	17.8	10.7
Medicine III	1,481	316	143	173	21.4	12.9
Nephrology	9,904	132	39	93	1.3	0.9

Newborn	2,394	8	4	4	0.3	0.2
Neonatal ICU (NICU)	193	24	6	18	12.4	9.6
Nuclear Medicine	643	00	00	00	0.0	0.0
Obstetrics and Gynaecology I	4,388	6	2	4	0.1	0.1
Obstetrics and Gynaecology II	4,306	6	3	3	0.1	0.1
Obstetrics and Gynaecology III	3,794	6	1	5	0.2	0.1
Oncology (Main)	383	212	126	86	55.4	33.5
Orthopaedics I	3,542	4	0	4	0.1	0.1
Orthopaedics II	3,524	6	1	5	0.2	0.1
Otorhinolaryngology I	1,769	7	3	4	0.4	0.2
Otorhinolaryngology II	1,611	5	1	4	0.3	0.2
Otorhinolaryngology III	1,677	2	00	2	0.1	0.1
Paediatrics I	5,435	74	26	48	1.4	0.9
Paediatrics II	2,373	53	17	36	2.2	1.5
Paediatrics III	9,884	99	28	71	1.0	0.7
Paediatric Surgery	3,261	65	13	52	2.0	1.6
Physical Medicine and Rehabilitation	38	00	00	00	0.0	0.0
Psychiatry	238	00	00	00	0.0	0.0
Pulmonary Medicine and Sleep Disorders	6,043	213	61	152	3.5	2.5
Plastic and Reconstructive Surgery	565	00	00	00	0.0	0.0
Radiotherapy	05	01	1	00	20.0	0.0
Rheumatology	1,467	00	00	00	0.0	0.0
Surgical Disciplines I	1,508	36	15	21	2.4	1.4
Surgical Disciplines II	1,849	26	8	18	1.4	1.0
Surgical Disciplines III	1,438	12	4	8	0.8	0.6
Surgical Disciplines IV	2,243	25	6	19	1.1	0.8
Urology	7,299	14	5	9	0.2	0.1
<i>Total (Main hospital)</i>	<i>1,13,630</i>	<i>3,179</i>	<i>1,300</i>	<i>1,879</i>	<i>2.8</i>	<i>1.7</i>
Cardiology	8,083	281	149	132	3.5	1.7
Cardiothoracic and Vascular Surgery	3,282	278	41	237	8.5	7.3
Neurology I	1,851	52	7	45	2.8	2.4
Neurology II	1,598	63	14	49	3.9	3.1
Neurology III	1,591	35	4	31	2.2	2.0
Neurosurgery I	2,068	76	26	50	3.7	2.4
Neurosurgery II	1,864	70	12	58	3.8	3.1
Neuroradiology	367	3	2	1	0.8	0.3
<i>Total (CNC)</i>	<i>20,704</i>	<i>858</i>	<i>255</i>	<i>603</i>	<i>4.1</i>	<i>2.9</i>

No death has occurred in CDER

Figure 3. Geographical distribution of inpatients (Main Hospital, CN Centre and CDER)

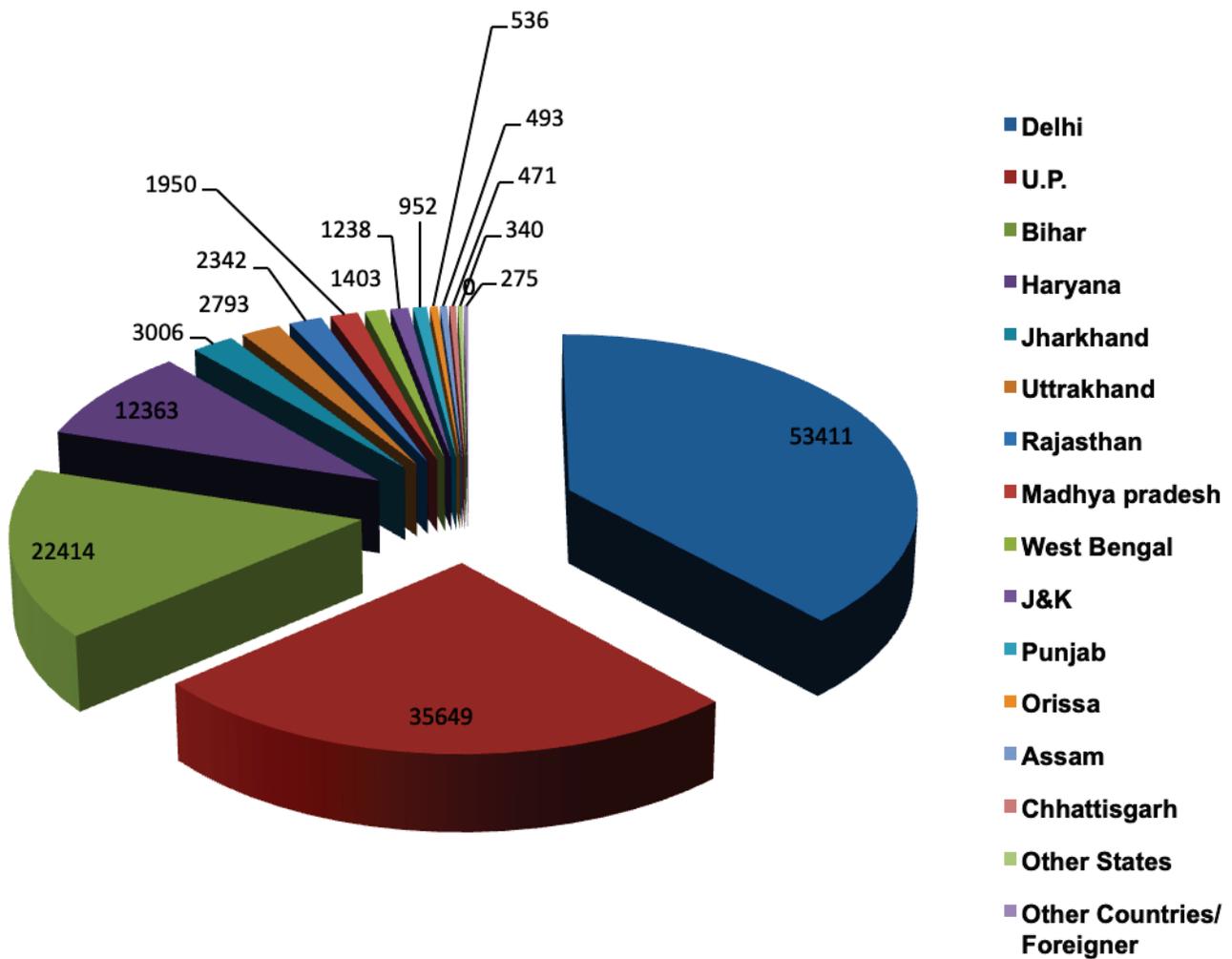


Table IV. Surgical procedures done in the Main Hospital, CDER and CN Centre

Department	Major	Minor		Total
		Inpatient cases	Outpatient cases	
Surgical Disciplines I	812	277	3,502	4,591
Surgical Disciplines II	1,097	295	3,121	4,513
Surgical Disciplines III	835	214	2,549	3,598
Surgical Disciplines IV	1,238	647	3,712	5,597
Gastrointestinal Surgery and Liver Transplantation	598	0	0	598
Urology	1,629	601	14,215	16,445
Obstetrics	1,294	633	0	1,927
In vitro fertilization	0	1,306	0	1,306
Gynaecology I	821	774	0	1,595
Gynaecology II	1,037	1,061	0	2,098
Gynaecology III	664	827	0	1,491
Foetal Medicine	0	671	0	671
Otorhinolaryngology I	865	727	7,741	9,333

Otorhinolaryngology II	841	688	7,148	8,677
Otorhinolaryngology III	835	629	7,304	8,768
Orthopaedics I	2,062	951	0	3,013
Orthopaedics II	1,941	1,528	0	3,469
Paediatric Surgery	1,544	455	0	1,999
Casualty	0	241	0	241
Plastic and Reconstructive Surgery	329	795	0	1,124
Pulmonary Medicine and Sleep Disorders	02	183	2,794	2,979
Anaesthesiology (Pain Clinic)	29	1	0	30
Haematology	3	0	0	3
Physical Medicine and Rehabilitation	0	0	4,628	4,628
Dermatology and Venereology	0	0	9,206	9,206
Total (Main Hospital)	18,476	13,504	65,920	97,900

Cardiothoracic and Vascular Surgery	3,961	0	0	3,961
Neurosurgery I	1,553	99	0	1,652
Neurosurgery II	1,623	71	0	1,694
Total (CNC)	7,137	170	0	7,307

Dental Surgery/CDER	670	208	22,618	23,496
---------------------	-----	-----	--------	--------

Table V. Attendance in outpatients and specialty clinics

Medical Disciplines		New Cases	Old Cases	Total
Medicine	General OPD	68,991	48,523	1,17,514
	a) Obesity and metabolic disorders	520	386	906
	b) Infectious disease clinic	637	897	1,534
Rheumatology	General OPD	7,985	6,119	14,104
	a) Rheumatology clinic	66	4,982	5,048
Geriatric Medicine		16,891	24,492	41,383
Pulmonary Medicine and Sleep Disorders	General OPD	12,643	12,210	24,853
	a) Sleep disorder	163	195	358
	b) Lung cancer	459	1,584	2,043
	c) ILD - PAH	304	1,071	1,375
	d) Combined pulmonary surgery	288	375	663
Nuclear Medicine		2,769	9,975	12,744
Endocrinology and Metabolism		16,417	14,012	30,429
Nephrology	General OPD	17,612	15,216	32,828
	a) Transplant clinic	223	11,279	11,502
	b) RTCC	471	1,983	2,454
Haematology		3,415	10,868	14,283

Gastroenterology		29,975	20,725	50,700
Paediatrics	General OPD	33,178	52,217	85,395
	a) Well baby	671	00	671
	b) Follow up TB	269	772	1,041
	c) Renal clinic	438	992	1,430
	d) Paediatric neurology	1,294	2,350	3,644
	e) Paediatric chest clinic	661	2,904	3,565
	f) High risk neonatal	335	1,218	1,553
	g) Genetic and birth defects clinic	2,911	1,039	3,950
	h) Oncology clinic	485	1,102	1,587
	i) Child development clinic	1,347	818	2,165
	j) Endocrinology clinic	244	681	925
	k) Neurocysticercosis clinic	266	656	922
	l) PCSC	284	697	981
	m) Rheumatology clinic	780	1,856	2,636
	n) Myopathy clinic	615	751	1,366
	o) Paediatric gastroenterology clinic	514	1,169	1,683
p) Autism	599	264	863	
Dermatology and Venereology	General OPD	34,729	28,908	63,637
	a) STD (Dermatology surgery)	1,391	2,709	4,100
	b) Allergy clinic	607	1,055	1,662
	c) Leprosy	404	1,608	2,012
	d) Psoriasis	442	1,152	1,594
	e) Dermo-Surgery	1,122	683	1,805
	f) Vitiligo	340	878	1,218
	g) Photo Therapy	164	203	367
	h) Photo Dermatology	61	71	132
	i) Paediatric Dermatology	141	77	218
Psychiatry	General OPD	21,424	33,463	54,887
	a) Child guidance	781	755	1,536

Surgical Disciplines		New Cases	Old Cases	Total
Surgery		62,836	23,921	86,757
Plastic Surgery		2,634	1,403	4,037
Urology		19,639	21,277	40,916
Gastrointestinal Surgery		3,941	4,700	8,641
Paediatric Surgery	General OPD	9,862	7,547	17,409
	a) Hydrocephalus	3	41	44
	b) Paediatric Urology	485	2,862	3,347
	c) PSTC	44	837	881
Anaesthesiology	a) Pain clinic	1,021	3,102	4,123
	b) Pre-anesthesia clinic	9,552	1,378	10,930

Orthopaedics	General OPD	70,059	49,600	1,19,659
	a) Physiotherapy	29,078	25,398	54,476
	b) Occupational therapy	1,355	5,285	6,640
	c) Hydro Therapy	1156	6,612	7,768
	d) Tuberculosis	71	127	198
	e) Scoliosis	639	1,141	1,780
	f) Hand clinic	931	559	1,490
	g) CTEV	374	1,632	2,006
	h) Sports clinics	0	2	2
	i) Fragility fracture clinic and liaison services	56	157	213
	j) Bone and Soft Tissue Sarcoma clinic	26	8	34
Otorhino-laryngology	General OPD	55,160	33,438	88,598
	a) Audiology	151	37	188
	b) Speech	3,644	3,139	6,783
	c) Hearing	216	459	675
	d) Voice	386	226	612
	e) Vertigo	136	159	295
	f) Rhinology	197	44	241
	g) HN& R	9	11	20
Obstetrics and Gynaecology	General OPD	42,533	42,848	85,381
	a) IVF	1,250	4,500	5,750
	b) Family welfare	4,789	4,011	8,800
	c) Antenatal	985	2,973	3,958
	d) Endo-Gynaecology	36	84	120
	e) High Risk Pregnancy	236	8,965	9,201
Radiotherapy		347	1,138	1,485
Physical Medicine and Rehabilitation	General OPD	13,900	25,737	39,637
	a) Prosthetics and Orthotics	3,175	7,123	10,298
	b) Disability evaluation clinic	0	68	68
	c) OPD (PT Section)	0	16,460	16,460
	d) OPD (OT Section)	0	10,127	10,127
	e) OPD (MSSO)	1,550	1,958	3,508
Others	Emergency/Casualty	1,03,455	46,083	1,49,538
	Employees Health Scheme	1,32,402	88,266	2,20,668
	Nutrition	10,301	0	10,301
Grand Total		8,74,946	7,81,383	16,56,329

6.2. Dietetics

Chief Dietician

Dr (Mrs) Parmeet Kaur

Dietician

Ms Swapana Chaturvedi

Assistant Dietician

Ms Gurdeep Kaur

Ms Vasundhara Singh

Ms Anjali Bhola

Ms Monita Gahlot

Ms Rekha Pal

Department of Dietetics takes care of the therapeutic dietary needs of approximately 2,300 indoor patients every day. There are various kinds of diets provided to the patients based on the disease and dietary requirements calculated on the basis of nutritional screening and nutritional assessment done by the Dieticians in their respective wards. The approximate yearly data of different kind of diets sent to the indoor patients of main hospital and centers, comprising around 3 major meals and 2 minor meals in a day are as follows:

Table 1. Total number of indoor patients served hospital diet per annum (Main Hospital and Centres)

S. No.	Type of Diet	Number of patients
1.	Normal	4,02,000
2.	Private Ward	94,116
3.	Semisolid	84,652
4.	Therapeutic	1,72,207
5.	Enteral feeds	68,632
	Total	8,21,607

In addition nutrition counseling OPD and clinics are also run in the Main Hospital.

The approximate number of indoor and outdoor patients counseled by the department are:

Table II. Total number of patients given outdoor and indoor nutrition counseling (Main Hospital)

Gender	Outdoor	Indoor	Total
Male	5,824	3,201	9,025
Female	4,477	2,879	7,356
Total	10,301	6,080	16,381

DEPARTMENTAL ACTIVITIES

1. Seminar on Plant-Based Nutrition for Prevention and Treatment of Chronic Diseases, AIIMS, New Delhi, 30 July 2018
2. Exhibition on Healthy Food for Pregnant and Lactating Women, National Nutrition Week, AIIMS, New Delhi, 7 September 2018
3. Skill Upgradation Training Programme for Dietary staff of Main Hospital by AIHM, ITDC, AIIMS, New Delhi, 11-18 February 2019
4. Dietetics Day Celebrations with the theme ‘Anemia Mukth Bharat’, AIIMS, New Delhi, 10 January 2019
5. Poshan Pakhwada an initiative of Ministry for Women and Child Development, celebrated at Department of Dietetics, AIIMS, New Delhi, 8 March 2019

Lectures delivered

Parmeet Kaur

1. Diet and Health, Awareness generation on various health issues at Resource Center of DGHS, Nirman Bhawan, New Delhi, 16 August 2018, New Delhi
2. Balance Diet and Healthy Lifestyle, Apprising Jawans about the Importance of Balance Diet at 7th BN. DAP, Malviya Nagar, 11-12 September 2018, New Delhi
3. Panel Discussion-Palliative Care-co-ordinate, consistent and continuous, Palliative Care—A promise of Quality Life, CMET Technology Hall, AIIMS, 22 February 2019, New Delhi
4. Ketogenic Diet in Sports, Current Concepts and Advances in Sports Medicine, Guru Nanak Dev University, 15 March 2019, Amritsar
5. Recent Advance Sports Nutrition, Current Concepts and Advances in Sports Medicine, Guru Nanak Dev University, 16 March 2019, Amritsar
6. Dietary Service, 3rd Foundation Training Programme for the General Duty Medical Officer (GDMOs), Under CHS in collaboration with MOHFW at Auditorium Teaching Block, NIHFW, 7 September 2018, New Delhi
7. Recent advances in clinical Nutrition, IAPEN clinical nutrition updates “IAPEN Symposium Series”, 21 December 2018, Max Hospital, New Delhi
8. Physiology for good health and prevention of non communicable diseases, Indo- European workshop on “Next generation physiology for healthy lifestyle”, 31 January-1 February 2019, AIIMS, New Delhi

Oral papers/posters presented

1. Kaur P, Implementing technology in dietetics practice, education and research, 63rd AIIMS Foundation Day, 25 September 2018, AIIMS
2. Kaur P, Expert committee meeting on GDM, Medical Nutrition therapy in GDM, 31 October 2018, ICMR HQs, New Delhi
3. Kaur P, Trends of nutritional intake during the course of pregnancy in Indian Women, Second International NIN Centenary Conference, Aligning Food System for Health Diets and Improved Nutrition, NIN, Telengana, 11-13 November 2018, Hyderabad

Monographs/Publications

1. Kaur P, Monograph, ILSI, India. India and South Asian Region, Eating Right for a Healthy You. Member of Healthy Eating Task Force

AWARDS AND HONORS

The department received “SWACHHTA AWARDS 2018” in recognition of contribution toward making clean and green AIIMS under kyakalp scheme.

Dr Parmeet Kaur (Chief Dietician), received appreciation award at NUTRIMEET 2019, on 8 March 2019 organized at Department of Dietetics, AIIMS.

6.3. Hospital Billing Section

The donations received and the payments made to patients during financial year 2018-2019 are:

Donations received from donors (Bank interest+Donations+Poor fund boxes)	Rs 31,96,869
Donations received online (RTGS)	Rs 11,25,000
Total receipts	Rs 43,21,869
Payments made to 441 patients	Rs 12,19,660

(The amount disbursed to poor patients is from donations received from donors during the year as well as from the previous balance lying in the ‘AIIMS POOR FUND ACCOUNT’).

6.4. Nursing Services

Chief Nursing Officer (Acting)

Ms Kamlesh Chandelia

Nursing service is an integral part of AIIMS, which aims at high quality nursing care to the patients and community. The professional nurses work in an environment that encourages professionalism and expertise in providing comprehensive patient care with the members of allied disciplines in the hospital.

Staff strength

The main stratum of workforce in AIIMS is constituted by the well trained professional nurses from different departments. Staffing in nursing service is based on SIU (Staff Inspection Unit) norms in AIIMS.

Staff Strength in Hospital/Centers	
Chief Nursing Officer	1 (Acting CNO)
Nursing Superintendent	4
DNS	32
ANS	133
Senior Nursing Officer	841
Nursing Officer	3,438
Total	4,448

Continuing Nursing Education

Nursing staff education is carried out throughout the year by in-service and continuing education programs to update the clinical knowledge of practicing nurses thereby aiming at improving standard of nursing care at AIIMS.

Nursing in-service education programme

A well structured in-service education programme has been initiated since January 2011. Initially it started with twice a week class of one hour each, which was later on increased to thrice in a week. Two classes in a week are conducted for the bedside nurses (Nursing Officer and Senior Nursing Officer), where as one class in a week is for senior nurses (Sister In-charges and above).

Facilitator	Ms. Kamlesh Chandelia
Mentor	Ms. Hanumati Devi
Educator	Ms. Rebecca J. Herald
	Ms. Srinithya Raghavan
	Ms. J Subbulakshmi

Since January 2014 'National Programme for Health Care of the Elderly (NPHCE)', monthly workshop for nurses from main hospital been conducted with support from Department of Geriatrics. Nursing educators are also facilitating sessions in the workshop.

Clinical Teaching

Clinical teaching initiated in AB, C, D wings of the main hospital with an objective of upgrading standard of nursing care and solving practical issues in the area itself. This initiative was started on 1 January 2015, with active participation of bedside nurses and supervisory nursing personnel of the clinical areas.

1. 39 sessions conducted till 31 July 2018 in AB wing under supervision of Ms Rebecca Herald
2. 20 sessions conducted till 31 July 2018 in C wing under supervision of Ms J Subbulakshmi
3. 18 sessions conducted till 31 July 2018 in D wing under Ms Srinithya Raghavan
4. 38 sessions conducted in Old and New Private Ward Block, Casualty, New Emergency and OPD

From August 2018 onwards clinical teaching was handed over to ANS Incharge of the respective ward. A well planned orientation programme was conducted for BSc PC batch of 2018-2020.

In Service Education Weekly Classes

A total of 1,693 nurses from different departments in main hospital attended the Inservice Education weekly classes. The following lectures were delivered in the year 2018-2019.

Classes for Senior nursing Personnel/CNO/NS/DNS/ANS/SNO HR

- | | |
|--|--|
| 1. Management of patient with Tuberculosis | 12. Classes for Senior Nursing Officers/Nursing Officers |
| 2. Antibiotic Stewardship | 13. Management of patient with Tuberculosis |
| 3. Pain Free AIIMS | 14. Antibiotic Stewardship |
| 4. Management of patient with Hypertension | 15. Pain Free AIIMS |
| 5. Management of Patient with Nipah Virus | 16. Management of patient with Hypertension |
| 6. Pain Medication Policy | 17. Management of Patient with Nipah Virus |
| 7. Management of patient with viral Hepatitis | 18. Pain Medication Policy |
| 8. Safe Staffing | 19. Management of patient with viral Hepatitis |
| 9. SNO HR Empowerment Programme (August 2018 to December 2018) | 20. IV Fluid Therapy |
| 10. Management of patient with Anaemia | 21. Selected Nursing Procedures |
| 11. Patient Safety | 22. Management of patient with Anaemia |
| | 23. Patient Safety |

A total of 89 lectures were taken on the above topics in different batches.

The number of nursing personnel who attended the in-service education classes are as follows:

ANS: 83 Senior Nursing Officer: 493 Nursing Officer: 1,117

Module

Developed a protocol for Admission/Discharge/Transfer/LAMA/Death, as there had been no such document available at AIIMS and this endeavor has been both challenging and rewarding. Hours of studying AIIMS protocols and admission/Discharge policy circulars issued from time to time has given a final shape to this document.

Conferences and workshops conducted

7 September 2018, GOSICON 2018 Nursing Track at AIIMS. Total Participants – 52

One Day Critical Care Nursing Update for bedside nursing personnel at MS Seminar Room, AIIMS, New Delhi

Date/Month/Year	Total Participants
10 May 2018	30
14 June 2018	18
19 July 2018	31

Nursing Administrators Empowerment Programme

Five half-day workshops were conducted for Nursing Superintendents/DNS/ANS of main hospital and all centres of AIIMS, New Delhi to empower them as administrators. A total of 140 participants were present in the five workshops.

SNO HR Empowerment Programme

Nine one-day workshops for SNO HR were conducted and had 298 participants.

Induction Programme for Newly Recruited Nurses

Seven and eleven half-day programmes were organized for 210 and 330 newly inducted nurses in the years 2018 and 2019, respectively.

Basic Nursing Skills Update

Five half-day workshops for 205 newly inducted nurses were conducted at CMET, AIIMS, New Delhi.

Workshops/conferences attended

1. Infection control workshop, 4 April 2018, Ramalingaswamy Board Room, AIIMS, New Delhi, Participants: 3
2. Training of cold chain handlers, 4-5 April 2018, DPNU Saket, Delhi, Participants: 1
3. Infection control practices in Ophthalmology, 12 April 2018, 6th Floor LT, Dr RPC, AIIMS, New Delhi, Participants: 2
4. Transplant coordinator training, 24-28 April 2018, Safdarjung Hospital, New Delhi, Participants: 2
5. Mega Event on Pneumonia and Cancer for vulnerable older adults, 25 April 2018, Gandhi Smriti, New Delhi, Participants: 25
6. Basic 4 Now Course, 28-29 April 2018, Pudduchery, Participants: 5
7. A workshop on management of patients undergoing liver transplantation, 10-11 May 2018, ILBS, Vasant Kunj, New Delhi, Participants: 3
8. A session on pain policy, 11 June 2018, M.S Seminar Room, Participants: 31
9. Yoga Session, 18 June 2018, CIMR, AIIMS, New Delhi, Participants: 32
10. Foundation Oncology Skills for pediatric Nurses, 22-23 September 2018, SSPH and PG Teaching Institute, Noida, Participants: 5
11. Cost Effective Use of Technology in Emergency Health Care, 22 October 2018, JPNATC, AIIMS, New Delhi, Participants: 20
12. Lactation Counseling Training, 5 October 2018, Paediatric Seminar Room, AIIMS, New Delhi, Participants: 11
13. 6th Annual GBM of Ostomy Society, 14 October 2018, Conference Hall, AIIMS, New Delhi, Participants: 4
14. Hematocon 2018, 25-26 October 2018, Kochi, Kerala, Participants: 1
15. Paediatric Emergencies, 14 November 2018, CMET, AIIMS, New Delhi, Participants: 20
16. International Congress on Gerontology and Geriatric Medicine, 15/16 November 2018, JLN Auditorium, AIIMS, New Delhi, Participants: 19
17. Workshop on Humane Health Care, 16 November 2018, CMETi, AIIMS, New Delhi, Participants: 20
18. ROP and QI Meeting, 19-20 November 2018, Convergence Block, AIIMS, New Delhi, Participants: 4
19. Training Course on Strengthening Practices on Safe Motherhood, 3-11 January 2019, NIHFW, Munirka, New Delhi, Participants: 6
20. Disaster Medical Assistance Team Training Programme, 19-22 January 2019, JPNATC, AIIMS, New Delhi, Participants: 5
21. Advanced Nursing Care Administration and Quality Management Programme, 18-23 February 2019, AHA House, Sec 62, Noida, Participants: 2

22. Emerging Role of Nurses in India, 24-28 February 2019, RAK CON, Lajpat Nagar, New Delhi, Participants: 2
23. Working Towards Excellence, 15 February 2019, CMETi, AIIMS, New Delhi, Participants: 15
24. Palliative Care, 22 February 2019, CMETi, AIIMS, New Delhi, Participants: 15
25. Healing Touch in Quality Nursing Care, 11-15 March 2019, at RAK CON, Lajpat Nagar, New Delhi, Participants: 1
26. Workshop on Communication Skills, 26 February 2019, Ramalingaswamy Board Room, AIIMS, New Delhi, Participants: 10
27. Update on Nursing And Health Care Innovations; Sharing the Learning, 14-15 March 2019, CMETi, AIIMS, New Delhi, Participants: 14
28. Training Course on Research Methodolgy, 11-19 March 2019, NIHFW, Munirka, New Delhi, Participants: 3
29. Six Two-Day Workshops on Resuscitation Training Programme for 136 Nursing Officers by College of Nursing at Seminar Room, New Emergency Ward, AIIMS, New Delhi
30. Two One-Day Good Bedside transfusion practices sessions were held at CMET, AIIMS, New Delhi, Participants: 31
31. Five sessions for training 99 Nurses on ‘Deceased Organ and Tissue Donation’ at Seminar Room, ORBO, AIIMS
32. Wound Care and Pressure Sore Prevention Workshop at CMET, AIIMS, Participants: 61
33. End of Life Nursing Education Consortium Training at Seminar Room, IRCH, AIIMS, New Delhi, Participants: 157
34. Workshop on CRTP and ECG Course, AIIMS, Participants: 179

A total of 1622 nursing personnel attended 97 Workshop/Conferences during the year excluding Consultancy and participation as experts

DNS: 2 ANS: 31 Senior Nursing officer: 457 Nursing Officers: 1,132

Awareness Programmes Organized

Organized Half Day Breast Health Programme in Conference Hall targeting Senior nursing administrators. The programme included Health talks by Professor Anurag Srivastava, HOD and Dr Anitha Dhar, Professor Department of Surgery. Health talks were followed by a short video film on breast self examination.

Quality Improvement Initiative

Quality Improvement Initiative has been started since 2015 under leadership of Professor AK Deorari. A number of QI projects have been taken up in the institute. Few of the projects have been presented at National as well as International forums. Half day workshops on QI exclusively for nurses have been organized.

Deputation of Nursing Personnel for Higher studies

Nursing services at AIIMS focus on improving the nursing care by facilitating abundant opportunities for higher studies. After 5 years of regular services, nurses are eligible for pursuing higher studies with full pay. 3 nurses were pursuing post basic BSc nursing programme and 7 MSc nursing programme during this year from Main Hospital.

Coordination and organization of educational visits for various nursing educational institutions

Nursing educators in AIIMS conducted orientation for groups from different educational institutions across India as listed below:

S. No	Name of the College	Date of Visit	No. of Students	No. of Faculty
1.	RDO College of Nursing, Manipur	1 May 2018	17	3
2.	SDU College of Nursing, Kolar, Karnataka	27 November 2018	35	2
3.	Alvas College of Nursing, Mangalore, Karnataka	29 January 2019	35	2
4.	SMES College of Nursing, Mumbai, Maharashtra	5 February 2019	28	2
5.	Nirmala College of Nursing, Karnataka	10 January 2019	35	2
6.	Ramaiah Institute of Nursing, Bangalore, Karnataka	7 February 2019	35	2
7.	St. Philomena College of Nursing, Bangalore, Karnataka	21 February 2019	35	2
8.	Lourde College of Nursing, Kannur, Kerala	5 March 2019	36	2
9.	RDO College of Nursing, Manipur	12 March 2019	35	2
10.	CMC College of Nursing, Manipur	12 March 2019	35	2
		Total	326	21

Issuing Credit hours Certification

A total of nine nurses were issued certificates of credit hours for registration in Nursing Council.

Critical Care Workshop

A full day workshop on Critical care Update for nurses working in Emergency and Intensive Care Units with the support of Faculties from Emergency Medicine, Anesthesiology and General Medicine. Certificates were also issued for the same.

Contribution as Facilitators

NIE team facilitated various educational activities inside and outside AIIMS such as:

Team member in the module development of Geriatric Care Assistants at IGNOU;

Participated in the live talk show in Gyan Dharshan with faculty from School of Health Sciences, IGNOU in discussing Nutritional and elimination needs of Geriatric clients;

Represented TTSU Sub-Committee, Ministry of Health and Family Welfare for developing course module for Induction and Promotional Training for Nurses.

INFECTION CONTROL NURSES ACTIVITIES

MAIN HOSPITAL 2018-2019

Infection Control Core Committee

Dr DK Sharma	Medical Superintendent, AIIMS, Chairman
Dr Arti Kapil	Professor, Department of Microbiology
Dr Rakesh Lodha	Professor, Department of Paediatrics
Dr Rashmi Ramachandran	Professor, Department of Anaesthesia
Dr Anoop Daga	Associate Professor, Hospital Administration
Dr Karan Madan	Assistant Professor, Department of Pulmonary Medicine
Dr Gagandeep Singh	Assistant Professor, Department of Microbiology
Dr Jhuma Sankar	Assistant Professor, Department of Paediatrics
Ms Nandayshri George	Nursing Superintendent, Infection Control
Ms Elpreda M Victor	Senior Nursing Officer, Incharge Infection Control Nurse
Ms MRE Vasanth	Senior Nursing Officer, Infection Control Nurse
Ms Betty Maria Binu	Senior Nursing Officer, Infection Control Nurse
Mr Mukesh Kumar Saini	Nursing Officer, Infection Control Nurse
Mr Dhawal Dwivedi	Nursing Officer, Infection Control Nurse
Mr Kunj Bihari Gauttam	Nursing Officer, Infection Control Nurse

HICCOM core committee meets periodically to discuss day to day activities and interventions. HICCOM administrative rounds conducted periodically with infection control core committee, identified problems discussed and rectified.

Activities of HICCOM

1. HICCOM (Hospital Infection Control Committee) conducted monthly half day training programme for nurses, total 303 nursing officers attended. Pre and post test conducted and analysis made
2. For various health care workers sensitization on hand hygiene, PPE and BMW management, total 92 hospital attendants and 76 sanitary attendants attended the sessions
3. Sessions conducted for newly recruited nurses (Induction programme) on hospital infection control practices and biomedical waste management
4. 7 sessions were conducted from August to September 2018, total 213 Nursing officers attended
5. 15 sessions were conducted from 29 January to 12 April 2019, total 422 nursing officers attended
6. Training programme for OT technicians at CMET on standard precautions, SOPs and BMW management for the year 2018-2019, total 100 technical staff attended the programme in 3 sessions from September to October 2018
7. The ICN took a session on Role of infection control nurse in “Clinical Nursing Update” organized by College of Nursing, AIIMS for a group of 30 in-service nursing personnel
8. Involved in the teaching programme for nursing students of College of Nursing, AIIMS related to infection control prevention and practices
9. College of Nursing—Post basic BSc nursing students organized work shop on safe environment in health care sector; ICN has taken session on safe environment in relation with infection control practices in health care set up in February 2019
10. ICNs Conducted classes for Main Kitchen staff for a group of 98 employees on hand hygiene practices, use of PPE and importance of immunization. During Kaya-Kalp rounds same topics were emphasized by infection control nurses

11. ICN participated as resource person for sessions on infection control practices at 'NCOTT-2018' Second National Conference of OT-technologists
12. All ICNs took active participation in organizing and conducting "Kaya-Kalp" 2018-2019 rounds
13. Sensitization on hand hygiene, PPE, spill management and needle stick injury protocols were emphasized to sanitary attendants and hospital attendants
14. Sessions were conducted for Biotic workers on hand hygiene, PPE, immunization, spill management and needle stick injury protocols, personal hygiene, loading of BMW trolleys according to the BMW rules
15. The ICNs Contributed in content and finalization of revised edition of Infection Control Manual
16. SOPs on Needle stick injury and Spill management protocols in the form of charts were prepared, distributed and displayed in all clinical areas of AIIMS
17. Sensitization on infection control practices and BMW management for resident doctors, department of medicine on request of HOD Medicine
18. Classes on basic nursing skills conducted at CMET and a session on infection control practices were taken by infection control nurses. Total 206 Nursing officers were educated
19. ICNs conducted session on hand hygiene, personal hygiene, PPE and BMW management at Laundry facility staff and Mortuary staff

Activities of Infection Control Nurses

1. Collection of data on total HCAs in ICUs/ HDUs, Surgical areas on BSI, RTI (VAP), SSI, UTI, CSF/ others infections etc. Data analysis carried out monthly wise for all surgical units and all ICUs and the Performa of data analysis is distributed to all concerned professor in-charges of surgical units and ICUs

Annual Health Care Associated Infection (HCAI) Rate

Area	Total Major Surgeries/Admissions	HCAI	%
Surgical Units	15,204	524	3.4
ICUs	4707	646	13.7

Combined HCAI Rate: $\frac{(524 + 646) \times 100}{19,911} = 5.8\%$

Monthly surveillance and data for surgical units and ICUs calculated and submitted to MRD section for monthly newsletter.

1. Annual combined data analysis of surgical units and ICUs calculated and the same is distributed to Dr Arti Kapil Professor In-charge Microbiology Hospital Infection Control, Professor DK Sharma, Medical Superintendent, Ms. Kamlesh Chandelia, Chief Nursing Officer, Dr Anoop Daga, Office In-Charge Infection Control from hospital administration and to Medical Record section
2. Individual area rounds conducted by Infection Control Nurses on daily basis by using checklist and whenever need arises, onsite training programme were conducted in the clinical areas and problems are rectified after discussing with the infection control core committee (HICCOM)
3. Surveillance activities: Surveillance of environmental culture and sterility samples taken monthly basis and reports recorded and distributed to all respective areas and discussed to reinforce proper protocols to follow as per the hospital policy

Surveillance Samples collected from Main Hospital during the year

Total Surveillance Samples	Total Environmental and Sterility Samples	Total In-use Solutions Samples	Total Sterile Samples		Total Unsterile Samples	
			Environmental and Sterility Samples	In-use Solutions Samples	Environmental and Sterility Samples	In-use Solutions Samples
7,906	5,649	2,257	4,773	1,953	876	304

Management of outbreaks monitored and educated the HCWs about the precautions.

Maintaining the Report Book for daily basis reporting and also a dedicated register for reporting Incident and intervention.

Department of Hospital Administration organized SWACHHATA MELA for two days 1 and 2 October 2018, ICNs took part and set up the skill station and displayed all infection control related charts. Educational activities of HICCOM for five years and HCAI data for five years displayed in the form of graph. Honorable Health Minister Shri JP Nadda inaugurated the Mela and along with AIIMS Director, MS, Faculty and CNO visited the Infection Control Skill Station and interacted the educational activities of HICCOM, AIIMS.

Ministry of health and family welfare has launched “Kaya-Kalp”—Clean Hospital Campaign under Swachh Bharat Abhiyan. Clean and Green AIIMS Campaign guidelines have been formulated. AIIMS is uniquely poised to lead this movement of Kaya-Kalp transformation by being the agent of change and adopting these guidelines.

WHO Hand Hygiene Day observed and ICNs conducted public awareness on hand hygiene demonstrated at RAK OPD and PRC for 3 times and seen active public participation.

6.5. Welfare Unit

Welfare Officer
Mrs Preeti Ahluwalia

Patients and employees welfare services were organized by the Welfare Officer.

Patients Welfare

Patients’ Care: Rs 66,79,000 (approximately) received as donation

Purpose	Donation	Donor
For treatment and surgery of poor and needy patients who are undergoing treatment in the Main Hospital and Centres	Rs 20,02,748	Roshni Foundation
	Rs 5,95,773	Bajj Nath Bhandari Public Charitable Trust
	Rs 3,60,386	Sahu Jain Trust
	Rs 2,87,500	Jawahar Bhawan Trust
	Rs 3,07,000	Sewa Prakalp Mahila Mandal Trust
	Rs 1,50,000	President’s Secretariat, Government of India
	Rs 45,000	Rajendra Bhawan Trust
	Rs 60,000	Ms. Stuti Sharma
	Rs 91,104	Other Donors
	Rs 4,64,227	National Conference on Medical Education (NCME 2007)
AIIMS Poor Fund Account	Rs 3,00,000	Mrs. Dwarka Prasad Trust
	Rs 35,000	Mrs. Preeti Bhatnagar
Anti-cancer drugs provided free to cancer patients	Rs 17,32,152	Gopal Foundation
	Rs 2,48,369	Dr Chetan Memorial Divine Trust

Contribution received under Corporate Social Responsibility: Rs 31 lakhs

Purpose	Contribution	Name of the Company
For Promoting Preventive Health Care-Safe Health Practices in the Hospital	Rs 31,00,000	DLF Urva Real Estate Developers and Services Private Limited

In addition to above, poor patients were guided and assisted to avail of financial assistance for their treatment from Rashtriya Arogya Nidhi, P.M. National Relief Fund, Health Minister’s Discretionary Grant and other governmental agencies. Poor patients were also guided and assisted to avail of financial help from the Hospital Poor Fund Account and for exemption of levy charges, investigation charges, etc.

Dharamshalas

There are four Vishram Sadans namely Rajgarhia Vishram Sadan (RVS), Sureka Vishram Sadan (SVS), Shri Sai Vishram Sadan (SSVS) and Power Grid Vishram Sadan which are being run as a welfare activity, i.e to provide shelter to outstation patients and their attendants who are undergoing treatment at AIIMS. The Vishram Sadans provided shelter to over 29,500 patients and their attendants who were undergoing treatment at the Institute and its Centres. A pick and drop facility from the Sadans to the hospital is also being run during day time by the Institute for the benefit of the patients and their attendants.

A play room facility has been provided in Rajgarhia Vishram Sadan for the children staying in the Vishram Sadans. This facility is being run on Monday, Wednesday and Friday from 2:30 p.m. to 4:30 p.m. by Cancer Patient Aid Association

(CPAA). In addition, CPAA organizes Yoga Class once a week for the benefit of the inmates. CPAA also celebrated Holi & Diwali festival with the inmates of the Sadans. Sapna (NGO) distributed 60 packets of ration once in a week to the poor patients of the Vishram Sadans. Further, free food i.e. lunch and dinner was provided free to inmates of RVS, SVS and SSVS by Sureka Public Charity Trust in the Canteen of SVS which is being run by the Trust. A Rasoi Ghar is also functioning in Rajgarhia Vishram Sadan Complex where inmates of RVS, SVS and SSVS cook food on nominal charges. The LPG (gas bank) was replaced by PNG (gas pipeline) in December 2018.

In addition, a Rain Basera facility was set up in November 2012 near Sureka Vishram Sadan and is being managed by Delhi Urban Shelter Improvement Board. The facility provides shelter to poor and needy outstation patients and their attendants who are undergoing treatment at AIIMS. The inmates of the Rain Basera also use the common 'Rasoi Ghar' facility and the common toilet facility in RVS complex.

Promotion of Menstrual Hygiene

Sanitary Pads/Napkins Vending Machines were installed in January 2018 in the Ladies Toilet situated at RAK OPD AIIMS and Gynae OPD for promotion of menstrual hygiene management for female patients and female workforce at AIIMS. The said project is undertaken by Sewa Prakalp Mahila Mandal Trust (Regd.) and the Trust is responsible for its management and operation.

Employees Welfare

Appointment on Compassionate grounds

Cases for appointment on compassionate grounds were dealt with. Counseling services and moral support was provided to the family members so as to assist them to accept/overcome the great loss they had suffered and thereby enable them to shoulder the responsibilities befallen upon them.

Women Grievance Cell

A Women Grievance Cell has been constituted at AIIMS in January 2014 to resolve grievances/complaints made by:

1. female students of the Institute
2. women employees of the Institute who are working on a regular, temporary, ad hoc, project, temporary status, daily wages, contract or other than outsourced

The Women Grievances Cell deals with the grievances received as per its terms of reference.

Counselling Services

Counselling services were provided to employees, patients and their relatives so as to enable them to overcome/adjust to their physical, social, emotional, economic, familial and marital problems and thereby enhance their social functioning.

Redressal of grievances

Services for redressal of grievances to staff and patients are being provided.

6.6. Medical Social Welfare Unit

Chief Medical Social Service Officer

BR Shekhar

Supervising Medical Social Service Officer

Pankaj Kumar

Introduction

The foundation of Medical Social Welfare Unit in AIIMS was laid in 1960 when the first Medical Social Worker was appointed in the main hospital. The Medical Social Welfare Unit is working under the supervision of Medical Superintendent from the very beginning. The integration of Medical Social Services has yielded positive results as it provides social, psychological and financial support for patients and alleviated distress while receiving treatment. The Medical Social Welfare Unit, Main Hospital has 12 Medical Social Service Officers (MSSOs) taking care of OPDs and Wards of 20 important departments in the main hospital. In addition to a team of MSSOs, there are 20 Part-Time Social Guides (PTSG) and one hospital attendant working under the Unit for patient care and guidance.

Our motto: “Committed to patients, committed to AIIMS”

Our Objectives:

1. To create a Therapeutic-Network among the doctor, paramedical staff, the patient, the family and the community
2. To facilitate a Holistic-Healing leading towards a complete physical, psychological, social and vocational rehabilitation
3. To ensure the protection of the basic human rights of the patients
4. To facilitate the various services for the poor and indigent patients
5. To coordinate with the Hospital Administration and treating faculties to facilitate the basic patient welfare services
6. To impart Training and Orientation of Medical Social Work to the Social Work Students
7. To conduct and coordinate the Research studies initiated by our unit and other departments of AIIMS

Designation	Number of staff
Medical Social Service Officer Gr. I	1
Medical Social Service Officer Gr. II	9

HIGHLIGHTS

Coordination and implementation of AB-PMJAY scheme in AIIMS



Honourable Minister for Health and Family Welfare visiting AB-PMJAY office

Ayushman Bharat Prime Minister Jan Arogya Yojna (AB- PM JAY), a programme of Government of India was launched on 23 September 2018 by Honourable Prime Minister. AIIMS is a signatory and participant in the implementation of this programme and a dedicated office for the same has been created near gate no. 1 (opposite OPD) in AIIMS.



AB-PMJAY Office near Gate No. 1, AIIMS

The Medical Social Welfare Unit is coordinating the implementation of this scheme in AIIMS with a team of Pradhan Mitra Arogya Mitra (PMAM) and Patient Care Manager (PCM) under the leadership of Medical Superintendent. The MSSO is the key person to implement this scheme and the team of Medical Social Welfare Unit, under the supervision of Chief MSSO has made sure that this programme reaches maximum beneficiaries smoothly. This dynamic center facilitates

Beneficiary Identification, Golden Card generation, Treatment package selection, Pre-authorization of the package, Surgical and Medical treatment, Claim initiation, reporting and networking.

Financial Assistance to poor and indigent patients for treatment



Providing Portable Ventilator (Costing approximately Rs 7 lakhs) through CSR donations to patient's mother for rehabilitation and care at home. Similar help of Rs 10 lakhs was provided for 2 patients of JPNATC. All these patients were admitted in the hospital for more than a year and only through this help they could be rehabilitated at their homes

1. Rs 21,21,26,230 availed from Rashtriya Arogya Nidhi (RAN) for BPL patients to get treatment of life threatening diseases
2. Arranged financial assistance of approximately Rs 50,00,000 for 90 patients under Corporate Social Responsibility (CSR) donations
3. Rs 2,65,500 collected through Poor fund donation box and deposited in AIIMS Poor fund
4. Received Rs 31,96,869 in AIIMS Poor Fund
5. Helped 441 poor patients for Rs 11,19,660 through AIIMS MS poor fund
6. Facilitated the help of Rs 1,00,000 to poor and indigent patients through MSSO Poor Fund



Free medicines and other donations for poor and indigent patients

1. Free medicines worth Rs 15,00,000/- to 15,000 OPD patients through voluntary donation at MSWU
2. Free medicines/surgical items to approximately 550 admitted patients from AIIMS

Exemptions of hospital levy charges and railway concession

1. Exemptions of different hospital levy charges including CT, MRI, PET and HLA etc. of approximately 15,000 BPL/poor patients.
2. Exemption on recommendation of treating/concerned faculty for approximately 3,000 patients
3. Railway concession facility provided to approximately 10,050 outstation patients

Counseling and guidance

1. Counseled and guided approximately 40,000 patients
2. Special counseling and guidance given to approximately 5,000 patients during Dengue, Chikungunia and Swine Flu period

Rehabilitation and referral through casualty

1. Rehabilitated approximately 275 patients: Medico-Legal Cases (MLC) and Non-MLC Unknown/Unattended/ Destitute/Orphan
2. Facilitated the shifting of approximately 10,815 patients to Safdurjung Hospital and other Government Hospitals for admission through Casualty MSSO due to Non-availability of the beds
3. Facilitated the referral of patients to private hospitals for free treatment under EWS category as per the Hon'able High Court Order

Authorization of Organ Transplant under THOA Act

22 cases of Unrelated Kidney Donors were scrutinized, assessed, documented and presented before the Renal Transplant Authorization Committee as per the THOA, 1994.

Training and orientation

1. Imparted social work training to 41 students of social work came from different colleges across the country
2. Six Orientation Sessions on 'Medical Social Services in hospital setting' were given to approximately 75 MSW students from different colleges across India



MSW Unit team with Medical Superintendent on the occasion of World Social Work Day

Special Celebrations

1. Celebrated World Social Work Day on 19 March 2019 with Medical Superintendent, Deputy Director (Administration), Faculty members and staff
2. Diwali Celebration and Magic show in AB-5 ward on 6 November 2018: The Medical Social Welfare Unit organized a Magic Show and Diwali Celebration in the presence of the Director, DDA, Medical Superintendent, Senior Financial Advisor, and HOD, Paediatric Surgery
3. Displayed a comprehensive poster of Medical Social Welfare Unit titled "Next generation Medical Social Welfare in AIIMS" in the 63rd Institute Day Celebration and Exhibition

Other contributions

1. NMLC to MLC conversion 179 in Casualty
2. Continued the digitalization process for the social services and online-exemption through e-hospital
3. The Chief MSSO gave his contributions to the Hospital Health and Hygiene promotion Sub-committee (KAYA KALP)

EDUCATION

Teaching activities



Chief MSSO at the Launch of Indian Journal of Health Social Work, Puducherry

1. Mr BR Shekhar, Chief MSSO Chaired the Scientific Award Paper session and gave Presidential address in 6th National Conference of AIAMSWP on 'GI disorders and Transplant-Medical Social Work perspective and challenges' on 4 January 2019, JIPMER, Puducherry, The Indian Journal of Health Social Work was also launched in this conference
2. Regular sessions were conducted by Mr. BR Shekhar, Chief MSSO for MHA Students (Hospital Administration) at Medical Social Welfare Unit, Main Hospital on Role of MSSO in Hospital Setting
3. Total 19 sessions were conducted Mr. BR Shekhar, Chief MSSO and Mr. Vivek Kumar Singh, MSSO for approximately 500 Nursing Officers on the topic 'Social Welfare Schemes for patients in AIIMS' during their induction programme in CMET, AIIMS
4. Session on 'Significance of sanitation workers in AIIMS' conducted Mr. BR Shekhar, Chief MSSO and Mr. Vivek Kumar Singh, MSSO for all Sanitation Supervisors of AIIMS on the occasion of World Health Day, 7 April 2019



Orientation session for Nursing Officers

5. Session on 'Growth Hormone Therapy: Resources for non affording patients' conducted by Mr. BR Shekhar, Chief MSSO and Mr. Vivek Kumar Singh, MSSO on 29 April 2018 in the Symposium on 'Growth Hormone Therapy: Theory to practice'
6. Introductory workshop on Nonviolent Communication (NVC) conducted by Mr. Vivek Kr. Singh, MSSO for 21 Trainees of Social Work in CMET on 26 June 2018



7. Session on 'Medical Social Services in AIIMS' conducted by Mr. BR Shekhar, Chief MSSO and Mr. Vivek Kumar Singh, MSSO for 83 Students and 2 faculty members of Delhi School of Social Work (DSSW) on 9 August 2018
8. Session on 'How to prepare for a presentation' conducted by Mr. Vivek Kumar Singh, MSSO for Social Work trainees in MSW Unit on 13 August 2018
9. Session on 'Crisis and Violence in Healthcare' conducted by Mr. Vivek Kumar Singh, MSSO in the workshop titled 'Humane Healthcare' organized by Department of Physiology, AIIMS at CMET



Training activities by Medical Social Welfare Unit

1. Social Work Training—Block Placement: Total 23 students of social work from different school and colleges were given Block Placement Training in Medical Social Work in hospital setting
2. Social Work Training—Concurrent Field Work: 2 students from Delhi School of Social Work (DSSW), 2 students of BR Ambedkar College, Delhi and 2 students of Aditi College, Delhi, completed their yearlong concurrent field work
3. Social Work Orientation Session: 6 Orientation Sessions on 'Medical Social Services in hospital setting' were given by Mr. BR Shekhar (Chief MSSO), Mr. Pankaj Kumar (Supervising MSSO) and Mr. Vivek Kumar Singh (MSSO) to the social work student groups along with their faculty members

Seminar/Workshop/Conference attended in AIIMS

1. 7th Annual Conference and Workshop of Association of Breast Surgeons in India, 10 November 2018, AIIMS, New Delhi, Participants: Mr BR Shekhar, Chief MSSO delivered a session on AB-PMJAY (Ayushman Bharat) and other government schemes for Cancer patients

Seminar/Workshop/Conference/Symposium attended outside AIIMS

1. International workshop and training on Health Social Work: Theories, Interventions and Models, 12-13 February 2019, Rajagiri College of Social Sciences, Kalamassery, Kerala, Participants: Mr Aftab Alam Shah, MSSO and Ms Kirti Arya, MSSO
2. 6th Indian Social Work Congress, 1-3 November 2018, University of Delhi, Participants: Mr. BR Shekhar, Chief MSSO and Ms. Kirti Arya, MSSO
3. Nonviolent Communication (NVC), 7-17 October 2018, Ruppolding, Germany, Participants: Mr. Vivek Kr. Singh, MSSO
4. 6th National Conference of AIAMSWP on 'GI disorders and Transplant-Medical Social Work perspective and challenges', 4-5 January 2019, JIPMER, Puducherry, Participants: Mr. BR Shekhar, Chief MSSO/Ms. Gurmit Kaur, Supervising MSSO/Mr. Aftab Alam Shah, MSSO/Mr. Abhishek Rajput, MSSO
5. International Conference on Intercultural Social Work, 29-30 November 2018, Manipal, Participants: Ms. Neerja Sapra, MSSO and Ms. Leema Maiti, MSSO
6. Orientation cum Training on Ayushman Bharat—PMJAY, 11 September 2018, National Health Agency, New Delhi, Participants: Mr. BR Shekhar, Chief MSSO and Md. Shahid, MSSO
7. National seminar on Youth Development—A Holistic Approach, 12 October 2018, Udaipur School of Social Work, Rajasthan, Participants: Mr. BR Shekhar, Chief MSSO and Mr. Pankaj Kumar, Supervising MSSO

Patient Care Services by Medical Social Welfare Unit

1. *Psycho-social and Economic assessment and Social diagnosis*: The MSSO helps the patient to get the benefits from different schemes for poor patients through their Psycho-social and Economic assessment
2. *Facilitating free medicines and surgical items*: Consultation comes from various wards to the MSSO for the Socio-economic review along with the recommendation of the Chief MSSO which helps poor/indigent patients to get free medicines/surgical items
3. Similarly poor/indigent patients getting follow-up in OPDs get help from the MSSO for free medicines/surgical items
4. *Exemption of Hospital Levy charges of BPL patients and indigent patients*: The MSSO exempts various hospital investigation and admission charges after the recommendation of the Chief MSSO on the basis of socio-economic assessment of the patients
5. *Facilitation of services available for EWS (Economically Weaker Section) patient*: As per the Honorable High Court orders, all individuals who have a family income of Rs 1 lakh or below are categorized as EWS and they are entitled to free medical treatment in 46 private hospitals in Delhi which have been built on land acquired at concessional rates from the government
6. *Facilitation of Financial Assistance through RAN (Rashtriya Arogya Nidhi)*:
 - RAN (Rashtriya Arogya Nidhi) is a centrally sponsored scheme under the Ministry of Health and Family Welfare which started in 1997 with an aim to provide financial assistance to patients, living below poverty line who are suffering from major life threatening diseases. The RAN cases are counseled and documented by Mr. Pankaj Kumar, Supervising MSSO and he represents these cases in the AIIMS RAN Subcommittee with Mr. BR Shekhar, Chief MSSO
7. *Coordination of Renal Authorization Committee and assessment of unrelated Kidney Donors*: The cases of Unrelated Kidney Donors are referred to Mr. BR Shekhar, Chief MSSO/Nodal Officer for the renal authorization. The Chief MSSO, Mr. Anil G Mali, MSSO and Mr. Vivek Kr. Singh, MSSO do the counseling, coordination and documentation to present the cases in the Renal Authorization Committee (RAC) as per THE TRANSPLANTATION OF HUMAN ORGANS ACT (TOHA), 1994
8. *Counseling services*: The Medical Social Welfare Unit is acting as the first contact point of the patients when they enter AIIMS. The patients and their attendants not only receive basic information but the MSSO gives Psycho-social Counseling and guidance to them throughout their stay in the hospital
9. *Coordination and Rehabilitation of Medico-Legal Cases (MLC) and Non-MLC Unknown/Unattended/Destitute/Orphan patients*: The Casualty MSSO coordinates with all the stakeholders to rehabilitate the unknown, without attendant, Destitute, Orphan patients through Government/NGOs

10. *Financial help through AIIMS Poor Fund:* In case of immediate need and urgency, the poor/indigent patients can get financial help from AIIMS Poor Fund. The MSSO does the socioeconomic assessment and facilitates this service through Chief MSSO
11. *Providing Railway concession facility:* The Medical Social Welfare Unit provides Railway Concession to patients suffering from Cancer, Aplastic Anemia, TB, Leprosy, Thalassemia, Kidney transplant, Dialysis, and Deaf and mute patients as per the guidelines of the Ministry of Railways. This facility results into a very good treatment, follow-up and compliance from the patients
12. Providing accommodation facilities to outstation patients and their attendants
13. *Research and Training:* Imparting training to NSS, BSW, MSW students from different colleges across India and conducting and coordinating the Research Studies
14. *Health promotional and educational activities:* Disseminating Health-education and Health-awareness through IEC material and Health-camps (e.g. Blood Donation Camp, AIDS Awareness Camp, Health Awareness Meetings)
15. Planning and Administration
 - Coordination with the Hospital Administration and various departments to improve the patient welfare activities and create a more patient-friendly environment
 - Managing various information and guidance services in the main hospital through Part-time Social Guides
16. Fund-raising and networking: Coordinating and networking with various Corporate Social Responsibility (CSR) Units, trusts and donors for patient welfare
17. *Emergency Medical Social Services (Round-the-clock) in Casualty:*
 - Providing all Medical Social Services round-the-clock including shifting and rehabilitation of patients, creating a smooth work-flow in the casualty
 - Looking after the Medical Social Services of the entire hospital during odd hours
 - Special services during Epidemics, Disasters and Natural Calamities for managing the patient care efficiently
 - One Stop Centre (OSC): Coordination, Counseling and Advocacy for victims of Gender Based Violence

7. College of Nursing

Principal

Dr Manju Vatsa

Lecturers

Dr Sandhya Gupta	Dr Deepika C Khakha	Dr Kamlesh K Sharma
Dr Shashi Mawar	Dr Poonam Joshi	Dr L Gopichandran
Ms Sibi Riju	Ms Aditi P Sinha	Dr Pragya Pathak
Ms Ujjwal Dahiya	Ms Rimple Sharma	Ms Cecilia MS
Mrs Manju	Amit Kumar Rajora	Ms Y Surbala Devi
Ms Smita Das	Mr Ajesh Kumar TK	Ms Milan Tirwa
	Ms Levis Murry	

Senior Nursing Tutor

Ms Gita Razdan

Nursing Tutor

Ms Kiran Singh Simak	Ms Gayatri Batra	Ms Sucheta
Ms Babita Sahoo	Dr Philomina Thomas	Ms Meena Ara
Dr Seema Sachdeva	Ms Anubha D (on study leave)	Ms Neelima Raaj
Ms Nemkholam	Mr Hansaram	Ms Monika Sabharwal

EDUCATION

The following students graduated this academic year from the college:

- Undergraduate:
 - BSc (Hons.) Nursing: 85 students graduated from the four year course
 - BSc Nursing (Post Basic): 24 students graduated from the two year course
- Postgraduate:
 - MSc Nursing: 21 students graduated from the two year course

New Students

- This academic year 77 students joined the BSc (Hons.) Nursing 1st year and 25 students joined BSc Nursing (P.B.) 1st year
- Twenty-eight students joined the MSc nursing programme this year in the following specialties:
 - Oncological Nursing: 4
 - Critical Care Nursing: 4
 - Paediatric Nursing: 5
 - Neurosciences Nursing: 3
 - Nephrological Nursing: 3
 - Cardiological/CTVS Nursing: 5
 - Psychiatric Nursing: 4

The College conducted the following sessions:

- Three groups of visitors from various educational institutions from India
- Presentation on Nursing Training in Quebec at 'Sandrive Chauveau Sauve', University of Montreal, Canada
- Presentation on module developed on 'Insertion of Oro-Gastric (OG) Tube and Feeding through Oro-Gastric Tube in Neonates' for the Skills E-Learning Telemedicine (SET), AIIMS, New Delhi (Developed by Dr Kamlesh K Sharma and Ms Levis Murry)

CMEs/Workshops/Symposia/National and International Conferences

- Update on 'Paediatric Critical Care Nursing', 29 October 2018 for nursing officers from AIIMS, New Delhi
- Workshop on 'Working towards Excellence', 15 February 2019 for nursing officers from AIIMS, New Delhi

3. Workshop on 'Palliative Care: A Promise of Quality Life', 22 February 2019 for nursing officers from AIIMS, New Delhi
4. Update on 'Nursing and Health care Innovations: Sharing the Learning', 14-15 March 2019 for nursing officers from AIIMS, New Delhi

Lectures delivered

Manju Vatsa

1. Master of Science Nursing Course—Emergency Nursing, AIIMS, Emergency care in primary health care setting in SEAR—Preparatory meeting for promulgation of emergency nursing in SEAR, AIIMS and WHO SEAR, 3 April 2018, Delhi
2. Improving quality of nursing education, teaching practices, curriculum and residency conditions, Brainstorming session on transforming nursing education in India with a view to provide quality health care to new India@75, 25 July 2018, New Delhi
3. Role of Nurse in Prevention and Management of Common NCDs, Prevention and Management of NCDs for nurses' on the theme: 'Nurse Practitioner for Chronic NCDs' E, 16 August 2018, Chandigarh
4. Experimental research designs, Video Conferencing, PhD Consortium, 24 September 2018, New Delhi
5. RCT's and Quasi experimental research designs, Video Conferencing, PhD Consortium, 25 September 2018, New Delhi
6. Research critique, Video Conferencing, PhD Consortium, 27-29 September 2018, New Delhi
7. Quality assurance in nursing and Nursing Audit, Training course on Management for Senior Nursing Administrators, 1 November 2018, New Delhi
8. Palliative and institutionalized care of older persons, Training course on Health Care Management of Elderly, 27 November 2018, New Delhi
9. Expert discussion on controversial issues in psychosocial aspects of neuroscience nursing, 39th National Annual Conference of the Society of Indian Neuroscience Nurses (SINNCON 2018) and 67th Annual Conference of the Neurological Society of India (NSI), 16 December 2018, Rajasthan
10. Raising neuro nursing standards of practice to new heights through evidence-based practice, 39th National Annual Conference of the Society of Indian Neuroscience Nurses (SINNCON 2018) and 67th Annual Conference of the Neurological Society of India (NSI), 16 December 2018, Rajasthan
11. Evidence based practice, Video Conferencing, PhD Consortium, 9 January 2019, New Delhi
12. Symposium 'KMC and Nurses, Third National Conference of Kangaroo Mother Care in India 'KMCCON 2019', Organized Jointly by The Kangaroo Mother Care Foundation, India and MM College of Nursing, Maharishi Markandeshwar Deemed to be University, (MMDU) Mullana, 24 February 2019, Haryana

Deepika Khaka

1. WHO Day celebration on Universal health coverage: Everyone everywhere, WHO Day celebration: Nursing Update, 6 April 2018, Meerut
2. Mental health promotion strategies, WHO Day celebration, 7 April 2018, Delhi
3. Communication among elderly—Care of the elderly in the community, Master trainer for Home care pilot project of Helpage, 9-13 April 2018, Tamil Nadu
4. Communication and IPR in clinical practice, CNE, AIIMS, 30 July 2016, New Delhi
5. Session on Team Building, CNE workshop, 5 September 2018, AIIMS, New Delhi
6. Psychosocial changes in the elderly, 6th International Orthopedic Society of India Conference, 7 September 2018, Delhi
7. 25 Guest lectures series, DPN students, 10-14 September 2018, Ranchi, Jharkhand
8. Team building and IPR, CNE for Senior Nursing Officer's Empowerment Programme, 19 September 2018, Delhi
9. Team building and IPR, CNE for Senior Nursing Officer's Empowerment Programme, 3 October 2018, Delhi
10. Team dynamics, Workshop on Nursing Leadership, 5 October 2018, Delhi
11. Team building and IPR, CNE for Senior Nursing Officer's Empowerment Programme, 10 October 2018, Delhi

12. Team building and IPR, CNE for Senior Nursing Officer's Empowerment Programme, 17 October 2018, Delhi
13. Team building and IPR, CNE for Senior Nursing Officer's Empowerment Programme, 31 October 2018, Delhi
14. Mental health issues of the elderly, ICSSM, 16 November 2018, Delhi
15. Team building and IPR, CNE for Senior Nursing Officer's Empowerment Programme, 5 December 2018, Delhi
16. Team building and IPR, CNE for Senior Nursing Officer's Empowerment Programme, 18 December 2018, Delhi
17. Team building and IPR, CNE for Senior Nursing Officer's Empowerment Programme, 19 December 2018, Delhi
18. Stress Management, Working Towards Excellence Workshop, 15 February 2019, Delhi
19. Overview of Qualitative Research, at 5th National Conference of Nursing Research Society of India, 15 March 2019, Chandigarh
20. Panelist for the Plenary session on Long Term Care in Geriatric and other sectors, National Conclave of Long term care for the elderly organized by Helpage India, 8 March 2019, Delhi
21. Counseling skills, Workshop on 'On the road to excellence for Advanced Nursing Practise', 25 March 2019, Delhi
22. Communication skill in nursing, Workshop on Infection prevention and control in critical care, 26 March 2019, Delhi
23. Conflict Resolution, CNE, 27 March 2019, Delhi

Kamlesh Kumari Sharma

1. Palliative care: An overview, Workshop on Palliative Care: A Promise of Quality Life, 22 February 2019, New Delhi
2. Palliative care: Co-ordinated, Consistent and Continuous, Workshop for AIIMS Nurses on 'Palliative Care: A Promise of Quality Life', 22 February 2019, New Delhi
3. Chest compression, Nursing update on 'NRP' organized by College of Nursing, AIIMS, 20 March 2019, Ballabgarh
4. 'SIMULUS 4 4th National Conference', NEOSIM (Neonatal emergencies by simulation), 1 March 2019, New Delhi
5. PediSTARS, IPSS and INSPIRE, **Creating Nursing Simulation Leaders**, in 'SIMULUS 44th National Conference', 27 February-3 March 2019, New Delhi
6. Feeding, 'STP' (standard treatment protocols) Workshop, 11-12 July 2019, New Delhi

Shashi Mawar

1. Management of Hypertension among elderly: Indian Scenario, Hypertension and cardiovascular diseases, 21-22 September 2018, France
2. Rehabilitation and home based care of elderly, GERICON 2018, 8 December 2018, Rajasthan
3. Basic Cardiac life support, 7th International Conference of Physical Therapy, AIIMS-2018, 20 December 2018, Delhi
4. Panelist for 'palliative care education in India', Workshop on 'palliative care', 21-22 February 2019, Delhi

Poonam Joshi

1. Medication administration, IV fluid therapy and nutritional support for children, Workshop on maternal and child health nursing, Lecture for nursing officers of SJH, 3 May 2018
2. Nursing Audit, Nursing Audit in a workshop on explore your potential for effective patient care, Nursing officers of SJH, 27 August 2018
3. Special scenarios (drowning, stroke, electrocution and acute coronary syndrome), Comprehensive life support course—Basic level for nursing officers, 20 June 2018, New Delhi
4. Triage of critically ill patients, Triage Workshop, 22 June 2018, New Delhi
5. Comprehensive life support course (drowning, stroke, electrocution and acute coronary syndrome), comprehensive life support course—Basic level for nursing officers, 9 July 2018, New Delhi
6. Basic emergency care course—Basic Life Support an introduction and (drowning, stroke, electrocution and acute coronary syndrome), comprehensive life support course—Basic level for nursing officers, 20 September 2018, New Delhi
7. Paediatric emergencies for the nursing officers, Lecture, 29 March 2019, New Delhi

L Gopichandran

1. Emergency management and Nurses Role, National Conference, 14 May 2018, UK

2. Communication methods in Neurotrauma patients, 27th Annual Conference of Neurotrauma Society of India, 17-19 August 2018, Lucknow
3. Nurse led Heart failure management programme, KEMCCON Nursing Edition-2018, 24 November 2018, Trichy
4. Communication methods with neuro patients, 39th Annual Conferences of Society of Indian Neurosciences Nurses (SINN), 13-16 December 2018, Jaipur
5. BCLS—Indian Resuscitation Council Module, 7th International Conference of Physical Therapy, 20 December 2018, New Delhi
6. ECG, TNAI Workshop, 9 February 2019, New Delhi
7. Trauma Care Nursing, Newer Modalities Perspectives and Challenges, Workshop Army Hospital, 9-10 February 2019, New Delhi
8. Prevention of Violence in Emergency and Triage, National Conference, 15-16 February 2019, Dehradun

Yumnam Surbala Devi

1. Refusal skills/How to Say NO to Substance Use, One Day Training Programme for Delhi University Nursing Students, 26 February 2019, Ghaziabad

Milan Tirwa

1. Injury based triaging, AIIMS Triage Protocol, 22 May 2018, Delhi
2. Injury based triaging, AIIMS Triage Protocol, 22 June 2018, Delhi
3. Fever alert, Emergency Capsule Course Module, 17 July 2018, Delhi
4. Various topics related to Geriatric, Home Care Training Programme, 4-5 September 2018, India
5. Circulation-External cardiac massage, Emergency care course for CRPF pharmacist, 20 September 2018, Delhi
6. Communication Skills, Communication and stress management, 26 September 2018,
7. CPR, Hands only CPR training, 10 August 2018
8. Effective communication during patient handover, Patient safety and Quality assurance, 31 January 2019
9. Injury based triaging, AIIMS Triage Protocol, 25 February 2018, Delhi
10. Sustenance of QI projects, Improving quality of care in Nursing, 8 March 2019
11. Common Emergency Drugs, Workshop on Basic Trauma Life Support, 29 March 2019, Delhi

Oral papers/posters presented

1. Alias Emi A, Gupta S, Rewari V, Nehra A, Lived experiences of patients who were on mechanical ventilation in an Indian medical-surgical ICU (#REF-E0021), QHRN Conference 'Crafting the Future of Qualitative Health Research in a Changing World', 21-22 March 2019, London
2. Anita, Khakha DC, Bhargava R, A study to assess personality, psychological distress and adjustment difficulties among nursing students at AIIMS, Fifth International Conference on Mental Health and Human Resilience, 7-8 March 2018, Barcelona, Spain
3. Bobby S, Devi YS, Gupta S, Sood M, A study to assess resilience of adult family caregiver of patient having schizophrenia and its related disorders in AIIMS, New Delhi, Mental Health and Human Resilience, 7-8 March 2019, Barcelona, Spain
4. Gahalain S, Sharma KK, Manju, Bagga A, Sinha A, Quality of life of children with Nephrotic syndrome and Chronic kidney disease: Parents' and children's perspectives, World Nursing Congress, WNC 2018, 24 July 2018, HFC, Singapore
5. Kataria, Gupta N, Padma MV, Jhanji S, A study to find out relapse of tobacco seeking behavior in tobacco users, recovering from stroke and the related contributing factors, AIIMS, New Delhi, India, '4th International Conference on Neurological Disorders and Stroke', 9-10 July 2018, Sydney, Australia
6. Levis ML, Tirwa M, Das S, Surbala DY, Ajesh TK, Kamlesh C, Male Nurses' Attitude as a Nursing Professional and Attitude of Female Colleagues towards Male Nurses at AIIMS, New Delhi, XXVII TNAI Biennial Conference, 11-16 December 2018, Goa
7. Mawar S, Koul P, Prakash R, Rai S, Management of hypertension among older population in community by a nurse led programme, World Congress on hypertension and cardiovascular disease, 21 November 2018, Paris
8. Mawar S, Koul P, Prakash R, Rai S, Mani K, Effectiveness of Nurse led programme CBMP in management of Hypertension and diabetes among elderly, Globe Heal-2019, 14 February 2019, Colombo, Sri Lanka

9. Merin T, Khakha D, Satapathy S, Suffering in silence: Effect of a composite package of laughter yoga in perceived stress, quality of sleep and caregiver burden among caregivers of mentally ill, World Summit on Psychiatry Health Nursing and Healthcare, 26-27 November 2018, Los Angeles, USA
10. Murry LL, Thomas P, Razdan G, Devi YS, Joshi P, Sharma KK, Engaging nursing students with small group learning in midwifery education, SIMULUS4, 4th Annual National Conference of PediSTARS, 1-3 March 2019, AIIMS
11. Sharma KK, Vatsa M, Response of women against domestic violence: Silence or struggle, The 'International Domestic Violence and Health Conference 2018 (IDVH 2018)', 20-21 November 2018, Melbourne, Australia
12. Tirwa M, Male nurses attitude as a nursing professional, and attitude of female colleagues towards male nurses at AIIMS, New Delhi, XXVII TNAI Biennial (76th) Conference, 11-16 December 2018, Goa, India

RESEARCH

Funded projects

Ongoing

1. A study to assess the knowledge and skills of nurses related to BCLS and CCLS and to evaluate the impact of the training on real time assessment and its outcome in a tertiary care facility, Smita Das, AIIMS, 3 years, 2017-2020, Rs 3.2 lakhs
2. Effectiveness of Nurse-led structured telephone heart failure management programme—A RCT, L Gopichandran, AIIMS, 2 years, 2017-2019, Rs 2 lakhs

Departmental projects

Ongoing

1. A case control study to assess musculoskeletal pain, depression and quality of life in patients with Parkinson Disease, AIIMS, New Delhi
2. A comparative study of social support on perceived needs of patients with opioid dependence syndrome and their caregivers at NDDTC, Ghaziabad
3. A cross-sectional study to assess the prevalence of renal dysfunction in children with solitary functioning kidney
4. A descriptive cross sectional study to assess the knowledge and adherence to treatment regimen among CKD Patients at AIIMS Hospital, New Delhi with a view to develop educational booklet
5. A study of knowledge, attitude and practice regarding organ and tissues donation among nurses and scope of practice and attitude of nurses to work as transplant coordinator in AIIMS, New Delhi
6. A study on effectiveness of nurse led intervention on self care behaviour, psychological symptoms and quality of life among kidney transplant recipients in a selected tertiary care hospital of New Delhi
7. A study to assess depression, coping strategies and treatment adherence in patients with cystic fibrosis with a view to develop an informational pamphlet for patients with cystic fibrosis
8. A study to assess effectiveness of educational intervention for primary care givers on knowledge regarding immunization and immunization status of children who are undergoing cardiac surgery at AIIMS, New Delhi
9. A study to assess effectiveness of educational package on knowledge and practices of caregivers of patient with spinal cord injury at JPNATC, AIIMS
10. A study to assess knowledge and practice of postnatal mothers on essential newborn care and evaluate competencies of Accredited Social Health Activists in home based newborn care in rural Haryana
11. A study to assess psychosocial, physical problem and coping strategies of patients having long term/permanent tracheotomy with a view to develop an information booklet
12. A study to assess the effectiveness of caregiver training programme on knowledge in managing aggressive patients at home
13. A study to assess the effectiveness of nurse driven mobile application (App) based discharge teaching for home healthcare practices among post operative neurosurgical patients or caregivers in a tertiary care hospital, New Delhi, India
14. A study to assess the effectiveness of patient teaching programme on knowledge of analgesic and its compliance among patients who are attending pain clinic in Dr BRA IRCH, AIIMS, New Delhi
15. A study to assess the effectiveness of structured communication by family member on clinical parameters among unconscious patients admitted in ICU, AIIMS, New Delhi
16. A study to assess the factors contributing to sensory perceptual alterations in patient admitted in critical care unit at AIIMS Hospital, New Delhi

17. A study to assess the incidence, risk factors and quality of life of patients associated with chemotherapy induced peripheral neuropathy with a view to formulate information booklet for self management
18. A study to assess the knowledge and effectiveness of compression only life support training as per Indian Resuscitation Council guidelines among relatives of AIIMS employee (lay person) residing in AIIMS campus
19. A study to assess the knowledge and practice of food related triggers for asthma attending pediatric OPD
20. A study to assess the knowledge regarding peritoneal dialysis home care and Quality of life among peritoneal dialysis patients attending AIIMS, New Delhi with a view to develop an information booklet
21. A study to assess the knowledge and practices regarding Post Percutaneous Coronary Intervention (PCI) care among nurses working in Cardiology Department of AIIMS, New Delhi with a view to develop a protocol
22. A study to assess the relationship between fluid overload and quality of sleep in patients on maintenance hemodialysis at AIIMS, New Delhi
23. A study to assess thirst intensity and thirst distress and the practices for its management among heart failure patient admitted in Cardiology Unit, AIIMS, New Delhi
24. A study to compare the perception regarding diagnosis and treatment in patients with SUD-dual diagnosis and their family caregivers and it's relationship with therapeutic adherence at NDDTC, Ghaziabad
25. A study to identify the risk factors and prevalence of oral cancer through screening among security personnel working at AIIMS, New Delhi
26. Awareness, utilization and determinants of using financial aids and resources by cancer patients in a tertiary hospital
27. Effectiveness of organ donation E learning modules among nurses
28. Pathways to Severe mental illness care: A retrospective study of patients seeking psychiatric care at Department of Psychiatry AIIMS, Delhi
29. Randomised control trial to assess the effectiveness of scenario-based simulation learning over task training method on knowledge, skill acquisition and self-reported confidence in optimal oxygen administration to newborn's among nursing students of selected nursing college
30. To Study Concept of Professionalism in Nursing, its Correlates and Prepare a Model Framework of Curriculum in Professionalism for Nursing Education
31. Use of piezoelectric pressure sensor in gauging pressure applied by a mechanical compression device over femoral sheath removal site and its association with patient's level of site discomfort and post procedure complications among patients of transfemoral coronary interventions in a tertiary care hospital

Completed

1. A study to assess the prevalence of oral health problems among children undergoing chemotherapy and knowledge of their caregivers with a view to develop an information booklet on oral health for children on chemotherapy at AIIMS, New Delhi, India
2. A comparative study of quality of life among parents of children with congenital heart disease and parents of children with rheumatic heart disease
3. A descriptive study to assess adherence to analgesics and determinants of its deviation among cancer patients receiving palliative therapy at pain and palliative care clinic, DR BRA IRCH, AIIMS
4. A descriptive study to assess knowledge, attitude, practice, perceived barriers and support regarding palliative and end of life care among critical care nurses working at AIIMS, New Delhi
5. A descriptive study to assess the cognitive function and quality of life of post traumatic brain injury patients attending neurosurgery opd at JPNATC with a view to develop an informational booklet at AIIMS, New Delhi
6. A randomized controlled trial to evaluate the effect of video based education on knowledge of caregivers of children with acute leukemia regarding prevention of infection during chemotherapy at AIIMS, New Delhi
7. A study of Activity Analysis of Nurses Working in Emergency Unit of AIIMS, New Delhi
8. A study to assess Knowledge and Attitude of Family Members of Hematological Cancer Patient regarding Hematopoietic Stem Cells Donation at Dr BRA IRCH, AIIMS, New Delhi with a View to Develop an Information Booklet
9. A study to assess parenting stress and psychological health of women having single parenting experience in Delhi-NCR
10. A study to assess the effectiveness of a structured heart failure clinical pathway on nurses knowledge and patient care outcomes in the Cardiology Department, AIIMS, New Delhi
11. A study to assess the effectiveness of an education booklet on knowledge of CKD among hypertensive and/or diabetic patients at AIIMS, New Delhi

12. A study to assess the effectiveness of structured health education programme on knowledge and attitude regarding consanguinity leading to congenital heart defects in children, among students (18-25 years) of selected College of Delhi
13. A study to assess the effectiveness of structured patient education programme on knowledge regarding anticoagulation and INR control among patients undergoing mechanical valve replacement at AIIMS, New Delhi
14. A study to assess the impact of migraine on work productivity and disability due to the migraine and to assess the knowledge regarding migraine headache prevention with an aim to develop an educational booklet for migraine patients attending Neurology OPD at AIIMS, New Delhi
15. A study to assess the knowledge and attitude of patients regarding Obstructive Sleep Apnea and Continuous Positive Airway Pressure Therapy, attending Sleep Clinic, Department of Medicine, AIIMS, New Delhi with a view to develop an information booklet
16. A study to assess the knowledge and practices on diabetic care among caregivers of children with type 1 diabetes mellitus
17. A study to assess the nutritional practices in relation to meeting the nutritional needs of critically ill children admitted in PICU, its facilitators and barriers and effect on PICU outcomes
18. A study to evaluate the effect of low intensity intradialytic exercises on serum urea creatinine and fatigue level of CKD patients undergoing hemodialysis at a tertiary care hospital
19. An exploratory study to assess the level of internet use and its psychological correlates among nursing students at AIIMS, New Delhi
20. An observational study to assess medication administration practices and gaps related to transcription, administration and documentation in general wards of AIIMS, New Delhi
21. Disease knowledge and general self-efficacy among adolescents with Thalassemia major and their parents' perspective
22. Feasibility and acceptability of nurse led neonatal follow-up clinic in India: A pilot study
23. To assess the effectiveness of recorded maternal voice on child's cooperation and pain perception during bone marrow examination along with cancer at IRCH, AIIMS, New Delhi

Collaborative projects

Ongoing

1. A cross-sectional study to assess the incidence of depression among postpartum women, Nursing Services, AIIMS Main Hospital
2. A descriptive survey to assess the knowledge, attitude and utilization rate of family planning methods among post-partum women and its influencing factors at AIIMS, New Delhi, Nursing Services, AIIMS Main Hospital
3. A study to assess incidence of depression among postnatal women at AIIMS, New Delhi, Psychiatry
4. A study to assess the effectiveness of Computer Based Self-Instructional Module (CBSIM) on organ and tissue donation in terms of knowledge and acceptability of nurses working a selected ICU of AIIMS, New Delhi, Computer Facility, ORBO, Anaesthesiology and Forensic Medicine
5. Satisfaction of Parents of Children with Day Care Surgeries: A Descriptive Survey, Paediatric Surgery and Anaesthesiology

PUBLICATIONS

Journals: 18 Abstract: 1

PATIENT CARE

1. The faculty and students participated in outdoor and indoor patient care activities of all clinical departments of the institute.
2. The faculty and students organized and conducted:
 - a. Organized Poster exhibition titled: 'Health Care in Next Generation': Which was awarded the **Commendation Prize** Commemorating 63rd Institute Day-2018 of AIIMS, New Delhi. (Dr Kamlesh K Sharma and Mr. Hansaram coordinated)
 - b. **Screening stalls:** Blood Pressure, Hemoglobin Ht/ Wt./ BMI, Blood Sugar (Screened over 400 people)
3. Over 100 health education sessions in urban community
 1. Organized 26 exhibitions and role plays in urban community. Topics were related to current problems and all the role plays were on important World Health Days

2. Students conducted nine health surveys in urban community. Dr Kamlesh Kumari Sharma, and Dr Shashi Mawar coordinated and supervised
3. Organized exhibition and role plays in urban community on topics related to prevention of mental disorders on World Health Days (Dr Sandhya Gupta coordinated)
4. Organized seven programs for Community in Trilokpuri on various aspects of prevention of mental disorders (Dr Sandhya Gupta coordinated)
5. Organized seven programs for Community in OPD of NDDTC for patients' relatives on various aspects of treatments and rehabilitation of persons recovering from substance use disorders (Dr Sandhya Gupta coordinated)
6. Conducted two surveys in Community in Trilokpuri, Kotla and Sunder nagri on readiness to change among persons using substances followed by counseling sessions (Dr Sandhya Gupta coordinated)
7. Conducted two surveys in Community in Trilokpuri, Kotla and Sunder nagri on domestic violence followed by project on strategies on domestic violence followed by counselling sessions (Dr Sandhya Gupta coordinated)
8. Conducted two community projects on child abuse, anger management and how to maintain mental health for women and adolescents in Community living in Trilok Puri followed by counselling sessions (Dr Sandhya Gupta coordinated)
9. Participated in and coordinated student participation in 'Swasthya Chetna and Jan Sampark Abhiyan'; NCD, Screening and awareness camps at Pragati Maidan, Delhi from 14-21 November 2019 at 39th India International Trade Fair organized by Ministry of Health and Family Welfare (Ms Aditi Sinha coordinated)

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Participation and awards /prizes won: Commendation certificate given to College of Nursing for their good work for Annual Day by Director AIIMS, New Delhi; Undergraduate students won the state level prize (Third prize), Organized by TNAI, Students Nurses Association-Delhi Unit.

Dr Manju Vatsa is continuing as Founder President of Indian Association of Neonatal Nurses; General Body and Nursing Education Committee Member of Indian Nursing Council; Core group member of INC PhD Consortium; Member core group for preparation of draft Manual of Medical Sciences in the revised accreditation framework of NAAC and convenor, sectoral working group-Nursing; Member Academic and Administrative Audit of MGMIHS University, Navi Mumbai and Aurangabad; Inspector for Guru Gobind Singh Indraprastha University for College of Nursing, RML Hospital and Safdarjung Hospital, College of Nursing, AIIMS, Patna for starting PG courses in nursing; Member selection committees for AIIMS Rishikesh, AIIMS Bhubaneswar, AIIMS Patna, Institute of Liver and Biliary Sciences, New Delhi, NEIGRIHMS; Participated in various committees of AIIMS—Staff Council, Convocation, Institute Day, Selection Committee (PB Nursing), AIIMSONIANS of America Award Selection Committee, Anti Ragging Squad, Counselling for admission to MSc nursing and for 7 AIIMS for BSc (Hons) Nursing, Revision of RR's for nursing personnel, Selection committee for MISSION DELHI project of Department of Cardiology; Supervisor for AIIMS PG Exam and Nursing Officers Exam, Task force for women safety and gender sensitization, KL Wig CMET Technical Specification Committee, Judge for posters in Research Day at AIIMS; Invited as Judge for Hindi Essay Competition and Hindi debate competition by Hindi section, AIIMS during Hindi Pakhwara celebrations; Examiner for MSc nursing for Baba Farid University of Health Sciences Punjab, West Bengal University of Health Sciences and for PhD at INC PhD Consortium, Rajiv Gandhi University of Health Sciences; Nominated executive member of AIIMSONIANS; Acted as expert for MOHFW—To develop emergency life support courses for nurses; Expert for Mid level provider curriculum of MOH&FW at NHSRC; Acted as expert for NITI Aayog for presentation on nursing education in India; Expert member, working group for MOH as per recommendation of NITI Aayog and for subgroup on nursing education; Expert for Roundtable meeting on nursing by midterm ESICON-2019, Endocrine Society of India; Member expert group for visit to BHU for upgradation to AIIMS level as per recommendation of NITI Aayog.

Dr Deepika C Khakha was member of editorial board of the following journals: Journal of Nursing Science and Practice, Scholar Report, Indian Journal of Advanced Nursing, Journal of Comprehensive Nursing Research and Care, Journal of Community Health Management; Reviewer for the following journals: International Journal of Health and Allied Sciences, Baba Farid University Nursing Journal, Advanced Research in Nursing Science, Annals of Nursing and Practice, Journal of Community Medicine and Public Health Care, *Current Psychiatry Reviews*, Journal of Affective Disorders, Journal of Education Technology in Health Sciences, Asian Journal of Psychiatry; Total No of Citations-28 in National and International Journal of published work; 30 lectures/sessions/guest lecturers taken at CME/Conferences/CNE; Chaired 2 sessions at National Conferences: Chairperson for session 'Diet in kidney disease' at World Kidney Day on 14 March 2019 at PGIMER, Dr RML Hospital, New Delhi, Chaired a session at Qualitative research with types with special reference to nursing at 5th National Conference of Nursing Research Society of India held at PGIMER, Chandigarh on 15 March 2019; Member of the World Health Organization's (WHO) Global Clinical Practice Network (GCPN), an international community of mental health and primary care professionals committed to furthering research and practice in global mental health;

Doctoral committee meeting at 21 May 2018 at Khalsa College of Nursing, Amritsar; Post Basic Academic coordinator; Research coordinator for MSc Nursing; Third year coordinator for Academic Planning; Faculty for MBBS Entrance Exam for 26-27 May 2018; Adjunct or for MSc Thesis of MM University; Ethics committee of ILBS, Vasant Kunj, New Delhi; Member of Review Committee of Hospital Administration, AIIMS, New Delhi; Faculty in charge for Nursing Officers Recruitment Exam on 16 September 2018; Doctoral Committee of College of Nursing of Ms. Shiv Shankari, AIIMS, New Delhi; Adjudicator for PhD at Tamil Nadu, Dr MGR Medical University, An experimental study to assess the effectiveness of foot reflexology for reduction of physiological and psychological symptoms among adults with Cancer in international Cancer Centre, Neyyor, Kanyakumari, Tamil Nadu; DRC member of PhD Psychology student—Saloni Dang Study on Psychological Trauma Resilience in Children and Adolescents: Development and Psychometric Properties of a Multidimensional Scale; Chief coordinator of Workshop on 'Working towards excellence' on 15 February 2019; Reviewer for TNAI; Contributed towards question bank for entrance and recruitment exams; Faculty in charge for Central Government Nursing Officers Recruitment Re-Exam on 28 February 2019; Chairperson for Preliminary Screening Committee for lecturers in nursing applications; PhD guide for Indian Nursing Council Consortium; Examiner/Paper setter for thirteen universities; On Doctoral Committee of PhD Nursing at AIIMS, Delhi and PhD Supervisor for Shri Jagdish Prasad Jhabarwal Tiberwla University, Rajasthan.

Dr Kamlesh K Sharma is currently pursuing the Part Time Fellowship Programme in 'Clinical Research Methodology and Evidence Based Medicine' under CMET with Professor Kameshwar Prasad as Chief co-coordinator at the AIIMS; Chaired a plenary session on 'simulation in medical and nursing education-making it a reality' on 3 March 2019 held at AIIMS in 'SIMULUS 4 4th National Conference', a joint meeting of PediSTARS, IPSS and INSPIRE organised by the Department of Paediatrics, AIIMS from 27 February to 3 March 2019 at AIIMS, New Delhi; Adjudicated PhD thesis of University of Health Sciences, Assam (2018), Tamil Nadu, Dr MGR Medical University, Chennai in April 2018, Rajiv Gandhi University of Health Sciences, Bengaluru, Karnataka and on panel of examiner for PhD programme of ACON, Chennai under MGR University 2018; Contributed as faculty in workshop on NEOSIM (Neonatal emergencies by simulation) on 1 March 2019 held at CMET, AIIMS as part of 'SIMULUS 4 4th National Conference', a joint meeting of PediSTARS, IPSS and INSPIRE, organised by the Department of Paediatrics, AIIMS from 27 February to 3 March 2019 at AIIMS, New Delhi; Contributed as faculty in session on Creating Nursing Simulation Leaders, in 'SIMULUS 4 4th National Conference' a joint meeting of PediSTARS, IPSS and INSPIRE, organized by the Department of Paediatrics, AIIMS from 27 February to 3 March 2019 at AIIMS, New Delhi; Contributed as faculty in 'STP' (standard treatment protocols) workshop (Topic - Feeding) for BSc nursing 4th year batch, organized by College of Nursing on 11 and 12 July 2018 at Convergence Block, SeT facility, AIIMS, New Delhi; Inspector for College of Nursing in Himachal Pradesh in October 2018 for Indian Nursing Council; and for Rufaida College of Nursing, Jamia Hamdard University, New Delhi (February 2018) for Delhi Nursing Council (DNC); Contributing as Deputy Hostel Superintendent since December 2014; Contributed as Central Assistant Public Information Officer for College of Nursing since July 2010; Coordinator for various state level competitions on Annual Day of college; Participated in various committees of AIIMS: Chairperson, Fire Damage Assessment Committee at College of Nursing, fire at Nurses' Hostel, Participated in preliminary screening committee for screening of applications for post of lecturer, Condemnation committee of College of Nursing, and also of AIIMS Hostels, As Member Doctoral Committee (since 26 November 2016), College of Nursing, AIIMS, New Delhi, Member secretary medical board for undergraduate nursing student; Guiding PhD candidates (Four) of National Consortium for PhD Nursing by Indian Nursing Council in collaboration with Rajiv Gandhi University of Health Sciences, Bangalore (2 each in 12th batch and 13th batch); Editorial board member for PhabLinX Journal of Community Medicine, w.e.f. June 2018; Reviewer for 'Women's Studies International Forum' 2018 and 'International Journal of Nursing and Midwifery Research, IJoNMR'; Examiner for ten universities in the country.

Dr Shashi Mawar was awarded PhD in Nursing in March 2019; Have been a member of selection committee for nursing officer (grade II) group B post at Bhopal, AIIMS on 10 September 2018; Have been a guest of honor at AIIMS Patna on Nurses Day celebrations on 12 May 2018; Trained 180 nursing officers for BCLS and CCLS at AIIMS, New Delhi; Conducted BCLS and CCLS training workshops at RAK College of Nursing on 28 and 29 March 2019; Conducted two teleconference classes on Care of Elderly at home at IGNOU, New Delhi; Have been an expert for script writing workshop at IGNOU, New Delhi on 24-25 July 2018; Conducted 9 rounds of health educations to create awareness among general public to celebrate National Health Days; Organized 2 health camps in school for screening among primary school children and provided education related to hygiene maintenance, prevention of obesity and difference between good and bad touch; Conducted training for home care of elderly at Shimla in April 2018.

Dr Poonam Joshi: Renewal of BLS and ALS trainer by AHA in 2018-2019 and BCLS and ACLS trainer by Indian Society of Anesthesiology in 2018-2019; Participated as resource person in training of 90 laypersons in Chest Compression Only Life Support Training Programme for the community at AJPN Trauma Centre in October 2018; Core committee group member for finalizing SCCM/ESICM Sepsis Guideline for Paediatric Surviving Sepsis Campaign—Recognition and Management of Sepsis and Septic Shock (an international project); Trained 180 nursing officers in Basic Cardiac Life Support and Comprehensive Cardiac Life Support Programme developed by Indian Society of Anesthesiology at AIIMS, New Delhi; Trained 16 MSc nursing students in Basic Cardiac Life Support and Comprehensive Cardiac Life Support Programme developed by Indian Society of Anesthesiology on 29 and 30 March, 2018 at RAK College of Nursing, Lajpat

Nagar, New Delhi; Part of editorial board in TNAI for Nursing Journal of India; Acted as visiting faculty for: Jamia Hamdard, New Delhi, for PhD programme for Nursing Education and Research, BSc (Post Basic) Nursing Programme at IGNOU for Child Health Nursing at Ahilya Bai College of Nursing, New Delhi.

Dr L Gopichandran completed PhD from MAHER (Deemed University), Chennai in August 2018; Expert committee member in MOHFW-GOI project-preparation of manual for National Emergency Life support for nurses; Member to Adjudicate the PhD thesis of Dr MGR Medical University, Chennai; Co-coordinator of Medical Surgical Nursing Update 2019 at AIIMS, New Delhi; Completed part time fellowship programme on Clinical Research Methodology and Evidence Based Medicine conducting by Clinical Epidemiology Unit with CMET, AIIMS (2017-2019 BATCH); External Examiner for BSc and MSc (Nursing) for various institutes.

Ms Ujjwal Dahiya was Coordinator and Resource person for Education and Training Programme for MSc nursing students and BSc nursing students on Deceased Organ and Tissue Donation in collaboration with ORBO, AIIMS, New Delhi.

Ms Rimple Sharma cleared pre PhD Exam in first position conducted by School of Health Sciences, IGNOU, New Delhi

8. Research Section

Dean (Research)

Chitra Sarkar

Associate Dean (Research)

Pramod Garg
(up to 23 April 2018)

Vineet Ahuja
(from 23 April 2018)

Administrative Officer

Elias P

Accounts Officer

Meenkashi Dabral

Stores Officer

Narender Kumar

HIGHLIGHTS

1. Ongoing

- a. Intramural research grants for Assistant Professors and Associate Professors
- b. Extramural research grants
- c. Research Methodology Workshop
- d. AIIMS Excellence Awards for Best Published Papers
- e. Endowment fund—Travel fellowships

2. New initiatives

- a. Enhancement of Intramural Research Grants—Collaborative inter-disciplinary, and collaborative inter-institutional intramural grants for all levels of faculty
- b. Infrastructure capacity building—CCRF, CRU
- c. MOU signing and Open House Fora
- d. IPR-TTD Symposium
- e. Endowment fund—Augmentation of Travel Fellowships and initiation of Oncology Research Awards
- f. Research Projections—e-Newsletter, e-Grants update
- g. AIIMS Annual Research Day

INTRAMURAL RESEARCH GRANTS

- **Intramural research grants for Assistant Professor and Associate Professors at AIIMS**
 - Single Principal investigator (PI) with co-investigators
 - Funding: Rs 5 lakhs per year up to a maximum of 2 years
 - Monitored by the Internal Project Review Committee
- **Intramural Inter-disciplinary collaborative research projects for all levels of faculty at AIIMS**
 - Two Principal investigators from two different departments/disciplines with complementary expertise
 - Funding: Rs 5 lakhs per year per PI for 2 years (Total Rs 20 lakhs)
 - Monitored by External Project Review Committee
- **Inter-Institutional collaborative research projects**
 - IIT-Delhi, IIT-Kharagpur, THSTI
 - Two Principal investigators from two different institutes with complementary expertise
 - Funding (intramural from both institutions): Rs 5 lakhs per year per PI for two years (Total Rs 20 lakhs)
 - Monitored by External Project Review Committee

Intramural Research Grant Schemes	Total Proposals Received	Projects Sanctioned	Projects Registered/ Allotted	Amount Sanctioned to Allotted Project
Intramural projects	92	90	81	3,72,23,805

AIIMS Collaborative	31	12	12	1,38,05,000
AIIMS—IIT Delhi Collaborative	53	25	18	84,35,284

EXTRAMURAL RESEARCH GRANTS

Funding Agency	Number of Extramural Projects	Grant received (Rs)
DST	136	16,29,84,438.00
DBT	103	27,91,60,131.00
ICMR	141	35,68,63,377.00
Others	247	48,98,53,449.73
TOTAL	627	1,28,88,61,395.73

- Six Centres of Advanced Research and Education (CARE) were sanctioned by ICMR to faculty at AIIMS in the following departments: Gastroenterology (2), Endocrinology (1), Psychiatry (1), Pulmonary Medicine (1) and Laboratory Oncology (1)
- Three SPARC projects were sanctioned to faculty at AIIMS

INFRASTRUCTURE CAPACITY BUILDING

- **Central Core Research Facility (CCRF)**
 - Integrated hub of contemporary technologies and laboratories in advanced areas of **BSL2/3, Genomics, Proteomics, Bioanalytics, Bioinformatics, Microscopic imaging, flow cytometry and general facility**
 - Accessible to all faculty, scientists, researchers and students of all the departments of the institute
 - In the process of establishment on the 9th floor of the Convergence Block
- **Clinical Research Unit**
 - The proposal to establish a Clinical Research Unit at AIIMS was approved by the Academic Committee and Governing Body
 - Being planned to provide assistance in development, application, and implementation of investigator initiated research in compliance with the best practices
 - To provide resources and services to advance clinical research and inform the best practices for clinical research

MOU SIGNING AND OPEN HOUSE SESSIONS

- MOUs were signed between AIIMS and IIT-Delhi, IIT-Kharagpur, THSTI, IGIB
- Open house sessions were held between AIIMS and IIT-Delhi (29 August 2018) and AIIMS and THSTI (3 December 2018) where faculty from both institutes presented their ongoing research projects as well as newer areas of research interest and collaboration

INTELLECTUAL PROPERTY RIGHTS AND TECHNOLOGY TRANSFER DIVISION

- A Symposium on Intellectual Property Rights and Technology Transfer titled ‘Accelerating Innovations in Medical Sciences’ was organized on 3 October 2018. The highlights of the Symposium were inauguration of the AIIMS IPR and TTD website, lectures on IPR policy of AIIMS, Translation in academic research: Changing scenario, Role of incubators in academic research, and Relevance of funding and taking forward academic innovations

RESEARCH METHODOLOGY WORKSHOPS

- Research Methodology Workshops are being held regularly for resident doctors

ENDOWMENT FUND

- Augmentation of number of travel fellowships for students, residents, PhD scholars, and research staff to participate in international conferences
- Meeting being held every two months for selection of candidates for award of travel grant

Months	Approved Applications	Amount Sanctioned (Rs)
April to June 2018	8	3,80,000
July to September 2018	8	3,20,000

October to December 2018	14	4,80,000
January to March 2019	16	9,00,000
Total	46	20,80,000

- Oncology awards initiated in 2018-2019. The following faculty received the awards:

S. No.	Name	Department	Publication Title	Category	Prize
	M Vanathi	Dr RP Centre for Ophthalmic Sciences	Tear inflammatory mediators and protein in eyes of post allogenic hematopoietic stem cell transplant patients.	Clinical	First
	Sanjeev Kumar Gupta	Laboratory Oncology	Molecular genetic profile in BCR-ABL1 negative pediatric B-cell acute lymphoblastic leukemia can further refine outcome prediction in addition to that by end-induction minimal residual disease detection	Clinical	Second
	Ritu Gupta	Laboratory Oncology	Nucleic acid-based risk assessment and staging for clinical practice in multiple myeloma	Clinical	Third
	Sharmistha Dey	Biophysics	Diagnostic significance of p38 isoforms (p38 α , p38 β , p38 γ , p38 δ) in head and neck squamous cell carcinoma: Comparative serum level evaluation and Design of Novel Peptide Inhibitor Targeting the Same	Basic	First
	Meher Chand Sharma	Pathology	Transcriptional co-expression regulatory network analysis for Snail and Slug identifies <i>IL1R1</i> , an inflammatory cytokine receptor, to be preferentially expressed in ST-EPN- <i>RELA</i> and PF-EPN-A molecular subgroups of intracranial ependymomas	Basic	Second
	Savita Yadav	Biophysics	Identification and validation of salivary proteomic signatures for non-invasive detection of ovarian cancer	Basic	Third

RESEARCH PROJECTIONS

- **E-research newsletter** has been started and being published quarterly
- **E-grants update** are being provided to the faculty on regular basis
- A committee has been set up for promotion of public awareness of research at AIIMS

AIIMS EXCELLENCE AWARDS FOR BEST PUBLISHED PAPERS

S.No.	Name, Designation and Department	Paper/Publication Title	Name of Journal	Award Category
1	Manjari Tripathi, Professor, Neurology	Surgery for drug-resistant epilepsy in children	The New England Journal of Medicine	First Prize
2	Jaya S Tyagi, Professor and Head, Biotechnology	Multifaceted remodeling by vitamin C boosts sensitivity of <i>Mycobacterium tuberculosis</i> subpopulations to combination treatment by anti-tubercular drugs	Journal of Redox Biology	First Prize

3	Sameer Bakhshi, Professor, Medical Oncology	Metronomic chemotherapy vs best supportive care in progressive paediatric solid malignant tumors: A randomized clinical trial	JAMA Oncology	Second Prize
4	Shyam S. Chauhan, Professor, Biochemistry	Cathepsin L and B as potential markers for liver fibrosis: Insights from patients and experimental models	Clinical and Translational Gastroenterology	Second Prize
5	Sachin Talwar, Cardiothoracic and Vascular Surgery	Effect of administration of allopurinol on postoperative outcomes in patients undergoing intracardiac repair of tetralogy of Fallot	The Journal of Thoracic and Cardiovascular Surgery	Third Prize
6	G Sethuraman, Professor, Dermatology and Venereology	Development of a clinical diagnostic matrix for characterizing inherited epidermolysis bullosa	British Journal of Dermatology	Third Prize
7	Kunzang Chosdol, Professor, Biochemistry	FAT1 modulates EMT and stemness genes expression in hypoxic glioblastoma	International Journal of Cancer	Third Prize
8	DS Arya, Professor, Pharmacology	Apigenin ameliorates streptozotocin-induced diabetic nephropathy in rats via MAPK-NF- κ B-TNF- α and TGF- β 1-MAPK-fibronectin pathways	American Journal of Physiology, Renal Physiology	Third Prize
9	Rima Dada, Professor, Anatomy	Yoga- and meditation-based lifestyle intervention increases neuroplasticity and reduces severity of major depressive disorder: A randomized controlled trial	Restorative Neurology and Neurosciences	Certificate of Commendation
10	Rohit Saxena, Professor, Dr RP Centre for Ophthalmic Sciences	Incidence and progression of myopia and associated factors in urban school children in Delhi: The North India Myopia Study (NIM Study)	PLOS ONE	Certificate of Commendation
11	Sheffali Gulati, Professor, Paediatrics	Development of All India Institute of Medical Sciences-Modified International Clinical Epidemiology Network Diagnostic Instrument for neuromotor impairments in children aged 1 month to 18 years	Frontiers in public Health	Certificate of Commendation
12	Rajesh Sagar, Professor, Psychiatry	Assessment of cognitive functions in bipolar I disorder: A 1-year naturalistic follow-up study	Indian Journal of Psychiatry	Certificate of Commendation
13	Sharmistha Dey, Associate Professor, Biophysics	5-LOX in Alzheimer's Disease: Potential serum marker and in vitro evidences for rescue of neurotoxicity by its inhibitor YWCS	Molecular Neurobiology	Certificate of Commendation
14	MC Sharma, Professor, Pathology	C11orf95-RELA fusions and upregulated NF-KB signalling characterise a subset of aggressive supratentorial ependymomas that express LICAM and nestin	Journal of Neurooncology	Certificate of Commendation

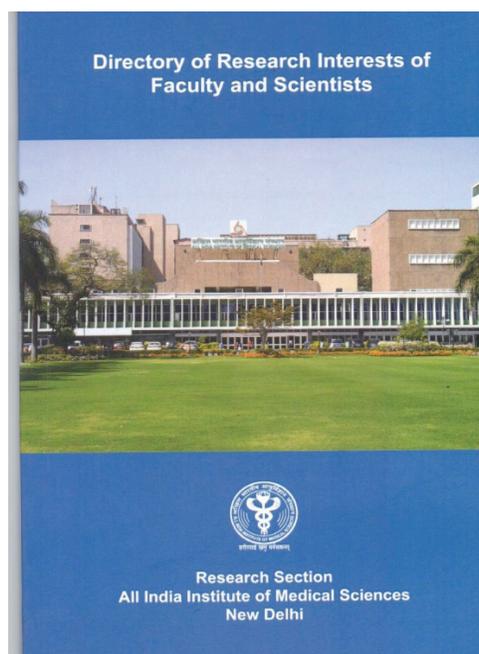
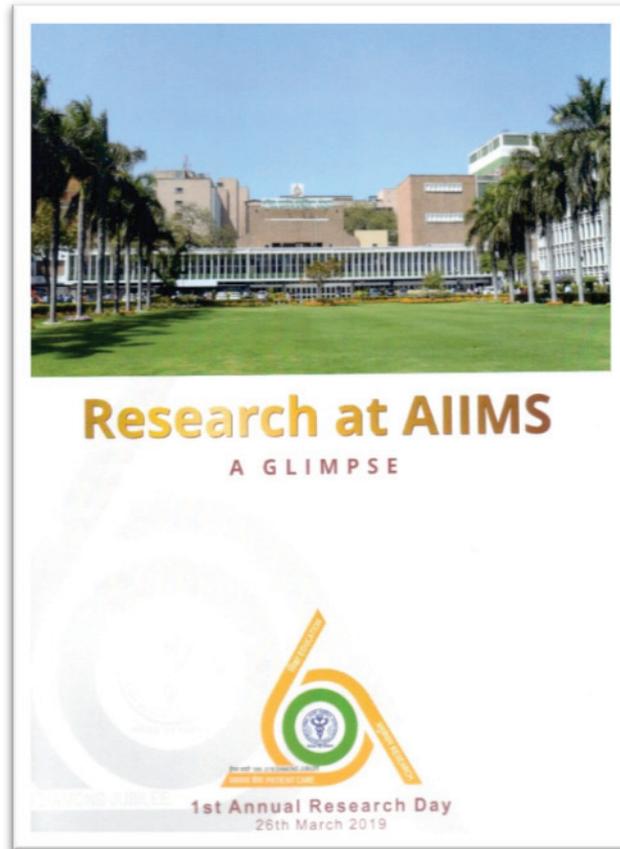
FIRST ANNUAL RESEARCH DAY

- **First Annual AIIMS Research Day** was celebrated on 26 March 2019. Professor MK Bhan was the Chief Guest and delivered the AIIMS Diamond Jubilee Oration. A total of 423 abstracts were received across all categories of students and residents. They were reviewed by screening committees of faculty members and the top 3 abstracts were selected for oral presentations while the remaining were put in the poster category. Prizes were awarded to the best oral papers and posters in various categories (MBBS, MSc, PhD, JR, SR).

Category	Number of Abstracts
MBBS	16
MSc	37
PhD	148

Junior Residents (MD/MS)	70
Senior Residents (DM/MCh/Fellows/Non-Acad)	152
Total	423

- The highlight of the Research Day was panel discussion on **“Building Medical Research Trajectory in India”** by the Secretaries of DBT, DST, and ICMR-DHR along with Dr VK Paul (member, Niti Aayog) along with Dr Randeep Guleria, Director, AIIMS. The panel discussion was moderated by Professor Rakesh Aggarwal, Director, JIPMER, Puducherry.
- A booklet titled “Research at AIIMS” and a “Directory of Research Interests of Faculty and Scientists” at AIIMS have been published for wider publicity of AIIMS research activities.



9.1. Anaesthesiology, Pain Medicine and Critical Care

Professor and Head

R. K. Batra (upto 31 July 2018)

Rajeshwari Subramaniam (from 1 August 2018)

Professors

Anjan Trikha
Lokesh Kashyap
Vimi Rewari
Jyotsana Punj
Anjolie Chhabra

Maya Dehran
Ganga Prasad
Vanlal Darlong
Babita Gupta (JPNA Trauma Centre)

Dilip R Shende
Virender Kumar Mohan
Renu Sinha (Dr RP Centre)
Ravindra Kumar Pandey
Chhavi Sawhney (JPNA Trauma Centre)

Associate Professors

Dalim Kumar Baidya (CDER)

Devalina Goswami (CDER)

Assistant Professors

Puneet Khanna
Debesh Bhoi
Souvik Maitra
Kanil Ranjith Kumar
Nishant Patel
Abhishek Kumar (Contract)
Vineeta Venkateswaran (Contract)

Bikash Ranjan Ray
Shailendra Kumar (IVF)
Thilaka Muthiah
Rakesh Kumar (Dr RP Centre)
Arshad Ayub (Dr RP Centre)
Christopher Dass (Contract)

Rahul Kumar Anand
Manpreet Kaur
Akhil Kant Singh
Kulbushan Saini
Yudhayavir Singh (Contract)
(JPNA Trauma Centre)
Ajisha Aravindam (Contract)
Ajay Kumar (Contract)

HIGHLIGHTS

Professor Rajeshwari Subramaniam took over as Head of the Department of Anaesthesiology, Pain Medicine and Critical Care on 1 August 2018. Since April 2018 the department has conducted workshops/conferences (Figures 1-3). The department started the three years course in Bachelor of Science Degree in Operation Theatre Services and a one-year fellowship programme in Pain Medicine. The department also won many awards in the multiple Institute-wide activities over the year (Figures 4 and 5).

Work on the Institute Code Blue Programme has been initiated under the leadership of Professor Rajeshwari Subramaniam.

Figure 1. 11th IAPA Conference



Figure 2. PG Assembly



Figure 3. PG Assembly



Figure 4. Institute Day Prize



Figure 5. AIIMS Got Talent Prize



EDUCATION

The department started the 3 years BSc (OT technology) Course for the OT services. The programme admits 20 students per year. One-year fellowship programme in Acute and Chronic Pain has also been started. This course admits 2 students per year.

As part of development of innovative teaching methodology using blended learning (Both online and hands-on), faculty members have been involved in developing skill modules at the SET (Skills-E-learning-Telemedicine) facility. Drs Rashmi Ramachandran, Manpreet Kaur and Thilaka have developed a skill teaching module for Endotracheal Intubation, LMA insertion, Surgical Handwashing and Gowning. They have also conducted multiple teaching sessions for undergraduate students on these and other modules at the skill centre.

Anaesthesia faculty and technical staff from Rohtak Medical College and Shimla Medical College attended short term training programme in Renal Transplant Anaesthesia.

CME/Workshop/Symposium/National-International Conference

1. CME Mechanical Ventilation, 21-22 July 2018 at JL Auditorium, AIIMS
2. AIIMS Anaesthesiology Post-Graduate Assembly (AAPGA), 18-21 October 2018 at JL Auditorium, AIIMS
3. Comprehensive Ultrasound for Anaesthesiologists (CUSA), 1-2 December 2018
4. 11th Annual Conference of Indian Association of Paediatric Anaesthesiologist's (IAPA), 8-10 February 2019 at JL Auditorium, AIIMS
5. Workshops conducted as part of IAPA Annual Conference, 8 February 2019
 - a) Paediatric Basic and Advanced Life Support
 - b) Paediatric Difficult Airway
 - c) Point of Care Ultrasound (POCUS)
 - d) Paediatric Anaesthesia Crisis Simulation (PACS) Workshop
 - e) Paediatric Regional Anaesthesia
6. Critical Care Update on Fluid, Electrolyte and Acid-Base Disorders (FEAD), 16-17 March 2019 at JL Auditorium, AIIMS
7. ISA Monthly Clinical Meet, Delhi Chapter, 26 February 2019
8. Second National Conference of OT Technologists on techniques in Anaesthesia Surgery and Critical Care, 2 February 2018
9. 8th OT Technician Workshop, 28 July 2018

Lectures delivered

Rajeshwari Subramaniam

1. The morbidly adherent placenta: What anesthesiologists should know, ISACON Delhi Annual Conference, 13 April 2018, Delhi
2. Ethical issues in prolonged mechanical ventilation, CME on Mechanical Ventilation, 22 July 2018, Delhi
3. Extubation of the difficult airway, RAALS 2018, 3 August 2018, Chennai
4. Morbidly obese parturient for emergency LSCS, RAALS 2018, 3 August 2018, Chennai

5. Paediatric Fluid Therapy, IAPA CME BHU 2018, 19 August 2018, Varanasi
6. Safe extubation of the difficult obstetric airway, AOA 2018, 28 September 2018, Jodhpur
7. Pulmonary hypertension in Pregnancy, AOA 2018, 30 September 2018, Jodhpur
8. Lung Isolation Techniques and one-lung ventilation, AIIMS PGA 2018, 21 October 2018, Delhi
9. Ethics issues in Clinical Practice, CUSA 2018, 1 December 2018, Delhi
10. Autonomic receptors in anaesthesia, RACE 2019, 25 January 2019, Chennai
11. Extubation of the Paediatric Patient: Art or Science? IAPA 2019, 10 February 2019, Delhi
12. Ethics and professional responsibilities in present-day scenario, 8th Interventional Perioperative Sonography (IPSA), 16 February 2019, Delhi
13. Anaesthetic considerations in a patient undergoing pheochromocytoma surgery, PGA Ludhiana, 23 February 2019, Ludhiana
14. Ethical issues in blood transfusion, Fluid, Electrolyte and Acid-Base Disorders, 16 March 2019, Delhi

Anjan Trikha

1. Anaesthesia challenges faced by me in last three decades, PROACT Pune CON 2018 Conference, 25 August 2018, Pune
2. A strategic dialogue on future of anesthesiology, 20 ISACON Rajasthan 2018, 23 September 2018, Bikaner
3. Obstetric anaesthetic misadventure—Legal suit filed—Now what? 11th National Conference of Association of Obstetric Anaesthesiologists (AOA 2018), 29 September 2018, Jodhpur
4. GETA for Cesarean section: Making it state of the Art, 11th National Conference of Association of Obstetric Anaesthesiologists (AOA 2018), 29 September 2018, Jodhpur
5. Managing life threatening obstetric emergencies, 66th Annual Conference of Indian Society of Anaesthesiologists (ISACON 2018), 26 November 2018, Agra
6. Early Recovery After Surgery—EARS, Obstetric Medicine Update 2018 (AOA), 1 December 2018, Hyderabad
7. Blood transfusion related deaths—Streamlining Indiactions, Obstetric Medicine Update (AOA Activity) 2018, 2 December 2018, Hyderabad
8. Anemia in Pregnancy: Long Case, 3rd Central Zone PG Assembly of Anaesthesiology and CCM, 13 March 2019, Lucknow
9. Renal Replacement Therapy, Ramachandra Anaesthesia Continuing Education, RACE 2019, 25 January 2019, Chennai
10. Chronic Obstructive Airway Disease—A case, Ramachandra Anaesthesia Continuing Education, RACE 2019, 25 January 2019, Chennai

Maya Dehran

1. Basic physiology of mechanical ventilation, Critical Care CME, 21 July 2018, New Delhi

Dilip Shende

1. Physics of mechanical ventilation, Mechanical Ventilation CME, 21 July 2018, Delhi
2. Pain relief for lower extremity tumor surgeries, 8th National Conference of the Academy of Regional Anaesthesia of India, 2018 (AORA 2018), 10 August 2018, Kerala
3. How to manage optimal patient critical care with limitations especially in life support therapy and hemodynamic monitoring? 1st North Sumatera Conference on Emergency, Anaesthesia and Critical Care (1st NSCEACC) 2018, 30 September 2018, Medan, North Sumater, Indonesia
4. Concept of TCI (Targetcontrolled infusion) and Role in Paediatric Anaesthesia, ISACON West Zone 2018, 7 October 2018, Ahmednagar, Maharashtra
5. Perioperative management of pediatric ophthalmic surgeries (Open Globe Injury and Strabismus Surgery), AIIMS Post-Graduate Assembly 2018, 21 October 2018, New Delhi

Lokesh Kashyap

1. Parenteral access: Avoidance of complications, catheter care Parenteral access, Avoidance of Complications, Catheter Care, 2nd National Conference of Indian Society of Clinical Nutrition (INSCN), 31 August 2018, New Delhi

Virender Kumar Mohan

1. Stellate Ganglion Block, International Conference Recent Advances—Pain Medicine (ICRA-PM 2018), 28 September 2018, Jammu

2. Trigeminal Neuralgia, CME and Live Workshop on Interventional Pain Management, 7 October 2018, Bhopal
3. Evidence based management in a patient with discogenic pain, 7th Annual Conference of Society for Ultrasound in Anaesthesia, 30 October 2018, Jodhpur
4. Cervical epidural interventions, 4th Annual Conference of Indian Society of Pain Clinicians, 16 November 2018, Lucknow
5. Thoracic Paravertebral and Erector Spinae Plane Block, Comprehensive Symposium on Ultrasound for Anaesthesiologists (CUSA) Regional Anaesthesia Workshop, 1 December 2018, Delhi
6. Acute and Chronic Pain Management in Sickle Cell Disease, Annual Conference of Indian Society for Study of Pain ISSPCON2018, 1 February 2019, Bengaluru

Vimi Rewari

1. Do we need a separate obstetric ICU? North Zone ISACON and ISACON Delhi, 13 April 2018, Delhi
2. Pulmonary complications after liver transplantation, TRANCRIT, 13 May 2018, Delhi
3. Mechanical Ventilation in Chronic Obstructive Pulmonary Disease, CME on Mechanical Ventilation, 21 July 2018, Delhi
4. Cardiopulmonary evaluation for liver transplant—How far can we go? 4th CLBS (Centre for Liver and Biliary Sciences) Symposium, 15 September 2018, Delhi
5. Top tips from 5 papers in obstetric anaesthesia and critical care—2016 to current, 11th National Conference of the AOA (AOA-2019), 30 September 2018, Jodhpur
6. Patient with Cardiac Implantable Electronic Devices (CIEDs) for Non Cardiac Surgery, AIIMS Anaesthesiology Post-Graduate Assembly (AAPGA 18), 18 October 2018, Delhi
7. Recipient Selection and Prognostication: An Anaesthesiologist's Role, FORTIS-Advanced Institute of Liver and Biliary Sciences (AILBS) International Conference, 17 February 2019, Delhi
8. Ultrasound guided bilateral rectus sheath block with multimodal analgesia versus intrathecal morphine in gynaecological oncology surgery—A non inferiority trial, Delhi ISA Monthly Meeting, 26 February 2019, Delhi
9. Anaesthetic management of a patient for LSCS with PIH, 3rd CZ-PG Assembly, 15 March 2019, Lucknow
10. Physiology of fluid resuscitation, CME on Fluid, Electrolyte and Acid Base Disorders, 16 March 2019, Delhi
11. Panel discussion on Fluid therapy in various scenarios, CME on Fluid, Electrolyte and Acid Base disorders, 16 March 2019, Delhi

Vanlal Darlong

1. Role of supraglottic airway devices in difficult airway, ISACON-NE, 7 September 2018, Imphal
2. Rescue nerve block in upper Limb with USG Supraglottic airway devices in difficult airway CME cum Workshop on Peripheral Nerve Block with USG Airway Management, 4-5 October 2018, Male, Maldives
3. Interscalene and Supraclavicular Brachial Plexus Block using USG, Annual academic session and pre-congress workshop of the faculty of pain medicine of the College of Anaesthesiologist and intensivist of Sri Lanka, 17-18 October 2018, Jaffna, Sri Lanka
4. Rescue Nerve Block in Upper Limb with USG, Annual academic session and pre-congress workshop of the faculty of pain medicine of the College of Anaesthesiologist and intensivist of Sri Lanka, 17-18 October 2018, Jaffna, Sri Lanka

Renu Sinha

1. Red Alerts: Managing systemic complications of blocks, 14th SAARC Academy of Ophthalmology Conference, 23 June 2018, Kathmandu, Nepal
2. Videolaryngoscope, Anaesthesia management in obese patients, ISACON-NE 2018, 8 September 2018, Imphal, Manipur
3. Anaesthesia management in Hurler syndrome for ophthalmic surgery, CCR-Ophthalmology, 28 August 2018, New Delhi
4. Paediatric case with difficult airway, Difficult airway management workshop and USG guided regional anaesthesia workshop, 4 October 2018, Maldives
5. Minimally invasive airway management, Difficult airway management workshop and USG guided regional anaesthesia workshop, 5 October 2018, Maldives
6. Ultrasound: Basic principle and knobology, Difficult airway management workshop and USG guided regional anaesthesia workshop, 6 October 2018, Maldives

7. USG guided infraclavicular and axillary brachial plexus block, Difficult airway management workshop and USG guided regional anaesthesia workshop, 6 October 2018, Maldives
8. USG guided Sciatic Nerve Block, Difficult airway management workshop and USG guided regional anaesthesia workshop, 7 October 2018, Maldives
9. Basics of ultrasound, Annual Academic Sessions and Pre Congress Workshops of Faculty of Pain Medicine of the College of Anaesthesiologist and Intensivists of Sri Lanka (COAISL), 17 October 2018, Jaffna, Sri Lanka
10. USG guided infraclavicular and axillary brachial plexus block, Annual Academic Sessions and Pre Congress Workshops of Faculty of Pain Medicine of the College of Anaesthesiologist and Intensivists of Sri Lanka (COAISL), 17 October 2018, Jaffna, Sri Lanka
11. USG guided Sciatic Nerve Block, Annual Academic Sessions and Pre Congress Workshops of Faculty of Pain Medicine of the College of Anaesthesiologist and Intensivists of Sri Lanka (COAISL), 18 October 2018, Jaffna, Sri Lanka
12. Anaesthesia Management of Fraser Syndrome for Ophthalmic Surgery, 66th ISACON 2018, 27 November 2018, Agra
13. Transverse Abdominis and Rectus Plane Block, CUSA 2018, 2 December 2018, Delhi

Ravindra K Pandey

1. Fiberoptic Intubation—What's New? ISACON-NE (2018), 7 September 2018, Imphal
2. Ultrasound guide Lower Extremity Blocks (Femoral N, Obturator N, Facia Iliaca Compartment Block, 7th ICPM—International Conference on Pain Medicine, 27 October 2018, Jodhpur
3. Basics of Ultrasound, Annual Academic Pain Sessions of College of Anesthesiologists and Intensivists of Sri Lanka, 17 October 2018, Jaffna, Sri Lanka
4. Ultrasound guided Lower Extremity Blocks (Femoral, Obturator, Popliteal and Adductor Canal Block), Annual Academic Pain Sessions of College of Anesthesiologists and Intensivists of Sri Lanka, 17 October 2018, Jaffna, Sri Lanka
5. Ultrasound guided Paravertebral, PEC I and II and SAP Blocks, Annual Academic Pain Sessions of College of Anesthesiologists and Intensivists of Sri Lanka, 18 October 2018, Jaffna, Sri Lanka
6. Paediatric pain: Perioperative assessment and management, Annual Academic Pain Sessions of College of Anesthesiologists and Intensivists of Sri Lanka, 19 October 2018, Jaffna, Sri Lanka
7. Basics of Ultrasound, 17 October 2018, Jaffna, Sri Lanka
8. Lectures and Video demonstrations on Lower Limb Blocks, Paravertebral, PEC I and II and SAP Blocks, 18 October 2018, Jaffna, Sri Lanka
9. Use of imaging for management of pain; Annual Academic Pain Sessions of College of Anesthesiologists and Intensivists of Sri Lanka, 19 October 2018, Jaffna, Sri Lanka
10. Fiberoptic Bronchoscopy and Video laryngoscopy “Basics and Beyond”, CME on Application of Ultrasound on Regional Anaesthesia and Workshop on Difficult Airway Management, 4 October 2018, Male, Maldives
11. Ultrasound guided lower extremity and truncal blocks (PVB PECS and SAP), CME on application of ultrasound on Regional Anaesthesia and Workshop on Difficult Airway Management, 7 October 2018, Male, Maldives

Anjolie Chhabra

1. Has neuraxial anaesthesia decreased morbidity and mortality in obstetrics, 8th Annual National Conference of the Association of Regional Anaesthesia (AORA), 10 August 2018, Trivandrum
2. Thoracic Paravertebral Block and Serratus Plane Block, 8th Annual National Conference of the Association of Regional Anaesthesia (AORA)—Regional Anaesthesia Workshop, 12 August 2018, Trivandrum
3. USG Regional Anaesthesia, AIIMS Anaesthesiology PG Assembly 2018, 21 October 2018, New Delhi
4. Brachial Plexus Blocks above Clavicle: Interscalene and Supraclavicular Block, Comprehensive Symposium on ultrasound for the Anaesthesiologists, 2 December 2018, New Delhi
5. Issues in Regional Anaesthesia Blocks and studies—Ethics, communication and consent, Comprehensive Symposium on Ultrasound for the Anaesthesiologists, 3 December 2018, New Delhi
6. Paediatric Paravertebral and Erector Spinae Block, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists—Regional Anaesthesia Workshop, 8 February 2019, New Delhi
7. Paediatric caudal catheter, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists—Regional Anaesthesia Workshop, 8 February 2019, New Delhi
8. TIVA—TCI in Paediatric Anaesthesia, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists, 9 February 2019, New Delhi

9. Paravertebral and Erector Spinae Block, 8th Interventional Perioperative Sonography Workshop and Conference, 16 February 2019, New Delhi
10. Perioperative analgesia for breast surgery, 13th AIIMS Surgical Week International Conference, CME cum Live Workshop (ENDOSURG 2019), 29 March 2019, New Delhi

Babita Gupta

1. Trauma Anaesthesia Practice: Problem and Management, RSACP 2018, 7 April 2018, Jaipur
2. Traumatic Brain Injury, ICA 2018, 29 Septemebr 2018, Mumbai
3. Trauma Guidelines, ICA 2018, 29 September 2018, Mumbai
4. Damage control resuscitation, ISA Rajasthan, 23 Septemeber 2018, Bikaner

Chhavi Sawhney

1. Maintinence of Braindead potential organ donor, 16th Annual Delhi Critical Care Symposium, 19 August 2018, Gurugram

Rashmi Ramachandran

1. Preoperative alpha blockade is mandatory for patients with pheochromocytoma, ENDOSURG, 20 April 2018, Delhi
2. Panel discussion: Creating champions: Training experienced simulation facilitators at my hospital—Panelist, Simulus-4, 3 March 2019, Delhi
3. Moderator—Safety Culture by Simulation, Simulus-4, 2 March 2019, Delhi
4. Neonatal airway management, CME—Paediatric Anaesthesia—The newborn and the neonate, 23 March 2019, Delhi

Dalim Kumar Baidya

1. Race Ethnicity and Geography in Sepsis, Delhi Critical Care Symposium (ISCCM Delhi Branch), 18 August 2018, Delhi
2. Airway management in infectious diseases, National Airway Conference 2018 (By All India Difficult Airway Association), 7-9 September 2018, Kolkata
3. Paediatric Lung Isolation, National Airway Conference 2018, 7-9 September 2018, Kolkata
4. Pre-hospital Trauma and Airway Management, ISACON East Zone 2018, 5-7 October 2018, Kolkata
5. Do Not Resuscitate (DNR), ISACON East Zone 2018, 5-7 October 2018, Kolkata
6. Role of CT Scan before Thoracic Surgery, Annual ISACON 2018, 25 November 2018, Agra
7. Panel Discussion on DIC in ICU—Panelist, ACCORDION 2018, 2 December 2018, New Delhi
8. Sepsis induced Myocardial Dysfunction, Cardiac and Lung Ultrasound and Echo (CLUE), 15-16 December 2018, New Delhi
9. Technology in Health Care, Bio-Technology and Bio-Medical Engineering—CEP Workshop, 17 December, Delhi
10. Emergency Life Support, Bio-Technology and Bio-Medical Engineering—CEP Workshop, 18 December, Delhi
11. Basic Life Support workshop, International Conference of Physiotherapists, 20 December 2018, Delhi
12. Antifungal therapy in liver transplant patients', Institute of Liver and Biliary Sciences International Conference, 17 February 2019, Delhi
13. Thrombocytopenia in ICU, ISTH-ILBS International Conference, 2 March 2019, New Delhi
14. Role of Vitamin D in ICU, Fluid Electrolyte and Acid base Disorders (FEAD), 16 March 2019, New Delhi

Devalina Goswami

1. Anesthetic concerns in Maxillofacial Surgery, North Zone ISA and ISACON Delhi 2018, 13 April 2018, New Delhi
2. Pre and Intraoperative Anaesthetic concerns in Orthognatic Surgery, First AIIMS Orthognatic workshop with hands on, 25 September 2018, New Delhi
3. Anaesthesia in laparoscopic surgery, 58th AMASI Skill Course, 19 October 2018, New Delhi
4. Perioperative management of Thyrotoxicosis, AIIMS Anaesthesiology Post Graduate Assembly 2018, 19 October 2018, AIIMS, New Delhi
5. Chest X ray (workshop), AIIMS Anaesthesiology Post Graduate Assembly 2018, 20 October 2018, New Delhi

6. Anaesthesia machines, circuits and vaporizer (workshop), AIIMS Anaesthesiology Post Graduate Assembly 2018, 21 October 2018, New Delhi
7. Brachial Plexus Block (Workshop), Comprehensive Symposium on Ultrasound for Anaesthesiologist (CUSA) Regional Workshop 2018, 2 December 2018, New Delhi
8. Difficult Airway Workshop, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologist 2019, 8 February 2019, New Delhi

Shailendra Kumar

1. Sedation in Neuro ICU, AIIMS Neuroanaesthesia Update, 4 November 2018, AIIMS, New Delhi
2. Truncal Block, CUSA Workshop, 2 December 2018, AIIMS, New Delhi
3. Cuffed tube, Cuffed manometer, Proseal LMA, 11th IAPA Workshop, 8 February 2019, AIIMS, New Delhi
4. Basic Life Support (BLS), National Programme for Trauma Care Workshop, 11 January 2019, GMR Terminal 2 Airport, New Delhi

Puneet Khanna

1. Perioperative clinical assessment of Pain, Pain and somatosensory assessment in humans, 12 April 2018, New Delhi
2. Strike the Right Balance Crystalloids and Colloids, Fluids by Society of Anesthesiology, 11 May 2018, Meerut
3. Guidelines for CPR, Cardiac Resuscitation CME, 21 September 2018, AIIMS, New Delhi
4. Labor Analgesia, ISACON UK, 13 October 2018, AIIMS, Rishikesh
5. LAST, ISACON 2018, Annual Conference, 27 November 2018, Agra
6. Anaesthesia and Pain Management in Hand surgery, TKR and Spine Surgery, 70th Annual International Congress of the Egyptian Orthopaedic Association, 13 December 2018, Cairo, Egypt
7. USG in Critical Care Workshop, Clue Workshop, 16 December 2018, ILBS, New Delhi
8. USG in Critical Care Workshop, USG Workshop, 22 December 2018, Jabalpur

Rahul Kumar Anand

1. Management of Cardiac arrest, Cardiac Anaesthesia CME, 21 September 2018, CN Center AIIMS, New Delhi
2. Ultrasound guided decision for Shock, CLUE 2018, 16 December 2018, ILBS, New Delhi
3. Lung and Ultrasound guided decisions for shock, CLUE Jabalpur, 22 December 2018, Jabalpur
4. COAD management in ICU, CLUE Jabalpur, 22 December 2018, Jabalpur
5. Airway, Cardiac and Abdominal Ultrasound in Critical Care, CLUE Nagpur, 11 January 2019, Nagpur
6. Point of care Cardiac Ultrasound, IAPA, POCUS Workshop, 8 February 2019, JPNTC, AIIMS, New Delhi
7. Lung and Ultrasound guided decisions for shock, POCUS Workshop 2019, 16 February 2019, AIIMS, Patna
8. Airway management in stridor, ISCCM National Conference, 31 January 2019, Mumbai

Bikash Ranjan Ray

1. Management of Agitation in ICU, CME in Psychiatry, 9 April 2018, AIIMS, New Delhi
2. Ultrasound Guided Brachial Plexus Block, ARAW-2018 (Advanced Regional Anaesthesia Workshop), 1 September 2018, Health World Hospital, Durgapur
3. Subsequent (2nd step) management of Cardiac arrest, Cardiac Anaesthesia CME, 21 September 2018, CN Center, AIIMS, New Delhi
4. Ultrasound guided regional anesthesia, ISA Uttarakhand 2018, 12 October 2018, AIIMS, Rishikesh
5. Failed Spinal in Obstetrics: What's Next? Facts and Myths in Anesthesiology, 28 October 2018, MAMC, Delhi
6. Physiological controversies and methods to determine fluid responsiveness in shock, ISACON Agra 2018, 27 November 2018, JP Convention Center, Agra
7. Ultrasound guided Sciatic Nerve Block, CUSA 2018, 1 December 2018, AIIMS, New Delhi
8. Ultrasound guided decision for Shock, CLUE 2018, 16 December 2018, ILBS, New Delhi
9. Airway and Cardiac Ultrasound, CLUE Jabalpur, 22 December 2018, NSCB Medical College, Jabalpur
10. Airway, Cardiac and Abdominal Ultrasound in Critical Care, CLUE Nagpur, 11 January 2019, Arise Hospital, Nagpur
11. Point of care Cardiac Ultrasound, IAPA, POCUS Workshop, 8 February 2019, JPNTC, AIIMS, New Delhi

12. Airway, cardiac and Abdominal ultrasound in critical care, POCUS Workshop 2019, 16 February 2019, AIIMS, Patna

Debesh Bhoi

1. SAP Block and PECS Block, CUSA 2018, 1 December 2018, AIIMS, New Delhi
2. Ultrasound Spine Examination, CUSA 2018, 2 December 2018, AIIMS, New Delhi

Souvik Maitra

1. Non-invasive ventilation and high flow nasal oxygen, CME Mechanical Ventilation, 22 July 2018, AIIMS, New Delhi
2. Paediatric airway anatomy, 9th National Airway Conference, 7 September 2018, Kolkata
3. Fiberoptic bronchoscopy in pediatrics: Troubleshooting, 9th National Airway Conference, 7 September 2018, Kolkata
4. Imaging in anaesthesia and intensive care (Workshop), 66th Indian Society of Anaesthesiologists' National Conference, 24 November 2018, Agra
5. Mitral stenosis in pregnancy: Anaesthetic consideration, 7th SGPGI Post Graduate Anaesthesiology Refresher Course, 1 March 2019, SGPGI, Lucknow
6. Interpretation arterial blood gas, Update on Fluid, Electrolyte and Acid-base Disorders, 17 March 2019, AIIMS, New Delhi

Kulbhushan Saini

1. Coronary artery bypass grafting: On pump vs Off pump, AIIMS Anaesthesiology Postgraduate Assembly 2018, 20 October 2018, AIIMS, New Delhi
2. Anaesthesia concern for single ventricle Physiology, Cardiac Anaesthesiology, Postgraduate Assembly 2018, 28 October 2018, AIIMS, New Delhi

Nishant Patel

1. Obesity and Anesthetic Challenges, ISACON UK 2018, 14 October 2018, AIIMS, Rishikesh

Akhil Singh

1. Ultrasound basics, POCUS 2019, 16 February 2019, Patna
2. Ultrasound for vascular access, POCUS 2019, 17 February 2019, Patna

Manpreet Kaur

1. Anesthetic implications of a syndromic child, AIIMS Anaesthesiology Postgraduate Assembly 2018, 19 October 2018, AIIMS, New Delhi
2. FAST, POCUS workshop, 10th Annual Conference of Indian Association of Paediatric Anesthesiologists, 8 February 2019, JPNA Trauma Centre, AIIMS, New Delhi

Rakesh Kumar

1. Interpretation of ventilatory graphic, CME Mechanical Ventilation, 22 July 2018, AIIMS, New Delhi
2. Acute kidney injury and Interpretation of Blood Gas, AIIMS PG Assembly, 21 October 2018, AIIMS, New Delhi
3. Lung isolation and one lung ventilation technique, 7th ISACON Uttarakhand, 14 October 2018, AIIMS, Rishikesh
4. Interpretation arterial blood gas, Update on Fluid, Electrolyte and Acid-base Disorders, 17 March 2019, AIIMS, New Delhi
5. Paediatric simulation, IAPACON, 8 February 2019, AIIMS, New Delhi

Thilaka Muthiah

1. Low flow anaesthesia-lesser the better, CHETANCON 2018, 1 December 2018, Kelambakkam, Tamil Nadu
2. Prophylactic infusion of phenylephrine versus norepinephrine for the prevention of post spinal hypotension in parturients undergoing elective cesarean section: A randomized controlled trial, ISA Delhi Chapter, 26 February 2019, AIIMS, New Delhi
3. Anaesthetic considerations for flap surgery, CCR by Plastic Surgery Department, 23 October 2018, AIIMS, New Delhi

Arshad Ayub

1. Arterial Blood Gas Analysis Anaesthesia Circuits, AIIMS PG assembly-2018, 18-21 October 2018, AIIMS, New Delhi
2. Infraclavicular and Axillary Blocks, ICPM Jodhpur 2018, 27-31 October 2018, AIIMS, Jodhpur
3. USG Guided Regional Anaesthesia Blocks, CUSA, AIIMS 2018, 1 and 2 December 2018, AIIMS, New Delhi
4. USG Guided Regional Anaesthesia in Paediatrics, IAPA AIIMS 2019, 8 February 2019, AIIMS, New Delhi

Kanil Ranjith Kumar

1. Cadaveric workshop: Ultrasound guided regional anaesthesia, Comprehensive Symposium on Ultrasound for Anesthesiologists (CUSA), 1 and 2 December 2018, AIIMS, New Delhi
2. Workshop: Ultrasound Guided Pediatric Nerve Blocks, 11th Annual Conference of India Association of Paediatric Anaesthesiologist (IAPA), 8 February 2019, AIIMS, New Delhi

Oral papers/posters presented

1. Acharya P, Chhabra A, Subramaniam R, Narasimhan P, Nair A, Muthiah T, Emergency airway management in a child with Hurler syndrome using Blockbuster LMA—A case report, 11th Annual Conference of Indian Association of Paediatric Anesthesiologists, 8 February 2019, AIIMS, New Delhi
2. Anand RK, Singh Y, Baidya DK, Maitra S, Stutigupta, Singh AK, Assessment of Role of Inferior Vena Cava Collapsibility Index (IVCCI) in pregnant patient to predict postoperative hypotension during LSCS, Turkish Society of Critical Care, 22-25 November 2018, Antalya, Turkey
3. Banupriya S, Subramaniam R, Chhabra A, Muthiah T, A comparison of efficacy of prophylactic infusion of phenylephrine versus norepinephrine for the prevention of post spinal hypotension in parturients undergoing elective Cesarean section—A randomized controlled trial, AOA 2018, 30 September 2018, Jodhpur
4. Chawhan G, Baidya DK, Maitra S, Subramaniam R, Trikha A, Batra RK, et al., Efficacy of Left Ventricular Outflow Tract Velocity Time Integral (LVOT VTI) and carotid artery VTI as predictor of volume responsiveness to Passive Leg Raising (PLR) in sepsis and septic shock patients by correlation with Echocardiography guided stroke volume change (delta SV%) to PLR, SG-ANZICS (Singapore—Australia and New Zealand Intensive Care Society), 10 May 2018, Singapore
5. Darlong V, Baidya D, Pandey RK, Sinha R, Punj J, Effect of varying time interval in between fentanyl and propofol on induction dose of propofol, Randomized controlled trial, 72nd Postgraduate Assembly, 7-11 December 2018, New York, USA
6. Depal VNK, Patel N, Case report on Robinow Syndrome, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists (IAPA 2019), 8-10 February 2019, AIIMS, New Delhi
7. Does administration of 5% dextrose reduce PONV in Laparoscopic Cholecystectomy? 72nd Post Graduate Assembly in Anesthesiology (PGA-72), 7-11 December 2018, New York City, USA
8. Goth A, Kaur M, Subramaniam R, Low flow vascular malformations of cervico facial area: An airway challenge, 10th Annual Conference of Indian Association of Paediatric Anesthesiologists, 8 February 2019
9. Kashyap L, Gupta S, Anand R, Bhoi D, Parshad R, Khanna P, Mohan VK, Arora MK, Correlate train-of-four and diaphragmatic thickness fraction in myasthenia gravis patients for thymectomy, PGA 72 NYSA Postgraduate Assembly, 8 December 2018, New York, USA
10. Kayina CA, Kaur M, Airway challenge in repaired tracheo-esophageal fistula patient, 10th Annual Conference of Indian Association of Paediatric Anesthesiologists, 8 February 2019
11. Khanna P, Arshad, Yadav A, Refractory hypertension in paediatric patient undergoing ophthalmic procedure, IAPA, 9-11 February 2019, AIIMS, New Delhi
12. Khanna P, Interesting anaesthesia photographs, 35th Annual Congress of the College of Anesthesiologist and Intensivists of SriLanka, 17-20 January 2019, Colombo, Sri Lanka
13. Khanna P, Narasimhan P, Goswami D, Kumar S, Kundu R, Nisa N, Onset time of spinal anaesthesia in pregnant females in knee-chest position: A pilot study (Won 2nd Prize), 9th Annual Whistler Anesthesiology Summit, 28 February-3 March 2018, Whistler, British Columbia
14. Khanna P, Ray BR, Sinha R, Kundu R, Singh A, Accuracy of predictive equations in guiding tracheal intubation depth in children: A prospective study (Won 2nd Prize), ASPA 2018, 17-20 August 2018, Bangkok
15. Khanna P, Singh G, Kashyap L, Batra RK, Singh A, Interim analysis of a prospective randomized controlled trial for comparison of effect on neuromuscular blockade recovery between calcium gluconate coadministered with neostigmine and neostigmine only in paediatric patients (Received Travel Grant by Korean Society of Anaesthesia), Koreanesthesia-2018, 8-10 November 2018, Seoul, Korea

16. Kumar A, Kumar KR, Sinha R, Parvathy, TIVA with Peribulbar block for Smith Lamli Optiz syndrome, 11th Annual Conference of Indian Association of Paediatric Anaesthesiologists, 9 February 2019, AIIMS, New Delhi
17. Kundu R, Subramaniam R, Baidya DK, Integrated ultrasound protocol in predicting weaning success and extubation failure, ESICM LIVES 2018 (European Society of Intensive Care Medicine) Annual Congress, 22 October 2018, Paris, France
18. Mandal P, Patel N, Shende D, A case report on Axenfeldrieger syndrome and its anesthetic management, 10th European Congress on Paediatric Anaesthesia, ESPA/IAPA Congress, 6-8 September 2018, Brussels, Belgium
19. Nayak B, Bansal D, Singh P, Seth A, Nayyar R, Ramachandran R, Randomized controlled trial to compare the length of stay, perioperative outcomes and complications in patients undergoing radical cystectomy with and without the Enhanced Recovery After Surgery (ERAS) protocol in a tertiary care centre in India, 34th Annual EAU Congress, 15-19 March 2019, Barcelona, Spain
20. Nethaji R, Ray BR, Subramanian R, Mohammed Rizwan J, Subramaniam R, Paediatric lung isolation with Air-Q and Arndt endobronchial blocker for thoracic surgery: A novel technique, IAPA 2019, 8-10 February 2018, AIIMS, New Delhi
21. Pallavi T, Gupta B, Rewari V, Ramachandra R, Arulselvi, Kailaivani, Farooque K, Release of pro and anti-inflammatory cytokines and development of sirs with different anesthetic techniques in major orthopedic trauma surgeries, Cytometry Society of India Conference, 29-30 October 2018, AIIMS, New Delhi
22. Parvathy R, Gupta S, Patel N, Aravindan A, Asymptomatic large porencephalic cyst: Anaesthesia management, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists (IAPA 2019), 8-10 February 2019, AIIMS, New Delhi
23. Pranita, Kumar KR, Darlong V, Air-Q as rescue conduit for fiberoptic guided intubation in a child with Treacher Collins Syndrome, 11th Annual Conference of Indian Association of Paediatric Anaesthesiologists, 10 February 2019, AIIMS, New Delhi
24. Ramakumar N, Kaur M, Subramaniam R, Recurrent syncope in a child and video assisted thoracoscopic surgery, 10th Annual Conference of Indian Association of Paediatric Anesthesiologists, 8 February 2019
25. Rao TN, Goswami D, Narayanan S, Venkateshwaran V, A novel technique to use Arndt endobronchial blocker in pediatric one lung ventilation, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologist 2019, 9 February 2019, AIIMS, New Delhi
26. Rao TN, Goswami D, Roychoudhury A, Bhutia O, Baidya DK, Trikha A, To compare the efficacy of local anaesthetic wound infiltrations in temporomandibular joint ankylosis surgery for control of postoperative pain, 17th World Congress on Pain, 14 September 2018, Boston Convention Centre, USA
27. Ray BR, Gurung A, Sinha R, Khanna P, Anand R, Kumar KR, Talwar P, Ultrasound assessment of gastric emptying of clear fluids with different energy content in children: A crossover pilot study, NZ Anaesthesia ASM-2018, 8-10 November 2018, Auckland, New Zealand
28. Ray BR, Sinha R, Khanna P, Kumar KR, Evaluation of performance of C-MAC video laryngoscope miller blade size zero blade for endotracheal intubation in preterm infants and neonates: A retrospective analysis study, ASPA 2018, 17-19 August 2018, Bangkok, Thailand
29. Rewari V, Behera A, Ramachandran R, Trikha A, Kumar S, Ultrasound guided bilateral rectus sheath block with multimodal analgesia versus intrathecal morphine in gynaecological oncology surgery—A non inferiority trial, 9th International Baltic Congress of Anaesthesiology, Intensive Care and Pain Management, 25-27 October 2018
30. Sarath, Kumar KR, Sinha R, Pranita, C-MAC® D-BLADE for awake oro-tracheal intubation with minimal mouth opening—A safe alternative to fiberoptic bronchoscope, AIIMS Anesthesiology PG Assembly, 18 October 2018, AIIMS, New Delhi
31. Shende DR, Ramkumar, Kashyap L, Comparison of Sub-Tenon Block, Peribulbar Block and IV Fentanyl for Peri-Operative Analgesia in Paediatric Cataract Surgery, 15th Conference of Asian Society of Paediatric Anaesthesiologists (15th ASPA) in conjunction with the 88th Annual Scientific Meeting of the Royal College of Anesthesiologists of Thailand, 18-19 August 2018, Bangkok, Thailand
32. Shende DR, Velmurgan, Kashyap L, End expiratory occlusion test and mini fluid challenge in predicting fluid responsiveness in acute circulatory failure, 15th Annual Congress of the Turkish Society of Medical and Surgical Intensive Care Medicine and 7th Euro-Asian Critical Care Meeting 2018, 21-24 November 2018, Antalya, Lara, Turkey
33. Singh A, Iyer KV, Goswami D, Non operating room anaesthesia for a child with Cri-du-Chat syndrome, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologist 2019, 9 February 2019, AIIMS, New Delhi
34. Singh A, Subramaniam R, Kaur M, Airway rescue in a neonate with Pierre Robin Sequence (PRS) for emergency surgery: Still a challenge, 10th Annual Conference of Indian Association of Paediatric Anesthesiologists, 8 February 2019

35. Sinha R, Yadav S, Khanna P, Ray BR, Pandey RK, Punj J, Darlong V, Dexmedetomidine effect on serum cortisol in paediatric ophthalmic surgery, Post Graduate Assembly (PGA-72) conducted by New York Society of Anaesthesiologist, 7 December 2018, New York, USA
36. Yadav A, Kaur M, Anaesthetic implications of Rubinstein Taybi Syndrome, 10th Annual Conference of Indian Association of pediatric Anesthesiologists, 8 February 2019
37. Yadav S, Kaur M, Subramaniam R, VATS for treatment of long Q-T syndrome, IAPA 2019, 10 February 2019, Delhi

RESEARCH

Funded projects

Ongoing

1. Comparison of ultrasound guided dorsal radial artery cannulation and conventional radial artery cannulation at the volar aspect of wrist: A randomized controlled trial, Souvik Maitra, AIIMS, 6 months, 2018-2019, Rs 4 lakhs

Completed

1. Intraoperative Lung protective ventilation in peritonitis patients undergoing emergency laparotomy: Randomized controlled trial, Dalim Kumar Baidya, AIIMS, 3 years, 2015-2018, Rs 1.8 lakhs
2. To assess the analgesic efficacy of adjuvant magnesium sulphate added with Ropivacaine over Ropivacaine alone as a continuous infiltration in total abdominal hysterectomy wounds: A randomized controlled trial, Devalina Goswami, AIIMS, 1 year, 2016-2017, Rs 5.0 lakhs
3. Assessment of IJV incompetence and its association with postoperative cognitive dysfunction in patients undergoing laparoscopic surgeries in Trendelenburg position, Akhil Kant Singh, AIIMS, 2 years, 2018-ongoing, Rs 5 lakhs
4. Serratus Anterior Plane Block in modified radical Mastectomy: A pilot study to compare the efficacy of two different techniques, Debesh Bhoi, AIIMS, 2 years, 2017-2019, Rs 1.2 lakhs

Departmental projects

Ongoing

1. A comparative pilot study of manual versus automated weaning in critically ill patients, Efficacy of air-Q® (Standard cuffed) vs ProSeal™ laryngeal mask airway in children undergoing elective ophthalmic procedures: A randomized clinical trial
2. A comparative pilot study of manual weaning versus automated weaning in critically ill patients
3. A double blind randomized controlled trial—Effect of intravenous dexamethasone on the onset time and recovery profiles of atracurium in children
4. A randomised control trial comparing the effects of lignocaine and dexmedetomidine on the incidence of postoperative cognitive decline in elderly: A pilot study
5. A study to find minimum effective volume of 0.5% ropivacaine for ultrasound guided costoclavicular block
6. Air Q ILA as a conduit for orotracheal intubation in children: A comparison between supine and lateral position
7. Anaesthetic implications of laparoscopic nephrectomy through transperitoneal and retroperitoneoscopic approach—A prospective observational study
8. Analgesic efficacy and LA sparing effect of intrathecal morphine as adjunct for labor analgesia—A double blinded randomized controlled trial
9. Analgesic efficacy and safety of Clonidine as an additive to 0.25% Ropivacaine in Stellate Ganglion Block for the treatment of Complex Regional Pain Syndrome, A prospective randomized single blind study
10. Analgesic efficacy of ultrasound guided erector spinae block versus intrathecal morphine in patients undergoing percutaneous nephrolithotomy surgery: A prospective randomized comparative pilot study
11. Assessment of efficacy of ultrasound guided corner pocket versus two aliquots injection techniques for supraclavicular block in upper limb orthopaedic surgeries: A prospective, randomized study
12. Assessment of Inferior Vena Cava Collapsibility Index (IVCCI) and variation of Carotid Artery Peak Velocity (CAPV) as predictor of post-spinal hypotension
13. Association between pulmonary function tests and difficult airway in morbidly obese patients
14. Association of intraoperative blood glucose variability with postoperative outcomes in emergency laparotomy
15. Association of malnutrition in children with inhalational anesthetic requirement and awakening during day care procedures
16. Bilateral Quadratus Lumborum Block vs bilateral transversus abdominis plane block for postoperative pain relief in TAPP laparoscopic hernia surgery: A randomized control trial

17. Bilateral ultrasound guided erector spinae plane block for postoperative pain relief in traumatic spine surgery: A randomised controlled trial
18. Carotid artery corrected flow time and respiratory variations of peak blood flow velocity for prediction of hypotension after induction of general anaesthesia in adult patients undergoing emergency laparotomy for peritonitis: A prospective observational study
19. Comparative efficacy and safety of I-gel and Air Q SP during general anaesthesia in infants: A prospective randomized trial
20. Comparative evaluation of efficacy of ultrasound guided supra-inguinal fascia iliaca block with infra-inguinal technique in preoperative positioning for central neuraxial block in patients with hip fracture
21. Comparative sonoanatomy of “medial-oblique” probe position with classic “short axis” probe position for ultrasound guided axillary vein cannulation: A cross-over study
22. Comparison of Three Dimensional (3D) endovision system versus Ultra-High Definition (HD) (4K) endovision system in minimally invasive surgical procedures, An open labeled randomized study
23. Comparison between opioid based anaesthesia technique and opioid free anaesthesia technique in patients undergoing laparotomy for gynaecological malignancy: A randomized controlled trial
24. Comparison of analgesic efficacy and safety of erector spinae plane block versus local infiltration in video assisted thoracoscopic surgery in adult patients
25. Comparison of analgesic efficacy of levobupivacaine and ropivacaine in labour analgesia by dural puncture epidural technique
26. Comparison of analgesic efficacy of ultrasound guided Quadratus Lumborum Block (QL) versus Erector Spinae Plane (ESP) Block in children undergoing open pyeloplasty—A randomized double blinded controlled trial
27. Comparison of clinical efficacy of intrathecal 0.75% isobaric ropivacaine with fentanyl versus clonidine as adjuvant in caesarean section: A prospective randomised controlled trial
28. Comparison of fixed versus titrated PEEP in patient undergoing laparoscopic surgery in lateral position
29. Comparison of Glide scope and C-Mac Video laryngoscope for intubation in pediatric patients: A prospective, comparative and randomized study
30. Comparison of lactate clearance and neutrophil lymphocyte ratio as predictor of mortality in patients with sepsis
31. Comparison of low-fresh gas flow technique to standard technique of sevoflurane induction in children
32. Comparison of opioid based anesthesia technique and opioid free anesthesia technique in patients undergoing laparotomy for gynaecological malignancy: Randomized controlled trial
33. Comparison of paravertebral block and Caudal epidural block undergoing renal surgery in pediatric patients
34. Comparison of percutaneous radiofrequency thermocoagulation and percutaneous microballoon compression of gasserian ganglion in treatment of trigeminal neuralgia—A randomized controlled trial
35. Comparison of safety and efficacy of Air SP vs. Conventional Air-Q intubating laryngeal airway in children: A prospective, randomized comparative study
36. Comparison of serum nucleosomes and Tissue Inhibitor of Metalloproteinase1 (TIMP1) in predicting mortality in adult critically ill patients in sepsis
37. Comparison of the analgesic efficacy of quadratus lumborum block versus transverse abdominis plane block for renal transplant: Randomized controlled trial
38. Comparison of time to intubate and intubation conditions with CMAC Miller blade size1 and CMAC Macintosh blade size 2 in pediatric patients—A prospective randomized controlled study
39. Comparison of two anaesthetic techniques in children undergoing vitreo-retinal surgery: Inhalational vs TCI (Target controlled infusion)—A randomized pilot clinical trial
40. Comparison of ultrasound guided dorsal radial artery cannulation and conventional radial artery cannulation at the volar aspect of wrist: A randomized controlled trial
41. Comparison of ultrasound guided femoro-sciatic nerve block versus epidural analgesia for post-operative analgesia following excision of knee tumours—A randomized control study
42. Comparison of ultrasound guided gastric emptying between breast feed and formula cow’s milk fed below 6 months old child, An observational study
43. Competency of novice users in performing endotracheal intubation using C-Mac video laryngoscope or Macintosh laryngoscope after manikin based skill learning as assessed on a high fidelity simulation system: A prospective randomized study
44. Correlation of oxygenation index and oxygen saturation index in patients undergoing emergency laparotomy under general anaesthesia: A prospective observational study

45. Diagnostic ultrasound guided medial branch block of dorsal ramus in facet arthropathy: Technical evaluation and validation by fluoroscopy
46. Dura to spinal cord distance at different vertebral levels in children and its implications on epidural and spinal anesthesia and analgesia in Indian Population: A retrospective CT scan-based study
47. Early administration of Vitamin D to reduce ICU length of stay in critically ill sepsis patients: Randomized controlled trial
48. Effect of addition of dexamethasone to ropivacaine for extra oral mandibular block in patients undergoing mandibular surgeries under general anaesthesia
49. Effect of change in body weight on clinical outcomes in critically ill patients
50. Effect of dexamethasone on post operative cognitive decline in elderly population: A randomized controlled triple blind trial
51. Effect of dexmedetomidine on emergence delirium and recovery parameters after Desflurane or Sevoflurane Anaesthesia in children: A prospective observational randomized study
52. Effect of different dose regimens of Tranexamic acid in pelviacetabular fracture surgery: Randomized clinical trial
53. Effect of entropy guided low flow desflurane anaesthesia on laryngeal mask airway removal time in children undergoing ophthalmic surgery—A prospective, randomized, comparative study
54. Effect of high protein normo-caloric nutrition on skeletal muscle wasting in critically ill mechanical ventilated patients: A randomized double-blind
55. Effect of patient positions on post induction hypotension caused by Propofol—A randomized comparative trial
56. Effect of positive end expiratory pressure on atelectasis in patients undergoing major upper abdominal surgery under general anesthesia—A lung ultrasonography study
57. Effect of wrist angulations on ease of radial artery cannulation in pediatric population: Ultrasound-guided anatomical assessment
58. Effectiveness of enteral ivabradine for heart rate control in septic shock—A randomized controlled trial
59. Effectiveness of mechanical ventilation simulator in assessment and management of patient ventilator interactions in trainees
60. Effectiveness of Retrolaminar Block as a perioperative analgesia in lumbosacral spine surgeries: A randomized controlled pilot study
61. Effects of regional anesthesia on perioperative inflammatory cytokines alteration and clinical complications
62. Efficacy of decremental PEEP trial on postoperative oxygenation status in adult patients undergoing emergency laparotomy: A pilot randomized controlled trial
63. Efficacy of erector spinae plane block and quadrates lumborum block for perioperative analgesia in patients scheduled for renal transplantation—A single blinded randomized controlled study
64. Efficacy of hetastarch with ropivacaine in prolongation of duration of ilioinguinal and iliohypogastric nerve blocks in paediatric inguinal hernia repair—A preliminary study
65. Estimation of minimum effective volume of local anaesthetic [0.75% Ropivacaine] in target intra cluster approach of ultrasound guided supraclavicular block: A prospective, dose estimation study
66. Evaluation and comparison of 28 day mortality prediction by using serial values of NT-Pro BNP and Troponin I in patients with ARDS
67. Evaluation of the effects of a preoperative carbohydrate drink on postoperative vomiting in paediatric strabismus surgery: A randomized controlled observer blinded trial
68. Feasibility of anterior temporalis muscle ultrasound as a method to assess muscle wasting in ICU
69. Fentanyl versus Dexmedetomidine infusion in head and neck free flap surgery for comparison of hemodynamics and anesthetic requirements
70. Focused Airway Sonography (FAS) for evaluation of laryngeal mask airway placement: An observational study
71. Gastric residual volume measured by ultrasound to correlate with feed intolerance in ICU patients—An observational study
72. Hemodynamic profile in the perioperative period in patients undergoing pheochromocytoma and paraganglionoma surgery with and without low dose diltiazem infusion
73. Impact of audio cues assisted learning on performance of endotracheal intubation on real patients by novice anaesthesiologists: A hi-fidelity simulator based double blinded study
74. Incidence of post operative cognitive decline in elderly patients undergoing open surgery under general anesthesia using Isoflurane or Desflurane: A prospective observational study

75. Intra operative monitoring of cerebral oxygen saturation using Near Infra Red Spectroscopy (NIRS) and assessment of risk factors for low cerebral oxygen saturation in preterm and very preterm infants with retinopathy of prematurity during Vitreo retinal surgeries: An observational prospective study
76. Intraoperative glycemic status of non-diabetic patients undergoing elective major abdominal surgery: A multi-centric prospective observational study
77. Liberal versus restrictive fluid management in Ambulatory Laparoscopic gynaecological surgeries: A randomized controlled trial
78. Micro-albuminuria as a marker for predicting patient outcome in critically ill sepsis patient
79. Perioperative blood glucose variability in non-diabetic patients with peritonitis undergoing emergency laparotomy: A prospective observational study
80. Prediction of difficult laryngoscopy and orotracheal intubation using lateral neck X-ray: A prospective observational double blind study
81. Prediction of intensive care unit admission and mortality in acute febrile illness: A prospective observational study
82. Preoperative intravascular volume status measured by inferior vena cava collapsibility index in patients with pheochromocytoma/paraganglioma undergoing surgical tumour removal—A prospective cohort study
83. Prognostic significance of preoperative blood lactate and lactate clearance in patients undergoing emergency laparotomy for perforation peritonitis: A prospective observational study
84. Prognostic significance of red blood cell transfusion trigger in critically ill patients with sepsis and septic shock: Prospective observational study
85. Prospective evaluation of risk factors and outcomes of ventilator associated conditions and infection related ventilator associated complications in trauma patients
86. Role of spot urine sodium in furosemide stress test in volume overloaded critically ill patients with acute kidney injury—A prospective study
87. Safety and efficacy of low dose intrathecal anesthesia in outpatient tubal ligation
88. Safety, economic and environmental impact of desflurane in minimal flow anaesthesia (0.5 lit/Min) with or without nitrous oxide, compared to isoflurane-air-oxygen used with low flow (1 L/min)—A randomized open labelled single blinded study
89. Serum Procalcitonin, Interleukin-6 and sTREM-1 as diagnostic and prognostic markers in sepsis in Intensive Care Unit
90. The effect of levosimendan infusion on diaphragm contractility assessed by ultrasonography: A single centre randomized placebo-controlled trial
91. The effect of ultrasound guided quadratus lumborum block on postoperative analgesia and neuroendocrine stress response in paediatric patients undergoing elective open pyeloplasty, A randomized controlled trial
92. To assess the role of “carotid artery corrected flow time, carotid artery velocity time integral and carotid artery peak velocity variation” in prediction of post spinal anaesthesia hypotension in spontaneously breathing patients
93. To compare analgesic efficacy and safety of ultrasound guided bilateral intermediate cervical plexus block with bilateral superficial cervical plexus block in patients undergoing thyroid surgeries under general anaesthesia
94. To determine the association between altered cerebral blood flow in the frontal cortex during Sevoflurane anesthesia and incidence of postoperative emergence delirium in children: An f NIRS based observational study
95. To evaluate the effects of a preoperative carbohydrate drink on postoperative vomiting in paediatric strabismus surgery: A randomized controlled observer blinded trial
96. To evaluate the safety and efficacy of different doses of clonidine in Pectoral Nerve Blocks (PECS I&II) for pain relief in different oncological breast surgeries: A prospective, comparative, randomized controlled trial
97. To study the outcomes of Immediate Sequential Bilateral Vitreo Retinal Surgery (ISBVS) in advanced ROP
98. Ultrasonographic assessment of brachial artery reactivity as predictor of adverse outcome in patients undergoing emergency laparotomy for perforation peritonitis: Prospective observational study
99. Ultrasonographic assessment of tonsillar volume in children undergoing tonsillectomy, A predictor of post-operative morbidity
100. Ultrasound assessment of airway for prediction of difficult laryngoscopy in obese patient, Observational pilot study
101. Ultrasound assessment of gastric emptying of clear fluids with different energy content in children: A crossover pilot study
102. Ultrasound guided continuous erector spinae plane block in major hepatobiliary and lienorenal shunt surgery: A retrospective study
103. Ultrasound Guided Erector Spinae Plane Block for Postoperative Analgesia in Patients undergoing Percutaneous Nephrolithotomy—A double-blinded, randomized controlled trial

104. Ultrasound guided regional blocks for breast surgery; A comparison of Erector Spinae Plane (ESP), Thoracic Paravertebral (TPVB) and Serratus Anterior Plane (SAP) Blocks in randomized controlled pilot study
105. Ultrasound guided suprainguinal fascia iliaca block for analgesia in acetabular fracture repair
106. Urine albumin creatinine ratio as a marker for predicting acute kidney injury and patient outcome in critically ill sepsis patients—A prospective observational study

Completed

1. A comparison of efficacy of prophylactic infusion of phenylephrine versus norepinephrine for the prevention of post spinal hypotension in parturients undergoing elective caesarean section—A randomized controlled trial
2. Accuracy of predictive equations in guiding Tracheal intubation depth in children: A prospective observational study
3. Anesthetic management for ophthalmic surgical procedures in children with congenital rubella syndrome: A retrospective analysis
4. Assessment of Role of Inferior Vena Cava Collapsibility Index (IVCCI) in pregnant patient to predict postoperative hypotension during LSCS
5. Association between pulmonary function tests and difficult airway in morbidly obese patients
6. Association of malnutrition with sevoflurane requirement and awakening during day care procedures
7. Bilateral Erector Spinae Plane Block for acute post-surgical pain in adult cardiac surgical patients: A randomized controlled pilot study
8. Carotid artery corrected flow time and respiratory variations of peak blood flow velocity for prediction of hypotension after induction of general anaesthesia in adult patients undergoing elective surgery: A prospective observational study
9. Clinical outcome, microbiological spectrum and antibiotic susceptibility of clinical isolates from adult intensive care unit in a tertiary care hospital in India
10. Comparison between Ultrasound guided Serratus anterior Plane Block, PECS Block and Intercostal Nerve Block for Post-operative Thoracotomy Pain in Paediatric Cardiac Surgical Patients
11. Comparison of intraocular pressure change with facemask vs laryngeal mask airway in anaesthetised children
12. Comparison of opioid based and opioid free TIVA in laparoscopic gynaecological surgery: A randomized control trial
13. Comparison of time to intubate and intubation conditions with CMAC Miller blade size 1 and CMAC Macintosh blade size 2 in paediatric patients—A prospective randomized controlled study
14. Correlation between duration of preoperative fasting and emergence delirium in pediatric patient undergoing ophthalmic examination under anesthesia as day care procedure—An observational study
15. Determination of efficacy of dexamethasone in postoperative analgesia as an adjunct to ropivacaine in extra-oral mandibular nerve block in patients of maxillofacial surgery
16. Diagnostic performance of Lung Ultrasound in Ventilator Associated Pneumonia
17. Double blind randomized controlled trial for comparison of effect on neuromuscular blockade recovery between calcium gluconate co administered with neostigmine and neostigmine only in paediatric patients
18. Effect of addition of dexamethasone to ropivacaine for extraoral mandibular nerve block in patients undergoing mandibular surgeries under general anaesthesia
19. Effect of dexmedetomidine on emergence delirium and recovery parameters after desflurane or sevoflurane anesthesia in children: A prospective double randomized study
20. Effect of dexmedetomidine on serum cortisol level and perioperative haemodynamics in children undergoing elective ophthalmic surgery—A prospective, randomized, comparative study
21. Effect of low dose ketamine on inflammatory markers and on perioperative analgesia in patients undergoing laparoscopic hernia surgery—A prospective, randomized, comparative study
22. Effectiveness of enteral ivabradine for heart rate control in septic shock—A randomized controlled trial
23. Effects of single dose intravenous dexmedetomidine for the supplementation of caudal analgesia in children—A prospective randomized comparative study
24. Efficacy of decremental PEEP trial on postoperative oxygenation status in adult patients undergoing emergency laparotomy: A pilot randomized controlled trial
25. Efficacy of Left Ventricular Outflow Tract Velocity Time Integral (LVOT VTI) and carotid artery VTI as predictor of volume responsiveness to Passive Leg Raising (PLR) in sepsis and septic shock patients by correlation with Echocardiography guided stroke volume change (delta SV%) to PLR

26. End expiratory occlusion test and mini fluid challenge for predicting fluid responsiveness in acute circulatory failure
27. Epidemiology and prognostic utility of cellular components of hematological system in sepsis
28. Evaluation of diaphragmatic muscle mass in patients receiving pressure regulated volume controlled ventilation and synchronized intermittent mandatory ventilation for acute respiratory failure: A randomized controlled trial
29. Evaluation of the Role of Ultrasound Biomicroscopy in Retinoblastoma
30. Impact of preoperative anxiety on propofol induced hypotension in female patients of elective surgery under general anesthesia
31. Impact of preoperative anxiety on propofol induced hypotension in children undergoing elective surgery under general anesthesia: A prospective observational study
32. Incidence of post operative cognitive decline in elderly patients undergoing open surgery under general anaesthesia using Isoflurane or Desflurane: A prospective observational study
33. Integrated ultrasound protocol in predicting weaning success and extubation failure: A prospective observational study
34. Knee-chest position and Subarachnoid Block Onset times in Obstetric parturient: A RCT
35. Lung ultrasound for diagnosis of Ventilator associated pneumonia in critically ill
36. Palpation method versus ultrasound guided Dorsalis Pedis Artery (DPA) cannulation in adult patients: A randomized controlled trial
37. Perioperative analgesic efficacy of continuous quadratus lumborum block or continuous transversus abdominis plane block in patients undergoing renal transplant surgery: A randomized double-blind controlled study
38. Perioperative outcome of patients undergoing major pelvic surgeries in a tertiary health center in India: A retrospective analysis
39. Postoperative analgesia for open midline incisions in gynaecological oncology surgery: Ultrasound guided bilateral rectus sheath block with multimodal analgesia versus intrathecal morphine
40. Success rate of distal radial artery cannulation in adult patients: A retrospective cohort study
41. Temporal evolution of the PCVCO₂-PaCO₂ / CaO₂-CcvO₂ ratio versus serum lactate during resuscitation from septic shock
42. The effect of ultrasound guided quadratus lumborum block on postoperative analgesia and neuroendocrine stress response in pediatric patients undergoing elective open pyeloplasty: A randomized control trial
43. To assess the efficacy of local anesthetic wound infiltration in temporomandibular joint ankylosis surgery for control of post operative pain: Randomized controlled trial
44. To compare postoperative analgesia between ultrasound guided continuous Quadratus lumborum block with ultrasound guided Psoas compartment block in patients undergoing total hip arthroplasty under general anaesthesia
45. To determine the optimal length for central venous catheter via axillary vein cannulation
46. To determine whether implementation of a new ICU delirium prevention bundle will reduce the incidence of delirium compared to standard of care protocol in mechanically ventilated patients
47. To study the efficacy of clonidine as an adjuvant to ropivacaine in ultrasound guided transversus abdominis plane block in adult renal transplant recipients—A double blinded randomized controlled trial
48. To study the efficacy of serratus anterior plane block in patients undergoing trunk based flap surgeries—A pilot study
49. Transforaminal epidural injection of local anesthetic and dorsal root ganglion pulsed radiofrequency treatment in lumbosacral radicular pain—A randomized, triple-blind, active-control trial
50. Ultrasound assessment of airway for prediction of difficult laryngoscopy in obese patients: A prospective observational study
51. Ultrasound assessment of gastric emptying of clear fluids with different energy content in children: A crossover pilot study

Collaborative projects

Ongoing

1. Incidence and risk factors of back pain after cesarean section: A prospective observational study, Gynaecology and Obstetrics
2. A randomized controlled trial to compare the safety and outcome of trans-oral vestibular and axillo-breast approach for endoscopic hemithyroidectomy in patients with benign thyroid swellings, Surgical Disciplines

3. A study of offset Analgesia in Trigeminal Neuralgia, Physiology
4. Effect of integrated Yoga on ART outcomes and Psychological stress in patients undergoing In-Vitro-Fertilization (IVF) cycles: A prospective randomized controlled trial, Obstetrics and gynecology, Psychiatry, CIMR
5. To study the causes/reasons of cancellation of scheduled patients for elective surgery, Surgery
6. Assessment of vaginal vault infiltration by Bupivacaine for postoperative pain after total laparoscopic hysterectomy: A randomized controlled trial, Obstetrics and Gynaecology
7. Improving pain management following laparoscopic surgery: A quality improvement study, General Surgery
8. A prospective study to evaluate improvement in pharyngeal airway volume and lengthening of mandible in simultaneous release of ankylosis and mandibular distraction, Maxillofacial Surgery

Completed

1. A study to assess the effectiveness of a planned simulation teaching on the knowledge and skill of nurses working in Critical Care Unit of AIIMS, College of Nursing
2. Evaluation of a single pre-operative preemptive dose of Etoricoxib for postoperative pain relief in dental surgeries under general anaesthesia: A randomized, prospective double blinded placebo controlled trial, Maxillo-Facial Surgery
3. Role of Liposuction Combined with Subcutaneous Mastectomy in Gynecomastia, Plastic, Reconstructive and Burns Surgery
4. A study of conditioned pain modulation in trigeminal neuralgia patients, Physiology
5. Randomized controlled trial to compare the length of stay, perioperative outcomes and complications in patients undergoing radical cystectomy with and without the Enhanced Recovery After Surgery (ERAS) protocol in a tertiary care centre in India, Urology
6. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of schizophrenia and Parkinson's Disease, Biophysics

PUBLICATIONS

Journals: 59

Abstracts: 2

Chapters in books: 10

Books: 3

PATIENT CARE

Anaesthesia services were provided for elective and emergency surgeries. Apart from this, services were also provided at many peripheral areas including Endoscopy, Radiology, MECT, etc. The detailed list of number of patients handled is as follows:

Pain Clinic

New Patients						Old Patients				
Male	Female	Child (M)	Child (F)	Ward	Total	Male	Female	Child (M)	Child (F)	Total
468	497	3	5	67	1,040	1,557	1,512	12	21	3,102

Specialties	No of cases
GI Surgery	412
Surgery	3,128
Dental Surgery (CDER)	506
Plastic Surgery	309
Urology	1471
ENT	1162
Gynecology	1349
Pediatric Surgery	1528
Orthopedics	4688

Maternity OT IVF OT		2923 602
Ophthalmic	Routine+EUA Emergency RPC USG MAC Total	5720 1667 2990 485 10862
Emergency	Cases Calls	4400 1699
ICU	Total	736
	Carried forward by last month	88
	New Admission	648
	Discharged	517
	Expired	127
Peripheral Services	1. MRI 2. MECT 3. CT SCAN 4. Other radiological services (DSA, RFA, Lithotripsy) 5. GI Endoscopy	424 696 837 271 1129
Pain OT		685

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Departmental Achievements

Departmental team consisting of residents received the first and second prize in Quiz held as part of 11th IAPA Conference. Dr Ranjitha, Junior resident received 1st prize in the E-poster category in 11th IAPA Conference. Dr Lipika, Junior resident received ICMR Travel Grant to attend 12-15 September 2018, ESRA, Ireland; presented her study in the best free paper category. Dr Alka, Senior resident received first prize in Senior resident category in the First AIIMS Annual Research Day, March 2018. The department received multiple awards in the "AIIMS GOT Talent" competition. Drs Abhishek, Christopher and Sayan received the 1st prize in Instrumental Music Category. The departmental representation were among the top three performers in Group Music and Group Dance in the "AIIMS GOT Talent" competition. Dr Abhishek was the finalist in the Solo Music category.

Professor Anjan Trikha was nominated member of Academic Committee of Indian College of Anaesthesiologists; Nominated Chief Editor of Journal of Obstetric Anaesthesiologists and Critical Care.

Professor Maya Dehran provided anaesthesia services in Anaesthesia Department of MSSCH Beas (Punjab) in the month of May, 2018 for 10 days during summer vacation; Provided anaesthesia services to Orthopedic Surgery patients in Sikanderpur Hospital in June for a week during summer vacation 4-9 June 2018; Provided General OPD services in Bhatti Dispensary in Radha Soami Satsang, Delhi Bhatti Centre on all Sundays except on my weekend duty in AIIMS; Provided OPD services and resuscitation services for the emergencies in Bhatti Centre in Delhi Radha Soami Satsang for 13 days during major public gathering of approximately 6-7 lakhs; Invited as an expert member in the selection board for the interview of Assistant and Associate Professor in ESIC Medical College and Hospital, Faridabad, Haryana.

Professor Ganga Prasad was member of Specification Committee of Anaesthesia Equipments for Post Graduate Institute of Medical Education and Research in New Delhi and Dr Ram Manohar Lohia Hospital, New Delhi; Member of Bureau of Indian Standard (BIS) for Anaesthesia Equipments, New Delhi; Member of Committee for Specification of Anaesthesia Equipments in Government e-marketing (GeM); Drafted and initiated BSc (OT technology) course at AIIMS; Teaching Subject expert for selection of Assistant Professor interview of North MCD, New Delhi; Judge for e-poster competition in RSACPCON 2018, Jaipur on 7 and 8 April 2018; Judge for e-poster competition in IAPA 2019, New Delhi on 9 February 2019; Received Commendation Prize for best exhibit in 63rd Foundation Day Exhibition of AIIMS as central workshop incharge.

Professor Vimi Rewari presented poster at the 9th International Baltic Congress of Anaesthesiology, Intensive Care and Pain Management held from 25-27 October 2018 in Vilnius, Lithuania— Awarded the Best Poster in the “Perioperative” category; was also selected for oral presentation and was awarded the best Oral Presentation; Chaired a session comprising of three lectures on “Trauma Anaesthesia” in National Conference of Research Society of Anaesthesiology Clinical Pharmacology held at Jaipur from 6 to 8 April 2018; Chaired a Pro-Con session on “Albumin has no place in liver transplant recipient surgery” in “4th International Liver Symposium” held from 6-8 April 2018, Gurugram, Delhi NCR, India; Chaired the Oral Paper Session in 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologists (IAPA 2019) held at AIIMS, New Delhi, on 8-10 February 2019; Chaired a Pro-Con session on “TEE should be used routinely in liver transplant surgery” in “Apollo LTHPS Conclave 2019 held on 30-31 March 2019 at Gurugram, Delhi NCR, India; Associate Editor, Monitoring in Anaesthesia and Critical Care. Ed. Trikha A, Singh PM 2018, Jaypee Brothers Medical Publishers.

Professor Ravinder K Pandey was Chief Co-ordinator of Workshop on Ultrasound on Regional Anaesthesia Workshop on Ultrasound Guided Peripheral Nerve Blocks and Difficult Airway Management, 4-7 October 2018, Male, Maldives; Chief Co-ordinator of Workshop on Difficult Airway Management; Workshop on Ultrasound Guided Peripheral Nerve Blocks and Difficult Airway Management, 4-7 October 2018, Department of Anaesthesiology, IGM Hospital, Male, Maldives; Chief Co-ordinator of Ultrasound Guided Hands On Workshop on Peripheral Nerve Blocks, Annual Academic Sessions “Achieving clinical excellence in Pain Medicine in Sri Lanka”, 17-19 October 2018, Conference Hall Government Hospital, Jaffna, Sri Lanka.

Professor Rashmi Ramachandran was winner of the second prize in the Simulation Hackathon, held at AIIMS, Delhi as part of Simulus-4 Conference on 3 March 2019; Awarded Level-3 Certified Simulation Trainer at Simulus-4, by PEDISTARS (Paediatric Simulation Training and Research Society) India; Winner of second prize, SET facility, poster at Institute Day; Member of Standing National Committee on Medicines (SNCM), sub-committee on hygiene and other health care products.

Dr Dalim Kumar Baidya was Organizing Secretary of First AIIMS Anaesthesiology Post-Graduate Assembly 2018 from 17 to 20 October 2018 at AIIMS, New Delhi; Reviewer of Journal of Clinical Anaesthesia, Journal of Anaesthesiology Clinical Pharmacology; Editorial board member of The Indian Anaesthetist’s Forum; Organizing Secretary of CME on Mechanical Ventilation on 21-22 July 2018 at AIIMS, New Delhi.

Dr Puneet Khanna received grant from Korean Society of Anaesthesia to present a paper in SEOUL Korea for 1000 USD in KOREANESTHESIA, 8-10 November 2018; Second prize for poster presentation in ASPA (Asiatic Society of Pediatric Anaesthesia) in Bangkok ASPA-2018 at Bangkok, Thailand from 17 to 20 August; Second prize for poster presentation in 9th Annual Whistler Anesthesiology Summit, 28 February-3 March 2019, Whistler BC.

Dr Debesh Bhoi was workshop faculty for the “USG in Hands of Anaesthesiologist”, RSACPCON, 6-8 April 2018, SMS, Jaipur; Invited faculty for the “Advanced Regional Anaesthesia Workshop-cum-CME (ARAW 2018)”; Advanced Regional Anaesthesia Workshop cum CME 1-2 September 2018, Healthworld Hospital, Durgapur; Workshop faculty for the US Guided Regional Anaesthesia and CVC Access, South Zone ISACON 2018, 7 September 2018, SV Medical College, Tirupati; Workshop faculty for Ultrasound Guided Regional Anaesthesia, CUSA Comprehensive Symposium on US for Anaesthesiologists; Workshop faculty for Paediatric Regional Anaesthesia Workshop, IAPA 2019, 8-10 February 2019, AIIMS, New Delhi.

Dr Bikash Ranjan Ray received ECMO Diploma from La Pitie-Salpetriere University Paris, France; 1st prize for Poster presentation in IAPA 2019 at AIIMS, New Delhi; As co-author—Second prize for poster presentation in ASPA (Asiatic Society of Pediatric Anaesthesia) in Bangkok ASPA-2018 at Bangkok, Thailand from 17 to 20 August.

Dr Rahul Kumar Anand was Organizing Secretary of Update on Fluid Electrolyte Acid-base Disorders on March 2019.

Dr Souvik Maitra was selected as a Sentinel Reviewer, Health Research Unit, McMaster University, Canada.

Dr Manpreet Kaur was faculty in Comprehensive Symposium on Ultrasound for Anaesthesiologists (CUSA), 1-2 December 2018, AIIMS, New Delhi; Faculty in Acute Critical Care Course (Interactive and Skill Development Course, 8-9 December 2018, AIIMS, New Delhi; Second prize in Poster Presentation Category in 10th Annual Conference of Indian Association of Paediatric Anesthesiologists; Conducted workshop: POCUS, 10th Annual Conference of Indian Association of Paediatric Anesthesiologists, 8 February 2019, JPNA Trauma Centre, AIIMS, New Delhi.

Dr Thilaka Muthiah was faculty in the 7th Annual Conference of Society of Ultrasound Anaesthesia, 27-31 October 2018, AIIMS, Jodhpur; Faculty in the Comprehensive Symposium on Ultrasound for Anaesthesiologists (CUSA), 1-2 December 2018, AIIMS, New Delhi; Faculty in training for BLS; Faculty in Acute Critical Care Course (Interactive and Skill Development Course), 8-9 December 2018, AIIMS, New Delhi; Faculty in the Workshop on Paediatric Difficult Airway Management, 11th Annual Conference of Indian Association of Paediatric Anesthesiologists, 8 February 2019, AIIMS, New Delhi.

9.2. Anatomy

Professor and Head

TS Roy

Professors

A Shariff
Rima Dada
TC Nag
(Electron Microscopy)

Pushpa Dhar
Arundhati Sharma (Genetics)

SB Ray
Renu Dhingra
Ritu Sehgal

Associate Professors

Saroj Kaler

Assistant Professors

Tony George Jacob
Seema Singh

Neerja Rani
SC Yadav

HIGHLIGHTS

The Students Digital Histology Laboratory with work-stations for 150 students, the first of its kind in India has been established and inaugurated by the Director, Professor Randeep Guleria on 8 August 2018. With this, more than 100 individuals/students will be able to simultaneously view the slides at their respective workstations. The teaching Faculty will be able to simultaneously guide all the students, and he or she will also be able to address the queries raised by individual students at the same time.

Several cadaveric workshops organized by different departments of AIIMS for providing training to their faculty and residents have been facilitated by the faculty of the department.

The faculty members of the department have delivered invited lectures in the country as well as abroad. Apart from teaching, the faculty members and their students were engaged in research in various areas of gross anatomy, neurosciences, embryology and genetics and have presented their work in National and International meets and conferences. Faculty has also worked towards successful procurement of extra mural grants to fund their research interests and have also had publications in peer reviewed indexed journals.

Faculty members have served on the editorial boards of several journals, both National and International and have also served as reviewers for manuscripts of reputed journals and for project proposals of several governmental funding agencies.

Patient care services encompassing embalming facilities, diagnostic testing for various metabolic disorders and genetic tests and counseling were also provided by the department.

EDUCATION

The department has organized anatomy classes for two new courses in BSc which include BSc Dental Operating Room Assistant course (DORA) and BSc Dental Hygiene course (DH). Students from outside Delhi underwent summer training in the department in various areas like genetics and electron microscopy. Several faculty members served as adjunct faculty at Jiwaji University, Gwalior for MSc Neuroscience course.

Workshops organized

1. IBRO-APRC School, 23 October-2 November 2018, New Delhi
2. Third Asian and African Stereology Congress, 20 December 2018, New Delhi

Facilitation by the Department of Anatomy in the conduction of workshops organized by various Departments

1. Orthopedics, 3rd AIIMS-ACSST Pelvic—Acetabulum Course, 15 April 2018, New Delhi
2. Surgical Disciplines, Hands on cadaveric workshop during AIIMS Surgical Week, 19 April 2018, New Delhi
3. Students Union AIIMS, 'Catalyst' Medical Exhibition for school students, 26-27 April 2019, New Delhi
4. Orthopedics, Cadaver Course during GOSICON-FFN-CCA - 2018, 6 September 2018, New Delhi
5. Surgical disciplines, DNB Practical Examination, 26 and 27 October 2018, New Delhi
6. Gastrointestinal Surgery, Cadaveric Workshop, as part of the 1st National Meeting of Liver Transplantation Society of India, 18 November 2018, New Delhi
7. Orthopedics, Hands on workshop, as part of the Annual Conference of Delhi Orthopaedic Association (DOACON), 22 November 2018, New Delhi

8. Anesthesiology, Ultrasound guided regional anesthesia Workshop, 1 and 2 December 2018, New Delhi
9. Surgical disciplines, Final Practical MS Examination, 12 December 2018, New Delhi
10. Orthopedics, Cadaveric Workshop as a part of 11th AIIMS Cadaver Arthroplasty Course 2019, 17 February 2019, New Delhi
11. Pulmonary Medicine and Sleep Disorder, Pulmonary Workshop AIIMS PULMOCRIT 2019, 28 February 2019, New Delhi
12. Various laboratories of Anatomy, Twenty students of Class XI and XII of Bluebells International School, New Delhi, visited for Orientation, 17 January 2019, New Delhi

Lectures delivered

TS Roy

1. Morphometric analysis of Human Cochlear nerve: An electron microscopic study, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 18-19 July 2018, Bhubaneswar
2. Morphological changes in the human auditory pathway with aging, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 2 November 2018, New Delhi
3. Stereological investigation of the developmental and age-related changes of the myelinated fibers in the human auditory nerve—A light and electron microscopic study, 3rd Asian-African Stereology Conference, 18-19 December 2018, Delhi
4. Series of 3 lectures:
 - Auditory Pathways
 - Ascending Pathways
 - Limbic System
 Neuroscience Programme for MSc Students, 25 November 2018, Gwalior

SB Ray

1. Neuro-immune modulation in aged female rat hippocampus—An experimental approach, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 21 October-4 November 2018, Delhi
2. Role of neurokinin type 1 receptor in nociception at the periphery and the spinal level in the rat, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 24 October 2018, New Delhi

Rima Dada

1. Your Health...Your Choice, 120 Induction Training Programme of IAS Officers, LBSNAA, 20 July 2018, Mussoorie
2. Yoga: Impact on mt and nuclear genome, Meeting on Yoga for Health Wellness, 24 July 2018, New Delhi
3. Genetic and environmental factors—Impact on male reproductive health, Special Invited Lecture, 26 July 2018, Delhi
4. Men Be-aWARE, Annual IMSA Conference-cum-Convocation, 23-25 August 2018, UK
5. Effect of Yoga and Meditation on reproductive health, Workshop on Maternal and Newborn Care: Issues and Challenges, 6-9 September 2018, Varanasi
6. Nature vs Nurture: Health Consequences, Symposium on Emotional Intelligence, 18 September 2018, New Delhi
7. Retinoblastoma genetics: New approaches in diagnostics, Recent Advances in Molecular Genetics, 20 September 2018, Kochi
8. Genetics of male Infertility, Recent Advances in Molecular Genetics, 20 September 2018, Kochi
9. Effect of Yoga on Divyangjan, International Seminar on Yoga and Disabilities in SAMBHAV 2018, 2 November 2018, New Delhi
10. Yoga for Women, International Yoga Conference, 12-13 November 2018, Goa
11. Optimal Choices—Optimal health, Lecture series organized by the Indian Science Congress Association, Cochin Chapter on Genetics and Lifestyle Impact and Yoga, 20 November 2018, Kollam
12. Lifestyle and oxidative stress: Impact on male reproductive health, Genetics and Lifestyle Impact and Yoga, 21 November 2018, Kollam

13. Health and wellness: Impact of Yoga, Genetics and Lifestyle Impact and Yoga, 24 November 2018, Kollam
14. Loss of sperm DNA integrity Clinical Consequences, Genetics and Lifestyle Impact and Yoga, 25 November 2018, Kollam
15. Cellular Aging-Biological Age and Telomeres, Genetics and Lifestyle Impact and Yoga, 25 November 2018, Kollam
16. Genetics of male infertility, 5th Annual Conference of Indian Society for Third Party Assisted Reproduction (INSTAR), 1-2 December 2018, Kolkata
17. Your DNA is not your destiny...your choices are, 5th Annual Conference of Indian Society for Third Party Assisted Reproduction (INSTAR), 1-2 December 2018, Kolkata
18. Complex chronic Lifestyle Diseases, 7th International Yoga Conference, Competition and Festiva, 6 January 2019, Indore
19. Epigenetics: The genetics of free will, Lecture for teachers at Amity International School, 19 January 2019, New Delhi
20. Depression: Disease of the civilization, National Conference on Recent Trends in Biomedical Research: Advances and Challenges, 2-3 February 2019, Lucknow
21. Epigenetics and embryology of Conjoined twins, International Conference of Conjoined Twins, 15-16 February 2019, New Delhi
22. Does Yoga have a role in autoimmune diseases and cancer, Annual Mega Event on National Yoga Week—Lecture for Yoga Teachers, 23 February 2019, New Delhi
23. Infertility—A psychosomatic disease—Need for holistic intervention, Global Conference on Reproductive Health with Focus on Occupational, Environmental and Lifestyle Factors, 24 February 2019, New Delhi
24. Mt metabolism oxidative stress and aging impact of YBLI, Fusion 2019, 25 February 2019, Bangalore
25. Nature or nurture controversy continues, International Conference on Advances in Zoological Research (ICAZR) and Workshop on Real Time PCR Aligarh, 8-9 March 2019, Aligarh
26. MDD-Disease of Civilization—Genetics and Lifestyle, National Conference on Recent Developments in Biomedical, Unani and Ayurvedic Translation Research and Darker Side of Rampant Use of Lead Based Products, 10-11 March 2019, Aligarh
27. Impact of Yoga on Complex Diseases, Meeting with visiting Delegation Deakin University, 14 March 2019, New Delhi
28. Genetics basis of disease: Does Yoga have a role genetic diseases, PGI First Yoga and Yoga Therapy Workshop, 25 March 2019, Chandigarh
29. Glaucoma and Comorbid depression—Complex diseases impact of Yoga as adjunct therapy, Seminar on Yoga for Health and Therapy, 29-31 March 2019, Haridwar

Renu Dhingra

1. The current potential and usefulness of Plastination in learning Anatomy, Plastination—An Unrevealed Art in Anatomy Hands-on Workshop, 11 August 2018, Hyderabad
2. Plastination techniques at AIIMS, New Delhi
3. Plastination—An Unrevealed Art in Anatomy Hands-on Workshop, 11 August 2018, Hyderabad
4. Principles and applications of Plastination, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 21 October-4 November 2018, New Delhi

TC Nag

1. Specimen preparation for scanning electron microscopy, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 17 July 2018, Bhubaneswar
2. Ultrastructural changes of the choriocapillaris with aging, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 19 July 2018, Bhubaneswar
3. Mitophagy in retinal photoreceptor cells after experimental iron overload, XXXVI Annual Meeting of Indian Academy of Neurosciences, 29 October 2018, Varanasi
4. Changes of photoreceptor cytoskeleton in aging human retina: Possible link to oxidative stress, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 9 November 2018, New Delhi
5. Pericyte degeneration, capillary death and mechanisms of choriocapillaris death in aging human choroid, 66th Annual Meeting of Anatomical Society of India (NATCON66), 13 November 2018, Rishikesh

6. Antigen localization in biological tissues: Practical issues, 3rd Asian-African Stereology Conference, 18 December 2018, New Delhi

Tony G Jacob

1. Different types of publication, CMET AIIMS, 2 May 2018, Delhi
2. Writing a research paper and publishing your research, Symposium on Promoting Research Among Dental and Medical Students, 18 May 2018, Delhi
3. Applications and advantages of ESEM in Bio Imaging, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 16 July 2018, Bhubaneswar
4. Troubleshooting in SEM, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 17 July 2018, Bhubaneswar
5. Immunoelectronmicroscopy, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 17 July 2018, Bhubaneswar
6. The Ultrastructural Changes in the Pancreatic Acinar Cells During Inflammation and Their Significance, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 20 July 2018, Bhubaneswar
7. Development of the Central Nervous System, International Brain Research Organization Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease, 22 October 2018, New Delhi
8. Design-based stereology, 3rd Asian-African Stereology Conference, 18 December 2018, New Delhi
9. Improving Communication Skills, Working towards Excellence—Workshop at CMET, 15 February 2019, New Delhi
10. Animal Models in Pancreatitis, Department of Biotechnology, 23 February 2019, New Delhi
11. Diencephalon, reticular formation, cerebellum, Neuroscience Programme for MSc Students, Jiwaji University, 27 October 2018, Gwalior

Neerja Rani

1. Correlation of cKIT expression with Ki67 index and 68Ga-DOTANOC PET/CT scan in Gastroendocrine Tumors (GNETs), International Conference on Microscope and XXXIX Annual Meeting of **Electron Microscope Society of India**, 19 July 2018, Bhubaneswar

SC Yadav

1. Ultra-small chitosan nanoparticles doped brimonidine on ultra-structure of trabecular meshwork of glaucoma patient, International Conference on Molecular Basis of Diseases and Therapeutics, (ICMBDT-2019), 8-10 March 2019, Ajmer
2. Development of Apple Scab Kit, Nanobiotech-2018 3rd Annual Conference of Indian Society of Nanomedicine, 24-27 October 2018, New Delhi
3. Effect of ultra-small chitosan nanoparticles doped brimonidine on ultrastructure of trabecular meshwork of glaucoma patient, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar
4. Moderator of the complete event of Electron Microscopy in Biomedical Sciences, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar
5. Use of Environmental Scanning Electron Microscopy in Medicine, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 16-17 July 2018, Bhubaneswar

Oral papers/posters presented

1. Arora P, Gupta R, Sangwan SK, Dwivedi SN, Bhatla N, Dhingra R, Sharma A, Association of Vascular Endothelial Growth Factor (*VEGF*) and Soluble Fms-like tyrosine kinase-1 (*sFlt-1*) polymorphisms and their circulating protein levels in Preeclampsia, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh (**Dr Inderjit Dewan Gold Medal for best poster in Clinical Anatomy**)
2. Arora P, Mochan S, Gupta S, Saxena S, Bhatla N, Luthra K, Sharma A, Kehetrapal P, Rani N, Dhingra R, Comparison of Histological Features of Human Placental Tissue in Normal Pregnancy and Preeclampsia, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh
3. Aryal A, Singh R, Ambekar A, Ray SB, Sharma A, Screening for Alcohol Metabolizing Gene Polymorphisms in Alcohol Dependent Patients, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh

4. Barwal I, Dada T, Yadav SC, Effect of ultra-small chitosan nanoparticles doped brimonidine on ultrastructure of trabecular meshwork of glaucoma patient, 39th Annual Meeting of the Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar
5. Barwal I, Dada T, Yadav SC, Ultra-small chitosan nanoparticles doped brimonidine on ultra-structure of trabecular meshwork of glaucoma patient, International Conference on Molecular Basis of Diseases and Therapeutics, 10 March 2019, Ajmer
6. Bisht S, Chawla B, Dada R, Role of NGS in RB detection, Ist AIIMS Annual Research Day, 26 March 2019, New Delhi
7. Dawar R, Tiwari R, Mochan S, Dhingra R, Vascular labelling for demonstration of vascular anatomy of face and avoiding danger zones after filler injections, *COSMEDICON 2019*, 14-17 March 2019, Sydney
8. Dhawan V, Kumar M, Singh N, Dadhwal V, Dada R, Sperm transcripts and genomic integrity: Role in implantation and embryo viability in IVF cycles, American Society of Reproductive Medicine (ASRM), 6-10 October 2018, Colorado, USA (**Travel grant-ICMR/CSIR/DBT/IAN/IASP/others**)
9. Dhawan V, Malhotra N, Dhadwal V, Dada R, Spermatozoal transcripts dysregulation and EPL, Ist AIIMS Annual Research Day, 26 March 2019, New Delhi
10. Dhingra R, Bhatla N, Rani N, Kshetrapal P, Arora P Gupta SK, Saxena S, Mochan S, Immunolocalisation of hydrogen sulphide producing enzyme (cystathionine gamma lyase) in early and late onset preeclampsia, International Conference on Health Sciences, 7-9 October 2018, Colombo, Sri Lanka
11. Dhingra R, Mochan S, Bhatla N, Dwivedi SN, VEGF alleviates endoplasmic reticulum stress via PERK, IRE1 and ATF6 pathways in trophoblast cells, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh (**Dr HK Chatterjee Memorial Gold medal**)
12. Dhingra R, Gupta S, Mochan S, Bhatla N, Luthra K, Sharma A, Kshetrapal P, Saxena S, Arora P, Rani N Hydrogen Sulphide is a unique but ubiquitous gasotransmitter: A solution for therapeutic dilemma in Preeclampsia? 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh
13. Ganapathy A, Jessy JP, Kapoor K, Sharma M, Singh S, Kaler Jhahria S, Fate of gubernaculum testes revisited: A pre and postnatal human cadaveric study, 66th National Conference of Anatomical Society of India, 11-14 November 2018, Rishikesh
14. Gautam M, Kumar R, Gupta S, Ray SB, Role of Neuropeptide Y in Post-incisional Pain in Rats: An Immunohistochemical and Behavioral Study, 48th Annual Meeting of the Society for Neurosciences 2018, 3-7 November 2018, San Diego, USA
15. Gautam S, Kumar U, Kanga U, Kumar M, Dada R, Influence of Human Leukocyte Antigen-G 14bp Ins/Del And +3142G>C Polymorphism on Disease Susceptibility in Patients with Rheumatoid Arthritis, 7th Federation of Immunological Societies of Asia-Oceania Congress on Crosstalk between Innate and Adaptive Immunity in Health and Disease, 10-13 November 2018, Bangkok
16. Gautam S, Kumar U, Kanga U, Goswami A, Chaurasia P, Dada R, Yoga's potential for improving disease activity and inflammatory markers among patients with Rheumatoid arthritis, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh
17. Gautam S, Kumar U, Kumar M, Goswami A, Chaurasia P, Dada R, Maintenance of Mitochondrial Integrity by Yoga: Implications in Autoimmune Inflammatory Arthritis, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh
18. Gautam S, Kanga U, Kumar M, Goswami A, Kumar U, Dada R, Evaluation of Polymorphisms at 3'Untranslated Region in *HLA-G* gene with Susceptibility to Rheumatoid Arthritis, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh
19. Gautam S, Tolahunase M, Kumar M, Kumar U, Dada R, Potential role of yoga in amelioration of disease activity and depression severity in Rheumatoid arthritis: A randomized controlled trial, 1st National Biomedical Research Competition, 15 October 2018, Rishikesh (**Best poster award**)
20. Gautam S, Kumar U, Kanga U, Kumar M, Dada R, Yoga-based lifestyle intervention and its impact on quality of life, stress markers and immune parameters in rheumatoid arthritis patients, Cell Symposia: Aging and Metabolism-2018, 23-25 September 2018, Barcelona (**Travel grant- ICMR/CSIR/DBT/IAN/IASP/others**)
21. Gautam S, Kumar U, Kanga U, Kumar M, Dada R, Impact of mind body intervention on quality of life and markers of inflammation in Rheumatoid Arthritis Workshop cum Symposia on Translational Research in Biomedical and Agricultural Sciences, 6-7 July 2018, New Delhi
22. Gautam S, Kumar U, Chandana S, Kumar D, Dada R, Alterations in disease activity and fertility potential in men with Rheumatoid arthritis by yoga based lifestyle intervention, European Society of Human Reproduction and Embryology (ESHRE) 2018, 1-4 July 2018, Barcelona

23. Gautam S, Kumar U, Dada R, Efficacy of Yoga and Meditation Based Lifestyle Intervention on Inflammatory Markers in Patients with Rheumatoid Arthritis, ICAAIR 2018: 20th International Conference on Allergy, Asthma, Immunology and Rheumatology, 14-15 May 2018, London
24. Gautam S, Kumar U, Kanga U, Dada R, Yoga based lifestyle intervention reduces severity of depression, disease activity and improves quality of life in Rheumatoid arthritis: A randomized controlled trial, 1st AIIMS Annual Research Day, 26 March 2019, New Delhi
25. Gorla S, Kathpalia P, Nag TC, Roy TS, Changes in microglial morphology and expression of Iba1 in human optic nerve with ageing, 48th Annual Meeting of the Society for Neurosciences 2018, 4 November 2018, San Diego
26. Gupta R, Grover T, Ambekar A, Singh R, Sharma A, A preliminary study on SPECT-CT Imaging and Methylation status of dopamine pathway genes DAT and SNCA in alcohol and opioid dependence, IBRO workshop on Epigenetic Regulation of Neurological Functions: Implications for Pathology and Therapeutics, 6-10 May 2018, Alexandria, Egypt
27. Gupta S, Mochan S, Bhatla N, Luthra K, Sharma A, Kshetrapal P, Saxena S, Arora P, Rani N, Dhingra R, Evaluation of migration of HTR-8/SV-neo Cells after H2S Donor Treatment: Impact on placentation, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh
28. Gupta S, Nag TC, Roy TS, Study of horizontal cells following light-induced outer retinal cell damage in Sprague-Dawley rats, 48th Annual Meeting of the Society for Neurosciences 2018, 5 November 2018, San Diego
29. Gupta S, Mochan S, Bhatla N, Luthra K, kshetrapal P, Saxena S, Arora P, Rani N, Dhingra R, Evaluation of migration of HTR-8/SVneo cells after H2S donor treatment: Impact on placentation, 66th National Conference of Anatomical Society of India, 11-15 November 2018, Rishikesh
30. Gupta S, Gautam M, Kumar R, Prasoon P, Kaler S, Ray SB, Attenuation of acute inflammatory pain following a surgical incision by neuropeptide Y in Rats, 1st AIIMS Research Day, 26 March 2019, New Delhi
31. Gupta S, Kumar R, Gautam M, Ray SB, Co-administration of cannabinoid type 1 receptor agonist attenuates the development of morphine tolerance in Rats, 17th World Congress of Pain, 12-16 September 2018, Boston, USA (**Travel grant- ICMR/CSIR/DBT/IAN/IASP/others**)
32. Gupta S, Singh P, Ray SB, Role of mu-opioid receptor, neuropeptide Y and the anti-opioid peptide brain-derived neurotrophic factor in the development of tolerance following chronic morphine administration in Rats, 36th Annual conference of Indian Academy of Neuroscience, 29-31 October 2018, Varanasi (**Travel grant-ICMR/CSIR/DBT/IAN/IASP/others**)
33. Hulmani D, Garg B, Dutta R, Mridha AR, Nag TC, Kamran F, Histopathological and electron microscopic changes in ligamentum flavum in patients with degenerative lumbar canal stenosis as compared to young patients with disc herniation, 1st AIIMS Research Day, 26 March 2019, New Delhi
34. Jaiswal M, Singh S, GanpathyA, Das P, Pal S, Sarwar S, Quadri J, Shariff A, Morphological study of enteric glia in colorectal carcinoma, 1st AIIMS Research Day, 26 March 2019, New Delhi
35. Kairo AK, Quadri JA, Singh A, Sarwar S, Kumar R, Thakkar A, Shariff A, Sharma C, Ultrastructural localization of bacterial pockets in disintegration tympanic membrane of middle ear cholesteatoma, 39th Annual Meeting of Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar
36. Kaler Jhahria S, Gautam M, Gupta S, Kumar R, Ray SB, Preemptive intrathecal administration of Neuropeptide Y attenuates postoperative pain in Rats, 17th World Congress on Pain, 12-16 September 2018, Boston, USA
37. Kathpalia P, Nag TC, Wadhwa S, Sharma A, Roy TS, Epigenetic regulation of BDNF expression in auditory cortex of neonatal chicks in response to prenatal sound stimulation, 11th Forum for Neuroscience 2018, 8 July 2018, Berlin
38. Kathpalia P, Nag TC, Bhat M, Roy TS, Wadhwa S, Effect of in ovo sound stimulation on the development of auditory cortex and hippocampus of neonatal chicks, 48th Annual Meeting of the Society for Neurosciences 2018, 7 November 2018, San Diego
39. Kathpalia P, Nag TC, Sharma A, Roy TS, Wadhwa S, Epigenetic regulation of BDNF expression in auditory cortex of neonatal chicks in response to prenatal sound stimulation, 1st AIIMS Research Day, 26 March 2019, New Delhi
40. Kaur B, Pandey KK, Mehta K, Dhar P, Beneficial role of curcumin on Basal Forebrain of mice subjected to arsenic trioxide exposure, 36th Annual Conference of Indian Academy of Neuroscience, 28-31 October 2018, Varanasi
41. Kaur B, Pandey KK, Mehta K, Dhar P, Effectiveness of Curcumin in amending arsenic trioxide induced adverse effects in mouse basal forebrain, 66th National Conference of Anatomical Society of India, 11-14 November 2018, Rishikesh
42. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj DN, Roy TS, Age-related decline in the populations of parvalbumin, GABA and NMDAR 2B immunoreactive neurons of the human spiral ganglion: A stereological study, 36th Annual Meeting of Indian Academy of Neurosciences, 30 October 2018, Varanasi

43. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj D, Roy TS, Age-related human spiral ganglion neuronal loss assessed by unbiased stereology, 1st AIIMS Research Day, 26 March 2019, New Delhi
44. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj DN, Roy TS, Age-related human spiral ganglion neuronal loss assessed by unbiased stereology, 1st AIIMS Research Day, 26 March 2019, New Delhi
45. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj DN, Roy TS, Age related changes in the populations of human spiral ganglion neurons expressing parvalbumin, gaba and nmdar 2b: A Stereological study, Annual Conference of Society for Neuroscience-2018, 3-7 November 2018, San Diego, USA
46. Kaur C, Jacob TG, Nag TC, Thakar A, Bhardwaj DN, Roy TS, Age-related decline in the populations of Parvalbumin, GABA and NMDAR 2B immunoreactive neurons of the human spiral ganglion: A Stereological study, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi
47. Kauser H, Nag TC, Dhar P, Behra C, Kaler Jhahria S, Study of Human Hippocampal Pyramidal cells and Astrocytes in Suicidal Deaths, Royal College of Psychiatrists International Congress, 24-27 June 2018, Birmingham, UK
48. Kaushal P, Kumar R, Rani N, Dhar P, Short cystic artery arising from aberrant hepatic artery: A case report, 66th National Conference of Anatomical Society of India, 11-15 November 2018, Rishikesh
49. Kaushik S, Tomar A, Susrutha PN, Nag TC, Arya DS, Bhatia J, Inhibition of MAPK and apoptotic pathways and attenuation of cisplatin induced nephrotoxicity via administration of pitavastatin, 1st AIIMS Research Day, 26 March 2019, New Delhi
50. Kumar P, Pal I, Kaur C, Jacob TG, Vanamail P, Bhardwaj DN, Roy TS, A quantitative ultrastructural study of the human cochlear nerve, 39th Annual Meeting of Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar
51. Kumar R, Jacob TG, SharmaU, Jagannathan NR, Roy TS, Longitudinal MRI study of infarcted brain in transient ischemic stroke in Rats, IBRO-APRC Associate School of Neuroscience, 2018, Universiti Teknologi MARA (UiTM), Puncak Alam Campus, 23-30 September 2018, Malaysia (**Second prize, oral presentation**)
52. Kumar R, Jacob TG, SharmaU, Jagannathan NR, Roy TS, Changes in the Rat Brain Following Transient Ischemic Stroke—An MRI study, 48th Annual Meeting of the Society for Neurosciences 2018, 3-7 November 2018, San Diego, USA
53. Kumar R, Gautam M, Kaler S, Ray SB, Intra-wound administration of activated protein C attenuates post-incisional nociception in Rats, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi (**Travel grant- ICMR/CSIR/DBT/IAN/IASP/others**)
54. Kumari C, Nag TC, The choroid speaks with age: The large vessel instability as a basis for retinal hypo-perfusion, 39th Annual Meeting of the Electron Microscope Society of India, 19 July 2018, Bhubaneswar
55. Malik E, Jyotsna VP, Sharma MC, Agarwal S, Kandasamy D, Sharma A, Genetic, clinical and histopathological findings in patients with sporadic anterior pituitary adenoma, 48th Annual Conference of Endocrine Society of India (ESICON 2018), 15-18 November 2018, Bhubaneswar
56. Malik E, Jyotsna VP, Sharma A, Genetic screening of *MEN1*, *AIP* and *GNAS1* genes in sporadic anterior pituitary adenoma cases, 1st AIIMS Research Day, 26 March 2019, New Delhi
57. Malik E, Tandon N, Goswami R, Jyotsna VP, Ganie A, Khadawat R, Gupta Y, Sharma A, Significance of genetic testing for early diagnosis of Multiple Endocrine Neoplasia Type-2 Syndrome, 1st AIIMS Research Day, 26 March 2019, New Delhi
58. Marik B, Bagga A, Sinha A, Hari P, Sharma A, Etiology and Genotype-phenotype correlation in patients with hypophosphatemic rickets, 30th Annual Conference of Indian Society of Paediatric Nephrology (ISPNCN), 1-2 December 2018, Hyderabad
59. Marik B, Bagga A, Sinha A, Hari P, Sharma A, Identification of novel *PHEX* mutations by whole exome sequencing in patients of sporadic hypophosphatemic rickets, 9th Nextgen Genomics Biology, Bioinformatics and Technologies Conference (NGBT), 30 September-2 October 2018, Jaipur (**Travel grant-ICMR/CSIR/DBT/IAN/IASP/others**)
60. Marik B, Bagga A, Sinha A, Hari P, Sharma A, Mutational screening in patients with familial hypophosphatemic rickets, 5th International Conference on Human Genetics and Genetic Diseases, 21-22 September 2018, Philadelphia, USA (**Travel grant- ICMR/CSIR/DBT/IAN/IASP/others**)
61. Marik B, Bagga A, Sinha A, Hari P, Sharma A, Identification of Novel Mutations by Whole Exome Sequencing and Genotype-Phenotype Correlation in Patients with Refractory Rickets, 1st AIIMS Research Day, 26 March 2019, New Delhi
62. Maurya M, Nag TC, Roy TS, A study of presynaptic ribbon length and endogenous neuroprotective role of BDNF and regulatory pathway in postnatal chick retina exposed to light of variable photoperiods, 48th Annual Meeting of the Society for Neurosciences 2018, 6 November 2018, San Diego
63. Maurya M, Nag TC, Kumar P, Roy TS, Iron regulatory proteins in retinal changes induced by bright light in chicks, 36th Annual Meeting of Indian Academy of Neurosciences, 30 October 2018, Varanasi

64. Maurya M, Nag TC, Kumar P, Roy TS, Wadhwa S, Involvement of iron handling proteins in bright light-induced stress in post hatch chick retina, 1st AIIMS Research Day, 26 March 2019, New Delhi
65. Mehta K, Kaur B, Pandey KK, Dhar P, Beneficial role of Resveratrol on Arsenic trioxide induced cognitive deficits, cytoarchitectural alterations and oxidative stress in adult mice hippocampus, 36th Annual Conference of Indian Academy of Neuroscience, 28-31 October 2018, Varanasi
66. Mehta K, Kaur B, Pandey KK, Dhar P, Effect of Exogenous Resveratrol on Oxidative stress parameters and Hippocampal (CA-1) Cytoarchitecture in Mice chronically exposed to Arsenic Trioxide, 66th National Conference of Anatomical Society of India, 11-14 November 2018, Rishikesh
67. Mehta K, Kaur B, Pandey KK, Dhar P, Resveratrol supplementation shows modulatory influence on Functional and Cytoarchitectural features of Hippocampus in Mice subjected to Arsenic Trioxide Exposure 3rd IBRO/APRC Chandigarh Neuroscience School, 26 November-2 December 2018, Punjab
68. Mishra M, Arora P, Saxena S, Gupta S, Mochan S, Dheeraj K, Singh S, Bhatla N, Sharma A, Dhingra R, Rani N, Association of MMP 2 polymorphisms in Preeclampsia, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh
69. Mochan S, Dhingra R, A Comparative study of fresh and old embalmed human lungs using Plastination: Qualitative and quantitative approach, 66th National Conference of Anatomical Society of India, 12-14 November 2018, Rishikesh
70. Nayak M, Nag HL, Nag TC, Digge V, Ultrastructural and histological changes in tibial remnant of ruptured anterior cruciate ligament stumps: A transmission electron microscopy and immunohistochemistry based observational study, 1st AIIMS Research Day, 26 March 2019, New Delhi
71. Nomani K, Dadhwal V, Marik B, Dhingra R, Sharma A, To evaluate the contribution of HLA-G polymorphism in patients with recurrent spontaneous abortions, 1st AIIMS Research Day, 26 March 2019, New Delhi
72. Pal I, Jacob TG, Bhardwaj DN, Roy TS, Age-related changes in the total number of neurons and the GAD-immunoreactive neurons in human inferior colliculus: Stereological study, 48th Annual Meeting of the Society for Neurosciences 2018, 3-7 November 2018, San Diego, USA
73. Pal I, Jacob TG, Bhardwaj DN, Roy TS, Age-related changes in the parvalbumin-immunoreactive neurons in human inferior colliculus: Stereological study, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi
74. Pal I, Jacob TG, Bhardwaj DN, Roy TS, Age-related changes in levels of GAD and neuronal population in human inferior colliculus, International Conference of Japan Neuroscience Society, 26-29 July 2018, Kobe, Japan
75. Priyam K, Sharma MK, Jacob TG, Garg PK, Roy TS, Progression of Fibrosis in Mouse Model of Experimental Chronic Pancreatitis, Joint meeting of the Asian-Oceanic Pancreatic Association—The Korean Pancreatobiliary Association, and the Korean Pancreas Surgery Club 2018, 26-28 April 2018, Myeong-dong, Korea
76. Priyam K, Sharma MK, Jacob TG, Garg PK, Roy TS, Progression of Fibrosis in Mouse Model of Experimental Chronic Pancreatitis: An ultramicroscopic study, 39th Annual Meeting of the Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar (**Third prize, Poster presentation**)
77. Priyam K, Sharma MK, Jacob TG, Garg PK, Roy TS, Characterization of a Mouse Model of Early Chronic Pancreatitis, American Pancreatic Association Meeting, 31 October-3 November 2018, Miami, USA (**Young Investigator, Travel Award**)
78. Rakholia V, Agrawal S, Jacob TG, Description of a nucleus in the human midbrain, 1st AIIMS Research Day, 26 March 2019, New Delhi (**First prize, category-MBBS Students**)
79. Saini S, Jacob TG, Nag TC, Bhardwaj DN, Roy TS, Maturation of neurons and astroglia in developing human cochlear nucleus, 1st AIIMS Research Day, 26 March 2019, New Delhi (**Third prize, category PhD students**)
80. Saini S, Jacob TG, Thakar A, Roy KK, Roy TS, Morphological development of human cochlear nucleus from early prenatal to postnatal period—A stereological study, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi (**Lalita and Rabindranath travel award**)
81. Saini S, Jacob TG, Thakar A, Roy KK, Roy TS, Morphology and cytoarchitecture of developing human Cochlear Nucleus, 66th National Conference of Anatomical Society of India, 11-15 November 2018, Rishikesh
82. Saini S, Jacob TG, Thakar A, Roy KK, Roy TS, Morphological development of human cochlear nucleus—A stereological study, 48th Annual Meeting of the Society for Neurosciences 2018, 3-7 November 2018, San Diego, USA (**Travel grant-ICMR/CSIR/DBT/IAN/IASP/others**)
83. Sangwan SK, Khanna N, Sharma N, Agarwal T, Sharma A, Descriptive picture on various aspects of acute Stevens-Johnson syndrome/Toxic epidermal necrolysis, 1st AIIMS Research Day, 26 March 2019, New Delhi
84. Sarwar S, Quadri JA, Singh S, Das P, Nag TC, Roy TS, Shariff A, Fluoride induces oxidative stress, neuroinflammation and apoptosis in enteric nervous system in developing Rats, 36th Annual Meeting of Indian Academy of Neurosciences, 30 October 2018, Varanasi

85. Sarwar S, Quadri JA, Singh S, Das P, Nag TC, Marakaria G, Roy TS, Shariff A, Ameliorative effects of ascorbic acid on fluoride induced enteric nervous system developmental disorders, 1st AIIMS Research Day, 26 March 2019, New Delhi
86. Sarwar S, Quadri JA, Singh S, Das P, Nag TC, Roy, TS, Shariff A, Fluoride induced ultrastructural changes in the enteric neurons, 39th Annual Meeting of Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar
87. Sarwar S, Quadri JA, Singh S, Kar P, Nag TC, Roy, TS, Shariff A, Chronic fluoride exposure induces cardiomyopathy: An experimental study, International Conference on Health and Air Pollution: Effects and Managements, 8 September 2018, New Delhi
88. Sarwar S, Quadri JA, Dubey V, Singh S, Das P, Nag TC, Roy TS, Shariff A, In-utero fluoride exposure induces developmental defects in gut smooth muscle cells, International Conference on Health and Air Pollution: Effects and Management, 7-8 September 2018, New Delhi (**Best poster award**)
89. Sarwar S, Quadri JA, Singh S, Nag TC, Roy TS, Shariff A, Fluoride induces oxidative stress neuroinflammation and apoptosis in enteric nervous system in developing Rats, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi
90. Sarwar S, Quadri JA, Singh S, Das P, Nag TC, Roy TS, Shariff A, Fluoride induced glial cell changes in the myenteric plexus of neonatal Rats, 34th Conference of the International Society of Fluoride Research, 18-20 October 2018, Guiyang, China
91. Sarwar S, Quadri JA, Singh S, Nag TC, Roy TS, Shariff A, Chronic fluoride exposure induces cardiomyopathy: An experimental study, 34th Conference of the International Society of Fluoride Research, 18-20 October 2018, Guiyang, China (**Best poster award**)
92. Sesham K, Asmita, Sachan A, Annapurna, Rani N, Kaler S, Singh S, A case report of variation in muscle pattern due to defect in myogenesis in the sole, 66th National Conference of Anatomical Society of India, 11-15 November 2018, *Rishikesh*
93. Sharma MK, Kumari P, Chaudhari E, Jacob TG, Garg PK, Roy TS, Modes of Cell Death in Different Grades of Severity in Caerulein-Induced Experimental Acute Pancreatitis, Joint Meeting of the Asian-Oceanic Pancreatic Association, the Korean Pancreatobiliary Association, and the Korean Pancreas Surgery Club 2018, 26-28 April 2018, Seoul, Korea (**Best poster award**)
94. Sharma MK, Priyam K, Jacob TG, Garg PK, Roy TS, Study of Acinar Injury and Formation of Autophagosome in Caerulein Induced Pancreatitis, 39th Annual Meeting of the Electron Microscope Society of India, 18-20 July 2018, Bhubaneswar
95. Singh P, Gupta S, Ray SB, Inflammatory effect of Octreotide, a somatostatin analogue in Rats and its comparison with morphine, 36th Annual Meeting of Indian Academy of Neurosciences, 29-31 October 2018, Varanasi (**Travel grant-ICMR/CSIR/DBT/IAN/IASP/others**)
96. Singh R, Gupta R, Grover T, Ambekar A, Jain R, Sharma A, Association of the Genetic variations in monoamine pathway genes with Alcohol Dependence, 1st AIIMS Research Day, 26 March 2019, New Delhi
97. Singh R, Singhal D, Pandit MA, Sarkar S, Gupta R, Balhara YPS, Jain R, Sharma A, Genetic and Epigenetic study in Opioid dependence patients, 71st Annual National Conference of Indian Psychiatric Society, 31 January-3 February 2019, Lucknow
98. Subhash B, Singh S, Saba S, Quadri JA, Anam A, Rani N, Dheeraj K, Aditi D, Shariff A, Morphology of Smooth Muscle at Different Gut Segments of Human Fetuses, 66th National Conference of Anatomical Society of India, 11-15 November 2018, *Rishikesh*
99. Tolahunase M, Chaurasia P, Sagar R, Dada R, Impact of Yoga and meditation based lifestyle intervention on Depression, Quality of Life, and Cellular Aging in Infertile Couples, ASRM 2018—74th American Society for Reproductive Medicine Scientific Congress and Expo, USA, 6-10 October 2018, Colorado, USA (**Travel grant-ICMR/CSIR/DBT/IAN/IASP/others**)
100. Tolahunase M, Sagar R, Kumar R, Dada R, Impact of Yoga based lifestyle intervention on Depression, Quality of Life, and Cellular Aging in Infertile Couples, 1st AIIMS Annual Research Day, 26 March 2019, New Delhi

RESEARCH

Funded projects

Ongoing

1. A translational randomized trial of yoga based lifestyle intervention for Major Depressive Disorder (MDD) management in India and analyzing biomarkers of cellular aging associated with it, Rima Dada, Ayush, 3 years, 2016-2019, Rs 30.0 lakhs
2. Age related changes in the human inferior colliculus: A morphological and neurochemical study, TS Roy, DST, 3 years, 2018-2021, Rs 43.86 lakhs

3. Age related morphological and neurochemical changes in the human inferior colliculus, TS Roy, AIIMS, 1 year, 2017-2018, Rs 4.50 lakhs
4. Analysis of Sperm DNA damage in fathers of children with non-familial childhood cancer, Rima Dada, ICMR, 3 years, 2015-2018, Rs 36.0 lakhs
5. Apoptosis and mitosis in developing human cochlear nucleus, TS Roy, ICMR-SRF, 1 year, 2017- onwards, Rs 4.56 lakhs
6. Development of Quick and Specific Detection System of EWS-FLI-1 Fusion Protein, SC Yadav, DBT, 3 years, 2019-2022, Rs 79.86 lakhs
7. DST FIST, TS Roy, DST, 5 years, 2018-2023, Rs 150 lakhs
8. Effect of angiotensin receptor modulation in rat middle cerebral artery occlusion: A morphological and biochemical study, TS Roy, DBT-JRF, 3 years, 2017-onwards, Rs 3.30 lakhs
9. Effects of lifestyle interventions and psychological stress on markers of aging, Rima Dada, ICMR, 3 years, 2017-2020, Rs 40.0 lakhs
10. Evaluation of genetic basis of congenital hereditary endothelial dystrophy And clinical phenotyping of mutation positive and negative cases, Arundhati Sharma, AIIMS, 2 years, 2017-2019, Rs 10.0 lakhs
11. External delivery of Cisplatin using Human Papilloma Virus (HPV 16) based nanocarriers for treatment of cervical cancer, S C Yadav, AIIMS-IIT Delhi, 2 years, 2019-2020, Rs 10.0 lakhs
12. Fluoride induce anemia during pregnancy ... A pilot study, A Shariff, DST, 3 years, 2016-2019, Rs 25.0 lakhs
13. Genetic study of patients with refractory rickets and hypophosphatemia, Arundhati Sharma, ICMR, 3 years, 2015-2018, Rs 30.0 lakhs
14. Genome-wide association study of phenotypic extremes in primary angle closure glaucoma, Arundhati Sharma, DBT, 3 years, 2016-2019, Rs 54.0 lakhs
15. Magnetic nanoparticles and quantum dots coupled visual confirmation of cervical cancer cells from cytology sample: A cost effective, quick and suitable test for rural Indian setup, S C Yadav, SERB, 3 years, 2018-2021, Rs 38.68 lakhs
16. Role of Hydrogen Sulphide as a pharmacological modulator in adverse pregnancy outcomes like preeclampsia, Renu Dhingra, DST, 3 years, 2018-2021, Rs 45.0 lakhs
17. Role of micro RNA-22/specificity protein-1/cystathionine beta synthase axis in trophoblast cell invasion and their status in Preeclampsia, Renu Dhingra, ICMR-SRF, 2 years, 2018-onwards, Rs 4.56 lakhs
18. Role of synaptic plasticity at spinal level in persistent pain conditions in rats, Saroj Kaler Jhajhria, AIIMS, 2 years, 2018-2020, Rs 10.0 lakhs
19. Role of Th-17 Cells in Rheumatoid Arthritis in Indian population, A Shariff, ICMR, 4 years, 2015-2019, Rs 60.0 lakhs
20. Status of molecules regulating trophoblast migration in patients of preeclampsia and role of hydrogen sulphide in mediating migration during placentation, Renu Dhingra, ICMR-SRF, 2 years, 2018-onwards, Rs 4.56 lakhs
21. Ultrastructural and immunohistochemical analysis of human choroidal vessels with normal aging, TC Nag, ICMR, 3 years, 2015-2018, Rs 21.4 lakhs
22. Unravelling the role of novel proteins in gastroenteropancreatic and respiratory neuroendocrine tumors, Neerja Rani, DST, 3 years, 2019-2022, Rs 50.0 lakhs

Departmental projects

Ongoing

1. A study of dopaminergic neurons in the myentric plexus of ulcerative colitis patients
2. A study of genetic factors associated with recurrent spontaneous abortions
3. A study on the genetic association and correlation of Monoaminergic and GABAergic pathway gene polymorphisms with brain imaging (PET/SPECT) in Alcohol and Opioid Dependence
4. A study on the role of ADH and ALDH gene variants in Alcohol Dependence
5. A study to evaluate association of Single Nucleotide Polymorphisms and Epigenetic changes in Neurotransmitter Genes in Opioid Dependence
6. Age changes in the human inferior colliculus
7. Age changes in the human spiral ganglion
8. Age changes in the human trochlear, abducent and cochlear nerve
9. An association study of cystathionine beta synthase gene polymorphism in Preeclampsia

10. Assessment of the efficacy of nanodrug delivery system for the treatment of open angle glaucoma in animal model
11. Association of non-classical HLAG gene polymorphisms in RA and Impact of Yoga intervention
12. Autophagy and Neurogenesis in Middle Cerebral Artery Occlusion Model of Stroke in Wistar Rats
13. Characterization of a novel GHRHR mutation causing Isolated Growth Hormone Deficiency
14. Detection of beacon based diagnostic assay for detection of BCR-ABL translocations, mt mutations, oxidative stress in CML patients
15. Development of nanoparticles-based detection system for cervical cancer cells from cytology samples
16. Development of the human cochlear nucleus
17. Effect of angiotensin receptor modulation in rat middle cerebral artery occlusion: A morphological and biochemical study
18. Effect of curcumin on mice basal forebrain structures following arsenic trioxide exposure
19. Effect of curcumin on murine model of mild acute pancreatitis
20. Effect of garlic (*Allium sativum* L) extract on mice models of chronic pancreatitis
21. Effect of hydrogen sulphide on migration of human trophoblast cells and its status in Preeclampsia
22. Effect of resveratrol on arsenic trioxide induced cardiac toxicity in mice
23. Effect of resveratrol supplementation on cognitive function and Estrogen receptor profile in hypothalamus and hippocampus of Arsenic trioxide-exposed adult female mice
24. Effects of fluoride in the development of enteric nervous system.....an experimental study
25. Epigenetic changes during epithelial to mesenchymal transition in trophoblast cells under physiological and pathological conditions
26. Epigenetic changes of Dopaminergic pathway genes and association of GRIN2A gene polymorphism in Alcohol Dependence and Opioid Dependence
27. Epigenetic regulation of brain-derived neurotrophic factor in the central auditory pathway and hippocampus of neonatal chicks exposed to prenatal sound stimulation
28. Evaluation of autofluorescence in human nervous tissue
29. Evaluation of L-arginine induced chronic pancreatitis in Mouse
30. Evaluation of possible association of opioid dependence with *SLC6A4* and *TPH2* polymorphisms
31. Evaluation of the role of curcumin supplementation on Arsenic trioxide induced neurotoxicity in the basal ganglia of mice
32. Expression of miR-22, Specificity protein-1 and cystathionine beta synthase in Preeclampsia and their role in Trophoblast Invasion
33. Expression of nerve growth factor in colorectal carcinoma patients
34. Expression of n-myc downstream regulated gene 4 (*ndrg4*) in enteric neurons of colonic tissue of Colorectal carcinoma patients
35. Expression patterns of iron regulatory proteins in rat retina with aging and in experimental iron overload
36. Genetic and Epigenetic profiling in patients of Anterior Pituitary Adenoma
37. Genetic and molecular basis of retinoblastoma
38. Genetic screening of patients with Men2 syndrome
39. Genetic study of Posterior Polar Cataract chick retina
40. Immunohistochemical analysis of High Mobility Group Box 1 (HMGB1) and Receptor for Advanced Glycation End products (RAGE) in different zones of early and late onset preeclamptic placenta
41. Immunohistochemical and quantitative analysis of Cytokeratin19 and cKIT in Gastrointestinal and Respiratory Neuroendocrine Tumors
42. Immunohistochemical study of microglial activation and AMPA receptors in hippocampus of Rat Model of experimental neuropathic pain
43. Impact of preoperative topical steroids on trabeculectomy outcomes: A RCT
44. Impact of short term Yoga based intervention on obesity
45. Impact of Yoga and meditation on Epigenome in Rheumatoid Arthritis
46. Impact of Yoga based intervention on quality of life of glaucoma patients
47. Light-induced oxidative stress and endogenous neuroprotective mechanisms in post-hatch

48. Molecular analysis in Depression: A case control study
49. Molecular studies in Fibromyalgia
50. Morphological study of developing Cochlear nucleus
51. Mutation analysis in Anti Mullerian Hormone gene in poor responders
52. Mutation analysis of candidate genes (NR5A1, DAX1, DHH, DMRT1, SOX9, SRY, WT1) in patients with Gonadal dysgenesis and 46,XY karyotype
53. Mutational studies in patients with Refractory rickets and Hypophosphatemia
54. Paternal factors in embryonic development
55. Remodeling in horizontal cells following light-induced retinal damage in Rat
56. Role of autophagy in experimental acute pancreatitis with special reference to inflammation and cell death
57. Role of Hydrogen Sulphide as a pharmacological modulator in adverse pregnancy outcomes like Preeclampsia
58. Role of micro RNA-30 in cystathionine gamma lyase mediated trophoblast cell invasion and status in Preeclampsia
59. Role of miRNA in modulating trophoblast cell invasion
60. Role of miRNA in regulation of angiogenic factors in trophoblast cells
61. Study of the association of matrix metalloproteinase-9 gene polymorphism in Preeclampsia
62. Study on the association of Polymorphism, Methylation and Expression status of Monoamine Pathway genes with Alcohol Dependence
63. Study to identify the genetic basis underlying Stevens–Johnson Syndrome (SJS)
64. Telomere dynamics in male infertility
65. To study phenotype genotype correlation in patients with 5 alpha reductase 2 deficiency and androgen insensitivity
66. To study the role of seminal biomarkers as a non-invasive diagnostic tool in evaluation of male infertility secondary to azoospermia
67. Visual, rapid, non-invasive and cost-effective BK Virus Detection System
68. Yoga based intervention on inflammatory markers and gene expression in blood aqueous and trabecular meshwork in POAG: A RCT

Completed

1. Age related changes in the Human Inferior Colliculus: A morphological and neurochemical study
2. Age related morphological and neurochemical changes in the Human Spiral Ganglion
3. Effect of resveratrol on arsenic trioxide induced cardiac toxicity in mice
4. Morphological study of enteric glia in Colorectal Carcinoma
5. Role of MMP2 promoter Polymorphisms in Preeclampsia
6. Role of Soluble Vascular Endothelial Growth Factor Receptor-1 (sVEGFR-1/sFLT-1) in Endoplasmic Reticulum Stress in Preeclampsia—An *in vitro* study
7. Study of Association of MMP9 gene polymorphisms in Preeclampsia
8. Study of the expression of parvalbumin and calbindin in the Aging Human Inferior Colliculus

Collaborative projects

Ongoing

1. A novel Immuno Nano Fluorescence Assay (INFA) system for noninvasive detection of prostate cancer using urine-based protein biomarkers, PSA and MSMB, Pathology
2. Cytogenetic and molecular analysis in infertility, Anatomy Department, AIIMS, Raipur
3. Decipher mechanistic basis of the intracellular trafficking of the optically active Nanoparticles using super resolution microscopy, JNU
4. Development and validation of electro-mechanical partial task trainers for minimally invasive ventricular, skull base and spine neurosurgery and inertial/haptic sensor-based objective evaluation of neuro-endoscopic skills, Neurosurgery
5. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, Neurosurgery
6. Development of procedure-based Neuro-endoscopic simulation modules and their integration with interactive E-learning platform for advanced neurosurgery skills training curriculum, Neurosurgery

7. Effect of transcranial, magnetic stimulation on pain modulation status in fibromyalgia patients, Physiology
8. Electroencephalographic changes in early and advanced Glaucoma, R P Centre for Ophthalmic Sciences
9. Evaluation of the effect of mindfulness based stress reduction in patients with advanced primary open angle glaucoma, RP Centre for Ophthalmic Sciences
10. Genetics of alcohol and drug dependence, Psychiatry
11. Genetics of angle closure glaucoma, R P Centre for Ophthalmic Sciences
12. Genetics of MEN2 syndrome, Endocrinology, MEN1 gene mutation in patients of primary hyperparathyroidism, pancreatic tumors and pituitary tumors and its clinical implications, Endocrinology
13. Genetics of posterior polar cataract, R P Centre for Ophthalmic Sciences, Collaborative neuro-engineering platform for excellence in innovation and translation research, Neurosurgery
14. Genetics studies in hypophosphatemic rickets, Paediatrics
15. Genetics studies of cardiomyopathies, Cardiology
16. Genome wide analysis to explore stress, inflammation and cellular aging following short and long term Yoga based intervention in obesity and DM, Physiology
17. Genotype and phenotype correlation in POAG, RP Centre for Ophthalmic Sciences
18. Identification and characterization of novel genetic variants associated with cardiovascular diseases in diverse ethnic populations of India, Cardiology
19. Impact of advanced paternal age and poor; lifestyle on sperm epigenome: Possible etiology in autism spectrum disorder, Paediatrics
20. Impact of preoperative steroids on trabeculectomy outcomes: A randomized controlled trial, RP Centre for Ophthalmic Sciences
21. Impact of short term Yoga based intervention in obesity, Physiology
22. Impact of YBLI on MDD-RCT, Psychiatry
23. Impact of Yoga and meditation on Epigenome in Rheumatoid Arthritis, Medicine
24. Levels of Oxidative stress biomarkers in Follicular fluid of women with PCOs undergoing IVF and its relation to outcome, Obstetrics and Gynaecology
25. Loss of sperm DNA integrity in childhood cancers, R P Centre for Ophthalmic Sciences
26. Microsurgical comparison of operative exposure of internal acoustic canal through middle fossa and retrosigmoid hearing preservation skull base approaches—A laboratory investigation, Neurosurgery
27. Mutation analysis of AMH gene in poor responders, YKL40 levels in asthma, Biophysics
28. Mutation analysis of seven genes (NR5A1, DAX1, DHH, DMRT1, SOX9, SRY, WT1) in patients with Gonadal dysgenesis and 46, XY karyotype, Endocrinology
29. Oxidative stress evaluation in amniotic fluid of couples with normal and couples pregnant with fetus with congenital malformation, Obstetrics and Gynecology
30. Oxidative stress in pathogenesis of PCG, RP Centre for Ophthalmic Sciences
31. Phase-III clinical trial with intravasal injectable male Contraceptive-RISUG, Biomedical Engineering
32. Quantitative analysis of far lateral approaches, Neurosurgery
33. Retinoblastoma: Genetic and molecular study, RP Centre for Ophthalmic Sciences
34. Role of ashwagandha in management of Infertility, Guru Gobind Singh University
35. Simple, quick and onsite early diagnostic kit for pathogen detection in asymptomatic stage, National Institute of Plant Genomic Research
36. Support to Indian Institutes to Conduct Training Programme in the area of Operational Research Neurosurgery Skills Training, Neurosurgery
37. To study the gene mutations in the patients with 46 XY DSD due to Gonadal Dysgenesis/Agenesis, Endocrinology
38. Yoga and impact on QOL in Glaucoma, R P Centre for Ophthalmic Sciences
39. Yoga based intervention on inflammatory markers and gene expression profile in blood, aqueous and trabecular meshwork of primary open angle glaucoma patients: A randomized controlled trial, RP Centre for Ophthalmic Sciences

Completed

1. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, Neurosurgery

2. Genetic studies in congenital cataract, R P Centre for Ophthalmic Sciences
3. Genetic studies in LHON, R P Centre for Ophthalmic Sciences
4. Neurosurgery skills training facility with 3D endoscopic and 3D microscopic facility and central repository server for archival, streaming and teleconferencing, FIST DST FIST Programme DST FIST Level 2, Neurosurgery
5. Radiological and microsurgical comparison of the operative exposures obtained through far lateral and transcondylar approaches in injected cadaveric human heads, Neurosurgery
6. Role of hydrogen sulphide in migration of human trophoblast cells and its impact on placentaion: An in-vitro study, Obstetrics and Gynecology

PUBLICATIONS

Journals: 46 Abstracts: 17 Chapters in books: 1

PATIENT CARE

Genetic Diagnostic and Counselling Services

Karyotyping	300		
<i>Molecular screening</i>			
Corneal dystrophy	20	MEN2A syndrome	22
Miscellaneous cases	70		

Embalming of Dead Bodies	644		
For transportation	614	For teaching/research	30

Fluorosis Diagnostic Laboratory: Fluoride Estimation

Urine	40	Blood/serum	40
Drinking water	47		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

The students of the department presented their research work in several National and international conferences. Many of them won several awards which are listed below. Dr HK Chatterjee Memorial Gold Medal was presented to Dr Sankat Mochan and Dr Inderjit Dewan Gold Medal for best poster was awarded to Ms Pallavi Aroara. Best oral and poster presentation awards were received by Ms Pallavi Arora, Dr Sankat Mochan, Ms Surbhi Gautam, Shilpi Bisht, Priyam Kumari, Kishore Sesham, Indrapal, V Rakholia (a first year MBBS student), Surbhi Saini and Saba Sarwar. Ms Priyam Kumari received the young investigator award.

Travel grants by extramural funding agencies like the ICMR, DBT, DST and CSIR were received by Dr Vidhu Dhawan, Ms Surbhi Gautam, Ms Binata Marik, Ms Shubhi Saini, Ms Madhuri Tolahunase and Dr Mayank Gautam. Ms Shubhi Saini also received the Lalita and Rabindranath Travel Award. Ms Binata Marik received YUVA Scholarship which included travel grant, registration and accommodation in an International conference. She also received a first prize in essay writing on Crisper-cas9 in the conference. Travel grant from the International Association for the Study of Pain (IASP) was awarded to Dr Mayank Gautam and Ms Shivani Gupta. Travel award from the Indian Academy of Neurosciences was received by Mr Perminder Singh.

Professor TS Roy continued as member of the Editorial board of the Journal of the Anatomical Society of India and Medicine; is associate editor of the journal Pancreas; is Central Public Information Officer (CPIO) for disclosure under RTI for Anatomy Department; was Chairperson, Store Purchase Committee, DO, MBBS Preclinical Curriculum Committee; is Chairperson of the Institute Cultural Committee; was member of various cultural, sports and welfare activities. Under his chairmanship various events were held e.g. Malhaar; Institute Day and AIIMS Got Talent (AGT) at the Institute during the year 2018-2019. He was Member of the PhD Reforms Committee, Staff Council, Centralized Core Research Facility and Anti Ragging Committee of AIIMS, Member Core Committee for AIIMS Convocation; was member of UG Expert Group Committee of the Board of Governors, Medical Council of India; was Member Board of Studies in Anatomy, JN Medical College, Aligarh; was paper setter and conducted comprehensive viva for PhD course at National Brain Research Center (NBRC) Manesar; was PhD examiner for Baba Farid University, Faridkot, and Aligarh Muslim University; was a judge for poster session for International Conference on Microscopy and 39th Annual Meeting of Electron Microscopy Society of India at Bhubaneswar, Orissa, Conference on Neuroscience and 36th Annual Meeting of IAN at Varanasi, UP, National Conference of Anatomical Society of India (NATCON-66) at AIIMS, Rishikesh; chaired sessions in the 10th Annual Conference of the Indian Society of Neuro Oncology, AIIMS, New Delhi; International Conference on Microscopy and 39th Annual Meeting of Electron Microscopy Society of India at Bhubaneswar, Orissa; Advances and updates, Biogerontology and Aging Asia Pacific Geriatric Medicine Network meeting at AIIMS, New Delhi; International Conference on Conjoined Twins at AIIMS, New Delhi; CMC and Workshop on Musculoskeletal Interventions, organized by NAMS,

New Delhi and Conference on Neuroscience and 36th Annual Meeting of IAN at Varanasi, UP; Chaired sessions at 3rd Afro Asia Stereology Congress, MAMC, New Delhi; was invited as external expert for the selection of faculty members by AIIMS Rishikesh, AIIMS Jodhpur, AIIMS Manglagiri, ESIC Medical College, Hyderabad and PGIMER Chandigarh; reviewed manuscripts for the journals Annals of Indian Academy of Neurology and Anatomical Society of India; conducted the MD (Anatomy) exam of Delhi University, a workshop on Stereology, as part of IBRO Conference at AIIMS, New Delhi on 22-23 October 2018 and 3rd Afro Asian Stereology Congress, MAMC and AIIMS; was visiting faculty in the MSc Neuroscience Programme at Jiwaji University, Gwalior, Madhya Pradesh; attended the following conferences/meeting/symposia: EMSI Conference, Bhubaneswar, meeting of Board of Studies for Amity Institute of Neuropsychology and Neurosciences, Amity University, Noida, Symposium on “Aligning Medical Education with the National Health Policy” at CMC, Vellore, International Conference on Neuroscience and 36th Annual Meeting of IAN at Varanasi, presented poster at 48th Annual Meeting of Society for Neurosciences at San Diego, USA, 66th Annual Conference of the Anatomical Society of India, at AIIMS, Rishikesh.

Professor A Shariff served as the Professor in charge, Computer Facility; also served as the Chairman of the CCTV Committee, Committee for procurement of computer printers for Exam Section and Tele Medicine Facility; was a Member of the Doctoral Committee, Departmental Promotion Committee, Ethics Committee, Library Committee, Store Purchase Committee, Selection Committee, SVT Committee and Technical Specification Committee of KLWig CMET.

Professor Pushpa Dhar was an Expert of the Board for the interview of faculty positions in Anatomy at Dr Baba Saheb Ambedkar Medical College and Hospital, Government of NCT, Delhi, Expert member of the Selection Committee for Walk-in-interview for post of SR on regular basis in Anatomy Department at MAMC, Delhi, National Editorial Board Member of the Journal of Forensic Chemistry and Toxicology; was appointed to the Board of Examiners, Delhi University (2019); chaired a Scientific Session in the IIIrd Asian and African Stereology Congress at MAMC, Delhi.

Professor SB Ray served as an external examiner for regular and supplementary Ist Professional MBBS examination in Anatomy at Delhi and Indraprastha Universities; was the external examiner of PhD thesis at the Department of Neurophysiology, National Institute of Mental Health and Neurosciences, Bangalore; was appointed Visiting Faculty at Jiwaji University Gwalior for teaching MSc Neuroscience course.

Professor Rima Dada was felicitated and received Lalor Foundation Award at Annual Meeting of American Society of Andrology, and Best Researcher Award in Molecular Biology in 2019 by IJRULA and World Research Council; received Certificate of Commendation Award for the outstanding publication in Clinical Research at 63 AIIMS Foundation Day; was nominated as fellow of NAMS and FIMSA; was nominated as board of governors and member PG Expert Group of MCI and Member Specialty Board for Anatomy by NBE; was member of expert committee to review proposals for DM Medical Genetics; continues to be on editorial board and reviewer of several journals; was a jury member for MRC fellowships, Edinburgh and for Royan International Research Awards in Reproductive Biomedicine; is member of ICMR task force on male Infertility; reviewed projects for DBT, UGC, ICMR, IndoUS Technology Forum, Welcome Trust; was also member ICMR expert committee meeting to establish centres for advanced research under CARE; is external faculty for Genetics at HIMS, and DDC, ND; gave skype interviews and appeared in documentary on impact of Yoga in complex lifestyle diseases on Doordarshan; works on genetic, lifestyle factors and Yoga impact on health and wellness appeared in all leading national and several international newspapers (over 15 times); received “certificate of honour” during CME for Yoga Teachers organized by MDNIY, Ministry of AYUSH, GOI; has evaluated MD PhD theses in Genetics and was external examiner PhD Genetics at GNDU, Ambedkar Centre, CCMB and South Campus; was also nominated by MCI and accreditation council for assessment, accreditation, academic audit of various medical colleges; delivered 4 Plenary and 26 invited lectures; chaired session in 12 conferences. Her student received best prize (third) on Institute Research Day; PhD students received Newton Bhabha fellowship and was also selected for 68th Lindau Nobel laureate meeting, Germany; students received best paper award, First and Second prize at various national international meetings as NBRCOM 2018, travel award from immunology foundation, CSIR. She is Committee Member of the NBE for “Validation of MCQ Question Bank” and member of sexual harassment committee; conducted pregress workshop on Holistic Medicine at Ferticon (Annual Meeting of IFS); is member Reception Committee for AIIMS Convocation, Committee for Selection of DMA medal for the year, Member of Institute Biosafety Committee on Recombinant DNA Research; member of curriculum committee; was faculty in charge student’s union elections; was invited for SR and faculty selection to various medical colleges; reviewed Snails textbook of Neuro Anatomy and Longman’s Embryology.

Professor Arundhati Sharma acted as a reviewer for many PhD theses and has been an external examiner for PhD viva at NIMHANS, Bangalore; has reviewed many manuscripts for possible publication of several journals and also project proposals of various extra mural funding agencies; is one of the members of the skill India initiative of the

government of India; has served as one of the judges for research work evaluation in the First AIIMS Research Day Programme.

Professor Renu Dhingra was Chairperson in scientific session in NEURO-ISNOCON held on 5 April 2018 and 66th National Conference of Anatomical society of India, held from 12-14 November 2018 in Department of Anatomy, AIIMS, Rishikesh; was appointed as Life Member of Virtual Teaching Society of India and Founding Fellow of the Virtual Teaching Society of India in February 2018; received second position award in Oral Presentation in an International Health Conference held in Colombo in October 2018. Research work being done in my lab also received two other prestigious awards Dr HK Chatterjee Memorial Gold Medal for Oral Presentation and Dr Inderjit Dewan Gold Medal for Best Poster in Clinical Anatomy; was Technical Advisor, Anatomy Musculo-skeleton Ultrasound Society; Member of International Society of Plastination; Executive Member of DASMOS and Member of Teaching Schedule Committee of AIIMS; Member of the Academic Advisory Panel for Virtual Teaching in AIIMS; faculty in-charge stores; external examiner for MTR course at NDMC Hindu Rao Hospital and BDS course at MAMC Medical College; Expert for faculty selection of various Medical Colleges; Reviewed Projects from ICMR, postgraduate thesis from other Medical Colleges, research articles submitted to various journals; Resource faculty in various workshops: Esthetic Express 2018, Hands-on Workshop Plastination ESIC Medical College and Hospital, International Brain Research Organization, Asia Pacific Regional Committee School 2018 on Neural Plasticity in Health and Disease and Cadaveric Ultrasound Guided Regional Anaesthesia Workshop.

Professor TC Nag reviewed manuscripts for Microscopy and Microanalysis, Cell Tissue Organs, Microscopy Research and Techniques, Frontiers in Pharmacology, Current Pharmaceutical Designs, Biomedicine and Pharmacotherapy, Scientific Reports, General and Comparative Endocrinology, Oxidative Medicine and Cellular Longevity, Journals and DST-SERB research projects for financial support; chaired scientific sessions at XXXVI Annual Meeting of Indian Academy of Neurosciences (BHU) and in 66th Annual Meeting of Anatomical Society of India (NATCON 66) held in AIIMS, Rishikesh.

Dr SK Jhajharia was awarded Dr PC Bansal Memorial Gold Medal for published papers in Journal of Anatomical Society of India; received International Grant from International Association for the Study of Pain for the 17th **World Congress on Pain, 2018 held in Boston, USA and was a** resource faculty for Ultrasound for Anesthesiologists CUSA workshop held in December 2018.

Dr Tony George Jacob was involved in the organisation of three international workshops - for editors, for stereologists from Asia and Africa and for neuroscientists from Asia; was awarded the Membership of the National Academy of Medical Sciences; continues to be on the Working Committee of the National Medical Journal of India and is a reviewer for numerous national and international peer-reviewed journals; is also a subject expert for the National Board of Examinations and for Science and Engineering Research Board, DST.

Dr Neerja Rani served as Guest faculty at Jiwaji University, Gwalior for MSc Neuroscience course; is also a Resource faculty for a various workshops and symposia - 11th AIIMS Cadaver Arthroplasty Course-2019, Ultrasound for Anesthesiologists CUSA and Neural Plasticity in Health and Disease, IBRO, 2018; reviews manuscript for Histology and Histopathology Journal, served as an External Examiner (Anatomy) and paper setter for 1st year MBBS at PGIMS Rohtak, HIMSR Jamia Hamdard to conduct practical and viva-voce examination and External Examiner (Anatomy) to conduct practical and viva-voce examination for various paramedical examinations at PGIMS, Rohtak (BPO, BOT, and BPT) and HIMSR Jamia Hamdard; was a paper setter for BSc Nursing First Year Annual Examination, 2018.

Dr Seema Singh was the Nodal Officer for organizing anatomy classes for BSc dental courses (DORA and DH); was a Member of the editorial board of the Human Anatomy Open Access Journal; Participated and contributed in various conferences and workshops like the 66th NATCON ASI, 34th Conference of the International Society of Fluoride Research, International Conference on Neuroscience and XXXVI Annual Meeting of IAN, Comprehensive Symposium on Ultrasound for Anaesthesiologist, 2018; is a Visiting faculty at Jiwaji University, Gwalior for the MSc Neuroscience Course.

VISITING SCIENTIST

1. Dr Phalguni Anand Alladi, Department of Neurophysiology, NIMHANS, Bangalore, India.
2. Professor Süleyman Kaplan, Department of Histology and Embryology, Medical School Ondokuz Mayıs University, Samsun, Turkey.

9.3. Biochemistry

Professor and Head

Subrata Sinha

Professors

SS Chauhan
Kalpana Luthra

MR Rajeswari
Alpana Sharma

PP Chattopadhyay
Kunzang Chosdol

Associate Professors

Sudip Sen

Archna Singh-I

Assistant Professors

Archana Singh-II
Ashok Sharma
Rakhee Yadav

Jayanth Kumar P
Pragyan Acharya

Subhradip Karmakar
Riyaz Ahmad Mir
Pramod Kumar Gautam

HIGHLIGHTS

- **41 research projects** are ongoing in the department funded by various national and international agencies such as DBT, DST, ICMR, DHR, DRDO, UGC (MOOCS), Indo-Austrian, Wellcome Trust, Ministry of AYUSH and Intramural AIIMS, amounting to Rs **17.0 crores** and **9 research projects (Rs 2.0 crores)** were completed this year
- **56 departmental projects** and **51 collaborative projects** are ongoing with different faculty of the department
- **45 research publications** and **11 abstracts** published in indexed National and International Journals of repute
- **55 Invited talks** were delivered by the faculty and **66 research papers** were presented by faculty/research students (oral/poster) at various national and international scientific forums
- Two faculty members received **AIIMS Excellence Award-2018**
- Faculty and students received various awards and prizes for oral presentations along with travel grant at various national and international conferences
- 12 MSc, 13 MD, 6 SR and 34 registered PhD students are working in the department
- The practicals for MBBS and coursework for MD and MSc students teaching curriculum was further expanded to add more advanced classes in various topics encompassing the current advances in research
- Department organized a Symposium on World Immunology Day on 1 May 2018; ISTR-AIIMS Symposium on Translational Research in Biomedical and Agricultural Sciences on 6 and 7 July 2018 and Symposium on “Mathematics in Biomedical Sciences—An Introduction” on 10 March 2019 at AIIMS, New Delhi
- Department is providing **clinical services** to the patients and performed different tests in total of **13,907 samples**

EDUCATION

Undergraduate

The department introduced some modifications in the UG teaching curriculum, aimed at enhancing both the skill development and to keep the knowledge at par with the current developments in biochemistry. Case discussions related to didactic lectures and demonstration practical on POCT devices for glucose monitoring and pregnancy testing were introduced to improve the theory-practical connect. Kit based practicals were introduced for some of the routine biochemical analytes (Uric acid and HDL cholesterol) for students to appreciate the differences between traditional and auto-analyser based methods in use. Techniques related to current applications in molecular biology such as restriction digestion and restriction site mapping were also added to the curriculum.

Postgraduate

These include 12 MSc and 13 MD students. The department also has 34 PhD students. There are three DST women scientists and four N-PDF working as post doctoral students.

The postgraduate teaching curriculum was further expanded to add more advanced classes in the Cell Biology, Cancer Biology, Immunology, Metabolism and Systems Biology modules. The ‘Clinical Case Discussion’ has been modified to discuss complex case reports from various journals for the junior and senior residents.

As Course Coordinator, Dr MR Rajeswari has successfully completed the SWAYAM-MOOCs course in December 2018 on BIOMOLECULES, a National project (National Mission on Education through Information and Technology (NME-ICT) by UGC-MHRD and currently offering another 2 courses January-2019 onwards.

Conferences organized

- A Symposium on World Immunology Day on 1 May 2018 was organized by the department (Professor Alpana Sharma) at AIIMS under the auspices of Indian Immunology Society
- Department organized the ISTR-AIIMS Symposium on Translational Research in Biomedical and Agricultural Sciences (Dr Pragyana Acharya) at AIIMS, New Delhi on 6 and 7 July 2018
- A Symposium on “Mathematics in Biomedical Sciences—An Introduction” was organized by the department (Professor Subrata Sinha) on 10 March 2019 at AIIMS, New Delhi

CMEs/Workshops/Symposia/National and International Conference

Lectures delivered

Subrata Sinha

1. Molecular reclassification of disease: How the laboratory can guide the clinic, 45th Annual Conference of Clinical Biochemists of India, 24-27 October 2018, Panjim, Goa
2. Family studies enable the dissection of impaired pathways in specific learning disability—Dyslexia, Association of Medical Biochemists of India, Annual Conference, 16 November 2018, New Delhi
3. A novel mediator for protumorigenic inflammation and hypoxia responsiveness in glioma, 38th Convention of the Indian Association of Cancer Research, 1 March 2019, Chandigarh

Shyam S Chauhan

1. Prognostic significance and interacting partners of heterogeneous nuclear ribonucleoprotein D in oral cancer, 45th Annual Conference of Clinical Biochemists of India, 24-27 October 2018, Panjim, Goa
2. Inhibition of cathepsin B which compromises cell survival, Promotes Apoptosis in Paediatric Acute Myeloid Leukemia is also the Mechanism of Doxorubicin Anticancer Therapy, Central Zone, Indian Academy of Biomedical Sciences Conference (IABSCON-2019), 2-3 February 2019, Lucknow, UP
3. Cysteine cathepsins and their prognostic and therapeutic relevance in Leukemia, Annual Science Day, 28 February 2019, Mehindergarh, Haryana
4. Identification of interacting partners of heterogeneous nuclear ribonucleoprotein D in oral cancer, 38th Annual Convention of Indian Association for Cancer Research, 1-3 March 2019, Chandigarh
5. Cathepsin L and B as potential markers for liver fibrosis—Insights from patients and experimental models, First AIIMS Annual Research Day, 25-26 March 2019, New Delhi

MR Rajeswari

1. Extracellular biomarkers for ataxias, Biomarkers from research to commercialisation, 24-25 May 2018, Bangalore
2. Comparative analysis of proteomics of PBMCs from ataxia patients and controls, Advanced omics technologies and approaches, 17-19 January 2019, Mumbai
3. Role of iron in pathogenesis of Friedreich's Ataxia, 56th International Conference on Medical and Health Sciences, 16-17 February 2019, Colombo, Sri Lanka
4. Influence of anticancer drug on the differential expression of proteins in Hepatoma, Asia-Pacific Conference on Life Sciences and Biological Engineering, 26-28 March 2019, Kyoto, Japan

Kalpana Luthra

1. HIV-1 immunopathogenesis and generation of human anti HIV-1 monoclonal, North Zone ACBI Conference 2018, 7-8 April 2018, AIIMS, Jodhpur
2. Immune response to HIV-1 infection and generation of anti-HIV-1 human recombinant antibodies, Invited Seminars, 12 July 2018, AIIMS, Rishikesh
3. Small group teaching and introduction to microteaching, Workshop in Medical Education, 7 August 2018, THSTI, Faridabad
4. Application of cell sorting, Workshop on Cell Sorting, 11th Annual TCS Conference and Workshops organized by the Cytometry Society-INDIA, 31 October 2018, AIIMS, New Delhi
5. Anti-HIV-1 humoral immune responses in HIV-1 infected children and isolation of cross-neutralizing antibodies, Immunocon 2018, 45th Annual Meeting of Indian Immunology Society, 2 November 2018, THSTI, Faridabad
6. Immune response in HIV-1 infected children and generation of pediatric anti-HIV-1 recombinant antibodies', IIT- AIIMS Collaboration Programme, 28 November 2018, IIT, Delhi
7. Antibody responses in pediatric HIV-1 infection, Faculty Seminar Series, 1 March 2019, THSTI, Faridabad

8. Facilitator for sessions (i) Problem based learning and microteaching (ii) Assessment of Knowledge-improving essay questions and SAQs, Basic course workshop in CMET, in Medical Health Professions and Education, 12 and 13 March 2019, AIIMS, New Delhi
9. Immune responses in HIV-1 infection: Coevolution of virus and antibody response, Seminars in Molecular Medicine and Biotechnology, 13 March 2019, AIIMS, New Delhi
10. Immune response in HIV-1 infected children and generation of pediatric anti-HIV-1 recombinant antibodies, Seminar Series, 22 March 2019, University of Biotechnology, Guru Gobind Singh Indraprasth University, (USBT, GGSIPU), Dwarka, Delhi

Alpana Sharma

1. Silencing of CD44 splice variants in Urothelial carcinoma of Bladder: A promising therapeutic approach, North Zone ACBICON 2018, 7-8 April 2018, AIIMS, Jodhpur
2. Surveying the crossroads of T cell biology in the immunopathogenesis of Pemphigus Vulgaris, Central Zone ACBICON 2018, 21-22 July 2018, KGMU, Lucknow
3. Humoral immunity and Antibody Diversity, National Seminar on Mechanisms of Immune Response, 7-8 August 2018, BHU, Varanasi
4. Diagnostic and therapeutic role of microRNAs in cancer, ACBICON 2018, 24-27 October 2018, Goa
5. Potential of Unani Medicine in Cancer, National Conference on Unani Medicine, 11-12 February 2019, New Delhi
6. microRNAs in Multiple Myeloma: Potential diagnostic and therapeutic approach, IABSCON 2019, 24-26 February 2019, Thiruvananthapuram
7. Functional determinants of CD44 splice variants in Urothelial carcinoma of Bladder: A novel therapeutic approach, National Conference on Recent Developments in Biomedical Translational Research, 11-12 March 2019, JNMC, Aligarh

Kunzang Chosdol

1. Clinical significance of novel molecular markers in Glioma, 26th AMBICON 2018, 16-18 November 2018, Delhi
2. A novel oncogenic role of FAT1 signalling in Glioblastoma, Central Zone IABSCON -2019 (IABS), 2-3 February 2019, Lucknow
3. Hypoxia promotes FAT1 regulated oncogenic and stemness properties in glioma, Hypoxia Research: Current Progress and Future Scope, 25 January 2019, Delhi

Sudip Sen

1. Using fetal neural stem cells as a disease model in cerebral palsy, Symposium on “Stem Cell Technology for Neurodegenerative Diseases”, 9 March 2019, Lucknow
2. Identifying differences between cancer stem cells and normal stem cells in colorectal cancer patients, 38th IACR Annual Meeting, 1-3 March 2019, Chandigarh
3. Isolation of cancer stem cells, Pre-Conference Workshop of IACR (Workshop on Cancer Stem Cells), 28 February 2019, Chandigarh
4. Identifying characteristics of cancer stem cells in colorectal tumors of different histopathological grades (diagnostic/therapeutic utility), Invited Lecture on Cell Sorting at the 11th Annual TCS Conference and Workshops, 31 October and 1 November 2018, New Delhi
5. Identifying characteristics of cancer stem cells in colorectal tumors of different histopathological grades in an effort to diagnose and treat aggressive tumors, 45th Annual Conference ACBICON 2018, 24-27 October 2018, Panaji, Goa

Archana Singh I

1. Mitochondrial DNA in Hematological Cancers: 26th AMBICON, 16-18 November 2018, Delhi

Archana Singh II

1. Role of vitamin D in innate immunity modulation based therapeutic targets in Pulmonary Tuberculosis, Federation of Clinical Immunology Society, 20-23 June 2018, San Francisco, USA

Jayanth Kumar

1. Flowcytometry of Hematopoietic Cells, 38th Annual Convention of the Indian Association of Cancer Research, 28 February 2019, Chandigarh

2. Role of IGF2BP family of proteins in lymphomagenesis, 38th Annual Convention of the Indian Association of Cancer Research, 2 March 2019, Chandigarh

Subhradip Karmakar

1. Ultra-structural events during erythropoiesis, XI National Conference of Association of Cough Specialists, 5-11 February 2019, Burdwan, WB
2. THSD1 as novel target in Breast Cancer, IACR, 2019, March 2019, Chandigarh, India
3. FBXO4 in breast cancer, ISRT Conference, Goa, October 2018, Goa, India
4. RNA hydroxymethyl cytosine as a novel epitranscriptomic signature associated with Acute Myeloid Leukaemia (AML), 34th Ernst Klenk Symposium in Molecular Medicine, October 2018, Cologne, Germany

Ashok Sharma

1. Epigenetic regulation of POTE genes in Epithelial Ovarian Cancer, Integrating Cancer Research into Comprehensive Disease Management: Recent Breakthroughs, 28 February-3 March 2019, Chandigarh
2. Epigenetics and human diseases, DNA Society of India, 24 April 2018, Kolkata

Pragyan Acharya

1. Analysis of *Plasmodium falciparum* Knobs: Proteomics and modeling of protein-protein interactions, 14th International Conference on Vectors and Vector Borne Diseases, 9-11 January 2019, Bhubaneswar, India
2. Investigating the human small intestine with omics approaches: Focus on celiac disease, International Conference on Proteomics for Cell Biology and Molecular Medicine, 12-14 December 2018, Pune, India
3. Innate immune system: Clinical applications, Kalinga Institute of Medical Sciences Faculty Development Programme (CME), 24-29 June 2018, Bhubaneswar, India

Riyaz Ahmad Mir

1. Inverse relationship between retinoblastoma protein and PIH1D1 component of R2TP complex in DLBCL, 45th National Conference of Association of Clinical Biochemists of India (ACBICON 2018), 26 October 2018, Kala Academy Goa

Oral papers/posters presented

1. Anita, Vijay M, Singh K, Gautam PK, Macrophage enhances the mesenchymal stem cells proliferation and differentiation, ACBICON 2018, 24-27 October 2018, Goa
2. Arora M, Gupta J, Prajapati SC, Velpandian T, Chauhan SS, Elevated Expression of dipeptidyl peptidase iii correlates with the tumor infiltrating lymphocyte composition in multiple cancers, First AIIMS Annual Research Day, 25-26 March 2019, New Delhi
3. Baidya G, Mudassir M, Tiwary R, Chattopadhyay P, Uptake of Biodegradable nanoparticles by cancer cells, Nanobiotek 2018 3rd Annual Conference of Indian Society of Nanomedicine, 25-27 October 2018, Delhi
4. Bhattacharya A, Manhas J, Bhat M, Palanichamy JK, Sen S, Characterising colorectal stem cells to develop novel diagnostic and prognostic markers for colorectal cancer, Oral Presentation at Surgery Clinical Congress, 2018, 21-25 October 2018, Boston, MA
5. Bhattacharya A, Manhas J, Dey D, Bhat MA, Das P, Pal S, Deo SVS, Parshad R, Ghosh D, Sen S, Identifying molecules to distinguish between colorectal cancer stem cells and normal colonic stem cells to develop novel diagnostic and prognostic markers, 1st Annual Research Day, AIIMS, New Delhi—Poster, 26 March 2018, New Delhi
6. Chawla H, Kumar S, Mishra N, Aggarwal H, Lodha R, Kabra SK, Luthra K, Generation and characterization of anti-HIV-1 monoclonal antibody from a subtype C infected pediatric elite-neutralizer, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi
7. Chawla H, Kumar S, Mishra N, Aggarwal H, Lodha R, Kabra SK, Luthra K, Generation and characterization of anti-HIV-1 monoclonal antibody from a subtype-C infected pediatric elite neutralizer, 1st National Biomedical Research Competition-2018, 15 October 2018, Rishikesh
8. Das D, Sharma A, Untying the role of gamma delta T cell subsets: Key players in the immunopathogenesis of pemphigus vulgaris, FIMSA 2018, 10-13 November 2018, Bangkok, Thailand
9. Devasenapathy S, Charak A, Midha R, Naskar T, Prajapati B, Kumari R, Mohammad R, Mukerji M, Singh NC, Sinha S. doi: 10.1016/j.euroneuro.2018.08.322, FAM43A: A Novel Regulator of the GABAergic Pathway is a Common Predisposing gene for Developmental Dyslexia and Attention Deficit Hyperactivity Disorder, XXVI World Congress of Psychiatric Genetics (WCPG 2018), 11-15 October, Glasgow, Scotland

10. Dey D, Agrawal SK, Shrivastava V, Bhattacharya A, Jingar P, Manhas J, Garg B, Ansari MT, Khurana A, Sen S, Symphytum officinale enhances osteogenesis in human bone marrow-derived mesenchymal stem cells in vitro, 45th Annual Conference of Association of Clinical Biochemists of India (ACBICON 2018)—Poster, 24-27 October 2018, Panaji, Goa
11. Dey D, Shrivastava V, Bhat MA, Singal CMS, Mehta A, Sharma JB, Palanichamy JK, Chattopadhyay P, Sinha S, Seth P, Sen S, Effect of hypoxia on human fetal neural stem cells and oligodendrocytes—A disease model to delineate the pathogenesis of cerebral palsy, Poster at 36th IAN Annual Meeting, 2018, 29-31 October 2018, Varanasi, UP
12. Dey D, Shrivastava V, Bhat MA, Singal CMS, Sharma JB, Palanichamy JK, Chattopadhyay P, Sinha S, Seth P, Sen S, Using human fetal neural stem cells and oligodendrocytes as a disease model to delineate the pathogenesis of cerebral palsy, 1st Annual Research Day, AIIMS, New Delhi—Poster, 26 March 2018, New Delhi (**3rd Prize, PhD Posters**)
13. Dey D, Shrivastava V, Singal CMS, Mehta A, Bhat MA, Sharma JB, Palanichamy JK, Chattopadhyay P, Sinha S, Seth P, Sen S, Evaluating the effect of hypoxia on human fetal neural stem cells in vitro, 45th Annual Conference of Association of Clinical Biochemists of India (ACBICON 2018)—Poster, 24-27 October 2018, Panaji, Goa (**Best Poster Award**)
14. Dey D, Singal CMS, Manhas J, Bhat MA, Sharma JB, Seth P, Sen S, Exposing human fetal neural stem cells and oligodendrocytes to hypoxia to explain the pathogenesis of cerebral palsy, Poster at Forum of European Neurosciences (FENS), 7-11 July 2018, Berlin
15. Dhar R, Karmakar S, FBXO4 in Breast Cancer#, ISTR Goa, October 2018, Goa, India
16. Gautam PK, Silver nanoparticle enhance M2 macrophage function and decreases tumor cell proliferation, Immunocon 2018, 1-3 November 2018, Faridabad
17. Gowda SH, Gupta Y, Malik N, Goswami S, Chattopadhyay P, Sarkar C, Suri A, Gupta DK, Sinha S, Chosdol K, Poster title “Characterisation of FAT1 processing and its interaction with β -Catenin in glioma”, First Annual Research Day of All India Institute of Medical Sciences, 26 March 2019, New Delhi
18. Gupta N, Kumar R, Khan R, Seth T, Garg B, Sharma A, Involvement of Versican, a chondroitin sulfate proteoglycan in the pathogenesis of Multiple Myeloma, 25th Biennial Congress of the European Association for Cancer Research (EACR25), 30 June-3 July 2018, Amsterdam
19. Gupta N, Kumar R, Seth T, Garg B, Sharma A, Targeting of versican by microRNAs inhibit multiple myeloma progression: A novel potential therapeutic strategy, AIIMS Research Day 2019, 25-26 March 2019, AIIMS, New Delhi
20. Gupta Y, Shivajirao SS, Irshad K, Dikshit B, Srivastav T, Chattopadhyay P, Sinha S, Chosdol K, FAT1 regulates YAP1 independent of canonical SWH pathway in Human Glioblastoma, Japanese Society of Medical Oncology Annual Meeting-2018, 19-21 July 2018, Kobe, Japan
21. Gupta Y, Shivajirao SS, Irshad K, Dikshit B, Srivastav T, Chattopadhyay P, Sinha S, Chosdol K, FAT1 on Salvador-Warts-Hippo (SWH) pathway in Human Glioblastoma, 25th EACR Annual Meeting-2018, 30 June to 3 July 2018, Amsterdam, Netherlands
22. Gupta Y, Shivajirao SS, Irshad K, Dikshit B, Srivastav T, Chattopadhyay P, Sinha S, Chosdol K, FAT1 regulates YAP1 independent of canonical SWH pathway in Glioma, 10th Annual Conference of the Indian Society of Neuro-Oncology (ISNO)-2018, 5-8 April 2018, New Delhi
23. Irshad K, Srivastava C, Malik N, Gupta Y, Sarkar C, Gupta DK, Suri A, Chattopadhyay P, Sinha S, Chosdol K, Anti-inflammatory Mediators in Glioblastoma Microenvironment, 38th Annual Convention of Indian Association for Cancer Research (IACR-2019), 1-3 March 2019, Chandigarh, India (**First prize in Roche Scholar-in-Training Award**)
24. Jain A, Bakhshi S, Kumar J, Singh A, Mitochondrial DNA copy number and Complex I activity in Paediatric Acute Lymphoblastic Leukemia, 20th Bioenergetics Conference, EBEC, 25-30 August 2018, Budapest, Hungary
25. Jha S, Das D, Mehra T, Mathur S, Karpf AR, Sharma A, Epigenetic regulation of POTE genes in Epithelial Ovarian Cancer, Integrating Cancer Research into Comprehensive Disease Management: Recent Breakthroughs, 28 February-3 March 2019, Chandigarh
26. Karmakar S, Novel targets in Breast Cancer, IACR, March 2019, Chandigarh
27. Kaur PA, Dey D, Bhattacharya A, Bansal A, Das P, Sreenivas V, Sen S, Evaluating the role of metformin on differentiation and tumor microenvironment in human colorectal carcinoma, 1st Annual Research Day, AIIMS, New Delhi—Poster, 26 March 2018, New Delhi
28. Kumar R, Gupta N, Himani, Sharma A, Novel combination of Di-indolylmethane (DIM) and dexamethasone induces apoptosis in myeloma cells by modulating the telomerase activity, AACR Annual Congress, 2018, 14-18 April 2018, Chicago

29. Kumar R, Gupta N, Seth T, Sharma A, Novel combination of tanshinone I and Dexamethasone induces apoptosis in Myeloma cells by modulating ERK/P38/JNK/NFKB Signalling pathway, 25th Biennial Congress of the European Association for Cancer Research (EACR25), 30 June-3 July 2018, Amsterdam
30. Kumar R, Himani, Kurra S, Gupta N, Sharma A, Unveiling association between Vitamin D Receptor Gene (VDR) polymorphism and multiple myeloma disease in Indian population, International Conference on Vitamin D Deficiency and its Significance in Food Fortification, 2018, 15-16 September 2018, New Delhi
31. Kumar S, Kumar R, Khan L, Makhdoomi MA, Thiruvengadam R, Mohata M, Agarwal M, Lodha R, Kabra SK, Sinha S, Luthra K, A Novel Anti-CD4-binding Site Broadly Neutralizing Monoclonal Single Chain Variable Fragment (scFv) from HIV-1 Clade-C Chronically Infected Children, HIVR4P-2018 Conference, 21-25 October 2018, Madrid, Spain **(Travel Support under AIIMS Endowment Fund and DBT International Travel Grant)**
32. Kumar S, Kumar R, Khan L, Makhdoomi MA, Thiruvengadam R, Mohata M, Agarwal M, Lodha R, Kabra SK, Sinha S, Luthra K, A novel anti-HIV-1 CD4-binding site targeted broadly neutralizing scFv isolated from a recombinant phage library constructed from the PBMCs of Indian clade-C chronically infected children, FIMSA-2018, 10-14 November 2018, Bangkok, Thailand
33. Kumar S, Panda H, Makhdoomi MA, Mishra N, Safdari HA, Chawla H, Aggarwal H, Reddy ES, Lodha R, Kabra SK, Chandele A, Dutta S, Luthra K, Unique characteristics displayed by an HIV-1 broadly neutralizing antibody identified from a subtype C chronically infected pediatric elite-neutralizer, Keystone Symposia Conference: HIV Vaccines-X7, 24-28 March 2019, Whistler, Canada
34. Kumar V, Kumar M, Chauhan SS, Transactivation of hnRNPD/Auf-1 by NF-kB (P65/RelA) in Oral Cancer, First AIIMS Annual Research Day, 25-26 March 2019, New Delhi
35. Kumawat R, Gowda SH, Debnath E, Rashid S, Niwas R, Suri A, Sarkar C, Sinha S, Chosdol K, Association of Folate Metabolising genes SNPs in Indian brain tumor patients”, 26th AMBICON 2018, 16-18 November 2018, New Delhi
36. Kumawat R, Gowda SH, Debnath E, Rashid S, Niwas R, Suri A, Sinha S, Chosdol K, Association of MTHFR gene polymorphisms with glioma and meningioma patients in Indian population”, ESMO ASIA CONGRESS 2018, 23-25 November 2018, Suntec City, Singapore
37. Malik N, Chattopadhyay P, Sarkar C, Suri A, Sinha S, Chosdol K, FAT1 gene regulates the expression of PDCD10 gene via microRNA-221-3p in glioblastoma, First Annual Research Day of All India Institute of Medical Sciences, New Delhi, 26 March 2019, New Delhi **(First prize, Oral Presentation among AIIMS PhD students)**
38. Malik N, Chattopadhyay P, Sarkar C, Suri A, Sinha S, Chosdol K, FAT1 Regulates the expression of OncomiR-221/222-3p in glioma, 10th Annual Conference of the Indian Society of Neuro-Oncology (ISNO)-2018, 5-8 April 2018, New Delhi
39. Malik N, Chattopadhyay P, Sarkar C, Suri A, Sinha S, Chosdol K, Regulation of Programmed cell death 10 (PDCD10) by FAT1 gene in human glioblastoma”, ESMO ASIA CONGRESS 2018, 23-25 November 2018, Suntec City, Singapore
40. Malik N, Chattopadhyay P, Sarkar C, Suri A, Sinha S, Chosdol K, Emerging role of FAT1 gene in the regulation of oncogenic miRNA22/222-3p in Glioma”, MAP ESMO 2018, 14-15 September 2018, Paris, France
41. Malik N, Chattopadhyay P, Sarkar C, Suri A, Sinha S, Chosdol K, FAT1 acts as an oncogene and regulate the expression of mir-221/222-3p in glioblastoma”, 25th EACR Annual Meeting-2018, 30 June to 3 July 2018, Amsterdam, Netherlands
42. Manhas J, Bhattacharya A, Agrawal SK, Bhat MA, Das P, Pal S, Deo SVS, Ghosh D, Sen S, Identifying characteristics of cancer stem cells in colorectal tumors of different histopathological grades in an effort to diagnose and treat aggressive tumors, 45th Annual Conference of Association of Clinical Biochemists of India (ACBICON 2018)—Oral Presentation, 24-27 October 2018, Panaji, Goa
43. Manhas J, Dey D, Bhattacharya A, Das P, Palanichamy JK, Sen S, Investigating the role of a novel tumor suppressor gene, TUSC1, in colorectal cancer, 45th Annual Conference of Association of Clinical Biochemists of India (ACBICON 2018)—Poster, 24-27 October 2018, Panaji, Goa
44. Mishra N, Mohata M, Narang R, Lakshmy R, Pandey RM, Das N, Luthra K, Expression of complement regulatory proteins CD35, CD46, CD55 and CD59 on leukocyte subsets in individuals with stable coronary artery disease, FIMSA-2018, 10-14 November 2018, Bangkok, Thailand
45. Mohata M, Mishra N, Narang R, Lakshmy R, Pandey RM, Das N, Luthra K, High surface expression of complement regulatory protein CD59 on lymphocytes and granulocytes positively correlates with disease severity in individuals suffering from coronary artery disease, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi **(First Prize: Oral presentation MBBS Category)**
46. Naskar T, Banerjee P, Faruq M, Sengupta S, Jain D, Singh NC, Mukerji M, Sinha S, Potential role of protocadherin gamma gene cluster in human-specific cognitive skill critical to reading, 11th FENS Forum of Neuroscience, 7-11 July 2018, Berlin, Germany

47. Naskar T, Banerjee P, Faruq M, Sengupta S, Jain D, Singh NC, Mukerji M, Sinha S, Role of Protocadherin gamma gene cluster in developing human-specific cognitive skill critical to reading, 44th Annual Conference of the Indian Society of Human Genetics, 31 January to 1 February 2019, Kalyani, India (**Best Poster Award**)
48. Nidhi T, Sharma G, Chattopadhyay P, Chopra A, Bakhshi S, Palanichamy JK, A study on EGFL7 expression in ETV6-RUNX1 positive B-ALL patients, 38th Annual Convention of the Indian Association of Cancer Research, 2 March 2019, Chandigarh
49. Panda S, Sahu KK, Luthra K, Sharma SK, Singh A, Role of regulatory proteins involved in iron homeostasis in pulmonary tuberculosis and household contacts compared to healthy controls at, ACBICON 2018, 24-27 October, Goa
50. Panda S, Tiwari A, Luthra K, Sharma SK, Singh A, Role of Vitamin D and its associated molecules in innate immunity in category I Tuberculosis as compared to household contacts, Federation of Immunology Society of Asia Oceania Annual Conference 2018, 10-13 December, Bangkok, Thailand (**Travel Award**)
51. Pasha EH, Yadav R, Bansal SK, Batra A, Study of Body Iron Status in Young Healthy Non-Pregnant Females, 26th Annual Conference of Association of Medical Biochemists of India AMBICON 2018LHMC, 17 November 2018, New Delhi
52. Pathak D, Srivastava AK, Gulati S, Padma MV, Rajeswari MR, The involvement of Iron in Neurodegeneration associated with Friedreich's ataxia, AIIMS Research Day, 26 February 2019, New Delhi
53. Qazi S, Karpf AR, Sharma A, In-silico Identification of Structural and Functional Divergence of POTE gene Paralogs, Symposium on Accelerating Biology 2019: Towards Thinking Machines, 4-7 February 2019, Pune
54. Sagar K, Gupta N, Wajid S, Sharma A, Studying the functional role of HMGB-1 as a therapeutic in Cervical Cancer, AIIMS Research Day 2019, 25-26 March 2019, AIIMS, New Delhi
55. Saha R, Raja D, Thakur B, Sharma S, Ranjan G, Kedia S, Shalimar, Nayak B, Acharya P, Biomarkers of Acute Kidney Injury in Acute on Chronic Liver Failure: A Preliminary Analysis, DBT BioCARE Conclave, 8-9 March 2019, New Delhi
56. Saini C, Sharma A, Ramesh V, Nath I, Th17 cells produce heterodimer IL-17A+/F+ protein and create neutrophilia in leprosy reversal reactions, Immunocon 2018, 1-3 November 2018, THSTI, Faridabad
57. Sen S, Dey D, Singal CMS, Manhas J, Bhat MA, Sharma JB, Palanichamy JK, Chattopadhyay P, Seth P, Sinha S, Effect of hypoxia on fetal neural stem cells: An in vitro disease model to elucidate the pathogenesis of cerebral palsy, ISSCR Annual Meeting, 2018, 20-23 June 2018, Melbourne
58. Setthy A, Karmakar S, RNA hydroxymethyl cytosine as a novel epitranscriptomic signature associated with Acute Myeloid Leukaemia (AML), 34th Ernst Klenk Symposium in Molecular Medicine, October 2018, Cologne, Germany
59. Sharma S, Mishra N, Kumar S, Luthra K, Generation and characterization of pseudoviruses from an adult HIV-1 infected long term non progressor for potential subtype C based immunogen design, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi (**First Prize: Poster presentation, MSc Category**)
60. Shrivastava V, Dey D, Singal CMS, Sharma JB, Seth P, Sen S, Assessing effect of hypoxic injury in astrocytes derived from human fetal neural stem cells in vitro, 1st Annual Research Day, AIIMS, New Delhi—Poster, 26 March 2018, New Delhi
61. Shrivastava V, Dey D, Singal CMS, Sharma JB, Seth P, Sen S, Evaluating hypoxic injury in astrocytes derived from human fetal neural stem cells in vitro, 45th Annual Conference of Association of Clinical Biochemists of India (ACBICON 2018)—Poster, 24-27 October 2018, Panaji, Goa
62. Singh A, Bakhshi S, Kumar J, Jain A, Analyzing mitochondrial DNA copy numbers and Complex I activity in Paediatric Acute Lymphoblastic Leukemia, Mitoconference 2018, SMRM, 28-30 November 2018, Lucknow
63. Singh A, Gupta N, Seth A, Sharma A, Potential of HMGB-1 as a non-invasive diagnostic marker in Urothelial Carcinoma of Bladder, AIIMS Research Day 2019, 25-26 March 2019, AIIMS, New Delhi
64. Singh A, HDL function: Insights from a study in Acute Coronary Syndrome, ISHR, 17-19 February 2019, Jaipur
65. Singh A, HDL function: Insights from a study in subjects with Acute Coronary Syndrome, NZ ACBICON, 7-8 April 2018, Jodhpur
66. Tiwary R, Mudassir M, Baidya G, Chattopadhyay P, Effect of zeta potential on uptake of PLGA biodegradable nanoparticle by cancer cells, Nanobiotek 2018 3rd Annual Conference of Indian Society of Nanomedicine, 25-27 October 2018, Delhi
67. Yadav R, Aggarwal S, Singh A, Mir RA, Changes in the levels of circulating adipokines following surgical weight loss in Obesity, Indian Society for Atherosclerosis Research; ISARCON 2018 JIPMER Pondicherry, 11 October 2018, Pondicherry, India

RESEARCH

Funded projects

Ongoing

1. A pilot study to analyze serum levels and intra-tumour expression of cancer-testis antigen POTEE as a new biomarker for ovarian cancer, Ashok Sharma, DHR-ICMR, 2 years, 2018-2020, Rs 25 lakhs
2. A study of immune pathways in the pathogenesis of chronic pancreatitis, Kalpana Luthra, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
3. Assessment of anticancer effect of Triplex Forming Oligonucleotides (TFOs) on the Expression of HMGB1 in Hepatoma Animal Model System, MR Rajeswari, DST, 3 years, 2017-2020, Rs 63.15 lakhs
4. Cell free DNA (cfDNA) as a tool to predict Acute Kidney Injury in Acute-on-Chronic Liver Failure, Pragyan Acharya, DBT, 3 years, 2017-2020, Rs 24 lakhs
5. Deciphering the role of functional determinants of Dendritic cells and their immune cross talk with NK cells: Possible therapeutic target(s) in *Pemphigus vulgaris*, Alpana Sharma, ICMR, 3 years, 2018-2021, Rs 42.31 lakhs
6. Development of targeted drug delivery using liposomes/nanoparticles on cancer stem cell using herbal plant extract and hsp70-tumor antigen and to evaluate its anti-tumor function, Pramod Kumar Gautam, DST, New Delhi, 3 years, 2019-2022, Rs 40 lakhs
7. Differentiation of fetal neural stem cells to oligodendrocytes—A disease model to decipher the pathogenesis and devise therapeutic strategies for cerebral palsy, Sudip Sen, DBT, 2 years, 2018-2020, Rs 29.2 lakhs
8. Effect of hypoxia on different neural cell types *in vitro*—A model to design therapeutic strategies against cerebral palsy in preterm infants, Sudip Sen, DBT, 3 years, 2018-2021, Rs 49 lakhs
9. Endoplasmic Reticulum (ER) stress in obesity induced adipose tissue dysfunction and inflammation, Rakhee Yadav, AIIMS, 2 years, 2017-2019, Rs 8 lakhs
10. Genome-Wide DNA Methylation and Genomic Instability Profiling and Evaluating Its Potential as a Biomarker and Immunotherapeutic Target for Ovarian Cancer, Ashok Sharma, DBT-Ramalingaswami Project, 5 years, 2015-2020, Rs 32.5 lakhs
11. Identification of Novel Blood Based Biomarkers for Early Detection of Human Gallbladder Cancer, Shyam S Chauhan, Defense Research and Development Organization, 3 years, 2017-2020, Rs 46.61 lakhs
12. Interaction between nanoparticles and cancer cells in context of hypoxia and stemness and invasiveness characteristics, P Chattopadhyay, DST, 3 years, 2017-2020, Rs 80 lakhs
13. Investigating the Association of Plasmodium Purine Salvage Pathway Enzymes and Metabolites with Severe Malaria Outcomes, Pragyan Acharya, SERB, 3 years, 2017-2020, Rs 19 lakhs
14. Isolation and characterization of human monoclonal antibodies from memory B cells of HIV-1 infected children, Kalpana Luthra, DST, 3 years, 2016-2019, Rs 63 lakhs
15. Isolation and characterization of monoclonal antibodies from HIV-1 subtype C infected individuals (Indo South Africa Collaboration Project), Kalpana Luthra, DBT, 3 years, 2017–2020, Rs 88 lakhs
16. Isolation and molecular characterization of colorectal cancer stem cells, Sudip Sen, DBT, 3 years, 2015-2019, Rs 25 lakhs
17. Metabolite mediated intracellular signaling in Acute-on-chronic liver failure, Pragyan Acharya, AIIMS, 2 years, 2018-2020, Rs 5 lakhs
18. Molecular characterization of endometrial cancer and its correlation with clinicopathological features, Ashok Sharma, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
19. Molecular signature of protumorigenic inflammation in the context of the WHO 2016 classification of glioma, Kunzang Chosdol, AIIMS, 2 years, 2018-2020, Rs 20 lakhs
20. MOOCs-SWAYAM, MR Rajeswari, MHRD, 1 year, 2018-2019, Rs 13.50 lakhs
21. MOOCs-SWAYAM, MR Rajeswari, MHRD, 6 months, January-June 2019, Rs 1.20 lakhs
22. MOOCs-SWAYAM, MR Rajeswari, MHRD, 6 months, June-December 2018, Rs 7.20 lakhs
23. Neurodegeneration with Brain Iron Accumulation: Iron-biomarker and therapeutic options, MR Rajeswari, International Collaboration India-Austria via DST-WTZ, 2 years, 2017-2019, Rs 18.85 lakhs
24. Nuclear Architecture as an Epigenetic Regulator in Pericentromeric localized Cancer-Testis/Germline Antigen POTE Expression in Ovarian Cancer, Ashok Sharma, DST, 3 years, 2017-2020, Rs 55 lakhs
25. Plasma circulating DNA in mitochondrial the assessment of Friedreich's Ataxia (FA), MR Rajeswari, ICMR, 2 years, 2017-2019, Rs 34.60 lakhs

26. Prevalence of Human Papilloma Virus (HPV) in Indian Patients of Penile Cancer, Alpana Sharma, DHR, 3 years, 2018-2021, Rs 25.0 lakhs
27. R2TP complex as a target of human papilloma virus oncoproteins E6 and E7, Riyaz Ahmad Mir, DST-SERB Core Grant, 3 years, 2018-2021, Rs 27.85 lakhs
28. Rational strategies for tackling hypoxia induced adverse phenotype and therapeutic resistance in neoplasia using a glial tumour model, Subrata Sinha, DST, 5 years, 2017-2022, Rs 98 lakhs
29. Regulation of TET2 proteins by EPO during erythroid differentiation in humans and its role in AML, Subhradip Karmakar, SERB, 3 years, 2016-2019, Rs 42 lakhs
30. Role of HMOX in trophoblast invasion, Subhradip Karmakar, ICMR, 3 years, 2018-2021, Rs 56 lakhs
31. Role of hyperglycemia on macrophage effector function in pathophysiology of Pulmonary Tuberculosis, Archana Singh, SERB DST, 3 years, 2018-2021, Rs 49 lakhs
32. Role of IGF2BP1, an RNA binding protein in lymphomagenesis, Jayanth Kumar Palanichamy, DBT-Wellcome Trust India Alliance Early Career Fellowship for Clinicians and Public Health Researchers, 5 years, 2016-2021, Rs 187 lakhs
33. Role of macrophages in regulation of bone and blood forming stem and progenitor cell migration and development, Pramod Kumar Gautam, DST, New Delhi, 5 years, 2017-2022, Rs 35 lakhs
34. Signalling interaction between FAT1 and p53 under hypoxia: Their influence on tumor phenotype and identification of novel molecular targets in glioma, Kunzang Chosdol, DBT, 3 years, 2016-2019, Rs 55.52 lakhs
35. Study the role of regulation of human heterogeneous Ribonucleoprotein D expression in oral carcinogenesis, Shyam S Chauhan, DST, 3 years, 2016-2019, Rs 71.72 lakhs
36. The modulation of insulin resistance and HDL quality by adipose tissue ABCA1 and metabolic status, Archana Singh, SERB-DST, 3 years, 2017-2020, Rs 40.1 lakhs
37. The role of FAT1 regulated miRNAs in Glioblastoma (GBM) aggressiveness: Identification of potential miRNA(s) as clinical marker(s) in GBM patients, Kunzang Chosdol, SERB-DST, 3 years, 2019-2022, Rs 42.33 lakhs
38. The Role of Peroxisome Proliferator-Activated Receptor alpha in Human Placental Development and Preeclampsia, Subhradip Karmakar, ICMR, 3 years, 2019-2022, Rs 62 lakhs
39. To study the functional role of NFkB on FAT1 gene expression in Glioma, Dr Kunzang Chosdol, ICMR, 3 years, 2017- 2020, Rs 33.33 lakhs
40. To study the role of β -defensin on stem cells, cancer stem cells remodeling and its associated microenvironments, Pramod Kumar Gautam, AIIMS, New Delhi, 2 years, 2018-2020, Rs 10 lakhs
41. Unveiling the therapeutic potential of a Unani Herbal Formulation in Hematological Malignancy, Alpana Sharma, AYUSH, 3 years, 2017-2020, Rs 62.12 lakhs

Total funding received: Rs 15 crore 17 lakhs

Completed

1. A candidate gene approach to identify common driver mutations in Pancreatic Ductal Adenocarcinoma (PDAC) in Indian patients, Subhradip Karmakar, AIIMS Intramural, 2 years, 2017-2019, Rs 10 lakhs
2. Characterization of ADCC activity in the plasma of acute HIV-1 infected paediatric patients, Kalpana Luthra, AIIMS, 2 years, 2016-2018, Rs 7 lakhs
3. Elucidating the mechanisms underlying documented osteogenic activity of *Symphytum officinale* in human bone marrow derived mesenchymal stem cells *in vitro*, Sudip Sen, Ministry of AYUSH, 3 years, 2015-2019, Rs 47.6 lakhs
4. Expression and mutational analysis of the R2TP complex and its bridging proteins in DLBCL, Riyaz Ahmad Mir, AIIMS, 2 years, 2017-2019, Rs 8 lakhs
5. Population prevalence of Vitamin D deficiency in Urban and Rural Delhi and its Association with Cardiovascular Disease Risk Factors, Archana Singh, DHR, MOHFW India, 2 years, 2016-2018, Rs 28 lakhs
6. Relations of Leucocyte membrane complement regulatory proteins, MBL and MASP2 with the pathophysiology and severity of coronary artery disease, Kalpana Luthra, DHR, 3.6 years, 2015-2018, Rs 44 lakhs
7. Serum hepcidin levels: It's correlation with ferroportin expression and localization and thus iron export in pathophysiology of pulmonary tuberculosis, Archana Singh, AIIMS, 2 years, 2016-2018, Rs 8 lakhs
8. Study of microRNAs as a diagnostic approach in Multiple Myeloma, Alpana Sharma, AIIMS, 2016-2018, Rs 10.0 lakhs
9. Study of Vitamin D Receptor (VDR) and cathelicidin expression and their correlation with FokI VDR polymorphism in Tuberculosis, Archana Singh, SERB DST, 3 years, 2015-2018, Rs 23 lakhs

Departmental projects

Ongoing

1. A longitudinal study of the effect of early initiation of ART on the innate immune responses in HIV-1 infected children
2. An immunological and molecular aspects for diagnosis of premature ovarian failure
3. Association between cancer cell differentiation and tumor microenvironment in human colorectal carcinoma
4. Characterization of astrocytes derived from human fetal neural stem cells
5. Cloning and functional analysis of Cancer Testis Antigen POTEE in Epithelial Ovarian Cancer
6. Comparative TNF alpha Profiling in P. Vivax Infected Severe and Mild Malaria Patients
7. Cysteine cathepsins in acute lymphoblastic leukemia: Implications in prognosis and therapeutics
8. Effect of nanoparticles on stemness and migration characteristics of cancer cells under different oxygen concentration
9. Effect of zeta potential on uptake of PLGA biodegradable nanoparticles by cancer cells
10. Elucidating the immune escape mechanism in renal cell carcinoma
11. Elucidation of molecular mechanism of differential expression of cathepsin B in breast cancer cells with different metastatic potential
12. Epigenetic therapy to reverse EMT and suppress cancer metastasis
13. Exploring the role of Versican and its regulation by miRNA in Multiple Myeloma
14. Extracellular Matrix remodeling in adipose tissue dysfunction of obese individuals
15. FAT1 and *p53* on chemo-sensitivity of Glioma
16. FAT1 protein: Its processing and cellular function in glioma cells
17. Functional characterization, expression, and clinical significance of Cancer-Testis/Germline Antigen POTE in Ovarian Cancer
18. Functional interaction of FAT1 and miRNA in glioma
19. Gamma delta T cells in immunopathogenesis of Pemphigus vulgaris
20. Generation and Characterization of anti HIV-1 human monoclonal antibody(s) from a subtype C infected pediatric elite neutralizer
21. Generation and Characterization of anti HIV-1 human monoclonal antibody from subtype C infected adult long term non progressor
22. Generation and characterization of pediatric HIV-1 C trimers towards immunogen design
23. Generation and characterization of pseudoviruses from an adult HIV-1 infected Long Term Non Progressor (LTNP) for potential subtype C based immunogen
24. Generation and characterization of pseudoviruses from children with perinatally acquired HIV-1 infection
25. Host parasite interactions in Malaria
26. Hypoxia and response to chemotherapy: A study in glial tumor cell lines
27. Identifying different stages of endothelial dysfunction in vitro and validating them in individuals exposed to cardiovascular risk factors
28. Innate Immune Responses in ACLF
29. Internalization of Carbonic Anhydrase 9 in invasive subset of cancer cell
30. Isolation and characterization of Human anti-HIV-1 monoclonal antibodies from infected children
31. Molecular Signature of Glioma in the context of WHO 2016 classification of Glioma
32. Proteomics of FRDA positive, FRDA-suspected and FRDA-carriers, On-going (PhD) Chief-Guide
33. Role of 3D genome architecture as epigenetic regulator of pericentromeric localized Cancer-Testis/Germline Antigen POTE in Cancer
34. Role of cMYC and EGFL7 in ETV6-RUNX1 translocation positive B-cell Acute lymphoblastic leukemia
35. Role of gamma delta T cells and scavenger receptors in vitiligo
36. Role of Human Heterogeneous Ribonuclear Protein D in Oral Cancer
37. Role of hyperglycemia on macrophage effector function in pulmonary tuberculosis
38. Role of IGF2BP1 in of ETV6-RUNX1 positive B cell Acute Lymphoblastic Leukemia
39. Role of non-coding RNAs in regulating IGF2BP3, an oncofetal RNA binding protein
40. Role of Prothymosin- α in glial tumorigenesis

41. Role of RNA methylation and IGF2BP expression in B-cell Acute Lymphoblastic Leukemia
42. Role of TET2 in Myelodysplastic Syndromes
43. Role of TET2 protein in pathogenesis of Acute Myeloid Leukemia
44. Study of androgen receptors mediated events and molecular heterogeneity in Breast Cancer
45. Study of Autophagy associated HMGB-1 and its related molecules in Urothelial Carcinoma of Bladder
46. Study of induced Th17 cells in leprosy reactions patients; a new therapeutic approach
47. Study of Mycobacterium indicuspranii and Human Beta Defensin as adjunct in Chemo-immunotherapy against Mycobacterium tuberculosis in vitro
48. Study of Vascular Endothelial Growth Factor (VEGF-A) and its Isoforms in Adipose Tissue Dysfunctions in Obesity
49. The interplay of RNA methylation and IGF2BP family of RNA binding proteins in regulation of gene expression in cancer
50. To assess the potential utility of cathepsin L and cathepsin B as universal biomarkers of cancer
51. To investigate the role of nuclear receptors in the pathogenesis of carcinoma gallbladder
52. To investigate the role of reactive Oxygen species in Development of Pre-eclampsia
53. To study the effect of high glucose exposure on Trophoblast invasion and differentiation
54. To study the gene expression in GBM cell lines under different degree of hypoxia and the role of p53 in HIF1 regulation under severe hypoxic condition
55. To study the role of β -defensin on stem cells, cancer stem cells remodeling and its associated microenvironments
56. Uptake of biodegradable nanoparticles by cancer cells

Completed

1. Analysis of cell-free nucleic acids in serum of patients with Acute-on-chronic Liver Failure
2. DNA Methylation Effect on POTE B Expression in Epithelial Ovarian Cancer
3. Effect of DNA Methylation in Expression of Cancer-Testis/Germline Gene POTE E in Ovarian Cancer
4. Effect of hyperglycemia on macrophage function in pathophysiology of pulmonary tuberculosis
5. Elucidating the role of *Symphytum officinale* in osteogenesis in human bone marrow derived Mesenchymal Stem Cells *in vitro*
6. Expression and clinical significance of serum MicroRNAs in Human Gallbladder Cancer
7. Inflammatory biomarkers HMGB1 and TGF-1 in Peri-Miniscrew Implant Crevicular Fluid (PMICF)
8. Isolation and characterization of human monoclonal antibodies from memory B cells of selected HIV-1 infected Indian Individuals
9. Proteomics of Small Intestinal Biopsies in Celiac Disease
10. Regulation of FAT1 Gene Expression in Gliomas
11. Role of cortisol on Human Trophoblast Invasion and Differentiation
12. Role of stochasticity in shaping working memory and Schizophrenia
13. Signaling interactions between FAT1, p53 and HIF1 α in Glioma
14. Study of RASSF genes and their signaling in Bladder Cancer
15. To study the role of Peroxisome Proliferator Activated Receptor Alpha (PPAR α) in Trophoblast Invasion

Collaborative projects

Ongoing

1. A comparative pilot study of rectus fascia pubovaginal sling surgery vs TOT in patients with urodynamically proven SUI, Obstetrics and Gynaecology
2. A study of epigenetics of Breast cancer by evaluation of tissue site-specific Promoter DNA methylation profiles in Breast Cancer, Surgery
3. Anemia Research Consortium as part of National Centre of Excellence and Advanced Research on Anemia (NCEAR-A), Community Medicine
4. Assessment of single versus subsequent microosteoperforation stimulated IL-1 β levels during orthodontic tooth movement—A pilot study, Dental Surgery

5. Biophysics of protein, Biophysics
6. Development of single-cell derived clonal spheroids as a tool for drug discovery in cancer research with focus on head and neck cancer, School of Life Science, JNU, New Delhi
7. Dietary diversity and nutritive value of indigenous foods in addressing food security and nutritional status of vulnerable tribal communities of India, IIPH-Delhi, Public Health Foundation of India, Delhi
8. Estimation of novel Proteins among Older Subjects as biomarker for cognitive impairment, Geriatric Medicine
9. Evaluation of RANKL in GCF and rate of tooth movement during canine retraction assisted with low level laser therapy—A randomized controlled trial, Dental Surgery
10. Evaluation of serum otolin-1 as a biomarker and significance of Serum Vitamin-D levels in benign paroxysmal positional vertigo patients, Otorhinolaryngology
11. Exploring a unified pathway for the anti-atherogenic effects of adiponectin, sphingosine 1-phosphate (S1P) and High- Density Lipoprotein (HDL) on endothelial cells, Cardiology
12. Exploring the link between the RNA binding protein IGF2BP3, long non-coding RNA linc-RoR and their targets in migration and invasion of epithelial cancer cell lines, Biochemistry
13. Exploring the role of intracellularly formed sphingosine 1-phosphate (S1P) in mediating anti-atherogenic effects of adiponectin on endothelial cells, Cardiology
14. Expression of Cancer Testis Antigen POTE in Ovarian Tumors and its Clinical Significance: A pilot study, Obstetrics and Gynaecology
15. Expression of Reg-4 and MUC-4 in patients with carcinoma of pancreas, Gastroenterology
16. FBXO4 as a novel ubiquitin ligase that targets cyclin D in pathogenesis of Breast Cancer, Biochemistry
17. Human Papillomavirus status in Penile carcinoma in Indian patients and correlation with Clinico-pathological staging, Urology
18. Identification and in-vitro functional assay of novel driving tyrosine kinases in Indian BCR-ABL-like acute lymphoblastic leukemia, Lab Oncology
19. Identification of Glucose related protein 78(GRP78) as a biomarker for tumor behavior in patients of renal cell carcinoma, Urology
20. Identification of novel transcripts and non-coding RNA in Fuchs' Endothelial Corneal Dystrophy (FECD), RP Centre
21. Immunological evaluation in IVF failure patients, Obstetrics and Gynaecology
22. Impact of Yoga and Meditation on Epigenetic Profile in Rheumatoid Arthritis, Anatomy
23. IMRG Project: Study of inner ear protein otolin-1, vitamin D, ionized calcium in circulation as a biomarker in non Meniere's disease vertigo patients, Otorhinolaryngology
24. Investigation of the involvement of plasma membrane ATP Binding Cassette Transporter (ABCA1) in adipose tissue mediated insulin resistance, Surgical Disciplines
25. Development of a multiplex real time PCR (qPCR) assay for simultaneous detection of hepatitis viruses (a-g) in serum, Laboratory Medicine
26. miRNA as biomarker in chronic pancreatitis patients who are at high risk for developing pancreatic cancer, Gastroenterology
27. Molecular analysis to explore resistance against receptor Tyrosine Kinase Inhibitors (TKI) in Renal Cell Carcinoma (RCC) and the prognostic role of CXCR1 expression in patients with metastatic RCC (mRCC), Urology
28. Molecular Characterization of Endometrial Cancer and its correlation with clinicopathological features, Pathology
29. Molecular characterization of malignant lacrimal gland tumours, Dr RP Centre
30. Molecular characterization of NFkB pathway in uveal melanoma, Dr RP Centre
31. N22 region of torque teno virus: Cloning, Expression and use of translational peptides in immunological assays and proteomic analysis, Laboratory Medicine
32. One carbon metabolism and cognitive impairment in older Indians, Geriatric Medicine
33. Placental growth factor as a predictive and prognostic marker for development of pre-eclampsia in high risk patients, Obstetrics and Gynecology
34. Prospective non-randomized controlled trial to compare the efficacy of subcutaneous etanercept versus oral methotrexate in moderate to severe chronic plaque psoriasis and to correlate response with Th1, Th2, Th17 and Treg cell patterns, Dermatology

35. Rare disease modelling using induced pluripotent stem cells, Stem Cell Facility
36. Role of Hydrogen Sulfide as a pharmacological modulator in adverse pregnancy outcomes like preeclampsia, Anatomy
37. Role of miRNA mediated modulation of signal transduction in pancreatic cancer, Gastroenterology
38. Role of mitochondrial heterogeneity in the progression and prognosis of Acute Myeloid Leukemia (AML), Medical Oncology
39. Role of PARP1 and γ -Glutamylcysteine Synthetase Inhibitor in Cisplatin Sensitivity and Correlation With DNA Methylation in Ovarian Cancer, IRCH
40. Role of placental growth factor, uterine artery Doppler and 3D Doppler ultrasound of placenta for prediction of pre-eclampsia in high risk pregnancies, Obstetrics and Gynecology
41. Role of Vascular Endothelial growth factor in management of Recurrent Respiratory Papillomatosis, Otorhinology (ENT)
42. Study of osteogenic humoral factors on fracture healing in patients with head injury: Decoding the mystery, Orthopedics
43. Study to identify the genotype phenotype correlation in testicular biosynthetic defects and 5- α reductase deficiency with respect to disorders of sex development, Paediatric Surgery
44. The effect of ultrasound guided quadratus lumborum block on postoperative analgesia and neuroendocrine stress response in paediatric patients undergoing elective open pyeloplasty, a randomised control trial, Anaesthesia Pain Medicine and Critical Care
45. The Role of Leukotriene A₄ hydrolase gene Polymorphism and Clinical outcome correlate in Corticosteroids treated Tubercular Meningitis Patients, Neurology
46. To assess link between mtDNA copy number and reprogramming of mitochondrial metabolism in pediatric acute lymphoblastic leukemia, Medical Oncology, IRCH
47. To evaluate the effect of intralipid supplementation on implantation rate in women with two or more failed ivf/ icsi with elevated natural killer cell levels—A pilot randomized controlled trial, Obstetrics and Gynaecology
48. To investigate the molecular mechanisms of Keratoconus (KC) amongst Indian subjects, Dr RP Centre
49. To study the correlation between candida and proinflammatory cytokines and chemokines in Oral Leukoplakia with Antifungal Therapy, Centre for Dental Education and Research
50. To study the influence of CYP2C19 polymorphism on bortezomib blood concentration and clinical response in multiple myeloma patients, Pharmacology

Completed

1. Association between serological levels and genetic polymorphisms of VEGF A and C with clinicopathological characteristics of oral squamous cell carcinoma and oral submucous fibrosis—A pilot study, Centre for Dental Education and Research
2. Cobalamin and Folate status amongst children aged 6-59 months attending a secondary health care facility in district Faridabad, Haryana, Community Medicine
3. Correlation of cord blood and breast milk IGF-1 levels with neonatal adiposity in infants born to mothers with gestational diabetes mellitus—A prospective cohort study, Paediatrics
4. Elucidating the mechanisms underlying documented osteogenic activity of *Symphytum officinale* in human bone marrow derived mesenchymal stem cells *in vitro*, Department of Applied Mechanics, IIT Delhi; CCRH, New Delhi; Orthopaedics, AIIMS, New Delhi
5. Identification of circulatory tumor cells in bladder cancer after TURBT procedure, Urology
6. Impact of statin therapy on HDL functionality in Acute Coronary Syndrome patients, Cardiology
7. Role of Peroxisome Proliferator Activated Receptor Alpha (PPAR Alpha) in Trophoblast Invasion, Biochemistry
8. Salivary MicroRNA: Their utility as biomarker during molecular changes in Tobacco users Vs. Tobacco Non-Users, Otorhinolaryngology

PUBLICATIONS

Journals: 40

Abstracts: 11

Chapters in books: 1

Books: 1

PATIENT CARE

S. No.	Test Name	No. of tests	S. No.	Test Name	No. of tests
1	CEA	2,475	7	AFP	535
2	CA 19.9	2,255	8	S. Ferritin	702
3	Total PSA	302	9	Vit. B12	722
4	CA 125	769	10	Folate	722
5	CA 15.3	169	11	Free T3	1,393
6	BHCG	620	12	Free T4	1,393
Total no. of tests			13,907		

Quality control

Apart from routine internal quality assurance scheme, Successful monthly participation in External Quality Assurance Scheme (EQUAS) for last one year to deliver quality reports.

Department has standardized the porphyria tests and started receiving samples from different departments of the Institute.

Department of Biochemistry has done free genetic test for ataxia patients with FRDA and suspected FRDA coming from Neurology and Paediatric Neurology and Paediatric Genetics.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Subrata Sinha delivered Professor TN Pattabiraman oration in ACBICON 2018 in Goa; Professor MG Deo Oration in IACR Annual Meeting 2019 in Chandigarh. *Institutional Committees (Governance):* Society, Rajiv Gandhi Centre of Biotechnology; Regional Centre of Biotechnology, Faridabad. *Institutional Committees (Scientific, Research, Academic):* Scientific Advisory Committee (SAC) of Institute of Pathology, ICMR (2008-Currently Chairman); SAC, National Institute of Immunology; Research Council (RC) Centre for Cellular and Molecular Biology, Hyderabad; RC, Indian Institute of Chemical Biology, Kolkata; RC, Centre for Cellular and Molecular Biology, Hyderabad; SAC, Rajiv Gandhi Centre of Biotechnology. *Committees of Scientific Ministries and Departments:* Department of Biotechnology: Project Review Committee (PRC/Expert Group) Neurodisease Biology (Chair 2015-2017). *Department of Science and Technology (DST):* Chairman, Cognitive Science Research Initiative (2014-till date); Chairman, Science and Technology of Yoga and Meditation(2015-till date). *Indian Council of Medical Research (ICMR):* Chairman, PRC for Biochemistry, Immunology and Allergy; Member, PRC for Cell and Molecular Biology. *Editorial Board, Current Science:* Working Committee, The National Medical Journal of India; Member, National Advisory Committee for Stem Cell Research and Therapy; Member, Gene Therapy Advisory Committee; Convener, NCR Delhi Chapter, Indian National Science Academy.

Professor SS Chauhan was elected fellow of The National Academy of Sciences, Allahabad; Awarded AIIMS Excellence Award (Second Prize); Member of SERB Young Scientist—Life Sciences Expert Committee of DST, Pre Scientific Advisory Committee of National Institute of Pathology (ICMR), New Delhi, UG Expert Committee by Board of Governors in Suppression of Medical Council of India, Library Committee, Task Force for Women Safety and Gender Sensitization at AIIMS, Institute Day Celebration Committee, Biotechnology Teaching Advisory Committee, AIIMS, Bio-Safety Committee, V.P. Chest Institute, University of Delhi, and DBT-nominee for Bio-safety committee of Institute of Genomics and Integrative Biology, Mall Road, Delhi, Member, Board of Studies of Aligarh Muslim University, Aligarh, Standing Committee of Academic Council, Banaras Hindu University and Course Curriculum Committee of King George Medical University Lucknow; Expert for Evaluation of Intramural Research Grants at AIIMS, Jodhpur; Expert for selection of faculty at AIIMS Jodhpur, AIIMS Patna, PGIMER Chandigarh, Institute of Liver and Biliary Sciences, Delhi; Subject expert for selection of DBT-RA, CSIR-RA and ICMR post-doctoral fellowship; Member Expert Committee of Guru Gobind Singh Indraprastha University for recognition of medical teachers; Editorial Board of Research and Reports in Biochemistry and Indian Journal of Clinical Biochemistry as well as reviewer for various national and international scientific journals; Life member of Society of Biological Chemists (India), Association of Clinical Biochemists of India, Indian Association for Cancer Research and Indian Academy of Biomedical Sciences.

Professor MR Rajeswari was Vice President of Society of Neurochemistry, India, December 2016; President of “DNA Society of India”; ICMR Project Review Committee (PRC) for Neurochemistry, 2006 onwards; Research Advisory Board, Central University of Rajasthan, Ajmer; Advisory Board Member of Rare Disease Society of India; Chairperson at: Neuro-pedicon: Emerging trends and advances in diagnostics and therapeutics in Paediatric Neurology and International Conference on Responsible Research and Innovation in Science, Management and Education, Panjab University; Member, Department of Health Research, Ministry of Health (DHR), Medical Technology; University Grants Commission on various committees 2006 onwards; Member, School of Life Sciences, Central University, Rajasthan, 2013-onwards; Expert Mentor for INSPIRE, DST; Member, Research Council “SV University”, Tirupati; Expert Reviewer for Scientific Journals: International Scientific reports, Plos One, Journal of Molecular Structure; DNA and Cell Biology; Molecular Biology Reports, Medicinal

Chemistry; Green Chemistry Letters and Reviews; Journal of Cancer Therapy the Journal of Chemical Thermodynamics. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy,, Journal of Neuroscience Research, BMC cancer.

Professor Kalpana Luthra was elected as Executive Committee Member of the Indian Immunology Society in 2018; Member of Scientific Advisory Group (SAG) Committee to evaluate proposals submitted under the National Biopharma Mission, BIRAC, 5-6 October 2018; Member of Project Oversight Committee (POC) of ICMR for study entitled “Cohorts of HIV resistance and Progression (2018-2020)”; Chairperson of Local Research Committee for Multidisciplinary Research Unit at Maulana Azad Medical College; Subject expert of selection committee meeting for AIIMS, Nagpur for the selection of regular faculty in Biochemistry for AIIMS, Nagpur, at JIPMER, Puducherry from 19 to 20 June 2018; Coordinator of workshop on Cell Sorting in the Department of Biochemistry, AIIMS, organized by The Flow Cytometer Society, 31 October 2018; Editorial Board member for Indian Journal of Clinical Biochemistry (IJCB); Jury Member for selection of Sun Pharma Science Scholar Awards for the years 2016, 2017 and 2018 in Biomedical Sciences and Pharmaceutical Sciences; Member for Core Committee for CCRF; Co-chairperson for AIIMS Cultural Committee; Co-Chairperson for Annual Report Editing Committee; Member of Expert Group Review Committee of ICMR to review proposals under Cell and Molecular Biology, Genomics and Stem Cell Research; January 2019.

Professor Alpna Sharma was member of Expert Selection Committee for faculty posts at Dr Baba Saheb Ambedkar Medical College, Delhi Government and ESIC, Faridabad; Nidhi Gupta: DST-AWSAR (Augmenting Writing Skills for Articulating Research) award for the top 100 PhD students (February 2019); Treasurer, Indian Immunology Society (2014-2018); Organized the Symposium on International Immunology Day on 29 April 2018 at AIIMS, New Delhi; Book release in Hindi on “Your Amazing Immune System” for Immunology awareness amongst school children and young researchers; Active member of American Association for Cancer Research, USA and International Gynecologic Cancer Society, USA; External examiner for PhD thesis and viva conduction at JN Medical College, Aligarh Muslim University, JIPMER, Puducherry and KGMU, Lucknow; External examiner for MD at Delhi University, Swami Vivekanand University and JNmed Cool AMU; Reviewed Ad hoc research proposals of DBT, DST, AYUSH and UPCST submitted for financial grant; Chaired the session at Immunocon 2018 at THSTI, ACBICON, Goa; Member, Annual Report Committee, AIIMS and Teaching Schedule Committee for UG at AIIMS.

Professor Kunzang Chosdol received AIIMS Excellence Award-2018 (3rd Prize); Vice-President (2016-2019) Indian Association for Cancer Research (IACR); Reviewed manuscripts for the Nature Publishing Group (NPG) and Impact Journals; Validation/moderation expert of Questions for DNB exams at NBE, Dwarka; Reviewed PhD and MD thesis of other Institute/Universities (DU and PGI Chandigarh).

Dr Sudip Sen, PhD student (Dr Janvie Manhas) was selected for ICMR DHR Young Scientist Fellowship with an independent grant (Investigating the role of novel genes in colorectal cancer stem cells; PhD student (Dr Janvie Manhas) was selected for the DST WOS-A Woman Scientist Fellowship with an independent grant (Role of NUPR1 in colorectal cancer stem cells; 4 January 2018-3 January 2021; Rs 8.96 lakhs); PhD student (Mr. Devanjan Dey) received the Best Poster Award at 45th Annual Conference ACBICON 2018 at Panaji, Goa, 24-27 October 2018; PhD student (Mr. Devanjan Dey) was awarded the 3rd Prize (PhD Posters) at the 1st Annual Research Day, AIIMS, New Delhi on 26 March 2019.

Dr Ashok Sharma was elected as Assistant Joint Secretary of “DNA Society of India” for the period of 2018-2020; Coordinating member for Indian Cancer Research Consortium (ICRC), ICMR, New Delhi; Member of National Consultation for Strengthening Cancer Screening Intervention, Ministry of Health and Family Welfare, Government of India; Expert member of project review committee of “Innovative Translational Research (ITR) division”, ICMR, India; Expert member of project review committee of “Cell Tower and Mobile Radiation programme”, DST, India; Founding member of “Indian Society of Clinical Oncology”; Chaired the session “Young Speaker Programme” as well as examiner for the poster session, Symposium on Accelerating Biology 2019: Towards Thinking Machines, 4-7 February 2019, Pune

Dr Pragyana Acharya co-organized the session on PBL with Dr Kalpana Luthra, Basic Course Workshop in Medical Health Professions’ Education, 11-13 March 2019, AIIMS, New Delhi

VISITING SCIENTISTS

1. Dr Patrick Duffy, Lab Chief, Laboratory of Malaria Immunology and Vaccinology, NIAID, NIH
2. Professor Utpal Tatu, Department of Biochemistry, Indian Institute of Science, Bangalore
3. Dr Rajnikant Dixit, NIMR, Dwarka.

9.4. Biomedical Engineering

Professor and Head

Harpal Singh

Professor

Veena Koul

Associate Professors

Neetu Singh

Sandeep Jha

Assistant Professors

Deepak Joshi

Dinesh Kalyanasundaram

Jayantha Bhattacharyya

Anup Singh

SMK Rahman

Amit Mehndiratta

Emeritus Professor

Sneh Anand

Honorary Professor

SK Guha

HIGHLIGHTS

The department of biomedical engineering was established in 1971 as a joint venture of AIIMS, New Delhi and Indian Institute of Technology Delhi. The department has applied engineering principles to address medical and biological problems. The department has collaborative projects with major institutes and hospitals in India.

The department has its vision of dissemination of knowledge and development of techniques, tools and methods for diagnosis, follow-up of treatment responses, drug delivery and help in disease treatment. The faculty of the department are dedicated towards research in the following priority areas:

- Biomaterials
- Bioinstrumentation
- Biomechanics
- Medical Imaging

In the past one year the following equipment was installed for clinical research.

- DLS Zeta Analyzer from Anton Paar has been installed in Professor Harpal Singh's Lab on 12 March 2019

Apart from research, the department is engaged in teaching where PG, UG and Pre-PhD courses relevant to biomedical engineering are offered at IIT Delhi.

EDUCATION: Eight PhD students graduated in the past year.

Workshop/Symposia organized (QIP/CEP)

1. Workshop in Nanomedicine, Skin Scaffold to Substitute Integra: Indian Perspective, Veena Koul, IIT Delhi, DBT Government of India, 16 April 2018.
2. Workshop on Medical Imaging Techniques, Post Processing and Clinical Applications, Amit Mehndiratta and Anup Singh, IIT Delhi, 13-15 April 2018 at Indian Institute of Technology Delhi (Sonipat Campus).
3. International CEP workshop on 'BioTechnology and BioMedical Engineering', Anup Singh and Amit Mehndiratta, Ministry of External Affairs, Government of India, 3-21 December 2018 at IIT Delhi (Sonipat Campus).

Patents filed: 8

1. Joshi D, Tiwari A, Indian Patent Application No. 201811034806, entitled "Wearable Gait Analysis System", filed in September 2018.
2. Singh A, Mehndiratta A, Jogi SP, Rafeek T, MRI Compatible Knee Joint Axial-Load Exerting Device, Submitted for National, Patent Application_ FT/IDF/07/2018/87.
3. Kalyanasundaram D, Sikidar A, Orthopedic Screw, National, 16 November 2018.

4. Singh H, Polymeric nanoparticles and a process of preparation thereof, United States, Issued on 9 October 2018.
5. Jha SK, Singh AK, Non-invasive handheld optical sensor for multi-analyte detection in saliva, National, 11 June 2018.
6. Jha SK, Bhardwaj T, Aptamers for Ranibizumab, National, 23 November 2018.
7. Jha SK, Roychoudhury A, Basu S, Microfluidic Chip for Neurotransmitter Detection, National, 6 January 2019.
8. Koul V, Nehate C, Nayal A, Diblock copolymer in a Nanosystem and Implementations thereof, Indian Patent Application No. 201811014943.

Oral papers/posters presented

1. Bhattacharjee R, Budania P, Gupta PK, Gupta RK, Ahlawat S, Singh A, Quantitative Intra-Tumoral-Susceptibility-Signal (ITSS) Vasculature Volume (IVV) using QSM: Role in Glioma Grading, NMRS-2019, February 2019, New Delhi
2. Choudhary M, Professor Harpal Singh, Anti-microbial biodegradable polymer based wound dressing, 25 October 2018, AIIMS, Delhi
3. Debnath A, Gupta RK, Singh A, Amide Proton Transfer imaging to differentiate Infective and Neoplastic Mass Lesions at 3T NMRS-2019, February 2019, New Delhi
4. Debnath A, Hariharan H, Nanga RPR, Reddy R, Singh A, Effect and optimization of offset frequency step size for CEST asymmetry and Z-spectra analysis in human brain at 7T NMRS-2019, February 2019, New Delhi
5. Kaur A, Kapil A, Elangovan R, Jha S, Dinesh K, Rapid detection of pathogen in point-of-care setup 28th Anniversary World Congress on Biosensors, 12-15 June 2018, Miami, Florida, USA
6. Kumar D, Professor Harpal Singh, Early detection of kidney damage using lateral flow immunoassay kit, 25 October 2018, AIIMS, Delhi
7. Kumar R, Singh A, Sengupta A, Gupta RK, Optimization of number of flip angles required for T1 mapping NMRS-2019, 29-31 March 2019, New Delhi
8. Mehrotra N, Professor Harpal Singh, Biodegradable tetra block copolymeric nanoparticles for MS1 anti-cancer peptide delivery, 11 August 2018, Boston, US
9. Roychoudhury A, Francis KA, Patel J, Basu S, Jha SK, Paper microfluidic chip for simultaneous detection of dopamine, Epinephrine and Serotonin 28th Anniversary World Congress on Biosensors, 12-15 June 2018, Miami, Florida, USA
10. Roychoudhury A, Jha SK, Development of capillary electrophoresis based microfluidic device for quality analysis of Beer and Wine 28th Anniversary World Congress on Biosensors, 12-15 June 2018, Miami, Florida, USA
11. Saini M, Singh N, Aanad S, Kumar N, Padma Srivastava MV, Mehndiratta A, Force analysis of wrist and finger joint spasticity in patients with stroke, 11th World Stroke Congress, 17-20 October 2018, Montreal, Canada
12. Sasis D, Sengupta A, Dadarwal R, Manickam S, Sneha, Yadav V, Gupta RK, Singh A, Software tool for quantitative analysis of DCE-MRI data accessible MRI, 29-31 March 2019, New Delhi
13. Sengupta A, Agarwal S, Gupta RK, Singh A, Segmentation and Grading of Glioma NMRS-2019, February 2019, New Delhi
14. Singh AK, Jha SK, A point-of-care multi-parameter analyzer for saliva, 28th Anniversary World Congress on Biosensors, 12-15 June 2018, Miami, Florida, USA
15. Singh D, Kumar V, Das CJ, Singh A, Mehndiratta A, Multiparametric MRI based PI-RADS assessment of prostate cancer, NMRS-2019, February 2019, New Delhi
16. Singh N, Saini M, Aanad S, Kumar N, Padma Srivastava MV, Mehndiratta A, Design of wrist joint exoskeleton for post stroke neuro-rehabilitation, 11th World Stroke Congress, 17-20 October 2018, Montreal, Canada
17. Vats N, Yadav VK, Sengupta A, Gupta RK, Chauhan RP, Singh A, Validating the utility of unsupervised machine learning in segmenting different parts of glioma with respect to histopathological ground truth NMRS-2019, February 2019, New Delhi

RESEARCH

Funded projects

Ongoing

1. Clinical validation of iontophoretic delivery of lidocaine as an alternative to EMLA cream, Veena Koul, Joint collaborative project between IITD and AIIMS (MFIRP), 2 years, 2019-2021, Rs 10 lakhs

2. Combination of GLP-1 and an angiotensin II type 1 receptor antagonist for the treatment of Type 2 diabetes, Jayanta Bhattacharya, SERB, 3 years, 2018-2021, Rs 32.8 lakhs
3. Development of biodegradable nanoparticles for concomitant delivery of anti-cancer peptide DNA and chemotherapeutic drugs for cancer therapy, Harpal Singh, DST, 3 years, 2016-2019, Rs 53.5 lakhs
4. Development of Iron Oxide based nanotheranostics for cancer diagnosis and therapy, Harpal Singh, DST, 3 years, 2015-2018, Rs 32 lakhs
5. Development of methodology for quantitative CEST-MRI, Anup Singh, MATRICS, SERB, DST, 3 years, 2018-2021, Rs 6 lakhs
6. Fluorescent nanoprobe for squamous cell carcinoma: A step towards developing a rapid tool for margin clearance, Neetu Singh, DBT, 3 years, 2018-2021, Rs 118 lakhs
7. National centre for technology in family welfare (RP03635G), Dinesh Kalyanasundaram, ICMR, 5 years, 2019-2024, Rs 106.7 lakhs
8. Naturally derived vesicles for targeted drug delivery, Neetu Singh, DBT, 1 year, 2018-2019, Rs 40 lakhs
9. Non-GMO approach for imparting robust resistance to begomovirus and its vector whitefly through enhancement of plant's own RNA silencing system triggered by nano-carrier based dsRNA delivery, Neetu Singh, ICAR, 3 years, 2018-2021, Rs 25 lakhs
10. Nucleic acid based portable rapid diagnostic platform (RP03513G), Dinesh Kalyanasundaram, BIRAC, DBT, 1.5 years, 2018-2019, Rs 40.1 lakhs
11. Stanford India Biodesign Programme, Harpal Singh, DBT, 3 years, 2017-2020, Rs 150 lakhs
12. To define the anti-tumor activity of Salinomycin-encapsulated biodegradable polymeric nanoparticles and its potential synergy with certain chemotherapeutic drugs or with anticancer peptides, Harpal Singh, DHR, 2 years, 2018-2020, Rs 56.7 lakhs

PUBLICATIONS

Journals: 36

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Faculty

Dr Amit Mehndiratta and Dr Anup Singh have been awarded with E.K. Zavoisky Award by International Society of Magnetic Resonance in Medicine (ISMIRM) and ESMRMB at Paris, France on 16 June 2018.

Dr Deepak Joshi received Teaching Excellence Award on 5 September 2018 (Teachers Day) at IIT Delhi.

Dr Neetu Singh received Veena Arora Faculty Research Award on 28 January 2019 at IIT Delhi.

Students

Neha Singh received the Erricson Innovation Award 2018 in the area of Biomedical Engineering in Sweden on 18 December 2018.

Esha Baidya received the 3rd Best Poster Award in the area of Health Care for all on Industry Day, IIT Delhi on 22 September 2018.

Asutosh Tiwari received First Prize in Health Care Technology Category, Industry Day, IIT Delhi on 22 September 2018.

Asutosh Tiwari received Second Prize in Innovative Ideas and Patent Category in the area of Neuromechanics, Biomedical Engineering, NBRCCom—AIIMS Rishikesh on 15 October 2018.

VISITING SCIENTISTS

1. Professor Sergei Eremin from Moscow State University visited the centre on 8 July 2018 and delivered a lecture on Immunodiagnostics
2. Professor SV Eswaran from TERI University visited the centre on 4 December 2018.

9.5. Biophysics

INSA Senior Scientist

TP Singh

Professor and Head

Punit Kaur

Professors

Savita Yadav

Sujata Sharma

Associate Professors

G Hariprasad Rao

Sharmishtha Dey

Assistant Professors

Ethayathulla AS

Krishna Kumar Inampudi

Saroj Kumar

Scientists

Asha Bhushan

S Baskar Singh

Manoj Kumar

Uddipan Das

HIGHLIGHTS

During the period under report, the Department of Biophysics had over 25 ongoing research projects funded by extramural grants. Research in the Department of Biophysics is concerned with determining the molecular basis of biological process, rational structure based drug design and discovering new specific biomarkers. The department provides facilities for data collection on protein and small molecule crystals, medical bioinformatics, protein sequencing and peptide synthesis, proteomics and dynamic light scattering. The department had received a Fund for Improvement of Science and Technology Infrastructure in Higher Educational Institutions (FIST) grant from Department of Science and Technology (DST), Government of India, which has been ongoing in the last year. In the past year, faculty and scientists had 28 research publications in various peer reviewed journals. The department continued providing postgraduate education and short and long-term training to MSc, PhD and MD students. The faculty members and scientists were invited to deliver lectures and seminars all over the country and have delivered 46 lectures.

EDUCATION

Postgraduate

The faculty and scientists of the Department of Biophysics continued with teaching and guiding students for PhD degree, MSc (Biophysics) and MD (Biophysics). The postgraduate teaching includes theory classes, hands-on practical classes and a dissertation project.

Short and Long Term Training

The department also imparted long- and short-term training to MSc and MTech students from different institutes and universities.

CMEs, National and International conferences

Lectures delivered

TP Singh

1. Exploitation of innate immune proteins as the protein antibiotics (Keynote address), Summer School on Drug Discovery and Development, 20-21 June 2018, Tanjavur
2. Applications of Peptidoglycan recognition proteins of the innate immune system as the protein antibiotics (Plenary talk), National Seminar on Crystallography (NSC-46), 27-29 June 2018, Bangalore

3. Special lecture on X-ray Crystallography, 6th Course on Interdisciplinary Science, 28 September 2018, New Delhi
4. Innate immunity and role of innate immune proteins as protein antibiotics (Keynote Address), International Conference on Biotechnological Innovation and Sustainable Development (BioSD-2018), 22-26 November 2018, Hyderabad
5. Protein structure and drug discovery and protein antibiotics, IMS-Chintan, 30 November 2018, Varanasi
6. Applications of innate immune proteins as protein antibiotics (Plenary Lecture), International Conference on Future Diagnostic, Therapeutic and Theragnostic Modalities, 29-31 December 2018, Aligarh
7. Protein antibiotics as new generation weapons against invading microbes (Plenary talk), World Congress on Nanomedical Sciences as part of ISNSCON-2018 and CBISNF-2019, 7-10 January 2019, New Delhi
8. Structural and functional studies of innate immunity proteins (Inaugural talk), 11th National Symposium cum Workshop on Recent Trends in Structural Bioinformatics and Computer Aided Drug Design (SBCADD-2019), 12-15 February 2019, Karaikudi
9. Structural basis of antibiotics action of innate immune peptidoglycan recognition proteins (Plenary talk), Structure Assisted Discovery of Novel Therapeutics (SADNT-2019), 13-16 February 2019, Faridabad
10. Protein antibiotics as new generation weapons against bacterial targets (Plenary talk), International Conference on Advanced Chemical and Structural Biology (ICACSB-2019), 19-20 February 2019, Chennai
11. Protein Structure and Drug Discovery, Science Day Lecture in CCS-Hisar Agricultural University, 28 February 2019, Hisar
12. Bioinformatics and translation research in India (Inaugural lecture), National Workshop on Translation Bioinformatics NWTB: GD2DE-2019, 6-7 March 2019, New Delhi
13. Structures of innate immune proteins and their exploitation as protein antibiotics (Inaugural keynote lecture), Recent Advancements in Biochemical Engineering and Biotechnology (RABEB-2019), 15 March 2019, Varanasi
14. Protein antibiotics as the new generation weapons against microbes, Workshop on Agriculture, Health and Society, 16 March 2019, New Delhi
15. Innate immune proteins as new generation weapons against infecting microbes (Plenary inaugural talk), Emerging Trends in Disease Model Systems, 25 March 2019, Pune
16. Drug development during pre-antibiotics, antibiotics and current antibiotics era (Inaugural lecture), National Seminar on Biotechnology in India: Current Status and Future Perspectives, 27 March 2019, New Delhi

Punit Kaur

1. Sequence based identification of resistance mechanism in *Salmonella* Typhi clinical isolates from Northern India, International Conference on Health Sciences, 7-9 October 2018, Colombo, Sri Lanka
2. The significance of C-terminal domain in DNA Gyrase A of *S. Typhi*, International Conference on Advanced Chemical and Structural Biology, 19-21 February 2019, Chennai

Savita Yadav

1. Exploring prolactin inducible protein and its binding partners in human seminal plasma, National Conference on Recent Trends in Biomedical Research: Advances and Challenges, 2 February 2019, Lucknow
2. Protein-Protein interactions in seminal plasma and their clinical implications, International Symposium on Integrative Approaches in Life Sciences, 15 February 2019, New Delhi
3. Developing non-invasive ovarian cancer screening method based on differential saliva proteomics, Deliberations on translation of basic scientific insights into affordable healthcare products, 26 February 2018, Trivandrum
4. Differential proteomic approach to Asthenozoospermia: Journey towards a molecular marker, National conference on recent development in Biomedical, Unani and Ayurvedic Translational Research, 11 March 2019, Aligarh

Hariprasad G

1. Proteomics as a platform for personalized medicine, Refresher Course in Basic Science (Interdisciplinary), 18 October 2018, New Delhi
2. Clinical proteomics for translational research, Advanced Bio-Analytical Techniques from Method Development to Data Interpretation, 18 December 2018, New Delhi
3. Clinical proteomics as a futuristic tool for personalized medicine, **Bioinformatics training for Teachers and Research scholars and from North East, 8 February 2018, Mumbai**

Sharmistha Dey

1. Current research in Biomarkers of Ageing, Indian Academy of Geriatric, Research Methodology Workshop, 18 August 2018, Jodhpur
2. Biomarkers of Alzheimer's Disease, International Conference on Neuroscience, 29 October 2018, Varanasi

AS Ethayathulla

1. Restoring p53 function in human pancreatic cancer cell line using natural compound, Translational Bioinformatics: Guinness Book Recording to Digital Era (NWTB: GB2DE-2019), 6 March 2019, New Delhi

KK Inampudi

1. Synthesizing the stable peptidyl-tRNA using tRNA adenylyl transferase and flexizyme technology to study the catalytic mechanism of peptidyl tRNA hydrolase, Biological Engineering Society India Conference, 26-27 October 2018, Mumbai
2. Proteomic society conference, International conference on Proteomics for Cell Biology and Molecular Medicine, NCCS, 12-14 December 2018, Pune

Saroj Kumar

1. Infrared imaging a potential tool for biodiagnosis, Berzelii Technology, Excellence Centre for Neurodegeneration, 23-26 April 2018, Uppsala, Sweden
2. Change in the microenvironment of breast cancer studied by microspectroscopy, 14th Indo-Australian Biotechnology Conference, 22-23 October 2018, Mumbai
3. Cancer proteogenomics, Indo-US Training Programme and Workshop, 6-11 December 2018, Mumbai

Jyotirmoy Banerjee

1. Understanding Epilepsy, A Network Disorder: Cellular Electrophysiological Approach, Summer Undergraduate Research Programme (SURP), Dr BR Ambedkar Center for Biomedical Research (ACBR), University of Delhi, 8 June 2018, New Delhi
2. Differential GABAA receptor-mediated synaptic transmission revealed distinct epileptogenic network patterns in paediatric and adult patients with Focal Cortical Dysplasia (FCD), Indian Academy of Neurology (IAN) Conference (IANCON-2018), 27-30 September 2018, Raipur
3. Training and demonstration of patch-clamp technique, IBRO-APRC School, Department of Physiology, AIIMS, New Delhi, 21 October-4 November 2018, New Delhi
4. Understanding epileptogenic networks at a cellular level, 15th National EEG and Epilepsy Neurobiology Workshop and Master-class for Epilepsy Surgery, 21-23 November 2018, Banaras Hindu University, Varanasi
5. Understanding Abnormal Synaptic Transmission Associated with Epilepsy: Cellular Electrophysiological Approach, Department of Biomedical Science, Bhaskaracharya College of Applied Sciences (University of Delhi), 21 February 2019, New Delhi
6. Current understanding and neurobiology of Drug-Resistant Epilepsy (DRE), IBRO-APRC Neuroscience Associate School 2019 "Neurological and Neuromuscular Disorders: An insight into its approach and Neurodiagnostic techniques", 10-14 March 2019, B P Koirala Institute of Health Sciences, Dharan, Nepal
7. Understanding network dynamics in Mesial Temporal Lobe Epilepsy (MTLE) at cellular level, One day Symposium on "Self-Organization in Biology", 16 March 2019, Department of Biophysics, University of Delhi, South Campus, New Delhi

Manoj Kumar

1. Basics of Structure Modelling and Simulations, Mathematics in Biomedicine (INSA), 10 March 2019, New Delhi

Uddipan Das

1. Structural insights into the substrate binding mechanism of novel ArgA from *Mycobacterium tuberculosis*, CCP4 Crystallography School and Workshop, 22-25 October 2018, Chandigarh

Oral Papers/Posters presented

1. Das U, Structural insights into the substrate binding mechanism of novel ArgA from *Mycobacterium tuberculosis*, CCP4 Crystallography School and Workshop, 22-25 October 2018, Chandigarh

2. Dey S, Current research in Biomarkers of Ageing, Indian Academy of Geriatric, Research Methodology Workshop, 18 August 2018, Jodhpur
3. Dey S, Dixit A, Tripathi M, Chandra PS, Banerjee J, Role of kynurenic acid in modulation of glutamate receptor mediated hyperexcitability associated with hippocampal sclerosis, 1st Annual Research Day, All India Institute of Medical Sciences, 25-26 March 2019, New Delhi
4. Dey S, Dixit A, Tripathi M, Chandra PS, Banerjee J, Role of pyridoxal phosphate in modulation of endogenous kynurenic acid synthesis associated with hippocampal sclerosis, 20th Joint conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi
5. Dey S, Shekhar S, Yadav Y, Dey AB, Biomarkers of Alzheimer's Disease, International conference on neuroscience, 4 June 2017, Varanasi
6. Kaur P, Katiyar A, Shared molecular signatures reveal probable links between Endometriosis and Multiple Sclerosis, 17th European Conference on Computational Biology, 8-12 September 2018, Athens, Greece
7. Kumar K, Dixit A, Tripathi M, Chandra PS, Banerjee J, Differential GABA receptor subunit levels in resected brain specimens obtained from low grade glioma patients with and without epileptic seizures, 20th Joint conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi
8. Naz F, Kumar M, Kaur P, Ethayathulla AS, Biophysical and functional studies of prokaryotic cytokinesis protein FtsZ from Salmonella enterica serovar Typhi, Structure Assisted development of Novel Therapeutics, 13-16 February 2019, Faridabad
9. Paul D, Dixit A, Srivastava A, Tripathi M, Banerjee J, Prakash D, Sarkar C, Chandra PS, Transforming growth factor beta and matrix metalloproteinase 9: Are they interacting in mesial temporal lobe epilepsy? 1st Annual Research Day, All India Institute of Medical Sciences, 25-26 March 2019, New Delhi
10. Sachdeva E, Kaur G, Sharma S, Singh TP, Ethayathulla AS, Kaur P, Characterization of DNA binding domain of DNA Gyrase, Hercules European School 2019, 22 March 2019, Grenoble, France (**2nd prize, best paper award**)
11. Sachdeva E, Kaur G, Singh TP, Ethayathulla AS, Kaur P, Characterization of C-terminal Domain of DNA Gyrase A, 1st AIIMS Research Day, 26 March 2019, New Delhi
12. Sharma D, Dixit A, Banerjee J, Tripathi M, Prakash D, Chandra PS, Deciphering the role of GABAA receptor subunit $\alpha 4$ alterations in patients with focal cortical dysplasia, 1st Annual Research Day, All India Institute of Medical Sciences, 25-26 March 2019, New Delhi
13. Sharma P, Kaur P, Kumar M, Dahiya S, Sood S, Das BK, Kapil A, Discovery of novel DNA gyrase inhibitors to bypass fluoroquinolone resistance in typhoidal salmonellae, 1st AIIMS Research Day, 26 March 2019, New Delhi (**2nd prize, best paper award**)
14. Shchekotikhin A, Tikhomirov A, Kaur P, Shtil A, The role of functional groups in the antitumor properties of antrafurin, 25th Biennial Congress of the European Association for Cancer Research, 30 June-3 July 2018, Amsterdam, The Netherlands
15. Singh M, Mishra P, Das U, Tikhomirov AS, Korolev AM, Shchekotikhin AE, Kaur P, Evaluation of novel antitumor heteroareneanthracendiones for their in-vitro activity against Human Aurora Kinase A and B, Complex Systems in Interdisciplinary Sciences, 11-12 March 2019, New Delhi
16. Srivastava A, Dixit A, Doddamani R, Banerjee J, Tripathi M, Chandra PS, Expression profile of Histone Deacetylases in patients with hippocampal sclerosis, 20th Joint conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi
17. Vashist N, Sharma S, Tyagi JS, Kumar M, Identification of inhibitor of a key dormancy regulator DevR of *Mycobacterium tuberculosis* among FDA approved drugs, 1st Annual Research Day, All India Institute of Medical Sciences, 26 March 2019, New Delhi
18. Yadav S, Jain P, Singh S, Bakhshi S, Exploration of differential semen protein signatures for explaining fertility status of Acute Lymphoblastic Leukemia (ALL) Survivors, Fertility-2019, 4 January 2019, Birmingham, UK

RESEARCH

Funded projects

Ongoing

1. Structural studies of Peptidoglycan Recognition Proteins (PRPs), Peptidyl tRNA-hydrolase, Dihydrodipicolinate Synthase (DHDPS), Dihydrodipicolinate Reductase (DHDPR) and Phospholipase A2, TP Singh, Indian National Science Academy, 5 years, 2014-2019, Rs 25 lakhs

2. Structure based design and synthesis of novel antitumor heteroareneanthracenediones, Punit Kaur, DST-RFBR, 2 years, 2017-2019, Rs 24.4 lakhs
3. AMR-Diag: A Novel Diagnostic Tool for Sequence Based Prediction of Antimicrobial Resistance, Punit Kaur, ICMR (Indo-Norway), 3 years, 2018-2021, Rs 136 lakhs (first year)
4. Characterization of silk fibroin film prepared from oak tasar (*Antheraea proylei*) cocoon for potential biomaterial applications, Punit Kaur, DBT-NER, 3 years, 2018-2021, Rs 29.67 lakhs
5. Development of novel and efficient carbohydrate enzymes for bioenergy and biovalued products, Punit Kaur, DBT-NER, 3 years, 2018-2021, Rs 23.99 lakhs
6. Effect of Non-Ionizing Electromagnetic Field (EMF) on human health, Savita Yadav, ICMR, 5 years, 2017-2022, Rs 61 lakhs
7. Exploring the role of proteomic signature in saliva: Step towards non-invasive diagnostic tool for ovarian cancer, Savita Yadav, ICMR, 3 years, 2016-2019, Rs 36 lakhs
8. Rational structure-based ligand design for developing the novel antibacterial agents against Peptidyl tRNA-hydrolase, a drug target from the multidrug resistant bacteria, *Acinetobacter baumannii*, Sujata Sharma, ICMR, 3 years, 2017-2020, Rs 68 lakhs
9. Proteomics of axillary sentinel lymph node tissues in early breast cancer: Implications for identification of biomarker to guide surgical intervention, Hariprasad G, AIIMS, 2 years, 2018-2020, Rs 9.8 lakhs
10. Evaluation of serum sirtuin level and their correlation with tubulins, synuclein oligomers in Parkinson Disease, Sharmistha Dey, DBT, 3 years, 2016-2019, Rs 30 lakhs
11. Mechanistic details of 5-LOX inhibitor on activation of PIK3/Akt Signaling pathway in Alzheimer's Disease, Sharmistha Dey, AIIMS, 2 years, 2017-2020, Rs 10 lakhs
12. Design and evaluation of novel peptide inhibitor as an anti-Parkinson's Disease agent targeting Sirtuin 2, Sharmistha Dey, CSIR, 3 years, 2018-2020, Rs 34 lakhs
13. Structural and biophysical characterization of bacterial cell division protein FtsZ from *Salmonella enterica*: Antimicrobial drug target, AS Ethayathulla, DST, 3 years, 2016 -2019, Rs 33 lakhs
14. Biophysical and structural characterization of curcumin as a potential ligand to restore p53 Y220 mutant function in human cancer, AS Ethayathulla, AIIMS, 2 years, 2017-2019, Rs 9.8 lakhs
15. Structural and functional characterization of translational rescue system by Peptidyl tRNA hydrolase by forming non-hydrolysable peptidyl tRNA complex to gain insights for drug development against tuberculosis, Krishna K Inampudi, DST, 4 years, 2017-2020, Rs 50 lakhs
16. Characterization of fibroblasts to understand the possible role in breast cancer progression by FTIR imaging, Saroj Kumar, AIIMS, 2 years, 2017-2019, Rs 9.8 lakhs
17. Elucidating region specific alterations of glutamatergic excitatory neurotransmission in a rodent pilocarpine model of temporal lobe epilepsy, Jyotirmoy Banerjee, DBT, 3 years, 2018-2021, Rs 61 lakhs
18. To investigate the role of dysfunctional benzodiazepine binding site on GABAA receptor in benzodiazepine-resistance associated with pharmaco-resistant epilepsy, Jyotirmoy Banerjee, Office of Principal Scientific Adviser to Government of India under the project "Advanced Epilepsy Research: A Multidisciplinary Approach", 3 years, 2018-2021, Rs 136.75 lakhs
19. Investigating the role of metabolites and neurotransmitters in abnormal synaptic transmission associated with Mesial Temporal Lobe Epilepsy (MTLE) and Focal Cortical Dysplasia (FCD): Possible biomarkers for localization of epileptogenic foci, Jyotirmoy Banerjee, DBT, under the project "Centre of Excellence for Epilepsy Research Phase-II", 3 years, 2018-2021, Rs 168.20 lakhs
20. Effect of plasma jet on tumor tissues resected from patients with tumor linked refractory epilepsy, Jyotirmoy Banerjee, Board of Research in Nuclear Sciences, Department of Atomic Energy (DAE), Government of India, 3 years, 2018-2021, Rs 33.23 lakhs
21. Role of $\alpha 7$ and $\alpha 4\beta 2$ subtypes of nicotinic receptors in abnormal synaptic transmission associated with hippocampal sclerosis, Jyotirmoy Banerjee, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
22. Identification of lead compounds against a novel drug target shikimate kinase for the development of anti-TB drug to combat multi-drug resistance, Manoj Kumar, AIIMS, 2 years, 2017-2019, Rs 9.6 lakhs
23. Structural characterization of Sulfate Activation Complex from *Mycobacterium tuberculosis*, Uddipan Das, AIIMS, 2 years, 2017-2019, Rs 8 lakhs

24. Comparative proteomics analysis to identify potent biomarkers during the transformation of premalignant oral conditions to malignant oral squamous cell carcinoma, S Baskar Singh, DST, 3 years, 2019-2021, Rs 43 lakhs

Completed

1. Fund for improvement of S&T infrastructure in universities and higher educational institutions, Punit Kaur, DST, 6 years, 2012-2018, Rs 300 lakhs
2. Development of Pan-Genome and knowledge-based Identification of Novel Drug targets for typhoidal *Salmonella enterica*—A genomic approach to drug discovery, Punit Kaur, ICMR, 3 years, 2015-2018, Rs 52.7 lakhs
3. Bio-Medical Informatics Facility at AIIMS, Punit Kaur, ICMR, 5 years, 2013-2018, Rs 100 lakhs
4. AMIR-PepKit IVD: R&D of a peptide-based-diagnostic kit for an early detection of a fatal immune response in acute myocardial infarction patients, Savita Yadav, CEFIPRA-BIRAC, 2 years, 2016-2018, Rs 39 lakhs
5. Validation of salivary proteomic markers for early detection of cervical cancer, Savita Yadav, AIIMS, 2 years, 2016-2018, Rs 7.2 lakhs
6. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of Schizophrenia and Parkinson's Disease, Hariprasad G, DST, 3 years, 2014-2018, Rs 31 lakhs
7. Potential anti-oxidant effect of selected Ayurvedic herbs in Parkinson and Alzheimer's Disease, Sharmistha Dey, AYUSH, 3 years, 2015-2018, Rs 35 lakhs
8. Study of possibility of the Hypoxia inducible protein (Hi95) as potential protein marker for Alzheimer's Diseases, Sharmistha Dey, AIIMS, 2 years, 2016-2018, Rs 10 lakhs
9. PeptidyltRNA Hydrolase (PtH): Structure and functional mechanism of PtH with Non hydrolysable peptidyltRNA, Krishna K Inampudi, AIIMS, 2 years, 2016-2018, Rs 5 lakhs

Departmental projects

Ongoing

1. Development of antimicrobial molecules against the drug resistant proteins from *S. typhi*
2. Structural characterization of the Mur pathway proteins
3. Genome analysis and target identification against *S. typhi*
4. Structural and biophysical characterization of DNA Gyrase and its domains from *S. typhi*
5. Intervention of non-classical class I human leukocyte antigen G in HNSCC and its therapeutic implications
6. Study on circulating level of inflammatory proteins, their signalling cascade in metastatic breast cancer and therapeutic implications for the same
7. Role of Sestrin in Neurodegenerative diseases and its therapeutic implication
8. Study of potential modulators targeting pathways involved in hyperphosphorylation of Tau
9. Analysis of Anti-neurotoxicity of Amyloid Beta ($A\beta$) in Alzheimer's Disease (AD) pathology targeting Lipoxygenases
10. Structural and Functional Studies of FtsZ cell division protein as a potential drug target against *Salmonella Typhi*
11. Computational analysis of resistance to imatinib and related drugs in CML due to mutations in BCR-Abl kinase and design of mutation resilient inhibitors
12. Structural and functional characterization of translational rescue system by Peptidyl tRNA hydrolase by forming non-hydrolysable peptidyltRNA complex to gain insights for drug development against tuberculosis
13. Functional characterization of EGFR Tyrosine Kinase Mutants and Identification of Novel Drug leads to target NSCLCs
14. Identification of DNA Aptamers against human sEGFR to treat lung cancer
15. Biomarker based understanding of Parkinson's Disease pathogenesis by using proteomic and lipidomic profiling of blood, urine and saliva
16. The unstructured proteins in biological structures: Case of human tooth
17. Characterization of fibroblasts to understand the possible role in breast cancer progression by FTIR imaging
18. Elucidate the role of Semaphorin in epileptogenesis and hyperexcitability associated with temporal lobe epilepsy

19. Elucidating the role of cytosolic phospholipase A2 in mesial temporal lobe epilepsy
20. Biophysical characterization of the ATPase domain of SugABC transporter from Mycobacterium Tuberculosis
21. Computational analysis of resistance to imatinib and related drugs in CML due to mutations in BCR-Abl kinase and design of mutation resilient inhibitors
22. Peptide inhibitor designing for sEGFR using computational protein design

Completed

1. Development of a protein marker for Parkinson Disease and design of peptide inhibitor for the same
2. Evaluation of cell signaling molecules as serum protein marker in Head and Neck Squamous Cell Carcinoma (HNSCC) and Non Small Cell Lung Cancer (NSCLC) proposing therapeutic target
3. Structural and Biophysical Characterization of p53 Y220 Mutant
4. Biophysical studies of bacterial cell division protein FtsZ with its natural inhibitors: Sula and MinC
5. Functional Studies of p53 Wild Type and Mutant Y220C in Human p53 Null Cell Line
6. Peptide inhibitor designing and validation for sEGFR using computational Protein design
7. Characterization of Serine Racemase inhibition by medicinal plants extract
8. The structural analysis of a glutamate acetyl transferase from Mycobacterium tuberculosis
9. Structural studies of ArgA protein from *Mycobacterium tuberculosis*
10. Identification of inhibitors for Malate synthase of Mycobacterium tuberculosis to target Latent TB Infection
11. Identification of potential inhibitors of DevR among FDA approved drugs

Collaborative projects

Ongoing

1. Identification of Novel targets and development of Inhibitors against *S. typhi*, Microbiology
2. Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Aging Study of India (LASI), Geriatric Medicine
3. Development of a protein marker for Parkinson Disease and design of peptide inhibitor for the same, Geriatric Medicine
4. Structure-based design of nanobody inhibitors against EGFR: A Protein engineering approach to develop novel therapeutics for lung cancer, Life Sciences, Shiv Nadar University; Center for Computational Biology and Bioinformatics, Central University of Himachal Pradesh; Pulmonary Medicine and Sleep Disorders, AIIMS, New Delhi
5. A nanomedicine approach against drug-resistant EGFR kinase for the treatment of EGFR positive tumors, Pulmonary Medicine and Sleep Disorders, AIIMS, New Delhi; Department of Chemistry, IIT Delhi; Department of Biochemistry, Microbiology and Immunology, University of Ottawa, Canada
6. Targeting drug resistant tumor harboring mutant EGFRs: A next generation molecular approach for the treatment of Non-Small Cell Lung Cancer, Department of Chemistry, IIT Delhi; Pulmonary Medicine and Sleep Disorders, AIIMS, New Delhi
7. Role of Inhibitors of Apoptosis Proteins in Gastroenteropancreatic Neuroendocrine Tumors, Anatomy
8. Development of early detection technique for Parkinsons Disease, Neurology
9. Role of kynurenic acid, a glutamate receptor inhibitor, in hyperexcitability associated with mesial temporal lobe epilepsy (MTLE), Neurosurgery
10. Deciphering the role of casein kinase 2 in mesial temporal lobe epilepsy, Neurosurgery
11. Deciphering the role of GABAA receptor alterations in pediatric and adult patients with focal cortical dysplasia, Neurosurgery
12. Deciphering the role of ATF3 and TGF β signaling in Mesial Temporal lobe Epilepsy (MTLE) patients, Neurology
13. Evaluation of perimplant crevicular fluid metalloproteinase-8 (MMP-8) and cathepsin-k (CTSK) levels in immediate loaded and delayed loaded dental implants, Centre of Dental Education and Research

Completed

1. Evaluation of novel intracellular proteins in serum as marker of ageing, Geriatric Medicine
2. Centre of Excellence for Epilepsy Research Phase-I, funded by Department of Biotechnology (DBT), National Brain Research Centre (NBRC), Manesar
3. Deciphering the role of Histone Deacetylases (HDACs) in Mesial temporal lobe epilepsy, AIIMS, Intramural Research Grant, Neurosurgery
4. Deciphering the role of the multifaceted kinase CDK5 in intractable epilepsy funded by Department of Biotechnology (DBT), National Brain Research Centre (NBRC), Manesar

PUBLICATIONS

Journals: 16

Abstracts: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor TP Singh selected as a SERB Distinguished Fellow; Elected as President of Biotech. Research Society for a period of 2019-2021; Appointed as a member of Executive Council of Central University, Sagar for period of 2019-2021; Appointed as a member of the Board of Governors of Institute of Medical Sciences-BHU, Varanasi for a period of 2018-2022; Current Elected President of Bioinformatics and Drug Discovery Society for a period of 2018-2020.

Professor Savita Yadav received Professor S S Guraya Memorial Oration award by Indian society for the study of reproduction and fertility; Received AIIMS Oncology Research Award (Third Prize).

Dr Sharmistha Dey received AIIMS Excellence Research award, AIIMS, New Delhi; Received International Fellowship for Biomedical Scientist, Indian Council of Medical Research.

Dr Krishna Kumar Inampudi received First Prize in one session.

Dr Saroj Kumar received Second Prize in of Quiz competition on “Sample preparation, Mass spectrometry and data analysis” at Proteomics Workshop at IIT Bombay.

Dr Jyotirmoyi Banerjee received *Best Paper Award* under *Basic Neuroscience* category at Indian Academy of Neurology (IAN) conference (IANCON 2018) held at Raipur, September 2018; Teaching Membrane Biophysics course to first year PhD and Integrated MSc-PhD students at National Brain Research Center (NBRC), Manesar; Member committee of re-formulation of recruitment rules of research positions for Research Section, AIIMS, New Delhi; Member committee of Public Awareness of Research Activities at AIIMS, New Delhi; Member committee of poster judging committee for 1st Annual Research Day, AIIMS, New Delhi; Organizing Secretary, 15th National EEG and Epilepsy Neurobiology Workshop and Master-class for Epilepsy Surgery, 21-23 November 2018, Banaras Hindu University, Varanasi.

VISITING SCIENTISTS

Following noted scientists and eminent academicians have visited the department for presenting lectures and scientific cooperation in the past year:

1. Dr R Ahmad, Norway
2. Dr R Batra-Safferling, Germany
3. Dr B Gopal, Bangalore
4. Dr D Velmurugan, Chennai
5. Dr Ashish Arora, Lucknow
6. Dr Hefazat Siddiqui, Lucknow
7. Dr Ajay Saxena, New Delhi
8. Dr Sonika Bhatnagar, New Delhi

9.6. Biostatistics

Professor and Head

RM Pandey

Professors

SN Dwivedi

V Sreenivas

Associate Professors

Maroof A Khan

Scientists

M Kalaivani

HIGHLIGHTS

Department conducted three hands on workshop on various aspects of biostatistics for faculty/residents and PhD students in the institute. Faculty and Scientist had 123 ongoing collaborative research projects and 36 completed collaborative research projects with various centers/departments in the institute. Departmental research projects include three ongoing extramural funded research projects and one completed project. Faculty and scientist in the department had 80 research publications in various peers reviewed medical journals; continued to be reviewer for almost all the major medical journals in the country and for several International Medical Journals from various medical specialties; served on various administrative and scientific committees in the institute; invited members of various scientific committees of the ICMR, DBT, DST, AYUSH; served on Data Safety Monitoring Boards (DSMB) of several National and International Clinical Trials; delivered invited lectures in various institutes/universities in the country; and, served as examiners for PhD thesis submitted to various universities in the country.

EDUCATION

The department continued teaching “Biostatistics and Essentials of Research Methods” for the undergraduate, paramedical and postgraduate courses, viz. MBBS, BSc (Hons.) in Medical Technology in Radiology, M Biotech, BSc and MSc Nursing, and MD Community Medicine. Department plays major role in conducting Research Methodology, Writing and Communication workshops for the residents in the institute, a mandatory five days course work. On request, faculty members delivered series of lectures for the residents, PhD students and participated in departmental scientific presentations in various centres/departments in the institute. Besides guiding PhD students in the department, faculty members and scientists contributed to the academic activities of other departments in the institute as Co-Guides, DC Members of PhD, DM, MCH, MD/MS, students. Also, departmental faculty and scientists delivered 46 invited lectures in various workshops on Research Methodology and Biostatistics in various national workshops/conferences across the country.

CMEs, National and International conferences

Lectures delivered

RM Pandey

1. Determination of sample size for various study designs, Zonal Operations Research Workshop of RNTCP, 1 April 2018, Manali
2. Essential statistical analysis in clinical research, Zonal Operations Research Workshop of RNTCP, 2 April 2018, Manali
3. Design, conduct and analysis of clinical trials, principles and practice of clinical research, 16-20 April 2018, Hyderabad
4. Study designs in health research, Organization and Ethics of Biomedical Research, 1 June 2018, Jabalpur
5. Sample size determination for clinical trials, Seminar on Clinical Trials at THSTI, DBT, 9 June 2018, Faridabad
6. Statistical analysis of clinical trial, Seminar on Clinical Trials at THSTI, DBT, 9 June 2018, Faridabad
7. Essentials of statistical analysis in clinical research, National Symposium on Medical Writing and Clinical Research, 24 July 2018, Coimbatore
8. Sample size determination for health research studies, Research Methodology at Gauhati Medical College, 4 September 2018, Guwahati
9. Inferential statistical methods of data analysis, Research Methodology Workshop at Govt Medical College, 18-19 September 2018, Srinagar

10. Approaches for doing health research, Rajasthan Conclave-6, 20-21 October 2018, Jodhpur
11. Basics of Research Methodology, Principals and Practice of Clinical Research, 13-14 November 2018, Bhubaneswar
12. Determination of sample size in Health Research, Annual Meeting of UP Chapter of Obstetrics and Gynaecology, 15 November 2018, Allahabad
13. Statistical aspects in Clinical Trial, Workshop on Research Methods, 20 November 2018, Chandigarh
14. Statistical methods in Medical Research, Faculty Development Programme, 18-19 November 2018, Thiruvananthapuram
15. Essential statistical methods in Tuberculosis Research, State Level Workshop to Promote Research in Tuberculosis, 14 March 2019, Lucknow
16. Statistical inference methods, Research Methodology Workshop for Physicians in Critical Care Medicine, 17 March 2019, Pune

SN Dwivedi

1. Methodology section: Selection of participants, bias and confounding, association and causation, Clinical and Biological Research in Orthodontics, 23 April 2018, AIIMS, New Delhi
2. Sampling and sample size determination, Training Course on Data Analysis using Statistical Software for Health and Demographic Research, 13 September 2018, NIHF, New Delhi
3. Methods to derive accurate estimate of risk ratio using binary regression models for nodal involvement among oral-cancer patients, International Conference on Emerging Innovation in Statistics and Operations Research (EISOR-2018), 28 December 2018, MD University, Rohtak
4. Statistics for clinicians, Evidence Based Medicine Conference 2019 of Society for Evidence based Health Care, 2-4 January 2019, KMC, Manipal
5. Sampling and sample size determination, Training course on Demographic Data Analysis for Health Personnel, 11 February 2019, NIHF, New Delhi
6. An Introduction to Meta-Analysis: Why and How, National Symposium on Biostatistical Techniques and its Applications in Clinical Studies at Department of Statistics, 11 March 2019, Chandigarh
7. Statistics in evidence based health care: Management of breast cancer, STAT QUEST 2019 at Department of Statistics, 28 March 2019, Kolkata

V Sreenivas

1. Development of study proforma, data management and descriptive statistics, Clinical and Biological Research in Orthodontics, 23 April 2018, New Delhi
2. Questions in Biostatistics and Data Entry Guidelines, Sample size estimation and criteria for causation, Research methods workshop for Faculty, 29 June 2018, Bhubaneswar
3. Correlation, Regression and Survival Analysis, Research methods workshop for Biomedical Scientists, 2 August 2018, Noida
4. Design of trials and experimental studies, Research methods workshop for Medical Faculty and Scientists, 4 December 2018, New Delhi

Maroof A Khan

1. Biostatistics and its role in Unani Medicine, CME Programme for Teachers, 23 October 2018, Aligarh

M Kalaivani

1. Principles of Biostatistics, Research Methodology, 28 July 2018, New Delhi
2. Statistical Analysis Using Stata, Programme on Research Methodology, 22 February 2018, New Delhi

Oral papers/posters presented

1. Pathak M, Dwivedi SN, Deo SVS, Sreenivas V, Thakur B, Comparison of Hazard Models for Loco-regional Recurrence in Presence of Competing Risks among Breast Cancer Patients, International Conference of the International Society for Clinical Biostatistics (ISCB), 28 August 2018, Melbourne, Australia
2. Pathak M, Dwivedi SN, Deo SVS, Thakur B, Sreenivas V, Rath GK, Comparisons of Regimens under Neoadjuvant Chemotherapy of the treatment of Breast Cancer Patients: Network Meta-analysis, International Conference of the International Society for Clinical Biostatistics (ISCB), 29 August 2018, Melbourne, Australia
3. Upadhyay AD, Dhawan A, Sreenivas V, Dwivedi SN, Alcohol Use among Adolescents: Randomized Response Technique vs. Direct Interview Method, 2nd Global Health Conference, 15 February 2019, Colombo, Sri Lanka

RESEARCH

Funded projects

Ongoing

1. Air pollution and its effects on health: 20 multi site study, RM Pandey, Ministry of Environment, Forest and Climate Change, Government of India, 3 years, October 2018 to October 2021, Rs 26.40 lakhs
2. The effect of geographical health inequalities on under five child mortality in India, Maroof A Khan, DST, 3 years, 2017-2020, Rs 15.93 lakhs
3. Multicentric trial to study the effect of early active mobilization as compared to three weeks immobilization following tendon transfer procedures for claw hand (Data coordination and study monitoring), V Sreenivas, ICMR, New Delhi, 5 years, August 2015 to August 2020, Rs 21.22 lakhs
4. Chron's Disease in India: A multi-center study from a country where intestinal tuberculosis as well as Johne's Disease is endemic (Data coordination and study monitoring), V Sreenivas, Department of Health Research, Government of India, 3½ years, March 2016 to August 2019, Rs 27.99 lakhs

Departmental projects

Ongoing

1. Pattern and Associated Factors of Lymph Node Involvement and Local Recurrence among Oral Cancer Patients: Biostatistical Considerations

Completed

1. Comparison of a statistical models for recurrent exacerbations and long-term control asthma in children in Northern India
2. Comparative Appraisal of Data Collection Methods and Related Epidemiological Models for Smoking, Drinking and Tobacco Chewing among Adolescent Children in India
3. Competing Risk Survival Models as well as Systematic Review and Meta-Analyses to Assess the Effectiveness of Neo-adjuvant Chemotherapy in Treatment of Breast Cancer Patients

Collaborative

Ongoing

1. Study of Oligodendroglial Linage, Myelination and Remyelination in Brain Tissue in Head Injury Cases, Division of Forensic and Molecular DNA, JPNATC
2. Fat Gain Trajectory from Birth to 6 months in Healthy Infants, and its Effect on Serum Insulin, IGF-1 and Adiponectin at 2 years of Age, Paediatrics
3. Evaluation of Technological solutions for Conduct and Capture of Narratives in Verbal Autopsy based casue of Death Ascertainment Systems, Center for Community Medicine
4. Cysteine Cathepsins in Acute Lymphoblastic Leukemia: Implication (s) in Prognosis and Therapeutics, Biochemistry
5. A Study to Explore Protein and Gene Expression of PCSK9 in LDL Stratified and Prakriti Stratified Patients of Coronary Artery Disease in India, Pharmacology
6. A Study on Regulation, Immunomodulatory and Cellular Functions of Dipeptidyl Peptidase III Colon Cancer, Biochemistry
7. A Population Based Prospective Cohort Study to Unravel the Causes of Stroke and Cognitive Decline: A Cross-Cultural Perspective, Neurology
8. Role of Fluoride Toxicity on Renal Pathogenesis in Childhood Nephrotic Syndrom: An Ultra structural, Biochemical and Proteomic Study, Anatomy
9. Role of hydrogen sulphide on migration of human trophoblast cells, Anatomy
10. Comparison of Critical Care TEE vs. Conventional TEE in low perfusion states in patients with Septic Shock, A double blinded observational study, Anaesthesiology, Pain Medicine and Critical Care
11. Study of potential modulator targeting pathways involved in the hyperphosphorylation of tau in Alzheimer Disease, Biophysics
12. Development of serum protein marker and study of antioxidative effect using potential modulator for Alzheimer's Disease, Biophysics
13. Interventions of human leukocyte Antigen-G in HNSCC and its therapeutic implications, Biophysics
14. Analysis of Anti-neurotoxicity of Amyloid Beta (Ab) in Alzheimer's Disease (AD) pathology targeting Lipoxigenases, Biophysics

15. Study on circulating level of inflammatory proteins, their signaling cascade in metastatic breast cancer and therapeutic implications for the same, Biophysics
16. Efficacy of yoga based cardiac rehabilitation in Post-PCI patients: A prospective randomized, open-label, blinded end-point trial, Cardiology
17. Effect of structured Yoga Programme on Stress and Professional Quality of Life among selected nursing staff in a tertiary care hospital of Delhi, A small scale phase-2 trial, Centre for Community Medicine
18. Comparison of post extraction bleeding complication in patients taking oral anticoagulants, with and without bridging therapy: A pilot study, Dentistry
19. Q-sofa score as a predictor of 7 and 28 days outcome in patients with suspected infection presenting to Emergency Department, Emergency Medicine
20. To study the role of point of care ultrasound for carotid pulse check in cardiac arrest patients, Emergency Medicine
21. Gait and balance assessment in patients attending memory clinic, Geriatric Medicine
22. Comprehensive geriatric assessment of older adults attending fragility clinic in a tertiary health care setting in India, Geriatric Medicine
23. Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Aging Study of India (LASI), Geriatric Medicine
24. Impact of frailty and geriatric syndromes on outcome of major orthopedic surgery in older Indian, Geriatric Medicine
25. A randomized control study to evaluate the efficacy of scrambler therapy in the management of oncological pain in cancer patients, IRCH
26. Awareness and knowledge of Indian breast cancer patients pertaining to genetic aspect of breast cancer, IRCH
27. Efficacy of intensive dietary counseling on metabolic, anthropometric and ultrasound parameters among adult Indian Non-Alcoholic Fatty Liver Disease (NAFLD) patients: A Randomized Controlled Trial, Medicine
28. Biological and behavioral risk factors for obesity among outpatients and perceived barriers to weight loss among obese patients in a hospital based set-up, Medicine
29. Incidence, outcome and risk factors of paradoxical reaction in HIV negative lymph node tuberculosis, Medicine
30. Molecular characterization of Neisseria meningitides isolated from cases of acute bacterial meningitides in Delhi and adjoining area, Microbiology
31. Phenotypic and genotypic characterization of Non-Typeable Haemophilus influenza (NTHi) from North India, Microbiology
32. Study of cognition and quality of life in chronic intractable epilepsy using functional Magnetic Resonance Imaging (fMRI), Neurology
33. Investigation of role of trans cranial magnetic stimulation in Parkinson's Disease, Neurology
34. Designing and validation of evidence based questionnaire in English and Hindi for a population based cohort study in India, Neurology
35. Prevalence and determinants of cerebral micro-bleeds in people aged 50 years and above residing in urban Delhi: A population based cross sectional study, Neurology
36. Prevalence of incidental findings on Brain MRI in adults aged 50 years and above: A population based cross-sectional study, Neurology
37. Association of Vascular Risk Factors, Brain MRI Measures, Cognition and Gait in Community Dwelling adults aged 50 years and above: A population based cross sectional study, Neurology
38. High dose dexamethasone for primary supratentorial intracerebral hemorrhage: A Pragmatic Parallel Group Open-Level Randomized Trial with Blinded Endpoint assessment (PRoBE), Neurology
39. Fever, hyperglycemia, swallowing and hypertension management in acute stroke: A cluster randomized controlled trial (Indian Quality Improvement in Stroke Care Study), Neurology
40. Identification of biomarkers in Parkinson's Disease using NMR, NMR
41. Metabolomics study of prostate cancer by using NMR spectroscopy, NMR
42. Role of MR guided Biopsy in detection of Prostate Cancer, NMR
43. Role of magnetic resonance in assessing therapeutic efficacy of ayurvedic treatments, NMR
44. Study on cytogenetic toxicity of low dose 131I therapy in hyperthyroid patients by using micronuclei assay, Nuclear Medicine
45. Dosimetric studies in Radionuclide Therapy of Neuroendocrine Tumors with 177Lu DOTA-TATE, Nuclear Medicine

46. Therapeutic Efficacy of Abiraterone Acetate versus Concomitant ¹⁷⁷Lu-DKFZ-PSMA-717 and Abiraterone Acetate therapy in patients with Metastatic Castration Resistant Prostate Cancer: Open Label, Two Arm, Phase II Trial, Nuclear Medicine
47. Assessment of the changes in quality of life and symptom burden in patients with pulmonary or airway related disease requiring pulmonary interventions, Prospective study, Onco-anesthesia and Palliative medicine
48. Detection of Minimal Residual Disease (MRD) in B-cell Lineage Acute Lymphoblastic Leukemia by Flow Cytometry at end of Induction, Paediatrics
49. A study of endothelial function and gene expression in healthy individuals, and their correlation with various somatotype classifications, Physiology
50. To study the role of vascular function and pain sensitivity in micro vascular angina, Physiology
51. Psychological Trauma Resilience in Children Adolescents: Development and Psychometric Properties of a Multidimensional Scale, Psychiatry
52. Biostatistical Aspects of Prognostic Factors including Molecular Parameters in Breast Cancer Patients: An Epidemiological Appraisal, Radiotherapy
53. Role of T-Regulatory cells (tregs) and their clinical correlation in epithelial ovarian cancer, Surgical Oncology
54. A Study of Chronic Respiratory Diseases and Associated Factors among Elderly Persons in a Rural Area of Haryana, Centre for Community Medicine
55. Effect of Resveratrol supplementation on cognitive function and Estrogen receptor profile in hypothalamus and hippocampus of arsenic trioxide-exposed adult female mice, Anatomy
56. Evaluation of the blood inventory management in a hospital based blood bank and evolution of strategy to minimize shortage and outdate of blood, Clinical Biochemistry
57. Role of sperm molecular factors in recurrent pregnancy loss, Anatomy
58. Effect of regional anesthesia on perioperative inflammatory cytokines alteration and clinical complications in orthopedic trauma surgery, Anaesthesiology and intensive care, JPNATC
59. Effect of curcumin on mice basal forebrain structures following arsenic trioxide exposure, Anatomy
60. Effect of Resveratrol supplementation on cognitive function and Estrogen receptor profile in hypothalamus and hippocampus of arsenic trioxide-exposed adult female mice, Anatomy
61. Mapping functional and biochemical correlates in brain of Parkinson's patients with mild cognitive impairment, NMR and MRI facility
62. Evaluation of the blood inventory management in a hospital based blood bank and evolution of strategy to minimize shortage and outdate of blood, Clinical Biochemistry
63. Role of sperm molecular factors in recurrent pregnancy loss, Anatomy
64. Effect of regional anesthesia on perioperative inflammatory cytokines alteration and clinical complications in orthopedic trauma surgery, Anaesthesiology and intensive care (JPNATC)
65. Effect of curcumin on mice basal forebrain structures following arsenic trioxide exposure, Anatomy
66. The effect of candida and antifungal therapy on pro inflammatory cytokines in oral leukoplakia, A pilot study, CDER
67. Expression of selective neurotransmitters and neuropeptides in the spinal cord of morphine tolerant rats, Anatomy
68. Effects of pre- and post-natal exposure to fluoride on enteric nervous system, Anatomy
69. Role of TET2 protein in Myelodysplastic syndrome, Biochemistry
70. Role of TET2 proteins in pathogenesis of AML, Biochemistry
71. Economic Burden, Prevention and Control of Pneumonia among Elderly, Centre for Community Medicine
72. Strengthening/Promoting evidence based advocacy for influenza prevention and control in India (CDC Atlanta, 2018-2023), Centre for Community Medicine
73. Effect of Vitamin D supplementation on outcome in children undergoing open heart surgery: A randomized controlled trial, CTVS
74. Early Enteral feeding with supplemented mother's milk in post-operative pediatric cardiac surgical patients, A randomized controlled trial, CTVS
75. A prospective split face randomized controlled study comparing injection of autologous fat alone versus autologous fat mixed with platelet rich plasma for age related facial volume deficit especially tear trough deformity; with isolation and characterization of adipose derived stem cells, Dermatology
76. Comparison of Efficacy of non-cultured extracted hair follicle root sheath cell suspension with noncultured epidermal cell suspension in repigmentation of leucotrichia in vitiligo, Dermatology
77. A descriptive study to classify periocular hyperpigmentation based on clinic-investigative profile, Dermatology

78. Estimation of epidermal ceramides in autosomal recessive congenital ichthyosis and its correlation with phenotype and genotype, Dermatology
79. Cross-sectional study to assess autonomic nervous system imbalance and its correlation with cutaneous manifestations in patients with systemic sclerosis, Dermatology
80. A pilot randomized controlled trial comparing the safety and efficacy of Cyclosporine and Dexamethasone in SJS, SJS-TEN overlap and TEN, Dermatology
81. Clinical, biochemical, hormonal familial characteristics and FTO gene variation in women with PCOS, with and without family history of type 2 Diabetes Mellitus, Endocrinology
82. Molecular insights in to the complications of Idiopathic Hypoparathyroidism, Endocrinology
83. Exploration of autoimmune basis of Indian patients with Idiopathic hypoparathyroidism, Endocrinology
84. Unique features of Idiopathic Hypoparathyroidism, Endocrinology
85. Role of contrast enhanced ultrasound in the diagnosis of hepatocellular carcinoma in patients of cirrhosis and in the assessment of tumor response after percutaneous ablation, Gastroenterology
86. Role of micro RNAs as a biomarker in hepatocellular carcinoma, Gastroenterology
87. Assessment of liver fibrosis in patients with chronic liver disease using Transient elastography, Shear wave elastography and serum biochemical markers, Gastroenterology
88. Development and validation of a tool for assessment of adherence to gluten free diet in Indian Celiac disease patients, Gastroenterology
89. To study the diagnostic performance of presepsin in sepsis, A pilot study, Medicine
90. Psychiatric co-morbidities in TB/HIV co-infection, Medicine
91. Role of N-Terminal pro-BNP and cardiac Troponin-I as a biomarker to predict mortality in patients of sepsis, Medicine
92. Quality improvement of the invasive procedures routinely done in medicine ward, Medicine
93. Efficacy of Yoga on symptom severity and quality of life of patients suffering from pain predominant medically unexplained symptoms, Medicine
94. Gene expression profile and its correlation with mitochondrial energy metabolism in pediatric AML, Medical Oncology, IRCH
95. Pazopanib based combination therapy in Platinum resistant, Platinum Refractory and advanced Ovarian Cancer: A Randomized Phase 2 study, Medical Oncology, IRCH
96. Three arm phase II/III RCT in patients with unresectable or metastatic GBC with poor performance status by best supportive care vs Erlotinib vs capecitabine, Medical Oncology, IRCH
97. Stoppage of empirical antibiotic therapy at clinical recovery versus at neutrophil recovery, Medical Oncology, IRCH
98. Effectiveness of bundled intervention in surgical site infections among patients undergoing clean orthopedic surgery with hardware implants: A randomized control trial, Microbiology
99. Impact of early organism identification by MALDI TOF on antibiotic prescription pattern and clinical outcomes, Microbiology
100. Detection of Neisseria gonorrhoea in genital and extra genital sites in men having sex with men (MSM), Microbiology
101. Development of a diagnostic panel of blood markers in the diagnosis and prognostication of acute ischemic stroke, Neurology
102. Genetic and clinical factors associated with aspirin resistance in Indian patients with Ischemic stroke, Neurology
103. Study on role of intensive physiotherapy and trans cranial magnetic stimulation (TMS) in stroke recovery and the correlation of growth factors with intervention and recovery, Neurology
104. Standardization of dynamic F-18 FDG PET/CT protocol and comparison of whole body F-18 FDG PET CT with whole body diffusion weighted MRI for early treatment response evaluation in non-small cell lung cancer, Nuclear Medicine
105. Understanding the BRB Transponder Functions and Evaluation of Aptamers in the Experimental Model of Uveitis, Ocular Pharmacology, Dr RP Center
106. Developing and validating QSPR model for enhanced penetration of drugs across blood ocular barriers, Ocular Pharmacology, Dr RP Center
107. Utility of a panel of surrogate immunohistochemical and molecular markers to classify human colorectal carcinomas according to the consensus molecular subtypes and clinical correlation, Pathology
108. Pharmacological modulation of inflammation in experimental model of Ischemia reperfusion injury in rat heart, Pharmacology
109. Development and validation of a questionnaire for assessing the medication adherence of hypertensive patients in India, Pharmacology

110. Randomized controlled trial to study the efficacy of exercises in early stage Parkinson's Disease, Physical Medicine and Rehabilitation
111. Quantitative EEG correlates of Cognitive Deficits and Stress Reactivity in Mild Cognitive Impairment and Alzheimer's Disease, Physiology
112. Transcriptomic study to elucidate the pathophysiological mechanisms in COPD, Physiology
113. Genomic expression and protein profile correlates of peripheral blood mononuclear cells in obesity after Yoga-based lifestyle intervention, Physiology
114. Effect of Angiotensin Converting Inhibitor on Autonomic, Vascular and Endothelial function in Type 2 Diabetes with newly diagnosed Hypertension, Physiology
115. Muscle regeneration after iron oxide nano-particle implantation and effect of magnetic field in complete spinal cord injury rat model, Physiology
116. Psycho-social correlates of caregiving experience among caregivers of patients with Schizophrenia, Psychiatry
117. Development of Psychological Intervention Manual for adolescents with dissociative conversion disorder, Psychiatry
118. Comparative evaluation of nasogastric feeding and percutaneous radiologic gastrostomy for enteric support in patients with moderate and severe dysphagia due to neoplasms of oropharynx or esophagus: A pilot Randomized Controlled Trial, Radiodiagnosis and Imaging, IRCH
119. Pain score in Gall bladder cancer patients undergoing PTBD under TAP block vs without the TAP block, Radiodiagnosis and Imaging, IRCH
120. Role of interventional radiology in obstetric related hemorrhage, Radiodiagnosis
121. Evaluation of neck masses using diffusion weighted MR imaging and ultrasound elastography, Radiodiagnosis
122. Magnetic Resonance Imaging evaluation of adult traumatic brachial plexus injury, Radiodiagnosis
123. Dynamic MRI in evaluating upper airway in Obstructive Sleep Apnea Syndrome, Radiodiagnosis
124. Role of perfusion CT in evaluation of non-small cell lung carcinoma in patients undergoing chemotherapy, Radiodiagnosis
125. Role ultrasound guided wire localization of axillary lymph nodes in increasing the accuracy of sentinel lymph node biopsy after NACT in breast cancer, Radiodiagnosis

Completed

1. To study the alcohol production by microbes in blood and vitreous humor in human body and during storage of samples, Forensic Sciences
2. Study of orthostatic hypotension in older indians, Geriatric Medicine
3. Study of cognition in frail older adults, Geriatric Medicine
4. Clinical biochemical and radiological profile in Mild Behavioral Impairment (MBI), Geriatric Medicine
5. Dosimetric study in children and young adults with Differentiated Thyroid Cancer undergoing radioiodine (¹³¹I-Na) therapy, Nuclear Medicine
6. To study concept of professionalism in nursing, its correlates and prepare a model framework of curriculum in professionalism for nursing education, College of Nursing
7. Association of IKZF-1 gene alterations and Cytokine Receptor-Like Factor 2 (CRLF-2) Expression with prognostic parameters at presentation and response to induction chemotherapy in Indian Children with Acute Lymphoblastic Leukemia (ALL), Paediatrics
8. A study to evaluate the efficacy of supervised exercise training programme in patients of peripheral artery disease of lower limbs and evaluate their quality of life, Surgical Disciplines
9. Randomized controlled trial to compare efficacy of injection benzathine penicillin, upper limb exercise and care versus upper limb exercise and care only in prevention of Upper Limb Lymphedema following breast cancer surgery, Surgical Disciplines
10. Study of involvement of specific neuropeptides at spinal level in the rat model of post-operative pain, Anatomy
11. Association between cancer cell differentiation and tumor microenvironment in human colorectal carcinoma
Association between cancer cell differentiation and tumor microenvironment in human colorectal carcinoma, Biochemistry
12. Establishing a network of population based influenza surveillance platforms for elderly persons in India, Centre for Community Medicine
13. Study of Physical Activity (PA) among Under-Graduate (UG) Medical Students in AIIMS, New Delhi, Centre for Community Medicine

14. Feasibility of introducing Structured Yoga Programme and its effect on Stress and Perceived Well-being on New Medical Undergraduate Students of AIIMS, New Delhi, Centre for Community Medicine
15. Descriptive epidemiological study of patients with dermatophytic infections attending tertiary care centre in Northern India, Dermatology
16. Biomarkers for assessment of villous abnormalities in patients with celiac disease and other enteropathies, Gastroenterology
17. Clinical and biological significance of mutations in mitochondrial DNA in AML, Medical Oncology, IRCH
18. Role of bone marrow micro-environment in multiple myeloma, Medical Oncology, IRCH
19. Bortezomib, lenalidomide and Dexamethazone based consolidation therapy after autologous hematopoietic stem cell transplantation in multiple myeloma, A single arm prospective study, Medical Oncology, IRCH
20. ADE as salvage Chemotherapy for pediatric AML patients at first relapse, Medical Oncology, IRCH
21. Standardization of a real time PCR for the diagnosis of acute bacterial meningitis and correlation of humoral and cell mediated immune response in the CNS, Microbiology
22. Quantitative real time PCR and genotyping for Cytomegalovirus in ulcerative colitis, Microbiology
23. Magnitude of Prosthetic Joint Infections (PJI) and role of amplification based DNA analysis for identifying microbial profile of prosthetic joint infections in a Tertiary Care Hospital, Microbiology
24. To study clinical and biological significance of mutations in mitochondrial DNA regulatory region in acute myeloid leukemia, Medical Oncology, IRCH
25. Effect of yoga as add-on therapy in migraine, A randomized controlled study, Neurology
26. Quantitative EEG correlates of emotion induced changes in cognitive performance in healthy volunteers, Physiology
27. Multiparametric MRI and Ga-68 PSMA PET scan in the evaluation of intermediate and high risk prostate cancer, Radiodiagnosis
28. Diagnostic and prognostic role of MRI in Acute Traumatic Cervical cord injury, Radiodiagnosis
29. Assessment of scar post MI with the help of cardiac MRI, Radiodiagnosis
30. Use of screen based media and assessment of screen time among adolescents aged 10 to 19 years, in an urban resettlement colony, New Delhi, Centre for Community Medicine
31. Diabetes and hypertension among elderly persons in a rural area of Ballabgarh, Haryana, Centre for Community Medicine
32. Visual impairment among elderly persons in an urban resettlement colony in Delhi, Centre for Community Medicine
33. Evaluation of osteopontin as a biomarker and its correlation with the disease severity score in enzyme naïve patients with Gaucher Disease, Paediatrics
34. Risk Behaviors amongst youth men in a rural area of North India: A cross-sectional study, Centre for Community Medicine
35. Evaluation of eating disorders and dietary patterns and their association with metabolic parameters and glycemic control in adult patients with diabetes mellitus type 2, Endocrinology
36. Value of intraventricular synchronism assessment by gated-SPECT myocardial perfusion imaging in the management of heart failure patients submitted to cardiac resynchronization therapy, Cardiology

PUBLICATIONS

Journals: 75

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor RM Pandey had the following honors and significant events. **Ethics Committee:** Chairperson of Indian Institute of Public Health (Under PHFI), Delhi; **Member:** United Nations Regional Centre for Biotechnology, Under DBT. **Coordinator:** Mandatory five days workshop on Research Methodology, Writing and Communication, for the PG Students at the AIIMS; **Member:** Scientific Advisory Committee of National Institute of Epidemiology (ICMR), and Regional Medical Research Center (RMRC-ICMR); Operations Research on RNTCP (Government of India); Research Advisory Council, BPKIHS, Dharan, Nepal; Research Advisory Committee, Vallabh Bhai Patel Chest Institute, Delhi University; Steering Committee Member of Multi-centric Collaborative Study of the clinical, biochemical and molecular characterization of Lysosomal storage disorders in India; Expert Committee, Task Force Project on Cleft Lip and Palate Anomaly (ICMR); Technical Advisory Group on grand challenges India/Nutrition and Health funded by Bill Milanda Gates Foundation and DBT; Expert Committee to evaluate R&D proposals on the possible impact of IMF Radiation Exposure from Mobile tow-

ers and handsets on life and related R&D initiative by DST; Expert Committee on estimation of burden of Paediatric HIV cases in India (ICMR); **Member DSMB:** Community based Kangaroo Mother Care on newborn mortality, coordinated by WHO; Member of Scientific Academic Committee of National Institute of Epidemiology, Chennai; ICMR-Regional Medical Research Centre, Bhubaneswar. **Examiner:** PhD thesis submitted at Delhi University, Delhi; IIPS, Mumbai; CMC Vellore and Kerala University.

Professor SN Dwivedi was member (UGC Nominee), Advisory Committee, Department of Statistics, Calcutta University; Advisor for two PhD students, University of Delhi; Member, National Organizing Committee for the 29th International Population Conference of International Union for Scientific Study of Population (IUSSP), to be held at Hyderabad (2021); External Member, Board of Post Graduate Studies in Statistics, Assam University, Silchar; Member, Governing Body, Institute of Applied Statistics and Development Studies, Lucknow; Member, Expert Committee on Gestational Diabetes Mellitus (GDM), Task Force Committee on Methods and Project Review Committees, for Indian Council of Medical Research; Member, Special Project Review Committee for Model Rural Health Research Units (Block Level) of the Department of Health Research, Ministry of Health and Family Welfare, Government of India; Member, Data Safety Monitoring Board (DSMB) for a Multicentric Study of Public Health Foundation of India (PHFI); Judge to assess poster presentations and recommend first three best papers for the award; and Chair of Plenary Session, “Advanced Statistical Methods in Medical Research”, under 36th Annual Conference of Indian Society for Medical Statistics, NIMHANS, Bengaluru; Chair, Technical Session during an International Conference on Emerging Innovation in Statistics and Operations Research (EISOR-2018), MD University, Rohtak; Chair, Scientific Session on “Mortality” and Panelist for discussion on Emerging opportunities for Indian Association for the Study of Population (IASP): How to tap? during 39th Annual Conference of the Indian Association for Study of Population (IASP), BHU, Varanasi; External examiner evaluating two PhD theses from abroad for award of PhD degrees in Statistics, one from The University of West Indies, School for Graduate Studies and Research, St. Augustune Campus, and another from University of Rajshahi, Bangladesh; four thesis from India, One each from Gauhati University, Guwahati; University of Calcutta, Kolkata; International Institute for Population Sciences, Mumbai and Centre for Cancer Epidemiology, Tata Memorial Cancer, Mumbai; External Examiner to conduct PhD Viva Voce Examinations, One each at Statistics Department, Gauhati University, Guwahati; International Institute for Population Sciences, Mumbai; and The University of West Indies, School for Graduate Studies and Research, St. Augustune Campus through SKYPE; Member, Selection Committee at National Institute of Mental Health and Neuro-Sciences, Bengaluru; and Expert Member, Selection Board at ESIC Medical College, Faridabad; Reviewer, American Journal of Public Health; Reviewer, “Paediatrics, American Academy of Paediatrics”; Editorial Board Member, Biostatistics and Biometrics Open Access Journal; Reviewer, International Society for Clinical Biostatistics; Systematic Reviews; International Journal of Educational Research and Reviews; Statistical Editor, Indian Journal of child Health; Editor, Demography India; Member, Editorial Board of Indian Spine Journal; Member, Editorial Board of Indian Journal of Child Health; Reviewer, Indian Journal of Medical Research; Member, International Society for Clinical Biostatistics; Elected Member, International Statistical Institute, and International Association for Statistical Education, Netherlands; Member, International Epidemiological Association, USA; Fellow, Royal Statistical Society, UK; Member, Institute Ethics Committee for Post Graduate studies; Founder Vice-President, Society for Evidence Based Health Care; Member of Fellowship Committee regarding FSMS Award of Indian Society for Medical Statistics (ISMS); Member of Search Committee for other ISMS awards (Prof SK Bhattacharya Oration, Smt. Ramrati Lalima Sahai Award, Life-time Achievement Award, Professor A Indrayan Travel Grant).

Professor V Sreenivas was member, Scientific Advisory Committee (SAC) of the National Institute for Cancer Prevention and Research, ICMR; Member, Assessment Board for promoting the scientists of the Indian Council of Medical Research; Member of Task Force Committees of ICMR on Neurology, Non-ionizing EMF on Human Health, Studies on sleep disorders and DM with traditional medicines, Polycystic Ovarian Disease, Male contraceptive RISUG trial; Member, Selection Committees and Screening Committees for various posts, ICMR and Member of Project Review Committees of Neurology, Indian Council of Medical Research, Department of Health Research, India. He is Statistical Consultant to the Indian Journal of Dermatology and Venereal Diseases (IJDVL); Biostatistics Reviewer for Journal of Clinical Oncology (American Society for Clinical Oncology), Paediatrics (American Academy of Paediatrics), Indian Journal of Dermatology, Venereology and Leprology, and Indian Paediatrics and Statistical Consultant to the Journal of Indian Association of Child and Adult Mental Health (JIACAM) and Expert for Reviewing the Research proposals, Medical Research Council, UK. He was member, Institutional Ethics Committee, AIIMS and also PhD Statistics Reviewer for Madras University, Chennai and Manonmani Sundarnar University, Thirunelveli

Dr Maroof A Khan was an Associate Editor (2015-2018), Journal of Statistics and Mathematics, USA; Editorial Board Member (Biostatistics), International Journal of Scientific Reports; Scientific reviewer of Indian Journal of Medical Research, India; Scientific Reviewer of Statistics, Optimization and Computing, An International Journal, USA; Scientific Reviewer of Journal of Model Assisted Statistics and Applications, USA; Scientific reviewer of Journal of Obesity, UK and Scientific Reviewer of Journal of Biomedical Research, UK.

9.7. Biotechnology

Professor and Head

Jaya S Tyagi

Associate Professor

Anushree Gupta

Assistant Professors

Rupesh Kumar Srivastava	Bhupendra Kumar Verma	Vikram Saini
Sirish Kumar Ippagunta		Sumit Rathore
Upasana Bedi Chanana (Contract)		Chanchal Kumar (Contract)

Scientist

Shrabani Saugandhika

HIGHLIGHTS

1. The department runs a well-rated Masters in Biotechnology course with specialization in Medical Biotechnology admitting 12-14 students per batch. It also runs a PhD program. The total strength of MSc and PhD students is about 35.
2. The department faculty mentored about 10 post-doctoral scientists.
3. It provided support to the Summer Research Fellowship program of the National Science Academies of India.
4. The department has 6 senior demonstrators (Drs Sakshi Dhingra, Kriti Sikri, Priya Kalra, Saurabh Sharma, Priyanka Duggal and Chaman Saini) who participate in the teaching and research activities.
5. A large number of extramural research grants are received by departmental faculty from government funding agencies.
6. Faculty and students have presented their research work at national and International conferences of various scientific societies.
7. Faculty and students have received national-level honours/awards from various scientific organizations in recognition of their outstanding contributions to Biotechnology.
8. Faculty served as experts in several scientific committees of various institutes and universities of the Government of India.
9. Faculty published peer reviewed research articles in reputed national and international journals.
10. Faculty filed patents in TB diagnostic technologies and developed TB diagnostic kits.
11. The department has started student mentorship and career awareness programs to cater to the needs of students from diverse backgrounds to support the learning outcomes among the students.

EDUCATION

Postgraduate Teaching

1. The department conducts a 2 years postgraduate course in Biotechnology with emphasis on Medical Biotechnology leading to MBiotech degree. The teaching program covers 16 subjects, namely, Cell and Developmental Biology, Genetics, Human Biochemistry, Medical Microbiology, Immunology and Immunotechnology, Molecular Biology, Infectious Disease Biology, Genetic Engineering and Genome Technology, Biophysics (Principles, Techniques and Applications in Medicine), Bioinformatics, OMICS (Genomics, Transcriptomics, Proteomics and Metabolomics), Biostatistics, Seminars in Laboratory Techniques (Principles and Instrumentation), Medical Biotechnology (Journal Club and Communication Skills), Seminars in Molecular Medicine and Biotechnology and Dissertation in frontier areas of medical research
2. The department has introduced three new credit courses in the course curriculum of MBiotechnology (2018-2020) namely, Infectious Disease Biology, OMICS: Genomics, Transcriptomics, Proteomics, and Metabolomics and Laboratory course on Medical Microbiology and Infectious Disease Biology

3. Students are given individual attention and extensive hands on training in practical classes
4. Experts are invited from JNU, IGIB, ICGEB, NII, IIT, THSTI, RCB, BCIL, TERI, Jamia Hamdard and University of Delhi in addition to AIIMS faculty from various specialties, to deliver seminars in biotechnology, bioinformatics, molecular medicine, genomics, proteomics etc
5. The department conducts a PhD program in the area of Medical Biotechnology
6. The department mentors and supports young scientists having DST INSPIRE Faculty award, DBT and DST National Post-Doctoral and Young Scientist Award

CMEs/Workshops/Symposia/National and International Conferences

1. Two-day workshop on Flow Cytometry (Basics, Multicolor Flow Cytometry, Data Analysis and Presentation), 11-12 February 2019, Dr Rupesh K Srivastava, Department of Biotechnology, AIIMS, New Delhi
2. 1st Career Awareness Program in Biotechnology, 15 March 2019, Dr Vikram Saini, Department of Biotechnology, AIIMS, New Delhi
3. Two-day workshop on applications of multi-mode readers with imaging capabilities in Biomedical Research, 25-26 May 2018, Dr Vikram Saini, Department of Biotechnology, AIIMS, New Delhi

Lectures delivered

Jaya S. Tyagi

1. Panel discussion on Accessing Healthcare Systems for Scale, MedTech workshop: Accelerating MedTech Innovations: Leapfrogging from Prototyping to Adoption and Scale, organized by PATH, 10 September 2018, New Delhi
2. Vitamin C induced dormancy of *M. tuberculosis*: Mechanisms and boosting the efficacy of TB drugs, International Symposium on Infectious Diseases, Regional Centre for Biotechnology and Jamia Hamdard, 12-14 October 2018, New Delhi
3. Next generation diagnostic tests for Tuberculosis, IAMM Symposium—POCT, Microcon 2018, 1 December 2018, Bangalore
4. Next generation diagnostics for tuberculosis, Open House AIIMS-THSTI, AIIMS, 3 December 2018, New Delhi
5. Next generation diagnostic tests for TB, RePORT India 8th Annual Meeting, 6 February 2019, Chennai
6. Panel discussion on Biotechnology@2025: Our achievements, our aspirations, DBT 33rd Foundation Day, National Institute of Immunology, 26 February 2019, New Delhi
7. Next generation diagnostic tests for Tuberculosis, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 1 March 2019, New Delhi
8. Overview of research in the Department of Biotechnology, Visit of Deakin University delegation, AIIMS, 14 March 2019, New Delhi
9. Next generation diagnostic tests for TB, South Asian Biotechnology Conference, South Asian University, 15 March 2019, New Delhi
10. Novel TB diagnostic technologies, Biosparks, School of Life Sciences, Jawaharlal Nehru University, 16 March 2019, New Delhi
11. Vitamin C improves the treatment of tuberculosis, First Annual Research Day of AIIMS, 26 March 2019, New Delhi

Anushree Gupta

1. Ethics in Biomedical Research, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 6 March 2019, New Delhi

Rupesh Kumar Srivastava

1. High Dietary SALT intake enhances bone loss via modulating Treg-Th17 cell balance, International Conference on Immunology, SRM University, 26-28 September 2018, Kattankulathur, TN
2. High Dietary SALT intake enhances bone loss via modulating Treg-Th17 cell balance, IMMUNOCON-2018, 45th Annual Conference of the Indian Immunology Society, THSTI, 1-3 November 2018, Faridabad, Haryana
3. Probiotics as novel therapeutics in management of postmenopausal osteoporosis, 29th Annual Meeting of the ISSRF along with Global Conference on Reproductive Health with focus on Occupational, Environmental and Lifestyle Factors (ISSRF-2019), JNU, 22-24 February 2019, New Delhi

Bhupendra Kumar Verma

1. Minor spliceosome mediated human disease: A case study, 87th Conference of Society of Biological Chemist, India, 25-27 November 2018, Manipal, Karnataka
2. Minor spliceosome mediated gene regulation: Links to human diseases, International Conference on Molecular Basis of Disease and Therapeutics, 8-10 March 2019, Kishangarh, Rajasthan
3. Minor spliceosome-Basics and applied aspects, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 21 February 2019, New Delhi

Vikram Saini

1. Hydrogen sulphide as a novel determinant of mycobacterial virulence, persistence and drug tolerance, IYBA Expert Committee Meeting, National Institute of Immunology (NII), India, 24 October 2018, New Delhi
2. Expert Panelist in Agilent Sea-Horse Users meeting about Studying Metabolism and Mitochondrial function, Agilent Sea-Horse Users meeting, Institute of Genomics and Integrative Biology (IGIB), India, 14 February 2019, New Delhi
3. Role of intracellular gases in Mycobacterial Infections, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 18 February 2019, New Delhi
4. Tuberculosis, risk factors and drug development, 113th Orientation Program for Teachers from colleges/universities of India, UGC-Human Resource Development Centre, Jawaharlal Nehru University, India, 19 March 2019, New Delhi
5. Understanding tuberculosis: At the crossroads of latency and drug resistance, Emerging Trends in Bioinformatics and Systems Biology, DBT Government of India-Supported Bioinformatics Sub-DIC, University of Delhi South Campus, India, 27 March 2019, New Delhi

Sirish Kumar Ippagunta

1. Resident non-hematopoietic skin cells control intrinsically psoriasis inflammation, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 11 March 2019, New Delhi

Sumit Rathore

1. Plasmodium vivax malaria: A neglected parasite story, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 5 March 2019, New Delhi

Upasana Bedi Chanana

1. Epigenetic modifications in Cancer: Their Role and Therapeutic Potential, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 12 March 2019, New Delhi

Chanchal Kumar

1. Synthetic biology for the detection, elimination and prevention of infectious diseases, Seminars in Molecular Medicine, Department of Biotechnology, AIIMS, 12 March 2019, New Delhi

Oral papers/posters presented

1. Taneja V, Kalra P, Goel M, Khilnani GC, Tyagi JS, Gupta UD, Prasad HK, Saini V. Evaluation of IFN γ /IFN α gene expression profile in blood as a diagnostic tool during extra-pulmonary tuberculosis infection, India International Science Festival, Young Scientist Conference-2018, 5-8 October 2018, Lucknow, UP
2. Taneja V, Kalra P, Goel M, Khilnani GC, Tyagi JS, Gupta UD, Prasad HK, Saini V. Gene Expression profile of IFN γ /IFN α in blood as a diagnostic tool during extra-pulmonary tuberculosis infection, 1st National Biomedical Research Competition-2018 AIIMS, Rishikesh, 15 October 2018, Rishikesh, Uttarakhand (**Second prize for Poster-Young Researcher Award-Medical Science Category**).
3. Dhiman A, Das R, Lavania S, Kumari P, Haldar S, Sharma N, Ahmad Y, Sharma TK, Tyagi JS. DNA Aptamer-Based Next Generation Diagnostic Test for Tuberculosis, 1st National Biomedical Research Competition (NBRcom), 15 October 2018, AIIMS, Rishikesh
4. Srivastava RK. Bone and Bugs: It Takes GUTS to improve our Bone Health, International Conference on Microbiome Research (ICMR), 19-22 November 2018, Pune, India
5. Dar HY, Srivastava RK. *Bacillus rhamnosus* (LR) enhances bone health in Osteoporotic Mice Model (ovx) by regulating Treg-Th17 balance, 7th Asia-Pacific Osteoporosis Conference, IOF Regional-Sydney'18, 28 November-1 December 2018, Sydney

6. Srivastava RK, Dar HY. Sodium Benzoate (NaB)—A food additive, inhibits bone loss by Upregulating anti-osteoclastogenic T cells, 7th Asia-Pacific Osteoporosis Conference, IOF Regional-Sydney'18, 28 November-1 December 2018, Sydney
7. Nandi M, Sikri M, Mahajan G, Mande SC, Sharma RD, Tyagi JS. Comprehensive transcriptional regulatory response of *Mycobacterium tuberculosis* H37Rv in vitamin C TB dormancy model, XII All India Cell Biology Conference and 2nd International Conference on trends in cell and molecular biology, 21-23 December 2018, Goa
8. Kumari P, Sikri K, Kaur K, Gupta UD, Tyagi JS. DevR/DosR expression is sustained during long-term Hypoxia of *Mycobacterium tuberculosis*, XII All India Cell Biology Conference and 2nd International Conference on Trends in Cell and Molecular Biology, 21-23 December 2018, Goa
9. Burman S, Kumar A, Verma B. Mechanistic analysis of Minor spliceosome: Role of SNRNP25K and YBX1, International Conference of Biological transactions: Molecules to Organisms, 17-20 January 2019, Bangalore
10. Sapra L*, Dar HY, Srivastava RK. Sodium Benzoate (NaB)—A food additive, enhances bone health by upregulating anti-osteoclastogenic T cells, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi (**First prize for best poster**).
11. Tejaswini M, Sapra L, Kumari S, Dar HY. Srivastava RK. MC-LR induces bone loss by skewing Th17-treg cell balance in vivo, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi
12. Pandey A, Sapra L, Dar HY, Srivastava RK. *Lactobacillus rhamnosus* (LR) augments bone health by modulating osteoimmune system in osteoporotic mice model, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi
13. Srivastava RK. High dietary salt induces inflammatory bone loss by skewing host Treg-Th17 cell balance, 1st FOCIS-Asian Advanced Course in Basic and Clinical Immunology, 26-29 March 2019, Jaipur
14. Burman S, Kumar A, Verma B. Deciphering the role of snRNP25K and YBX-1 proteins in mRNA splicing, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi
15. Kalra P, Kumar P, Mitchell T, Saini V. High dietary oxalate compromises mitochondrial bioenergetics and redox homeostasis to increase predisposition of kidney stone formers to urinary tract infections (UTI), 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi
16. Saini K, Kalra P, Saini V. Selenium-based micro-nutrient supplementation has a protective function during microbial infections, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi
17. Negi K, Kalra P, Saini V. Cloning, expression and purification of putative antigenic proteins of vaccine strain *Mycobacterium indicus pranii*, 1st Annual Research Day, AIIMS, 26 March 2019, New Delhi

RESEARCH

Funded projects

Ongoing

1. Jaya S. Tyagi. MSc Medical Biotechnology Teaching Program, DBT, Ongoing, 1986 onwards, Rs 33.44 lakhs (2018-2019)
2. Jaya S. Tyagi. Combating the challenge of antibiotic tolerance: Combining conventional anti-tubercular drugs with DevR dormancy regulator-targeted approaches for improving *M. tuberculosis* clearance, DBT, 3 years, 2018- 2021, Rs 47.30 lakhs
3. Jaya S. Tyagi. Aptamer-based Tuberculosis Diagnostics Toolbox (collaborative project), DBT, 3 years, 2018-2021, Rs 16.52 lakhs
4. Rupesh K. Srivastava. Elucidation of Cellular mechanisms involving GUT resident regulatory T cells in Probiotics mediated inhibition of Osteoporosis, DST-SERB, 3 years, 2018-2021, Rs 65.00 lakhs
5. Rupesh K. Srivastava. Development of novel mushroom based synbiotic food supplement for management of Osteoporosis, AIIMS-IIT-Delhi Inter Institutional Collaborative Research Grant, 2 years, 2018-2020, Rs 20.00 lakhs
6. Rupesh K. Srivastava. To Dissect the role of Treg-Th17 cells in *Lactobacillus rhamnosus* mediated inhibition of Bone loss in ovx mice, AIIMS, 2 years, 2018-2020, Rs 10.00 lakhs
7. Bhupendra K. Verma. Novel gene regulatory circuits associated with Dengue Virus: Exploring therapeutic potential, AIIMS, 2 years, 2018-2020, Rs 9.9 lakhs
8. Bhupendra K. Verma. Identification and functional characterization of tRNA derived RNA fragments in DENV pathogenesis, DST-SERB, 3 years, 2019-2022, Rs 39.41 lakhs
9. Vikram Saini. Har Gobind Khorana Innovative Young Biotechnologist Award (IYBA), DBT, 3 years, 2019-2022, Rs 59.06 lakhs

10. Vikram Saini. Modulation of host bioenergetics health and redox function via Selenium supplementation as a novel approach to tuberculosis management, DST-SERB, 3 years, 2019-2022, Rs 52.00 lakhs
11. Vikram Saini. Selenium supplementation and mycobacterial infections, AIIMS, 2 years, 2018-2020, Rs 10.00 lakhs
12. Shrabani Saugandhika. To study the role of High salt Diet (HSD) in male fertility: Role of bone hormone osteocalcin, AIIMS, 2 years, 2018-2020, Rs 10.00 lakhs

Completed

1. Jaya S. Tyagi. Multi-centric validation of 'TB-Detect' and 'TB Concentration and Transport' kit and 'TB DNA extraction' kit for the diagnosis of TB and drug resistant TB, ICMR, 9 Months, 2018-2019, Rs 13.34 lakhs
2. Jaya S. Tyagi. Sys TB: A Network Program for Resolving the Intracellular Dynamics of Host Pathogen Interaction in TB Infection, DBT, 6 years, 2012-2018, Rs 164.34 lakhs
3. Jaya S. Tyagi. Exploiting temporal transcription profile, computational analysis and post-transcriptional gene silencing to identify and intercept interactions between host and dormant and actively replicating *Mycobacterium tuberculosis*, DBT, 7.6 years, 2011-2018, Rs 282.99 lakhs
4. Vikram Saini. Role of gasotransmitters in HIV infection. UAB CFAR (as a component of NIH USA funding), 1 year, 2017-2018, Rs 35.00 lakhs
5. Sumit Rathore. To understand organelle dynamics in malaria parasite—Role of Autophagy, DST, 5 years, 2013-2018, Rs 35.00 lakhs

Departmental projects

Ongoing

1. Analysis of host transcriptional response to *Mycobacterium tuberculosis* in vitamin C ex vivo model of infection and comparison with clinical responses in active TB and latent TB infection
2. Combining conventional anti-tubercular drugs with anti-DevR dormancy regulator compounds for improving *Mycobacterium tuberculosis* clearance
3. Deciphering the role of chromatin remodeler in epithelial to-mesenchymal transition in breast cancer
4. Development and validation of rapid and accurate diagnostic assays for tuberculosis
5. Functional characterization of minor spliceosomal proteins
6. Insights into transcriptional regulatory network involved in modulating *Mycobacterium tuberculosis* dormancy adaptation to vitamin C
7. Intracellular adaptation of *Mycobacterium tuberculosis* in vitamin C dormancy model
8. Metabolic adaptation of *Mycobacterium tuberculosis* in vitamin C dormancy model
9. Role of YBX proteins in RNA splicing and stability
10. To determine the role of intracellular gases during microbial infections
11. To dissect the role of TH17-Treg cells in Microcystin-LR induced bone loss
12. To study the nexus between probiotic *Lactobacillus rhamnosus* (LR) and T cell lineages in Ovx mice
13. To study the role of micro-nutrients in tuberculosis infection
14. Vitamin C-modulated host response to *Mycobacterium tuberculosis* in cell infection model: Potential for host directed therapy

Completed

1. Cloning, expression and purification of putative antigenic proteins of *Mycobacterium indicus pranii*
2. Deciphering the mechanism of activation of DevR response regulator in *Mycobacterium tuberculosis*
3. Deciphering the role of Chromatin Remodeler in Epithelial to Mesenchymal Transition in breast cancer
4. Deciphering the role of YBX-1 proteins in mRNA splicing and its stability
5. Development of novel DNA aptamer for the diagnosis of tuberculous meningitis
6. Development of novel point-of-care aptasensors for the diagnosis of pleural tuberculosis
7. Elucidating phosphatase- kinase balance mechanism involved in the expression switch mediating DevR regulon expression
8. Extracting DevR regulatory networks through the analysis of genome wide DevR transcription factor occupancy
9. Extracting the dynamics of intracellular *Mycobacterium tuberculosis* strains of varying virulence

10. Functional characterization of minor spliceosomal proteins
11. Identification of DevR interacting proteins in *Mycobacterium tuberculosis*
12. Identification of potential inhibitors of DevR, among FDA approved Drugs
13. Identification, characterization and utility of aptamers against Glc (Malate synthase) protein of *Mycobacterium tuberculosis*
14. Identification, characterization and utility of aptamers against MPT51 protein of *Mycobacterium tuberculosis*
15. Impact of micro-nutrient supplementation of microbial infections
16. Insights into *Mycobacterium tuberculosis* dormancy adaptation in axenic culture and intracellular milieu from transcriptome analysis
17. Mechanistic insights into vitamin C-mediated dormancy adaptation in *Mycobacterium tuberculosis*
18. Metabolic adaptation of *Mycobacterium tuberculosis* in vitamin C dormancy model
19. miRNA as evaluation Biomarker for tuberculosis treatment response
20. Multi-centric validation of 'TB-Detect' and 'TB Concentration and Transport' kit and 'TB DNA extraction' kit for the diagnosis of TB and drug resistant TB
21. To dissect the role of TH-17 and Treg cells in Microcystin-LR induced bone loss
22. Utility of novel DNA aptamers for the diagnosis of pulmonary tuberculosis

Collaborative projects

Ongoing

1. Aptamer-based Tuberculosis Diagnostics Toolbox (DBT funded), THSTI, Faridabad and PGIMER, Chandigarh
2. Role of Th9 cells in Osteoclastogenesis, THSTI, Faridabad
3. Role of BPA on Bone health, Delhi University
4. Development of novel mushroom based synbiotic food supplement for management of Osteoporosis, IIT-Delhi
5. Functional characterization of minor spliceosomal proteins, THSTI, Faridabad
6. Role of YBX proteins in RNA splicing and stability, THSTI, Faridabad
7. Clinical significance of cancer stem cells markers and its proteins in different grades astrocytomas, RP Center
8. Exploring the Tryptophan metabolism via Kynurenine pathway and their correlation with clinical outcome in Keratoconus and Fuch's endothelial corneal dystrophy patients undergoing corneal transplantation, RP Center
9. Link between mitochondrial morphology and mitochondrial biogenesis in Acute lymphoblastic leukemia, Biochemistry

Completed

1. miRNA as evaluation Biomarker for tuberculosis treatment response, ICGEB New Delhi and InStemBangalore
2. Identification of inhibitors for Malate synthase of *Mycobacterium tuberculosis* to target latent TB infection, Biophysics
3. Structural Studies of GyraseA N- Terminal domain from *Salmonella Typhi*, Biophysics
4. Functional Studies of p53 Wild-Type And Mutant Y220c In Human p53 Null Cell Line, Biophysics
5. Development of aptamer-based rapid diagnostic assay for Extra Pulmonary Tuberculosis, THSTI Faridabad
6. Biophysical Studies of Bacterial Cell Division Protein Ftsz with its Natural Inhibitors: SulA and MinC, Biophysics
7. Structural and Biophysical Characterization of MurD Ligase from *Acinetobacter baumannii*, Biophysics

PUBLICATIONS

Journals: 14

PATENTS

1. Aptamer against M.tb MPT51 and uses thereof. Indian Patent Application Number 201811023360
2. Aptamer against M.tb MPT51 and uses thereof. Indian Patent Application Number PCT/IN2018/050581 (PCT application)
3. Apparatus and method for processing a sample for rapid diagnosis of tuberculosis and safe transport of bacteria. Indian Patent application Number 201811042155.
4. Aptamer based electrochemical biosensor for the rapid diagnosis of tuberculous meningitis. Indian Patent Application Number 201811042593.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Jaya S. Tyagi is recipient of Janaki Ammal National Women Bioscientist Award (Senior category) 2017/18 of the Department of Biotechnology, Government of India and AIIMS Excellence Research Award 2018 First Prize in Basic research category. She is Honorary Visiting Professor, Centre for Biodesign and Diagnostics, THSTI, Faridabad, Fellow of Indian National Science Academy, Fellow of Indian Academy of Sciences, Fellow of National Academy of Sciences (India), Member of Guha Research Conference, Vice-President and Council member of National Academy of Sciences (India), Member, Panel on Scientific Values, Indian Academy of Sciences, Bengaluru, Member of Scientific Advisory Committee of National Institute for Research in Tuberculosis, Chennai, Member of Scientific Advisory Committee of THSTI, Member of Governing Body of National Centre for Cell Science, Pune, Member of DBT Expert Group on Tuberculosis, Member (Expert) of Assessment Board for promotion of ICMR Scientists under Flexible Complementing Scheme, Member of DBT Task Force on HRD, Member of DBT Technical Evaluation Committee for Infectious Disease Biology, Member of DBT Technical Evaluation Committee in Medical Biotechnology-II for NER, Member, Indo-US Joint Review Meeting, Regional Prospective Observational Research for Tuberculosis (RePORT), Chief Panelist for the selection committee 'Women in Science' category for 12th NASI Scopus Young Scientists Awards, Key Guest at NASI—Scopus Young Scientist Awards 2018, Chairperson, Institutional Human Ethics Committee of IGIB, Member of the Special Committee of School of Biotechnology JNU, Member, Examiner of PhD/MSc examinations of PGI Chandigarh, University of Delhi, Jawaharlal Nehru University, Member, Intellectual Property Management Committee, AIIMS, Member Scientific Advisory Committee for AIIMS Endowment Fund, Member, Project review committee for the AIIMS Intramural Research Grant, Member PhD reforms committee, AIIMS, Professor in Charge, Central Core Research Facility, AIIMS and Co-ordinator BSL-3 and BSL-2 Laboratories, AIIMS; South Asian Biotechnology Conference, Chairperson of session on 'Infectious Diseases', South Asian University, 15 March 2019, New Delhi; NASI Women's Day; Chairperson of session 'Entrepreneurship development', Special program on 'Women in Science and Science for Women' at National Academy of Sciences (India), 9 March 2019, Prayagraj.

Dr Anushree Gupta is member of Board of Governors of IISER, Mohali.

Dr Rupesh Kumar Srivastava was conferred with the prestigious "Professor G. P. Talwar Young Scientist Award" for the year 2019 from Indian Society for the study of Reproduction and Fertility (ISSRF), India in recognition of outstanding contribution in the field of Reproductive Health (Post-menopausal osteoporosis). Expert Judge for the Oral talks and the Poster-evaluation The NCR-Young Emerging Scientist (YES) Symposium at The NCR-Young Emerging Scientist (YES) Symposium, Science Day Celebrations, National Institute of Immunology (NII), New Delhi, India.

Dr Vikram Saini is recipient of the HarGobind Khorana Innovative Young Biotechnologist Award (IYBA), Department of Biotechnology, Government of India (2018), Expert and evaluator of the research and community program development at the Stanley Browne Laboratory, the Leprosy Mission Trust India, New Delhi; Member of CCRF-Biosafety Lab (BSL-2 and BSL-3 laboratory) sub-committee, AIIMS; Member of technical Committee Nude-mice/Transgenic mice development facility at Central Animal Facility, AIIMS; Review editor at Journal Frontiers in Microbiology, Expert Judge for the poster-evaluation at International Symposium on Infectious Diseases at International Symposium on Infectious Diseases, Jamia Hamdard University, New Delhi, India, Expert Judge for the Oral talks and the Poster-evaluation The NCR-Young Emerging Scientist (YES) Symposium at The NCR-Young Emerging Scientist (YES) symposium, Science Day Celebrations, National Institute of Immunology (NII), New Delhi, India.

VISITING SCIENTISTS

1. **Dr Satya Dandekar, PhD:** Professor of Microbiology and Immunology, Department of Medical Microbiology and Immunology, School of Medicine, University of California, Davis, CA, USA has interacted with students and faculty members on 3 July 2018
2. **Dr Girish Rachakonda, PhD:** Instructor, School of Medicine, Meharry Medical College, Nashville, TN, USA had delivered seminar—Knocking down of Nrf2 leads to high grade, radiation resistant metastatic tumors in Prostate cancer on 23 July 2018
3. **Dr Abhishek Jain, PhD:** Assistant Professor, Department of Biomedical Engineering, Texas A&M College of Engineering, College Station, TX, USA had interacted with faculty members on 6 August 2018
4. **Dr Raushan Kumar Singh, PhD:** University of Massachusetts Medical School, Worcester, USA had delivered seminar—Mechanism of ATP—dependent chromatin remodeling on 11 October 2018
5. **Dr Tarun Sharma, PhD:** Scientist, THSTI, Faridabad had delivered seminar—Aptamer based point-of-care diagnostic platforms on 18 February 2019
6. **Dr Anandita Singh, PhD:** Assistant Professor, Department of Biotechnology, TERI, New Delhi has delivered seminar—GM crop for food security and sustainable development on 25 February 2019

7. **Dr Rahul Pal, PhD:** Scientist, NII, New Delhi had delivered seminar—Disorders of Proliferation: Analysis of Novel Pathways and Targets on 26 February 2019
8. **Dr S. Raisuddin, PhD:** Professor, Medial Elementology and Toxicology, Jamia Hamdard, New Delhi had delivered seminar—Human health concerns of biotechnological products on 27 February 2019
9. **Dr Sagar Sengupta, PhD:** Scientist, NII, New Delhi had delivered seminar—Mechanisms of maintenance of genomic stability by helicases on 28 February 2019
10. **Dr Purnima Sharma, PhD:** Managing Director, BCIL, New Delhi has delivered seminar—Career Opportunities in Medical Biotechnology on 1 March 2019
11. **Dr Dhiraj Kumar, PhD:** Group Leader, Cellular Immunology, ICgeb, New Delhi had delivered seminar—Host innate responses to Mycobacterium tuberculosis on 5 March 2019
12. **Dr K. Natarajan, PhD:** Professor, JNU, New Delhi had delivered seminar—How Chromatin and Genomic landscape Controls Gene Regulation in the Major Fungal Pathogen Candida albicans? on 7 March 2019
13. **Dr K. Natarajan, PhD:** Professor, ACBR had delivered seminar—Modulation of host defence responses by Mycobacterium tuberculosis on 8 March 2019
14. **Dr Manjula Kalia, PhD:** Associate Professor, RCB has delivered seminar—Molecular Biology and Pathogenesis of Japanese Encephalitis Virus on 8 March 2019
15. **Dr Manidipa Banerjee, PhD:** Associate Professor, IIT, New Delhi has delivered seminar— Cryoelectron microscopy: Principles and Applications on 14 March 2019
16. **Dr Shankar Bhattacharya, PhD:** Scientist, THSTI had delivered seminar—Dengue infections: Should we prevent or cure on 15 March 2019
17. **Dr Vinay K Nandicoori, PhD:** Scientist, NII, New Delhi had delivered seminar—Elucidating the role of Serine/Threonine protein kinases in Mycobacterium Tuberculosis on 15 March 2019.



1. Dr. Jaya S. Tyagi is recipient of Janaki Ammal National Women Bioscientist Award (Senior category) of the Department of Biotechnology, Government of India (2017/18).
2. Dr. Vikram Saini is the recipient of Har Gobind Khorana Innovative Young Biotechnologist Award (IYBA) of the Department of Biotechnology, Govt. of India (2018).
3. Dr. Rupesh K Srivastava is the recipient of Prof. G. P. Talwar Young Scientist Award for the year 2019 from Indian Society for the study of Reproduction & Fertility (ISSRF), India.
4. 1st Career Awareness Program in Biotechnology organized by the department on March 15, 2019.
5. First prize awarded to Ms. Leena Sapra for best poster at 1st Annual Research Day at AIIMS, New Delhi on March 26, 2019.
6. Second prize for Poster-Young Researcher Award- Medical Science Category to Ms. Vibha Taneja at the 1st National Biomedical Research Competition- 2018, AIIMS Rishikesh
7. Biotechnology group (Mss. Kiran, Sruthi, Tejaswini, Surbhi and Nikita) has won first prize (Group song) in AIIMS Got Talent-2019.

9.8. Centre for Community Medicine

Professor and Head

Shashi Kant

Professors

Sanjeev Kumar Gupta
Baridalyne Nongkynrih

Kiran Goswami
Puneet Misra

Anand Krishnan
Sanjay Kumar Rai

Additional Professor

Y S Kusuma Kumari

Associate Professors

Kapil Yadav

Sumit Malhotra

Anil Kumar Goswami

Assistant Professors

Partha Haldar
Harshal Ramesh Salve

Ravneet Kaur
Rakesh Kumar

HIGHLIGHTS

The Centre for Community Medicine (CCM) focuses on development of a model of community-based comprehensive health services through its urban and rural health programmes. The Urban Health Programme operates through an Urban Health Center at Dakshinpuri Extension, an urban resettlement colony in New Delhi. The Comprehensive Rural Health Services Project (CRHSP), located at Ballabgarh in District Faridabad of Haryana is a collaborative project between Haryana State Government and the AIIMS, New Delhi. The Mission of CRHSP Ballabgarh is to achieve excellence in public health by undertaking teaching, research and patient care in a rural setting. It comprises of a Sub-District Hospital (SDH), two Primary Health Centres (PHCs) at Dayalpur and Chhainsa, and a network of 12 sub-centres. The Intensive Field Practice area of CRHSP covered a total population of **1,00,772** as of 31 March 2019.

Support to national programmes and international health agencies

The Centre for Community Medicine (CCM) continues to provide technical support to national health programmes including training, development of resource materials and field-based activities.

- The CCM has been designated as the National Centre of Excellence and Advanced Research on Anemia Control
- It has been re-designated as the WHO Collaborating Centre for capacity development and research in community-based NCD prevention and control
- It has conducted faculty development on Operational Research at national level under the Human Resource Development Health Research Scheme of the Government of India
- It provides leadership for elimination of Iodine Deficiency Disorders in India, Bangladesh and Sri Lanka
- The CCM is the National Institute for HIV Sentinel Surveillance for the Government of India. It is the Regional Institute for HIV Sentinel Surveillance under the Ministry of Health and Family Welfare, strengthening the states of Delhi, Uttar Pradesh, Bihar, Jharkhand and Uttarakhand
- An Innovation and Learning Centre is established in collaboration with National Health Mission, Haryana; National Health Systems Resource Centre, Ministry of Health and Family Welfare, Government of India to support implementation of Comprehensive Primary Health Care in aspirational district, Mewat of Haryana
- The department has collaborative projects with CDC Atlanta to elucidate the epidemiology of acute respiratory infections and viral pathogens in India
- The AIIMS technical support unit for SRS-based verbal autopsy through the Sample Registration System based Verbal Autopsy tool with the Office of the RGI, Ministry of Home Affairs is located at the CCM
- Health and well-being Index to monitor Sustainable Developmental Goals at District level and climate based Early Warning System for Vector Borne Diseases in NCR is being studied at the CCM

EDUCATION

Undergraduate MBBS students

In their 4th-5th semester, MBBS students are posted in the Urban Health Programme for five weeks by rotation where they conduct epidemiological exercise, health talks and family studies. During these two semesters, they also participate in the Family Health Advisory Services (FHAS) in which they follow-up allotted families over a period of nine months and assess effectiveness of interventions implemented by them.

In the 7th Semester, MBBS students are posted for six weeks at CRHSP, Ballabgarh by rotation. This is a residential posting wherein they learn concepts of epidemiology, are oriented to community health, including social determinants of health, community aspects of child health and mental health, district level health systems and health programmes. There are special modules to train them on Integrated Management of Neonatal and Childhood Illnesses (IMNCI) and epidemiology. The students also undertake a brief research project during this posting.

Interns

The interns are posted on a residential basis for three months at CRHSP Ballabgarh. This period is divided into six weeks at SDH, and three weeks at each of the PHCs located at Dayalpur and Chhainsa. At the SDH, interns are posted in OPD and wards that help them in learning basic clinical skills as well as in-patient management, including conducting normal deliveries. They are rotated in all the available clinical disciplines at SDH under the supervision of respective senior resident. During posting to PHC, interns participate in health care delivery at the clinics of PHC, sub-centres as well as in antenatal clinics. They are also posted at the delivery hut at each PHC under overall supervision of the Senior Resident of Community Medicine. The students obtain experience in community-level activities, such as supervision of health workers and sub-centres, follow-up of tuberculosis defaulters, outreach activities, immunization, and other ongoing activities at the PHC. At the end of the rural posting, the interns submit their log-book duly signed by respective Senior Residents for an end-posting assessment.

Postgraduate (MD) students of Community Medicine

The postgraduate students of Community Medicine are posted at urban and rural health programme for 16-18 months each. Out of the total duration in rural area, they spend equal time at the sub-district hospital and the two PHCs by rotation. During their rural residential posting, they get ample opportunity to gain clinical and management skills and experiences, both at the SDH and PHC. The regular teaching activities include seminars, family and clinical case presentations, problem based exercises on hospital and field-practice area, as well as journal clubs. They are involved in guiding and supervision of students and interns posted in the Centre.

BSc Nursing and Post-Certificate Nursing Students

BSc nursing students and post-certificate nursing students are posted to the urban health programme, and have a residential posting for one and half months at CRHSP Ballabgarh. They spend one month at SDH and two weeks in either of the two PHCs. They are provided training in antenatal care, ward management, and immunization. The students deliver health talks in OPD and ward. The training of nursing students is supervised by a faculty member from the College of Nursing, AIIMS, New Delhi.

In-service Training

In addition to teaching of students, periodic in-service trainings were conducted for different cadres of staff working at the CRHSP Ballabgarh and PHCs Chhainsa and Dayalpur. The trainings conducted during 2018-2019 were as follows:

1. A total of 50 hours of in-service Training for Field Health Workers and ASHA workers (24*2=48) were conducted at PHC Dayalpur and Chhainsa (figures are inclusive). These were conducted during the monthly meetings, each month. Topics were decided based on the training needs identified during field supervision; for the reporting period, these were as following: Under-5 deaths, MR vaccine, DHS-II reporting, cold chain maintenance, basics of computers, high risk pregnancy, biomedical waste management, PCV vaccine, pneumonia and meningitis, breastfeeding, cancer, diabetes
2. A training session on biomedical waste segregation was held for nursing staff at CRHSP Ballabgarh on 24 April 2018
3. Training of staff nurses and doctors was conducted at PHC Chhainsa regarding Family Planning Logistics Management and Information System (FPLIMS) software on 11 May 2018
4. Training sessions on ante-natal care, normal labour management, post-partum care, high risk pregnancy management, and PPH management were held for interns and junior residents at CRHSP Ballabgarh in July and August 2018

5. Training sessions on neonatal resuscitation, breastfeeding, kangaroo mother care and management of diarrhea in children were held for junior residents, interns and nursing staff at CRHSP Ballabgarh in September and October 2018
6. Training sessions on management of non-communicable diseases and tuberculosis was held for junior residents and interns at CRHSP Ballabgarh on 6 and 20 November 2018, respectively
7. Training sessions on pre- and post-op care of patients, infection control and waste management and ward management were conducted for junior residents, interns and nursing staff at CRHSP Ballabgarh in December 2018
8. Training of health workers and ASHAs was conducted for Antara (DMPA) injections at PHC and subcenters on 19 December 2018
9. Refresher trainings on Neonatal Resuscitation for nursing staff and field health workers of the intensive field practice area were conducted on 12 and 28 March 2019, in collaboration with Faculty members of the College of Nursing. Topics covered were steps in neonatal resuscitation, techniques of positive pressure ventilation and chest compressions and ET intubation and medications. Hands on sessions were also carried out

CMEs/Workshops/Symposia/National and International Conferences

- 1 Indian network of population-based surveillance platform for influenza and other respiratory viruses among elderly (INSPIRE) INSPIRE–II, Review Meeting, 24-26 September 2018, New Delhi
- 2 Technical Advisory Group and Network meeting for Mortality in India Established through Verbal Autopsy (MINErVA), 23-24 November 2018, New Delhi



3. Pre-Surveillance Consultation, Review, and Planning workshop, Ramalingaswami Board Room, AIIMS, New Delhi, 17-18 July 2018
4. Pre Surveillance Orientation and Planning Workshop on ANC and Prison HIV Sentinel Surveillance 2019 (HSS 2019) for faculty members of various medical institutions, and officials of state AIDS Control Societies of five northern states (Bihar, Jharkhand, Delhi, UP, and Uttarakhand) at Gurgaon, Haryana, 11-12 December 2018, Delhi
- 5 National Pre-Surveillance Workshop of RIs and SACS for Central Team Members (CTM), Regional Institute Members, and officials of state AIDS Control Societies of all 35 States and Union Territories of India, 5-6 October 2018, and 8-9 October 2018, Gurgaon

- 6 Training-cum-workshop on Vector Borne Diseases, Prevention and Control for Sanitary Inspectors and staff of Dengue Prevention Outbreak Response Cell (DPORC) was organized in collaboration with NCDC, NDMC and MCD, September 2018, Delhi
- 7 How to present a better Journal Club, 21 July 2018, Delhi

Lectures Delivered

Kiran Goswami

1. Objectives and expected outcomes, HIV Sentinel Surveillance 2019, Pre-surveillance Orientation and Planning workshop, 2 November 2018, Gurgaon
2. Laboratory procedures in HIV Sentinel Surveillance, HIV Sentinel Surveillance 2019, Pre-surveillance Orientation and Planning workshop, 2 November 2018, Gurgaon
3. Planning of logistics systems for the hospital health emergencies, District preparedness for Public Health Emergency management, 7-19 January 2019, 15 January 2019, NIHFW Delhi
4. Capacity building and training systems, District preparedness for Public Health Emergency management, 7-19 January 2019, 15 January 2019, NIHFW Delhi

Anand Krishnan

1. Moving from an HDSS to an Observatory—Lessons from Ballabgarh, India-UK Roundtable #2 on establishing India's first Public Health Observatory (PHO), 2-3 August 2018, NIMHANS, Bengaluru
2. Overview of Health Economics and Economic Evaluation, Workshop on Basics of Health Economics, 31 August 2018, Department of Community Medicine, LHMC, New Delhi
3. Generating evidence on impact of air pollution on Health: Research by CCM, AIIMS, National consultation on role of health sector in combating Health impact of air pollution, 5 October 2018, WHO India and NCDC, New Delhi
4. Methodological Issues and Challenges in NCD epidemiology, 36th Annual Conference of Indian Society for Medical Statistics, 1 November 2018, NIMHANS, Bengaluru
5. Research priorities in CVDs—Epidemiology, public health and health systems, Brainstorming Session in the area of CVDs, Indian Council of Medical Research, 28 January 2019, ICMR, New Delhi
6. Techniques in assessment of health behaviour in NCDs—Diet and Physical Activity, Indo-European Workshop Next Generation Physiology for Healthy Lifestyle, 31 January 2019, AIIMS, New Delhi
7. Leveraging CSR activities for primary health care, health promotion and research, Leveraging CSR for Good Health and Well-Being: Sustainable Development Goal 3, 15 February 2019, FORE School of Management, New Delhi
8. Community Participatory approach for outdoor air pollution in India—Lessons and way forward, Advancing Environmental Health Science Research and Translation in India through Community Based Participatory Research (CBPR), 26-28 February 2019, New Delhi
9. Ethical and Social Issues in treatment of Drug resistant TB, AIIMS PULMOCRIT 2019, 3 March 2019
10. Global and National M&E framework for Non-communicable Diseases, International Course on Public Health Approaches to Noncommunicable Diseases (NCDs), 2-6 March 2019, PGIMER, Chandigarh
11. Air pollution and NCDs and how to address it? International Course on Public Health Approaches to Noncommunicable Diseases (NCDs), 2-6 March 2019, PGIMER, Chandigarh
12. Multisectoral Action Plan and Monitoring framework for NCDs-Global good practices, IAPSMCON 2019, 8-10 March 2019, Shimla
13. Understanding the burden and drivers of obesity in India, AIIMS New Delhi, Deakins University Meeting, 14 March 2019, New Delhi

Baridalyne Nongkynrih

1. Organizing NCD services, NPCDCS Nodal Officers' Training, 8-10 August 2018, Aizawl, Mizoram
2. Forecasting demand for medicines, NPCDCS Nodal Officers' Training, 8-10 August 2018, Aizawl, Mizoram
3. Monitoring and evaluation Monitoring the NPCDCS programme, NPCDCS Nodal Officers' Training, 8-10 August 2018, Aizawl, Mizoram
4. Detailed implementation plan in the context of the current health care delivery (Eswatini-PEN) S-PEN, Workshop to adapt the WHO package of essential NCD interventions (WHO-PEN) for primary health care and to train the trainers for service delivery, 8-12 October 2018, Eswatini, Africa

5. Discussion on protocol for management of hypertension adoption of a simplified protocol for Eswatini, Workshop to adapt the WHO package of essential NCD interventions (WHO-PEN) for primary health care and to train the trainers for service delivery, 8-12 October 2018, Eswatini, Africa
6. WHO PEN Protocol 3. Management of Asthma 3.1; Management of Chronic Obstructive Pulmonary Disease (COPD), Workshop to adapt the WHO package of essential NCD interventions (WHO-PEN) for primary health care and to train the trainers for service delivery, 8-12 October 2018, Eswatini, Africa
7. Training and supervision of the workforce. Supervision of the implementation, Workshop to adapt the WHO package of essential NCD interventions (WHO-PEN) for primary health care and to train the trainers for service delivery, 8-12 October 2018, Eswatini, Africa
8. Organizing NCD services, NPCDCS Nodal Officers' Training, 25-27 March 2019, Shillong, Meghalaya
9. Forecasting demand for medicines, NPCDCS Nodal Officers' Training, 25-27 March 2019, Shillong, Meghalaya
10. Monitoring and evaluation. Monitoring the NPCDCS programme, NPCDCS Nodal Officers' Training, 25-27 March 2019, Shillong, Meghalaya

Puneet Misra

1. Anemia Mukht Bharat, National IPHA Conference, 1-3 February 2019, Kakinada
2. Review of Operational Guidelines for HIV Sentinel Surveillance in India, Pre-Surveillance Consultation, Planning, and Review meeting, 18 July 2018, New Delhi
3. Key Finding and Learning from HSS 2017: An Overview, National Pre-Surveillance Workshop of RIs and SACS, 5 October 2018, Patna
4. Universal Health Coverage, 8th Bihar Chapter IAPSMCON2018, 8 December 2018, Patna

Kapil Yadav

1. Test and Treat strategy for Anemia Mukht Bharat, National Workshop on Anemia Mukht Bharat, 18 September 2018, Delhi
2. Universal salt iodisation: The success story in fortification, Celebrating the USI Success Story in India, 13 March 2019, Delhi

Sumit Malhotra

1. Formulating a research question and hypothesis, Clinical and Biological Research in Orthodontics, 21 April 2018, New Delhi
2. Cross-sectional studies, AIIMS PG course on research methodology, writing and communication, 7 August 2018, New Delhi
3. Common causes of maternal deaths and their symptoms, AIIMS Verbal Autopsy Network (MINErVA) Part Time Enumerators (PTE) workshop, 10 August 2018, Jhajjar
4. Writing a good narrative/documentation during VA, AIIMS Verbal Autopsy Network (MINErVA) Part Time Enumerators (PTE) workshop, 10 August 2018, Jhajjar
5. Cross-sectional studies, AIIMS PG course on research methodology, writing and communication, 25 September 2018, New Delhi
6. Mortality surveillance systems in India, Causes of death and ICD coding under SRS-workshop for residents/faculty, 13 October 2018, New Delhi
7. Supervisors training report on 2017-18 activities and summary of feedback, MINErVA Network and Technical Advisory group meeting, 23 November 2018, New Delhi
8. Overview of study designs, Workshop on bio-statistical methods in medical research, 4 December 2018, New Delhi
9. Introduction to MINErVA training and coding platforms, AIIMS, New Delhi Technical Support Unit (ATSU) session on MINErVA Indian Public Health Association National Conference, 2 February 2019, Kakinada
10. Evidence based maternal nutrition interventions: Global and national recommendations and impact, Bihar ToT-MIYCN (Maternal Infant Young Child Nutrition) service delivery protocols for improving service delivery in medical colleges of Bihar, 6 March 2019, Patna
11. Delivering maternal nutrition services including counseling during antenatal care at ANC OPD, Bihar ToT-MIYCN (Maternal Infant Young Child Nutrition) service delivery protocols for improving service delivery in medical colleges of Bihar, 6 March 2019, Patna

12. Protocols for delivering infant and young child nutrition (IYCN) services including counselling at immunization and pediatric OPDs, Bihar ToT-MIYCN (Maternal Infant Young Child Nutrition) service delivery protocols for improving service delivery in medical colleges of Bihar, 7 March 2019, Patna
13. Overview of study designs, Workshop on statistical methods in health data analytics using R, 12 March 2019, New Delhi

Anil Kumar Goswami

1. Diabetes Mellitus, Panel Discussion organized by SEWA an NGO, 12 July 2018, New Delhi
2. Health Safety and Drug Abuse, Training Programme for AIIMS newly recruited Security Gaurds, 26 July 2018, New Delhi
3. Dengue, Awareness Programme on Prevention and Control of Vector Borne Diseases, 19 August 2018, New Delhi
4. How to approach the Communities, and Panchayats Community Mobilization and Art of Interviewing. A training Programme for the staff of Samarth a INCLEN NGO, 5 November 2018, Palwal, Haryana
5. Community Participation on Prevention and Control of Vector Borne diseases, Workshop Action Plan on Prevention and Control of Vector Borne Diseases by SDMC, 18 January 2019, New Delhi

Ravneet Kaur

1. Introduction to verbal autopsy (VA), Workshop on “Ascertaining cause of death under SRS-based verbal autopsy in India”, 13 October 2018, New Delhi
2. Introduction to MINErVA training Platform, Technical Working Group and Network Meeting of MINErVA, 23 November 2018, New Delhi
3. Guidelines on Data sharing and Publication, Technical Working Group and Network Meeting of MINErVA, 24 November 2018, New Delhi

Harshal Ramesh Salve

1. General Principles of Programme Management, Organizing health services, Monitoring and supervision, Training workshop of Programme Managers under NPCDCS of State Madhya Pradesh, 19-21 July 2018, Bhopal, Madhya Pradesh
2. General Principles of Programme Management, Organizing health services, Monitoring and supervision, Training workshop of Programme Managers under NPCDCS of State Haryana, 5-7 September 2018, Panchkula, Haryana
3. General Principles of Programme Management, Organizing health services, Monitoring and supervision, Training workshop of Programme Managers under NPCDCS of State Chhattisgarh, 10-12 October 2018, Raipur, Chhattisgarh
4. Verbal Autopsy forms under Sample Registration System, Cause of Death Workshop under MINErVA for doctors, 13 October 2018, New Delhi
5. Status of VA coders under MINErVA, Technical Working Group and Network meeting under MINErVA, 23 November 2018, New Delhi
6. Research Simulation, SET Facility meeting, 9 November 2018, New Delhi
7. Air Pollution and Health risks, Case studies from New Delhi, Environmental Training Programme for CPCB Research Officers, 5 December 2018, Chandigarh
8. Introduction to MINErVA, 63rd Annual conference of IPHA, 2 February 2019, Kakinada, Andhra Pradesh
9. Cross-section Study Design, PG Research Methodology Workshop, 6 March 2019, New Delhi
10. Monitoring and Supervision and Role of Medical Officers, Training of Trainers for Medical Officers in Population level screening under NPCDCS, 16 March 2019, New Delhi

Rakesh Kumar

1. Essentials of Research Methodology and Study Designs, Workshop on Advance methods in Biostatistics and Hands on Practices on Medical Data Using SPSS software, 24 May 2018, ILBS, Delhi

Oral paper presentations

1. Jaiswal A, Haldar P, Salve HR, Goswami K, Singh U, Knowledge, health seeking behaviour and practices related to knee pain among elderly in rural Ballabgarh, Haryana, OACON 2 National Conference on Osteoarthritis, 1 September 2018, Pune
2. Jaiswal A Salve HR, Haldar P, Goswami K, Singh U, Prevalence of knee osteoarthritis and its impact on quality of life among elderly in rural Ballabgarh, Haryana, 13 SEA Regional Scientific Meeting of IEA and IN Conference on Public Health and Sustainable Development, October 2018, Bali, Indonesia

3. Rai SK, Misra P, Kant S, Programme for Healthy Eating Practices in a Rural community of North India, 21st International Conference of Nutrition (IUNS 2017), 15-20 October 2017, Buenos Aires, Argentina
4. Yadav K, Ahamed F, Kant S, Anemia Mukht Bharat, National Annual Conference of IAPSM, 10 March 2019, Shimla
5. Malhotra S, Kalaivani M, Vashist P, Gupta SK, Visual impairment, spectacle coverage and presbyopia in a rural population of North India, Results from Jhajjar Eye Survey in Adults (JESA) (Oral), World Ophthalmology Congress (WOC), 16-19 June 2018, Barcelona, Spain
6. Muthathal S, Malhotra S, Kant S, Goswami K, Vanamail P, Kaloiya SG, Prevalence of anaemia among adolescent girls who attained menarche in rural Ballabgarh, Haryana, Indian Association of Adolescent Health, 2nd Punjab Chapter, 12 January 2019, Amritsar
7. Muthathal S, Malhotra S, Kant S, Goswami K, Vanamail P, Kaloiya SG, Assessment of menstrual hygiene management among rural adolescent girls of Haryana: A cross sectional study, First AIIMS Research Day, 26 March 2019, New Delhi
8. Pentapati SSK, Kamble BD, Kaur R, Health profile of workforce at a secondary level hospital in Haryana: A cross-sectional study, 4th International Conference on Occupational and Environmental Health, 15-17 February 2019, Lady Hardinge Medical College, New Delhi
9. Salve HR, Pentapati SSK, Sagar R, Sreenivas V, Association of particulate matter exposure and depression: A Systematic Review and Meta-analysis (Poster), Joint Annual Meeting of International Society for Exposure Sciences—International Society for Environmental Epidemiology 2018, 29 August 2018, Ottawa, Canada
10. Pentapati SSK, Salve HR, Association of second hand smoke exposure and depression: A systematic review and meta-analysis (Oral), 14th Annual Tobacco Induced Diseases Conference-2018, 5 October 2018, Turkey
11. Salve HR, Kamble B, Krishnan A, Sagar R, Kant S, Nongkynrih B, Sreenivas V, Association of Common Mental Disorders and diabetes mellitus—Evidence from Case Control Study in rural Ballabgarh, Haryana, 13th **SEA Regional Scientific Meeting of the International Epidemiological Association and International Conference on Public Health and Sustainable Development**, IEA SEA 2018, November 2018, Indonesia
12. Ahmad A, Salve HR, Nongkynrih B, Sagar R, Krishnan A, Mental Health Literacy among adolescents in an urban area of Delhi (Best Paper First Award), First Annual Research Day of AIIMS, New Delhi, 26 March 2019, New Delhi
13. Prashanth A, Salve HR, Krishnan A, Ramakrishnan L, Gupta SK, Nongkynrih B, Salt Intake of Women in an urban resettlement colony of Delhi (Poster), First Annual Research Day of AIIMS, New Delhi, 25 March 2019, New Delhi
14. Kumar R, Amarchand R, Saha S, Prabhakaran A, Lafond K, Gopal GP, et al, Setting up an Indian network of population-based surveillance platform for influenza and other respiratory viruses among elderly (INSPIRE), International Conference on Emerging Infectious Diseases, 27 August 2018, Atlanta
15. Gopal G, Kumar R, Amarchand R, Saha S, Purakayastha D, Wahi A, et al, Viral acute lower respiratory infections among elderly in a community cohort in north India, International Conference on Emerging Infectious Diseases, 27 August 2018, Atlanta
16. Krishnan A, Kumar R, Amarchand R, Saha S, Narayan VV, Dar L, et al, Efficacy of live attenuated and inactivated influenza vaccines against laboratory-confirmed influenza infection among children in rural Ballabgarh, India: A randomized, triple blinded, placebo-controlled trial, International Conference on Emerging Infectious Diseases, 27 August 2018, Atlanta
17. Daniel RA, Haldar P, Kant S, Krishnan A, Kumar R, Gupta SK, Prevalence of hypertension among adolescents in rural north India, 13th IEA SEA Meeting and International Conference on Public Health and Sustainable Development 2018, 3 October 2018, Bali

RESEARCH

Funded projects

Ongoing

1. National Centre of Excellence and Advanced Research on Anemia Control, Shashi Kant, UNICEF, 2 years, 2018-2020, Rs 1.8 crores
2. Strengthening/Promoting evidence based advocacy for influenza prevention and control in India, Anand Krishnan, CDC, Atlanta, 5 years, 2018-2023, Rs 8.1 crores per year
3. Establishing a technical support unit for Verbal Autopsy based cause of death ascertainment in the sample registration system, Registrar General of India, Anand Krishnan, Office of RGI, India, 3 years, 2017-2020, Rs 2.8 crores per year

4. Effect of structured Yoga programme on hypertension, diabetes, stress and wellness in a community setting, its feasibility and long term sustainability, Puneet Misra, DST, 1 year, 2018, Rs 40 lakhs
5. A Prospective, Multicentre, Randomized, Double Blind, Parallel Group, Phase III Study Comparing Immunogenicity, Safety, and Tolerability of Single Dose of Hepatitis A (Live) Vaccine, Freeze-dried from Sinopharm versus Biovac™-A (Freeze-dried Live Attenuated Hepatitis A Vaccine) from Wockhardt in Healthy Indian Children, Puneet Misra, Sinopharm, 1 year, 2018, Rs 7 lakhs
6. HIV sentinel surveillance for India project, Sanjay K Rai, NACO, MoHFW, GoI, 2 years, 2018-2020, Rs 2.34 lakhs
7. Development, implementation, evaluation of Social, and Behaviour Change Communication (SBCC) strategy for the prevention and control of dengue in slums and slum like pockets in Delhi, Y S Kusuma, ICMR and ICSSR, 2½ years, 2017-2019, Rs 17.8 lakhs
8. Assessment of Iodine status amongst pregnant women in select district of India, Kapil Yadav, ICMR, 2.5 years, 2016-2019, Rs 57.6 lakhs
9. Human Resource Development Health Research Scheme-Operational Research, Sumit Malhotra, Department of Health Research, Ministry of Health and Family Welfare, Government of India, 7 years, 2014-2021, Rs 56 lakhs
10. Innovation Learning Centre for supporting implementation of Comprehensive Primary Health Care in a selected district of Haryana, Sumit Malhotra, National Health Systems Resource Centre, Ministry of Health and Family Welfare, 2 years, 2018-2020, Rs 41.45 lakhs
11. Assessment of implementation and barriers related to weekly iron folic acid supplementation programme in out of school adolescents within National Territory of Delhi, Sumit Malhotra, Delhi State Health Mission, Department of Health and Family Welfare, Government of NCT of Delhi, 1 year, 2018-2019, Rs 16 lakhs
12. Prevalence of disability among elderly persons residing in an Urban Resettlement Colony of Delhi, Anil K Goswami, AIIMS, 1 year, 2017-2018, Rs 4 lakhs
13. Developing Community level Climate based Early Warning System (CCEWS) for Vector Borne Diseases in National Capital Region, India, Harshal R Salve, Climate Change Programme (SPLICE), Department of Science and Technology, Government of India, 3 years, 2017-2020, Rs 55.62 lakhs
14. Mortality burden of ambient PM2.5 exposure in Rural Ballabgarh, Haryana, North India, Harshal R Salve, AIIMS— IIT Joint Collaborative Project Grant, 2 years, 2018-2020, Rs 8.90 lakhs
15. Development of tool for intervention at School level using WHO advocated Health promoting School for addressing NCD Risk factors, Harshal R Salve, WHO - SEARO, Six Months, 2018-2019, Rs 6.28 lakhs

Completed

1. Establishing A Network of Population Based Influenza Surveillance Platforms for Elderly Persons In India, Anand Krishnan, CDC, 2 years, 2017-2018, Rs 4 crores/year
2. Survey for Monitoring the National Non Communicable (NCD) Targets, Anand Krishnan, ICMR, 1 year, 2018, Rs 1.10 crore
3. Burden on Non Communicable Diseases and associated Risk Factors for India (BOD-NCD), Anand Krishnan, ICMR, 1 year, 2017, Rs 6.59 lakhs
4. Effectiveness of Brief Cessation Advice on Abstinence from Tobacco Smoking Among Patients with Tuberculosis and Non-Communicable Diseases (Hypertension, Diabetes) Attending A Secondary Level Hospital, Ballabgarh, Haryana, Rakesh Kumar, AIIMS, 2 years, 2017-2019, Rs 1.8 lakhs
5. Migration, mobility and antenatal care: An exploratory study to identify key elements to improve coverage and utilization of antenatal care services among migrant pregnant women in Delhi, Y S Kusuma, DST, 1½ years, 2017-2018, Rs 25.8 lakhs
6. Health and nutrition behaviour assessment of youth males in northern part of India, Sumit Malhotra, AIIMS, 1 year, 2017-2018, Rs 4 lakhs
7. Assessment of implementation and barriers related to weekly iron folic acid supplementation programme for school based adolescents in National Territory Region, India, Sumit Malhotra, WHO, 1 year, 2017-2018, Rs 6.79 lakhs
8. Effectiveness of brief cessation advice on abstinence from tobacco smoking among patients with tuberculosis and non-communicable diseases (Hypertension, Diabetes) attending a secondary level hospital, Ballabgarh, Haryana, Rakesh Kumar, AIIMS, 2 years, 2017-2019, Rs 1.8 lakhs

Departmental projects

Ongoing

1. A study of chronic respiratory diseases and associated factors among elderly persons in a rural area of Haryana
2. A Study of Chronic Respiratory Diseases and Associated Factors among Elderly Persons in a Rural Area of Haryana
3. A study on prevalence of cancer cases and associated factors in a decade (2008-2018) within Intensive Field Practice Area (IFPA), Comprehensive Rural Health Services Project (CRHSP), Ballabgarh, Haryana, India
4. Assessment of menstrual hygiene management amongst adolescent girls in a rural area of North India
5. Assessment of Mental Health Services in District Faridabad, A mixed method study, Common mental disorders and related mental health literacy among adolescents in an urban area of Delhi
6. Assessment of select nutritional problems among adolescent girls in an Urban Resettlement Colony, New Delhi, A mixed method study
7. Association of knowledge and self-efficacy of diabetes management with its control among patients in an urban resettlement colony in Delhi
8. Community's perception towards quality of primary health care in a rural area of Haryana, A mixed methods study
9. Consumption of High Fat, Salt, Sugar (HFSS) food among adolescents in rural Haryana, India
10. Depressive disorders among adolescents in Ballabgarh, Haryana, India: A community-based cross-sectional study
11. Determinants of treatment default in tuberculosis patients in a rural area of North India: A community-based mixed-method study
12. Diabetes and hypertension among elderly persons in a rural area of Ballabgarh, Haryana
13. Economic burden, prevention and control of pneumonia among elderly
14. Effect of Structured Yoga Programme on Hypertension, Diabetes, Stress and Wellness in Community Setting, its Feasibility and Long-Term Sustainability, 2018-2020
15. Evaluation of anemia control programme in district Faridabad of Haryana: A mixed method study
16. Evaluation of coverage of population-based screening under National Programme for the Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) using Lot Quality Assessment Sampling (LQAS) technique in Faridabad District, Haryana
17. Factors affecting adherence to medication in elderly diabetics and hypertensives in a rural area of Haryana, India
18. Health and nutrition behavior needs assessment of community-based youth in North India
19. Mortality pattern for years 2012-2018 in a rural community of north India: Evidence from verbal autopsy data of Ballabgarh Intensive Field Practice Area
20. Patient costs and treatment delays among newly diagnosed adult tuberculosis patients registered under Revised National Tuberculosis Control Programme in Ballabgarh Block of District Faridabad, Haryana
21. Prevalence of gestational diabetes mellitus among pregnant women attending antenatal clinic in a secondary care health facility in Haryana, India: A hospital based study
22. Prevalence of hypertension among adolescents in rural Ballabgarh, Haryana
23. Prevalence of knee osteoarthritis among elderly in rural Ballabgarh, Haryana
24. Profile of paediatric, adolescent and young TB patients registered under RNTCP, Faridabad district of Haryana
25. Randomized controlled trial of 60 mg vs 100 mg elemental iron with fixed dose of 500 µg folic acid oral supplementation for iron deficiency anemia prophylaxis in pregnant women at a secondary care hospital in Haryana
26. Sleep quality and associated factors among persons aged Sixty years and above in an Urban Resettlement Colony of Delhi
27. Study of knowledge and behaviours related to salt consumption and sources of dietary sodium in women aged 20-59 years in an urban resettlement colony, New Delhi
28. Study of Physical Activity Among under Graduate (Medical Students) in AIIMS, New Delhi
29. Trends of sex ratio at birth: Analysis of births over a decade (2009-2018) at a rural setting in Haryana

Completed

1. Does gender influence burden of blindness, cataract blindness and cataract surgical coverage in India? Evidence from systematic review and meta-analysis

2. Estimation of mortality burden in India due to respiratory viruses: Influenza and Respiratory Syncytial Virus
3. Impact of an Integrated Diabetes Self-Management Education Programme on Self Care and Glycemic Control among Diabetic Patients attending Non-Communicable Diseases (NCDs) clinic at a secondary level hospital in a rural area, A randomized controlled trial
4. Prevalence of disability among elderly persons residing in an Urban Resettlement Colony of Delhi
5. Prevalence of disability and its association with quality of life among adult population in Rural Ballabgarh, Haryana
6. Prevalence of Knee Osteoarthritis among elderly in rural Ballabgarh, Haryana
7. Use of screen based media and assessment of screen time among adolescent aged 10-19 years in an urban resettlement colony, New Delhi
8. Validation of a clinical score for identification of bacterial sore throat among 5-15 years outpatient attendees of a health facility in Ballabgarh, Haryana

Collaborative projects

Ongoing

1. A population based prospective cohort study to unravel the causes of stroke and cognitive decline, A cross-cultural perspective, Neurology
2. Prevalence of congenital heart disease in adults residing in Ballabgarh Block of Haryana, India, A population based study, Cardiology
3. Development of Panic and Anxiety Indian Questionnaire (PANIQ), Psychiatry
4. Nodal coordinating centre for surveillance network of antimicrobial resistance in Salmonella enterica serotype Typhi and Paratyphi-A, Microbiology
5. Comprehensive Anaemia Programme and Personalized Therapies, Gynecology
6. The Systematic Medical Appraisal, Referral and Treatment (SMART) Mental Health Programme, Psychiatry
7. Evaluation of prevalence, regional phenotypic variation, co-morbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with polycystic ovary syndrome (PCOS), A multicenter study across India, Gynecology
8. First contact and pre-referral management and compliance to treatment in patients with uveitis, Dr R P Centre for Ophthalmic Sciences
9. Visual impairment among elderly persons in an urban resettlement colony of Delhi, Dr R P Centre for Ophthalmic Sciences
10. Prevalence of non-alcoholic fatty liver disease and its association with cardio-metabolic disease risk factors in North India (I-960) (ICMR), Endocrinology and Metabolism
11. Acceptability and adherence to nutritional supplement in the form of ready to use therapeutic food as adjunct to standard dots therapy among adult malnourished pulmonary tuberculosis patients in Ballabgarh Block of Haryana, Pulmonary Medicine and Sleep Disorders
12. Capacity building for undertaking A Phase III, Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate the Efficacy and Safety of VPM1002 AND mw (MIP) Vaccines in preventing TB in Healthy Household Contacts of New Pulmonary TB Patients, Pulmonary medicine and sleep disorders
13. Public health perspective: Stroke awareness: Education and training to community, schools and paramedical staff in Himachal Pradesh, 2016-2019, Neurology
14. Mortality burden of ambient PM2.5 exposure in Rural Ballabgarh, Haryana, North India, IIT Delhi
15. Association of particulate matter exposure and depression: A systematic review and meta-analysis, Psychiatry, Biostatistics
16. Extent of mental health issues and addictive behaviour among adolescents seeking help in adolescent friendly clinics in Delhi, NDDTC, Ghaziabad
17. Oral health toolkit for Paediatric Oncology Patients, CDER
18. Taskforce project on prevalence of hearing impairment and etiology, ENT
19. Prevalence of non-alcoholic fatty liver disease and its association with cardio-metabolic disease risk factors in North India, Endocrinology
20. Acceptability and adherence to nutritional supplement in the form of ready to use therapeutic food as adjunct to standard dots therapy among adult malnourished pulmonary tuberculosis patients in Ballabgarh Block of Haryana, Pulmonary medicine and sleep disorders

Completed

1. MRI changes associated with cue-induced craving in Tobacco Smokers, Psychiatry
2. Acceptability and adherence to nutritional supplement in the form of ready to use therapeutic food as adjunct to standard DOTS therapy among adult malnourished pulmonary tuberculosis patients in Ballabgarh block of Haryana Centre for Community Medicine, Pulmonary Medicine and Sleep Disorders, Microbiology

PUBLICATIONS

Journals: 54

Chapters in Book: 1

PATIENT CARE

Patient care at the CRHSP Ballabgarh is described under following two categories

- A. Patient care services provided at the Sub-district Hospital, Ballabgarh and;
- B. Patient care services provided at the Primary Health Centres

During the year 2018-2019, Nutrition Counseling Clinic has been initiated within paediatric outpatient services at SDH Ballabgarh.

Outpatient Departments:

Daily	Thrice weekly
General Medicine	Ante-natal clinic
General Surgery	Twice weekly
Paediatrics	Dermatology
Obstetrics and Gynaecology	Ear, Nose and Throat
Ophthalmology	Once weekly
Tuberculosis clinic	Nutrition counseling clinic
Psychiatry	Non Communicable Disease Clinic
Dental	Paediatric Surgery
AYUSH (Homeopathy)	Burns and Plastic surgery
AYUSH (Ayurveda)	Physical Medicine and Rehabilitation (PMR)
Orthopaedics	Neurology

Patient care services provided at SDH Ballabgarh

Total Outdoor Patients

Out Door Patients Total	3,51,704
• New OPD patients (%)	1,97,318 (56.1%)
General Medicine	96,281
Paediatrics	79,087
Obstetrics and Gynaecology	29,662
Antenatal care Clinic registrations, Total visits	21,740
Ophthalmology	15,659
General Surgery	14,210
ENT	11,131
Dental	10,057
Physical Medicine and Rehabilitation	2,507
Non-Communicable Diseases clinic	7,284
Dermatology	13,594
AYUSH	11,126

Orthopedics	28,260
Psychiatry	10,727
Nutrition Counseling Clinic	197
Burns and Plastic Surgery	15
Neurology	167

In-patient services

Total no. of beds: 50

Total Admissions (including births)	12,608
Admission through casualty	5,539
Admission through OPD	3,315
Admission of New Born (births)	3,754
Disaggregation of admissions, by specialty (N=12,608)	
Obstetrics and Gynaecology	7,483
Paediatrics	4,132
Ophthalmology	588
General Surgery	267
General Medicine	90
ENT	41
Physical Medicine and Rehabilitation (PMR)	7
Average Bed Occupancy Rate (%)	118.0%
Total Deliveries Conducted (including IUD)	3,780
Average duration of stay for all patients (in days)	1.72

Casualty Services	
Patients registered	66,540
Medico-legal cases	4,115
Emergency admissions	1,581

Surgical Procedures at SDH Ballabgarh			
Specialty	Major	Minor	Total
Ophthalmology (including cataract extraction)		552	552
Obstetrics and Gynaecology	439	423	871
General Surgery	169	252	413
Paediatric Surgery	76	131	207
ENT	5	69	74
PMR	19	7	25
Total	708	1,434	2,142
Laboratory and Diagnostic Services			
Laboratory investigations (biochemical and haematological)			2,67,005
X-Ray			20,044
USG			9,546

Malaria Slides			7,300
• P. vivax detected			2
• P. falciparum detected			NIL
Counselling and testing services provided for HIV			12,341

Revised National Tuberculosis Control Programme:

SDH Ballabgarh is a Tuberculosis Unit (TU) under the Revised National Tuberculosis Control Programme. Three Designated Microscopy Centres (DMCs) are attached to this unit. Total tuberculosis cases treated at Ballabgarh Hospital from 1 April 2018 to 31 March 2019 were as follows:

Total cases started on treatment	955
New case	805
Previously treated case	150

Community Health Services

Domiciliary, outpatient, inpatient, and referral services are provided in the IFPA. Important demographic indicators for the IFPA were as follows:

Indicator	Value
Population	1,00,772
Birth rate per 1,000 population	19.5
Death rate per 1,000 population	6.3
Sex ratio at Birth (females per 1,000 males)	860
Infant mortality rate per 1,000 live births	38.6
Under 5 mortality rate per 1,000 live births	42.6

OPD Services in Intensive Field Practice Area: This includes health care services provided at OPD of the PHC, as well as the OPD of the Extended Health Clinics, that are conducted at each of the villages.

PHC	New Cases	Repeat Visits	Total
Dayalpur	19,344	21,102	40,446
Chhainsa	14,829	9,323	24,152
Total	34,173	30,425	64,598

Total No. of AYUSH OPD Patients registered at PHC Dayalpur: **9,213**
(There is no AYUSH OPD at PHC Chhainsa)

Inpatient Services provided at the PHCs

PHC	Total
Dayalpur	380
Chhainsa	410
Total	790

Emergency Services at PHCs

PHC	Total
Dayalpur	12,075
Chhainsa	4,093
Total	16,168

Family Welfare and Maternal Child Health

The following services are provided as per the guidelines of National Health Mission

Indicator	Value
Total ante-natal registration	2,132
Complete TT coverage of registered cases (%)	100%
Percentage of Institutional delivery	
PHC Chhainsa (%)	98.1%
PHC Dayalpur (%)	98.2%
Total deliveries in delivery huts at the PHCs	
PHC Chhainsa	410
PHC Dayalpur	380

Other National Health Programmes

National Vector Borne Disease Control Programme: Collection of blood slides are done as a part of passive surveillance in OPD and as active surveillance during domiciliary visits in the IFPA.

Indicator	PHC Chhainsa	PHC Dayalpur
Total number of malaria slides tested	3,493	6,433
Total number of positive cases	16	9
Annual Parasite Incidence (per 1,000 population)	0.3	0.015
Annual Blood Examination rate (%)	7.0%	12.7%
Slide Positivity Rate (%)	0.46%	0.14

Revised National Tuberculosis Control Programme: The Revised National Tuberculosis Control Programme is carried out in the IFPA according to national guidelines. Dayalpur PHC has been designated as a Microscopy Centre and caters to all villages under the IFPA. Tuberculosis patients treated in the IFPA (category wise) is as follows:

Indicator	PHC Chhainsa	PHC Dayalpur
Total number of patients started on treatment	67	102
New Cases	61	63
Previously treated cases	6	39

Special services: Out Reach Speciality OPD (ORSO) is a special activity conducted at each PHC where senior residents posted at SDH Ballabgarh attend the patients at PHCs on a weekly basis. The services were started in June 2013. For the period, 1 April 2018 to 31 March 2019, the cases attended to at each PHC were as follows:

Services	PHC Chhainsa	PHC Dayalpur
Gynaecology	146	1,024
Paediatrics	246	483
Ophthalmology	429	812
Psychiatry	190	261
Total	966	2,580

Anti-rabies vaccination was provided to **1,074** individuals in PHC Chhainsa and **769** doses in PHC Dayalpur. Some of the additional activities at PHCs are summarized below:

Particulars	PHC Chhainsa	PHC Dayalpur
Total health talks	36	46
Pregnancy received IVIS (Intravenous Iron Sucrose)	184	742
PPIUCD (Post Partum Intrauterine Cu-T Device)	24	111
High risk pregnancy detected	405	399

IEC Activities

Group Health Talks: Delivered on following topics: Post-natal care, clean drinking water, family planning, menstrual hygiene, prevention from mosquitos, tobacco use, animal bite, family planning and ANC care.

Short film shows:

Films were screened in Child Welfare Centre, Ballabgarh, PHC Dayalpur, and PHC Chhainsa on important topics i.e. breast feeding, antenatal care, child care, female feticide, eye care, Vitamin A deficiency, malnutrition, and diarrhoea during OPD timings.

Special activities during financial year 2018-2019 at PHCs

1. **MR (Measles and Rubella) campaign:** MR campaign was conducted in schools from 25 April to 5 June 2018 under areas covered under PHCs Dayalpur and Chhainsa
2. **Test and treat campaign:** Test and treat camps for Anemia were held in month of September, 2018 as part of Anemia Mukta Abhiyaan at PHCs and SDH Ballabgarh
3. **Assessment for National Quality Assurance Standards:** Both the PHCs have been working with a mission of providing quality comprehensive care to the beneficiaries. NQAS assessment was done for both the PHCs and NQAS accreditation was obtained

Visiting Students/Fellows at CRHSP Ballabgarh

1. 15 students (MPH/MPhil/PhD), 2 faculty members, 2 technical staff from Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi visited for their fieldwork at CRHSP Ballabgarh on 29/30 October 2018
2. Stanford Biodesign Fellows are posted every year for a period of two weeks for orientation to CRHSP Ballabgarh

Urban Health Programme

The field practice area of the Urban Health Programme, Centre for Community Medicine is located at Dakshinpuri Extension, Dr Ambedkar Nagar in South Delhi, consisting of Blocks 1-7,14,15,19, Subhash camp, Dakshinpuri catering to a population of around 35,363. Patient care services are provided at the Urban Health Centre.

Clinical Services

	Activities	Number
OPD	Total no of patients seen (including immunization)	22,682
Laboratory services	Total Lab Tests	4,539
	No. of Hb. Test Conducted	1,487
	Of which numbers having Hb.<7 gm%	46
	Of which numbers having Hb.<11 gm%	680
	Blood Sugar	2221
	Urine albumin and sugar tested	69
	RDT for Malaria	135

Child Health services

Number of immunization sessions held - 98

BCG	89
DPT/pentavalent1	262
DPT/pentavalent12	254
DPT/pentavalent13	252
OPV 0 dose (birth dose)	53
OPV1	262
OPV2	253
OPV3	252
Hepatitis-B1	3
Hepatitis-B2	3
Hepatitis-B3	1
Inject able IPV Fractional1	292
Inject able IPV Fractional2	207
Measles 1st dose	258

MMR	30
Measles 2nd dose	75
DPT/OPV Booster 1	237
DPT/OPV Booster 2	310
Typhoid Vaccine	230
TT 10 years	256
TT 16 years	52
Vitamin A Administered between 9 months and 5 years	815
Albendazole	381
Number of severely underweight provided health checkup (0-5 years)	60

Maternal Health Services

Antenatal Care	Total number of pregnant women seen in the Urban Health Centre	742
	Number of pregnant women given TT1	104
	Number of pregnant women given TT2+ or Booster	110
	Total number of pregnant women given 180 IFA tablets	84
Family Planning	No of Condoms distributed	2,215
	No of Oral contraceptive pill cycles distributed	36
	New RTI/ STI Cases Identified	182

- Development of Health Education material (posters)
- TV Talks: Dr Puneet Misra (Rajya Sabha TV and Lok Sabha TV as expert)

National Service Scheme (NSS) Activities at AIIMS:

Meetings

- Interactive International Programme with NSS Kashmiri Students under the Chairmanship of Shri Vijay Goel, Organized by Ministry of Sport and Youth Affair (MSYA) at National Stadium New Delhi on 27 April 2017
- NSS Functionaries of Delhi Meeting at India Habitat Centre with Secretary MSYA, GoI to review NSS (10 July 2017)
- Future NSS strategies by Secretary, MSYA (10 October 2017)

AWARDS, HONOURS AND SIGNIFICANT EVENTS

- Ministry of Health, Government of India, designated Centre for Community Medicine as National Centre of Excellence and Advanced Research on Anemia Control
- **Kayakalp award for Primary Health Centers:** Among all the Primary Health Centers in the District Faridabad, CRHSP's PHC Dayalpur was recognized as the best, for Kayakalp Award, while CRHSP's second Primary Health Center, i.e. PHC Chhainsa received the commendation award, for Kayakalp Award for financial year 2018-2019
- Centre for Community Medicine was re-designated as the WHO Collaborating Centre for Capacity Development and Research in Community based NCD Prevention and Control IND-113 for the second term from 2018-2022
- Dr Sanjay Rai was elected "President" of Indian Public Health Association for the year 2019-2022

SIGNIFICANT EVENTS

Professor Shashi Kant: Resource person: Delivered Dr J E Park Memorial Oration at 63rd Annual National Conference of IPHA at Kakinada, Andhra Pradesh on 2 February 2019; Member of expert committee for the faculty interview at Indira Gandhi Institute of Medical Sciences, Patna, on 4 July 2018; Nominated as member of the Institute Body of All India Institute of Medical Sciences, Nagpur, October 2018; Nominated as member of Governing Body, Standing Selection Committee, Standing Finance Committee, Academic Committee, and Human Resource sub-committee of AIIMS Nagpur;

Attended the First Institute Body meeting on 18 February 2019; Attended HR Sub-committee meeting held on 19 March 2019. **Meetings Chaired:** Chaired a session on Anemia Mukht Bharat at Annual Conference of IAPSM held at Shimla, Himachal Pradesh, on 10 March 2019; Chaired Project Review Committee of ICMR, New Delhi on 20 March 2019; Chaired PRC meeting on HIV/AIDS under EMR window of ICMR, New Delhi on 26 March 2019. **Meetings attended:** Attended “Regional Conference on Scaling up the Nutritional Care of Women During Pregnancy in South Asia” held at Kathmandu, Nepal, on 7-9 May 2018; Member of expert committee for the faculty interview at Dr Ram Manohar Lohiya Institute of Medical Sciences, Lucknow, on 16 May 2018; Attended, as special invitee, the Scientific Advisory Committee meeting of ICMR-National Institute of Medical Statistics, New Delhi, on 29 November 2018; Attended 31st SAC meeting of RMRIMS, Patna on 8 December 2018.

Professor Sanjeev Kumar Gupta was member of Task Force to develop Operational Guidelines for Primary Care in Geriatric Care, Ministry of Health and Family Welfare, Government of India, New Delhi; Advisory Committee for development of training manuals on oral health for health workers and school teachers, at the DGHS, Government of India, New Delhi; Expert Committee for revision of the PGDMCH Programme at the Indira Gandhi National Open University, New Delhi; Tobacco Free Educational Institute Committee of the AIIMS; Life member of Jansankhya Sthirata Kosh of the Ministry of Health and Family Welfare, Government of India; Data Safety Management Board (DSMB) for the project entitled “Determination of efficacy of 9 months, 12 months and 18 months of Anti-Tubercular Treatment (ATT) for Tuberculous Meningitis (TBM): A randomized controlled, non-inferiority trial.” (PI: Dr Deepti Vibha, Associate Professor of Neurology, Neurosciences Centre, AIIMS); Main Negotiation Committee (DO) of the AIIMS; Expert on the Assessment Board for promotion of ICMR Scientist-C to Scientist-D in August 2019; was reviewer of The National Medical Journal of India, Indian Journal of Public Health, Indian Journal of Community Medicine, Public Health Nutrition, Asian Journal of Psychiatry.

Professor Kiran Goswami was member of National Institute and Central Regional Institute, Expert and resource person for HIV Sentinel Surveillance 2019 for Pre-HSS training, National meet RI and SACS (October 2018), State Pre Surveillance Training for states of Uttarakhand SACS at Dehradun and DSACS, Delhi (December 2018) and Field supervision and monitoring for states of Delhi and Maharashtra (January-March 2019); Technical Expert, core group for IMI Study Making Multisectoral Collaboration Work Improving vaccination coverage in India: Lessons from Intensified Mission Indradhanush, a cross-sectoral systems strengthening strategy; INCLEN study “Scoping the Pathway to Leadership in Health Research in India”; Technology Intervention for Addressing Social Needs (TIASN) SEED Division, DST; Programme Advisory Committee Meeting on SCSP, SEED Division, DST; Expert Committee Paper Setting UGC-NET Exam, November 2018; Chaired Plenary session on Anemia Mukht Bharat in 63 Annual National Conference of Indian Public Health Association at Kakinada, 31 January 2019,

Newer Advances, Technologies in diagnosis and management of occupational diseases in 4th International Conference on Occupational and Environmental Health, Delhi on 17 February 2019; Attended training course on curriculum design and evaluation, NIHFWS, 23-27 July 2018,

Selected participant workshop “Disarming dialogues: Speak”, 4 October 2018, University of Chicago Centre Delhi; External examiner MD Community Medicine at MAMC, Delhi, October 2018; MBBS 3rd Professional Final Exam at University of Delhi, November 2018 and February 2019, AIIMS, Jodhpur, February 2019.

Professor Anand Krishnan heads the WHO Collaborating Centre for Capacity Development and Research in Community based NCD Prevention and Control; Chairman, Scientific Advisory Committee, ICMR National Institute of Occupational Health, Ahmedabad; Chairman, Scientific Advisory Committee, ICMR National Institute of Research in Environmental Health, Bhopal; Member, Governing Body, National Health System Resource Centre (NHSRC); Member, WHO Working Group on Influenza Burden Estimation; Minerva network which assigns cause of death for Verbal Autopsies done under SRS, Office of the Registrar General of India; Member Post-graduate Expert Group of Medical Council of India; Was requested to draft national road safety action plan for India by WHO India; Attended WHO Meeting on Using Influenza Data for Severity and Burden Estimation Geneva, Switzerland, 28-30 November 2018; Attended WHO Technical Consultation on Non-pharmaceutical Public Health Measures for Mitigating the Risk and Impact of Epidemic and Pandemic Influenza, Hong-Kong, China, 26-28 March 2019; Provided technical support to Ministry of Health Democratic Republic of Timor Leste for development of multisectoral operational strategy for prevention and control of noncommunicable diseases, 13-18 May 2018; Attended International Conference for Emerging Infectious Diseases at Atlanta; Led the ICMR Indian Disease Burden Initiative on NCD Risk Factors; Attended National Technical Advisory Group Meeting for National NCD Monitoring Survey; Attended project review committee meeting at ICMR on CVDs, Neurology.

Professor Baridalyne Nongkynrih was member of National Technical Support Unit for conduct of verbal autopsy based cause of death ascertainment under Sample Registration System, Office of Registrar General of India, Ministry of Home Affairs, Government of India; Part of a WHO mission to Swaziland (Eswatini), Africa to provide technical support to adapt the WHO-PEN and train health workers in October 2018; Completed an APW with WHO HQ Geneva on “Development of training modules on diabetes, Chronic Respiratory Diseases (CRD) and Cardiovascular Diseases (CVD) for supporting

WHO PEN implementation”, July 2018; Prepared the SEAR training module on WHO Package of Essential NCD Interventions (WHO PEN) for primary care in low-resource settings among primary health care workers”; National trainer for state and district programme officers of NPCDCS programme in managerial skills and primary health care; Completed an APW with WHO SEARO developing NCD patient education materials for SEAR countries; Resource person for NPCDCS programme managers training in Aizawl, Mizoram and Shillong, Meghalaya.

Professor Puneet Misra was Selection Committee Member, Medical College, AMU, Aligarh; Post Graduate Exam paper for Gorakhpur, KGMU, AMU; ICMR task force PCOS; ICMR Task Force on GDM; Executive Board Member WISE (Women in Science and Engineering India); PhD Examiner Indian Institute of Population Sciences, MoHFW, Government of India; Expert course developer NIHFWD Disaster Management Plan; Research section AIIMS, selection committee; Member Expert Committee SYST- DST at INSA, New Delhi, Tribal projects-DST at Nagaland, Yoga App of DST; TEC member ICMR on Diabetes, Metabolic Disorders, Kidney and Liver Disorders, Cardiovascular diseases; Project Reviewed for ICMR; Programme Advisory Committee Member DST, Government of India; Expert committee and paper reviewer, SEED Division, DST, Government of India; Attended meeting on need of RSV vaccine at Thailand, organized by GSK; Member NCEAR-A; Attended One Health Summit on Antibiotic Resistance; Rajya Sabha TV on Drug addiction, Rajya Sabha TV—Diabetes, Rajya Sabha TV—HIV AIDS Act, Rajya Sabha TV—Sarokar—Swachh Bharat; Participated Examinations at KGMU Lucknow, UCMS Delhi, CMC Ludhiana, LLRM Medical College, Meerut; Feasibility of starting MD course at AIIMS, Patna; Chaired Session on health and hygiene, Anemia Mukht Bharat at Kakinada, February 2019; Delivered talk as panelist in plenary session on Anemia Mukht Bharat at IPHA Kakinada, February 2019; Chaired session on RCH at IAPSM Shimla, March 2019; Delivered Talk on Environment and Health at Paryavaran Kumbh of UP Government at Varanasi, December 2018; Chaired session and delivered a talk on Yoga on International Yoga Day at DST, Government of India as invited speaker, June 2018; Chaired Session at HIV Sentinel Surveillance Meeting at RI-AIIMS New Delhi and delivered talk on Surveillance Issues, October 2018; Chaired a session on IEA regional conference at Bali and delivered talk, October 2018; was reviewer of PLOS One, IJCM, BMJ, Lancet Public Health, Indian Journal of Public Health, Indian Journal of Paediatrics, NMJI, BMC, International Journal of Diabetes in Developing Countries, Addictive Behaviors, International Journal of Adolescent Medicine and Health, BMC Public Health, BMC Women’s Health, BMC Infectious Disease, Biomedical and Environmental Sciences, Family Medicine and Community Health, NMJI, Proposals for DST, ICMR and many others.

Professor Sanjay Kumar Rai nominated by Panjab University, Chandigarh, West Bengal University of Health Sciences, West Bengal, and Uttar Pradesh University of Medical Sciences, Saifai, Etawah, UP, as a member of the Board of Examiners for MD Community Medicine. As an external examiner conducted MD Community Medicine examination at Government Medical College, Chandigarh, North Bengal Medical College, Darjeeling, and Uttar Pradesh University of Medical Sciences, Saifai, Etawah from 7-8 May 2018, 30-31 May 2018, and 12 July 2018 respectively; Technical Advisory Group (TAG) Member of National Iodine and Salt Intake Survey (NISI) 2018-2019 and participated in TAG meeting on 7 February 2018 at New Delhi; Nominated by National AIDS Control Organization (NACO), Ministry of Health and Family Welfare, Government of India as a “*focal person*” of NACO designated National Institute for HSS at AIIMS, New Delhi to provide technical assistance for HIV Sentinel Surveillance (HSS) of entire country; Made several visits to Uttar Pradesh, Bihar, Jharkhand, and Andaman and Nicobar during January to March 2018 to provide technical support to HSS 2019 of these states; Reviewed manuscript for publication in various journal e.g. “Health and Population Perspective and Issues”, Indian Journal of Public Health, Indian Journal of Community Medicine, International Journal of Epidemiology, Indian Journal of Paediatrics, NMJI etc.; Participated as technical expert to undertake field visit to Darbhanga, Bihar from 2-7 July 2018 for “*Country case study development for PMNCH (Partnership for Maternal, New born, and Child Health)*” on Intensified Mission Indradhanush (IMI) in India; Deputed by AIIMS examination centre to supervise the online CBT for MBBS entrance examination, and MD/MS/MDS/DM/, and MCh entrance examination at Lucknow, and Jorhat, Assam from 26-27 May 2018, and 18 November 2018 respectively; Member of the core committee of the AIIMS under the Revised National Tuberculosis Control Programme; As a member of a multi-disciplinary team led by Director AIIMS, New Delhi, Professor (Dr) Randeep Guleria, made a visit to University College London (UCL), London, UK from 4-8 June 2018; Actively participated in meetings with UCL officials to explore the possibility of collaboration between AIIMS, New Delhi, and UCL, London; As a member of AIIMS Engineering Advisory Committee (EAC) participated in several engineering advisory committee meetings to streamline the working of engineering services; As a Professor In-Charge of store of CCM participated in budget preparation, and procurement of various items for CCM during 2018-2019; Member of the Technical Resource Group (TRG) of NACO, MoHFW, GoI on HIV Estimations in India and participated in several TRG meetings during 2018; As a member of **Standing Selection Committee** of ESIC, Hyderabad, and Banaras Hindu University, Varanasi, assisted for the selection of various faculty positions from 23-24 August 2018 at ESIC Hyderabad, and 23 January 2019 at BHUV, Varanasi; Elected “**President**” of Indian Public Health Association for the year 2019-2022; was Reviewer of Health and Population Perspective and Issues, Indian Journal of Public Health, Indian Journal of Community Medicine, International Journal of Epidemiology, Indian Journal of Paediatrics, NMJI etc.

Professor YS Kusuma Kumari was member of NCD Risk Factor Collaboration (NCD-RisC); was reviewer of ICMR, Department of Science and Technology (DST), MRC, UK; Editorial Board Member for Studies on Ethno-Medicine and Afro-Asian Journal of Anthropology and Social Policy; Adjudicator for PhD theses of JNU and Andhra University.

Dr Kapil Yadav was member of Technical Subgroup: Test and Treat: Formulation of operational guidelines for “Anemia Mukht Bharat”, GoI; Focal Point for “National Centre of Excellence and Advanced Research on Anemia Control (NCEAR-A)”, Ministry of Health and Family Welfare, GoI.

Dr Sumit Malhotra: Central Public Information Officer (CPIO) at Comprehensive Rural Health Services Project, Ballabgarh and is a member of committee amongst PIOs and First Appellate Authority with rich experience in RTIs to identify frequently sought information under RTI Act at AIIMS; Focal Point for “Innovation Learning Centre” for supporting health systems for implementation of comprehensive primary health care in Mewat, Haryana; Member of working committee for establishment of Clinical Research Unit (CRU) at AIIMS; Member of National Centre of Excellence and Advanced Research on Anaemia Control, Ministry of Health and Family Welfare, Government of India; Member of National Technical Support Unit for conduct of verbal autopsy based cause of death ascertainment under Sample Registration System, Office of Registrar General of India, Ministry of Home Affairs, Government of India; Member of National working group of IAPSM (Indian Association of Preventive and Social Medicine) on MIYCN (Maternal, Infant and Young Child Nutrition); Attended National consultation to operationalize health and wellness centres for comprehensive primary health care as part of Ayushman Bharat (1-2 May 2018); Central public health response team by Emergency and Medical Relief, Ministry of Health and Family Welfare, Government of India and was posted to flood hit Pathanamthitta District, Kerala from 3 to 14 September 2018; Provided tele-mentoring services (part of NMCN National Medical College Network) at AIIMS during RGI (Registrar General of India) supervisors training held at Agartala Medical College, Agartala and NEIGRIHMS, Shillong (January 2019); Attended ToT (Training of Trainers) on MIYCN service delivery protocols for improving MIYCN services in medical colleges of Uttar Pradesh and Bihar (17 February 2019) and serve as national level trainer for same; Attended 46th Annual National Conference of IAPSM (7-10 March 2019) at Shimla; Attended state level meeting on review of WIFS programme for out of school adolescents and launch of UDAAN scheme in Delhi (22 March 2019) by Directorate of Family Welfare, Government of NCT of Delhi.

Dr Partha Haldar was member of Technical Resource Group (TRG) for Hepatitis Surveillance in India, constituted by the National Center for Disease Control (NCDC), Ministry of Health and Family Welfare, Government of India; Member of Technical Resource Group (TRG) for HIV Self Testing in India, constituted by the National AIDS Control Organization, Ministry of Health and Family Welfare, Government of India.

Dr Ravneet Kaur was faculty for SET (Skill, e-learning and Telemedicine) facility, AIIMS and prepared skill modules on Copper-T insertion; Managing editor of Bulletin on Maternal Infant and Young Child Nutrition of IAPSM-MIYCN National Working Group; Prepared distance learning units for Postgraduate Diploma Programme in Occupational and Environmental Health, and revision of units for Postgraduate Diploma in Maternal and Child Health (PGDMCH) for IGNOU; Association of Occupational and Environmental Health (AOEH); Reviewer of journals (Indian Journal of Public Health, Indian Journal of Youth and Adolescent Health, Journal of Post Graduate Medical Education and Research); Participated as expert in three days brain storming workshop to finalize Supportive Supervision Framework and tools for engaging medical colleges in supportive supervision for MIYCN programmes under POSHAN Abhiyan.

Dr Harshal Ramesh Salve was part of team of Ministry of Health and Family Welfare and AIIMS New Delhi for Post Flood Situation analysis in District Kottayam, Kerala in September 2018; Chaired a “Scientific Session on Non-communicable Diseases” at 63rd Annual conference of IPHA in Kakinada, Andhra Pradesh (3 February 2019); Part of core team and National trainer for MINerVANetwrok for SRS by RGI, AIIMS, New Delhi; National trainer for programme managers training under NPCDCS in India; Nodal faculty member from Department for Institute Day Celebration, 2018 at AIIMS, New Delhi; Member of Disease Prevention and Outbreak Response Cell at AIIMS, New Delhi; Part of SET facility as resource faculty for Skill Based Education Training for MBBS students at AIIMS, New Delhi; Part of core team on data analysis and report writing of National NCD Monitoring Survey 2015-2016.

Dr Rakesh Kumar delivered a lecture on “Essentials of Research Methodology and Study Designs” during the workshop on advance methods in Biostatistics and Hands on Practices on Medical Data Using SPSS software at Institute of Liver and Biliary Sciences, New Delhi; was reviewer of Indian Journal of Public Health, The Journal of Obstetrics and Gynaecology of India, International Journal of Medicine and Public Health; was visitors delegates from Maastricht University, visited CRHSP Ballabgarh on 31 October Mr. Martin Dillon, Chief Executive Officer of Truscreen; Fellows under School of International Biodesign were posted at CRHSP Ballabgarh from 15 February to 9 March 2018; Mr. Guo Jinaxin, Chief Executive Officer and delegates from Sinopharm Group visited CRHSP Ballabgarh on 12 March 2018; Belgium Delegation led by H.E. Mr. Mohamad Ridouani, 8 November 2018.

9.9. Dermatology and Venereology

Professor and Head

Vinod K Sharma

Professors

Neena Khanna
Binod K Khaitan

Kaushal K Verma
Sujay Khandpur
Somesh Gupta

M Ramam
G Sethuraman

Assistant Professors

Kanika Sahni

Neetu Bhari

Vishal Gupta

EDUCATION

The department is training 21 junior residents, 9 senior residents and guiding 4 PhD candidates. A competency-based training of 2 weeks for MD (Medicine) and DM (infectious disease) residents has been started. Dermatology residents are being posted on rotation for 2 weeks in these departments also.

CMEs/Workshops/Symposia/National and International Conferences

The department organized 42nd National Conference of IASSTD and AIDS, 11-13 October 2018, New Delhi.

Long/short term training

Short term training: 4 candidates received training in the department during year 2018-2019.

Lectures delivered

Vinod K Sharma

1. Training in cynergy laser system for skin and aesthetic indications, Vichavey International Hospitala Tisky Skin and Laser Surgery Centre, 7-8 January 2018, Bangkok
2. Platelet rich plasma in Vitiligo and other disorders, Spring Continental Congress of Dermatology, 25-27 April 2018, Tehran
3. Contact dermatitis India, DASS Meeting, 29 June-1 July 2018, New Delhi
4. Moderator, Syndromic Management of STI's—Is it rational in institutional practice, Mid-year conference of Indian Association of Dermatologists, Venereologists and Leprologists, 10-12 August 2018, Tamil Nadu
5. Vitiligo Management, "PGCON (NORTH ZONE)" IADVL Haryana State Branch, 1-2 September 2018, Karnal, Haryana
6. What is new in Contact Dermatitis, CODIFICON and Aestheticasia, 21-22 September 2018, Jaipur
7. Moderator, Panel discussion: Syndromic Management of STI: Current perspectives, ASTICON 2018, 11-12 October 2018, New Delhi
8. Emerging therapies in Vitiligo, 6th CCD and 44th Annual Meeting of Taiwanese Dermatological Association, 16-18 November 2018, Taipei, Taiwan
9. Panel discussion on "Contact Dermatitis in India", Dermacon International 2019, 17-20 January 2019, Bengaluru
10. Approach to a patient with genital ulcer disease, National PG Update 2019, 23-24 February 2019, New Delhi
11. Pigmented cosmetic dermatitis, International Dermatology Symposium, 28-31 March 2019, South Korea

Neena Khanna

1. Cutaneous manifestations of HIV infection—Indian Scenario, HIV Congress 2018, 6-8 April 2018, Mumbai
2. How I manage resistant acne, Cosdermindia 2018, 3-5 August 2018, Mumbai
3. Management of lichen planus pigmentosus, ASPCR - SLCD 2018: 9th Congress of Asian Society for Pigment Cell Research and 26th Annual Academic Sessions, 15-18 August 2018, Colombo, Sri Lanka

4. Are we clinically missing leprosy in era of elimination, ASDV 2018, 30 August-2 September 2018, Durban, South Africa
5. Leprosy: Experience from India, American Society of Tropical Medicine and Hygiene, Annual Meeting, 2018, 28 October-1 November 2018, New Orleans, USA

Kaushal K Verma

1. Radioisotope ³²P incorporated radioactive skin patch, A novel therapeutic agent for treatment of Keloid, Annual Conference of Association of Cutaneous Surgeons of India, ACSICON-2018, 27-29 April 2018, Daman, Gujarat
2. Can patch time be reduced to 24 hrs instead of 48 hrs! 8th CODFICON (Annual conference of Contact and Occupational Dermatoses Forum of India), 20 September 2018, Jaipur, Rajasthan
3. Patch Test: Why, When and How! Conference of IADVL-Punjab, Chandigarh and Himachal Pradesh, 6-7 October 2018, Dharamshala, Himachal Pradesh
4. Syphilis current status and control strategies, 2nd CUTICON J&K 2018 of IADVL, 26-27 October 2018, Jammu, Jammu and Kashmir
5. Newer concepts in patch testing, Dermazone South, IADVL South Zone Conference, 16-18 November 2018, Hyderabad, Telangana
6. Parthenium dermatitis—Pinning and killing the demon, Conference of IADVL, Andhra Pradesh State, 8-9 December 2018, Visakhapatnam
7. Radioactive skin patches: A novel therapy for Keloids, Conference of IADVL, Andhra Pradesh State, 8-9 December 2018, Visakhapatnam
8. Air borne contact dermatitis, International Contact Dermat Research Group Symposium (ICDRG Symposium), 29-31 March 2019, Zagreb, Croatia

M Ramam

1. Peer review, Workshop on “How to peer review”, 6 April 2018, AIIMS, New Delhi
2. Clinico-pathologic correlations in pigmentary disorders, Australasian College of Dermatologists Annual Meeting, 19-22 May 2018, Gold Coast, Australia
3. My case with unusual management, Mid-Year Cuticon 2018, 8 July 2018, New Delhi
4. Epidemic Cydnidae pigmentation: A novel disorder, ASPCR-SLCD Joint Meeting 2018, 17-18 August 2018, Colombo
5. Pathology for dermatologists, Granulomatous inflammation, Slide Discussion, Dermatopathology CME 2018, 15-16 September 2018, Kasturba Medical College, Manipal
6. The power of the placebo effect, Cuticon-2018, 6-7 October 2018, Dharamshala
7. Drug reactions: Myth and reality, CME on Adverse Drug reactions, 6 November 2018, Sheikh Mujib Medical University, Dhaka
8. Some novel observations, 6th Taiwan Dermatopathology Conference and Continental Congress of Dermatology, 16-18 November 2018, Taipei
9. Spontaneous repigmentation in vitiligo, Placebos: How to use them ethically and effectively, Dermacon 2019, 17-20 January 2019, Bengaluru
10. Dermatopathology of pigmentary disorders, 5th African Dermatopathology Conference, 4-5 February 2019, Kigali
11. How to look at a slide, Pattern recognition, Epidermal reaction patterns, Dermatopathology Workshop, 2-3 March 2019, AIIMS, Bhubaneswar
12. A career in dermatology, Drug reactions: Myth and reality, CME, 6 March 2019, ESIC Medical College, Hyderabad

Binod K Khaitan

1. Pigmentary changes in systemic sclerosis: A window to severity, 11th International Congress on Autoimmunity, 16-20 May 2018, Lisbon, Portugal
2. Classification of vitiligo and its implications, IADVL, Delhi State Branch 2018 Global Vitiligo Day, 22 June 2018, New Delhi
3. Panel discussion: Older drugs, newer uses, MID YEAR CUTICON 2018 (IADVL DSB 2018), 8 July 2018, New Delhi

4. Pigmentary changes in systemic sclerosis, A window to severity, ASPCR-SLCD 2018 9th Conference of Asian Society for Pigment Cell Research and 26th Annual Academic Sessions of Sri Lanka College of Dermatologists, 15-18 August 2018, Sri Lanka College of Dermatologists, Sri Lanka
5. Non venereal genital dermatoses in males, 42nd National Conference of IASSTD and AIDS, 12 October 2018, AIIMS, New Delhi
6. Evolution of pemphigus therapy, CUTICON J&K IADVL state branch Jammu and Kashmir, 26-27 October 2018, Jammu and Kashmir
7. Difficult situation in acne, Annual CUTICON 2018 (IADVL DSB 2018), 2 December 2018, New Delhi
8. Participation as delegate, 5th Annual Conference of Dermoscopy and Trichoscopy Workshop, 16-17 February 2019, Mumbai

Sujay Khandpur

1. Role of histopathology in alopecia, Dermatopathology Workshop Cum CME, 17 June 2018, Hyderabad, Telangana
2. Panelist, management of connective tissue diseases, DAAS Summit, 29 June-1 July 2018, New Delhi
3. Debate on academic dermatology versus private practice dermatology, Mid Year Cuticon 2018, 8 July 2018, New Delhi
4. Workshop on skin histopathology, PGCON North Zone 2018, 1-2 September 2018, Ambala, Haryana
5. Utility of histopathology in genital dermatoses, ASTICON 2018, 11-13 October 2018, New Delhi
6. Clinico histopathological pearls in dermatology, 6th Taiwan Dermatopathology Conference and Joint Meeting with 6th Continental Congress of Dermatology, 15-18 November 2018, Taipei, Taiwan
7. Diagnosing immunobullous diseases, CUTICON 2018, 23-24 November 2018, Nagpur, Maharashtra
8. Panellist, Autoimmune vesiculobullous disorders, CUTICON 2018, 23-24 November 2018, Nagpur, Maharashtra
9. Adolescent dermatology, Annual CUTICON 2018, 2 December 2018, New Delhi
10. Essentials of histopathology in leprosy, Annual Conference of the Dermatopathology Society of India, 7-9 December 2018, Navi Mumbai, Maharashtra
11. Histopathology for residents, PGCON 2019, 24 February 2019, RML Hospital, New Delhi
12. Essentials and pre-requisites of medical photography, Asia Pacific Summit on Clinical Photography, 16-18 March 2019, New Delhi

G Sethuraman

1. My journey in epidermolysis bullosa, Pre-EB Symposium, 23 October 2018, Santiago, Chile
2. Keratinizing diseases, Ichthyosis with bullous manifestations, X International Symposium on EB, 24 October 2018, Clinica Alemana de Santiago, Santiago, Chile
3. Leprosy, Annual Chile Dermatology Meeting, 25 October 2018, Santiago, Chile
4. Emerging therapies in Ichthyosis, DERMACON 2019, 19 January 2019, Convention Centre, Bangalore
5. Vitamin D Ichthyosis Bone Health, Recent advances in Food Fortification with Emphasis on Vitamin D Deficiency in Human Health, 15-16 September 2018, Jamia Hamdard, New Delhi

Somesh Gupta

1. Managing vitiligo in 2019, 18th Annual Congress of the Iranian Society of Dermatology, 25-27 July 2018, Tehran, Iran
2. How I manage Keloids, 18th Annual Congress of the Iranian Society of Dermatology, 25-27 July 2018, Tehran, Iran
3. Managing vitiligo, 71st Annual Congress of the Dermatology Society of South Africa in conjunction with the 2nd African Society of Dermatology and Venereology (ASDV), 30 August-2 September 2018, Durban International Convention Centre, Durban, South Africa
4. Keloids and Hypertrophic Scars, 71st Annual Congress of the Dermatology Society of South Africa in conjunction with the 2nd African Society of Dermatology and Venereology (ASDV), 30 August-2 September 2018, Durban, South Africa
5. What's new in conventional cutaneous surgery, Dermatologic Surgery, Aesthetic Dermatology and Laser Congress, 17-19 January 2019, Athens, Greece

6. Management of keloid and hypertrophic scars, Dermatologic Surgery, Aesthetic Dermatology and Laser Congress, 17-19 January 2019, Athens, Greece
7. Non-cultured epidermal cell suspension transplantation in vitiligo, Dermatologic Surgery, Aesthetic Dermatology and Laser Congress, 17-19 January 2019, Athens, Greece
8. Optimizing the outcome of transplantation in vitiligo, Vitiligo International Symposium, 9-11 November 2018, Detroit, USA
9. Modifications of cell suspension transplantation, Vitiligo International Symposium, 9-11 November 2018, Detroit, USA

Neetu Bhari

1. Crisaborole, New kids on the block: Should we start prescribing them, Indian Society of Paediatric Dermatology Annual Conference 2018, 31 August-2 September 2018, Goa
2. Panel discussion, New kids on the block: Should we start prescribing them, Indian Society of Paediatric Dermatology Annual Conference 2018, 31 August-2 September 2018, Goa
3. Syphilis: Asian management guidelines, 42nd National Conference of IASSTD and AIDS, 11 October 2018, AIIMS, New Delhi
4. Moderator, clinical workshop: Side lab procedures in STI, 42nd National Conference of IASSTD and AIDS, 11 October 2018, AIIMS, New Delhi
5. Sub cutaneous fungal infections, Pre-EB Symposium, 23 October 2018, Santiago, Chile
6. Master class: Epidermolysis bullosa, Paediatric Dermatology CME, organized by IADVL-DSB, 14 October 2018, AIIMS, New Delhi
7. Multidisciplinary approach to Allergic March, Indo-US Symposium on Allergy and Asthma, 15-16 December 2018, AIIMS, New Delhi
8. Lab diagnosis in dermatology, National PG update, 23-24 February 2019, Dr RML Hospital and PGIMER, New Delhi

Vishal Gupta

1. Panel discussion, New kids on the block, Indian Society of Paediatric Dermatology Annual Conference 2018, 31 August-2 September 2018, Goa
2. Atopic dermatitis—Preventive measures, Paediatric Dermatology CME, organized by IADVL-DSB, 14 October 2018, New Delhi
3. Basic reaction patterns in dermatopathology, National CME in Dermatopathology, organized by Dermatopathology Society of India, 7-9 December 2018, DY Patil University, Navi Mumbai
4. Relapse and drug resistance in Leprosy, CME on World Leprosy Day, organized by IADVL-DSB, 30 January 2019, New Delhi

Oral papers/posters presented

1. Verma K, Gupta P, Kumar R, Kumar P, Bal CS, Evaluation of effectiveness and safety of Isotope 32 p/188 Re incorporated radioactive skin patches for treatment of Basal Cell Carcinoma, 98th Annual Meeting of British Association of Dermatology, 3-5 July 2018, Edinburgh, UK
2. Verma K, Himabindu S, Sethuraman G, Kalaivani M, Increase in concentration of allergen decreases occlusion and patch test reaction time—A time dose relationship for patch test reactivity! 3-5 July 2018, Edinburgh, UK
3. Gupta S, Apoorva, Chauhan S, Sharma VK, Qualitative and quantitative comparison of two methods of cell-based therapies in Vitiligo report, Vitiligo International Symposium, 9-11 November 2018
4. Bhari N, Effect of Q-switched Nd-YAG laser on the clinical and pigmentary markers in the patients with lichen planus pigmentosus: A pilot study, DERMACON INTERNATIONAL 2019, 19 January 2019, Bangalore
5. Gupta V, Primary immunodeficiency diseases: Apropos of 2 cases, Indian Society of Paediatric Dermatology Annual Conference 2018, 31 August-2 September 2018, Goa
6. Gupta V, Parihar A, Sharma VK, Efficacy of autologous platelet-rich plasma in promoting hair regrowth in extensive alopecia areata: A randomized placebo-controlled, investigator-blinded, split-head pilot study*, Annual Cuticon 2018, 2 December 2018, New Delhi

RESEARCH

Funded projects

Ongoing

1. A phase 3 Multicenter double-blind study to evaluate the long-term safety and efficacy of baricitinib in adult patient with atopic Dermatitis, V K Sharma, Eli Lilly and Company, Rs 14.77 lakhs, 1 year, 2018-2019
2. A randomized, investigator-blind, placebo-controlled, split-head pilot study to evaluate the effects of autologous platelet-rich plasma on hair growth and lesional T-helper and T-regulatory cells expression markers in alopecia areata, V K Sharma, IADVL, Rs 5.22 lakhs, 1 year, 2018-2019
3. Defining the role of genetic, epigenetic and immunological components involved in the pathogenesis of alopecia areata, V K Sharma, ICMR, Rs 5.6 lakhs, 4 years, 2015-2019
4. Measurement of quality-of-life in patients with lichen planus pigmentosus and its comparison with vitiligo and melasma, V K Sharma, IADVL, Rs 60 thousand, 1 year, 2017
5. Comparison of clinical efficacy and safety of PUVAsol and Unani formulation UNIM-004 (oral) and UNIM-005 (LA) and sunlight in treatment of vitiligo, Neena Khanna, CCRUM, Ministry of Ayush, Rs 35.47 lakhs, 3 years, 2015-2018
6. A phase 2, multicenter, randomized, double blind, comparative study to evaluate the reduction in incidence of scarring in acne vulgaris subjects treated with combination of benzoyl peroxide (2.5%/5%), zinc oxide and polysiloxanes compared to benzoyl peroxide (2.5%/5%), Neena Khanna, Dr Reddy's Laboratories, Rs 10.65 lakhs, 18 months, 2017-2019
7. Development of a computer vision algorithm for the diagnosis of skin diseases using digital images, M Ramam, Doris Duke Foundation, Rs 6.95 lakhs, 8 months, 2018-2019
8. Comparison of the efficacy of Rituximab infusion and Dexamethasone cyclophosphamide pulse in moderate to severe pemphigus vulgaris, Sujay Khandpur, ICMR, Rs 29.72 lakhs, 3 years + 9 months, 2015-2018
9. Prospective non-randomized controlled trial to compare the efficacy of subcutaneous etanercept versus oral methotrexate in moderate to severe chronic plaque psoriasis and to correlate response with Th1, Th2, Th17 and Treg cell patterns, Sujay Khandpur, Pfizer Pharmaceutical, Rs 11.61 lakhs, 2 years, 2016-2018
10. A Phase II randomized controlled trial elucidating the gene expression profile using transcriptomic analysis in children with autosomal recessive congenital ichthyosis treated with vitamin D and acitretin, G Sethuraman, DST, Rs 36 lakhs, 3 years, October 2018 to October 2021
11. A double-blind randomized trial of transplantation of cultured melanocytes from outer root sheath of plucked hair follicles vs. cultured melanocytes from epidermis, Somesh Gupta, DBT, Rs 60.27 lakhs, 3 years, 2017-2020
12. Efficacy and safety of non-cultured extracted follicular outer root sheath cell suspension and conventional epidermal cell suspension transplantation in stable vitiligo and correlation with constituent stem cell populations, Somesh Gupta, ICMR, Rs 10.59 lakhs, 1 year, 2017-Present

Departmental projects

Ongoing

1. Comparison of QOL in Pruritus
2. Immunotherapy of warts
3. Patch test in cosmetic dermatitis
4. Study of common SNP in Psoriasis and correlation with behavioral factors
5. Rituximab-long term results in Pemphigus
6. ND Yag laser in Nevus of OTA
7. Pulse Dye Laser in hypertrophic PWS
8. Study of epidemiological factors contributing to treatment failure in patients with dermatophytic infection attending tertiary care hospital in Northern India
9. A cross-sectional study to assess autonomic nervous system imbalance and its correlation with cutaneous manifestations in patients with systemic sclerosis
10. Evaluation of the effectiveness and safety of topical triple combination therapy with fractional CO2 laser and triple combination therapy alone in the treatment of Melasma in a split face randomized control study

11. To study the psychometric properties of Family Vitiligo Impact Scale, a quality-of-life scale for family members of patients with vitiligo
12. A study to evaluate the utility of providing a list of safe drugs to patients with cutaneous drug reactions
13. Dexamethasone–Cyclophosphamide pulse therapy in pemphigus
14. A descriptive study of clinical and histopathological features of acquired blaschko-linear and segmental dermatological diseases other than segmental vitiligo
15. A cross-sectional descriptive study of dermatoscopic features of disorders with hypopigmented and depigmented skin lesions
16. Efficacy of topical Rituximab encapsulated in nanoparticle in patients of oral pemphigus vulgaris - a randomised double blind placebo controlled trial
17. A split tattoo randomized controlled trial comparing the efficacy of single sitting of three passes versus three sitting of single pass of Nd-YAG laser in the treatment of blue/black tattoos
18. Development of artificial intelligence driven mobile phone application for dermatological disease diagnosis to assist non specialists
19. Testing the performance of artificial intelligence driven mobile phone application for the diagnosis of common skin disease
20. Study of vaginal microbiome and metabolome in women with Bacterial Vaginosis (BV) and healthy controls
21. Comparison of non-cultured extracted hair follicle outer root sheath cell suspension with non-cultured epidermal cell suspension in repigmentation of leukotrichia in vitiligo
22. Comparison of levocetirizine up-dosing vs combination of levocetirizine and desloratadine in chronic spontaneous urticaria not responding to standard dose of levocetirizine, A randomized open-label trial
23. A study to assess the clinico-investigative profile of patients with periorbital hyperpigmentation and controls and to assess the utility of dermatological investigations in the classification of periorbital hyperpigmentation

Completed

1. Defining MiRNA signatures in vitiligo and skin pigmentation
2. Elucidating role FoxP3 promoter DNA methylation Level in active non-segmental generalized vitiligo
3. Evaluation of effectiveness of combination of isotretinoin with terbinafine and terbinafine alone in the treatment of recurrent dermatophytosis
4. Patch testing with mercapto mix with a high content of 2-mercaptobenzothiazole
5. Patch testing with a Methlchloroisothiazoline/methylisothiazolinone mix with a higher concentration of methylisothiazoline
6. Development of a scale to measure the psycho-social impact of vitiligo in family members of patients
7. An investigator initiated trial to assess the efficacy and safety of adalimumab biosimilar (Exemptia; ZRC-3197) in patients of psoriatic arthritis with concomitant moderate to severe chronic plaque psoriasis: An open labelled prospective pilot case series
8. Assessment of liver fibrosis by ultrasound elastography in patients of psoriasis and Reiter's disease on long term methotrexate therapy
9. A split face randomized study comparing the efficacy and safety of microneedling and fractional CO2 Laser in acne scars
10. A split face randomized control study comparing the efficacy and safety of intralesional radiofrequency assisted subcision versus Conventional subcision in post acne scars

Collaborative projects

Ongoing

1. Study of herbal hair dyes for detection of PPD and other chemical dyes, Department of Dermatology, AIIMS Rishikesh
2. To evaluate the role of CD4 TCR δ in leprosy patients, Biochemistry
3. Improvement on levothyroxine replacement of clinical, biochemical, hormonal and insulin sensitivity parameters in women with Polycystic Ovary Syndrome (PCOS) presenting with subclinical hypothyroidism, Endocrinology
4. Evaluation of prevalence, regional phenotypic variation, co morbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with Polycystic Ovary Syndrome (PCOS): A multicenter study across India (ICMR-PCOS task force), Multicentric study

5. Development of a population based leprosy Registry (PBLR) and New Case Detection Strategies (NCDS) to eradicate leprosy in urban areas (Funded project), Collaborative project, TLM Shahdara
6. Radioactive skin patches for treatment of basal cell carcinoma and keloids, Nuclear medicine
7. Study of T cells and its scavenger receptor in the pathogenesis of pemphigus vulgaris, Biochemistry
8. Role of gamma-delta T-cells in pemphigus vulgaris, Biochemistry
9. Analysis of the diagnostic and/or predictive potential of metabolomics in bacterial vaginosis, its treatment failure, relapse and susceptibilities to other sexually transmitted infections, NMR&MRI Facility
10. Autologous fat transfer for orbital volume augmentation in sockets with small non-seeing eyes, Department of Ophthalmology
11. A randomized, investigator-blinded, placebo-controlled, split-head pilot study to evaluate the effects of autologous platelet rich plasma on hair growth and lesional T-helper and T-regulatory cells, Physiology
12. Measurement of quality-of-life in patients with lichen planus pigmentosus and its comparison with vitiligo and melasma, Psychiatry

PUBLICATIONS

Journals: 49

Abstracts: 2

Chapters in Books: 14

Books: 1

PATIENT CARE

The department has 29 bedded ward including two isolation rooms. The total number of long admissions from April 2017 to March 2018 were 724 and total short admissions were 2182. The OPD caters to both general dermatology patients (in first half) and special clinics (STD, Leprosy, Dermatotomy, Pigmentation, Allergy, Paediatric Dermatology, Photodermatology) and lasers (Diode, Carbon dioxide, NdYAG laser, Pulse Dye laser) in afternoon. Side lab procedures and dermatotomy procedures are conducted in both morning and afternoon. According to census, 34,729 new cases were attended in Out patient department and total number of old patients were 28,908. One senior resident is visiting Ballabgarh for skin OPD twice a week and the department has started community dermatology OPD services in Jhajjar twice a week.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Vinod K Sharma was awarded Professor KC Kandhari Foundation Award by IADVL, Kochi January 2018, Highest award of IADVL for achievement in teaching, research and association work; Editorial Board, Dermatitis Official Journal of American Contact Dermatitis Society; Editorial Board, International Journal of Dermatology, Official Journal of International Society of Dermatology, USA; Nominated Editor of 3rd Edition of Sexually Transmitted Diseases and AIDS, Official textbook of IASSTD and AIDS; International Observer to Board of Directors, American Academy of Dermatology; Served as External Expert for Final Fellowship Examination for Bangladesh College of Physicians and Surgeons (FCPS) at Dhaka, Bangladesh; Served as Expert for Interview of faculty at PGIMER, Chandigarh and JIPMER, Pondicherry; Chairman Constitution Committee, Indian Association of Dermatologists and Venereologists, DSB; National Chairman of Education Task Force, Indian Association of Dermatologists and Venereologists and Leprologists; Chaired Session, Approach to Management of Chronic Urticaria, 2nd CUTICON J&K-2018, 26-27 October 2018, Jammu; Chaired Session, Alopecia Areata: Challenges and Tips in management, CUTICON 2018, 6-7 October 2018, Kangra, Himachal Pradesh; Chaired Session, Antimicrobial resistance in non-viral STIs-global concerns, ASTICON 2018, 11-13 October 2018, New Delhi; Chaired Session, Cyclosporin in International Congress of Dermato Immunology, 24-26 December 2018, Vizag, Vishakhapatnam; Chaired Session, The Touchy Affair, Contact Dermatitis, International Congress of Dermato Immunology, 24-26 December 2018, Vizag, Vishakhapatnam; External Examiner for Final Fellowship Examination (FCPC Part-II Clinical and Viva Voce), Bangladesh College of Physicians and Surgeons, 17-18 July 2018, Dhaka, Bangladesh; Participated in ISD events at the Annual Meeting European Academy of Dermatology and Venereology Annual Meeting, 12-16 September 2018, Paris, France; Board of Director ISD, Executive Committee Editorial Board-Dermatitis, Annual Conference of American Academy of Dermatology, 1-4 March 2019, Washington DC, USA.

Professor Kaushal K Verma was Regional Chairman, International Union against Sexually Transmitted Infections-Asia Pacific Region (IUSTI-AP); Inaugurated International Union against Sexually Transmitted Infections-Asia Pacific (IUSTI-AP) and New Zealand Sexual Health Society (NSHS) joint conference at Auckland, New Zealand and delivered key note welcome address at the inaugural function; Chaired a plenary session on “Dissecting STI Transmission using Genomics”, “Global and Regional Epidemiology of syphilis” and “The Activity of Enjoyment for Innovation in Sexual Health Programmes and Practice” at the IUSTI-AP and NSHS conference at Auckland, New Zealand; Chaired the Executive Committee meeting of the office bearers and General Assembly of the International Union against Sexually Transmitted Infections-Asia Pacific Region (IUSTI-AP) as its Regional Chairman at Auckland, New Zealand; Invited to deliver lecture and training tips on Lasers at Laser Centre of University of Auckland, New Zealand; Participated in International Contact Dermatitis Research Group (ICDRG) Board Meeting held on 28 March 2019 at Zagreb, Croatia; Contributed to Community

Service Health Care Programme at Laddakh from 24-30 September 2018; Participated as an Expert in live phone-in Show “Health Show” on 19 May 2018 at DD National, Prasar Bharati; Expert to the Standing Selection Committee meeting for selection of Assistant Professors in the Department of Skin and VD at Indira Gandhi Institute of Medical Sciences, Patna, Bihar; Participated as an expert in a show on “Safe and Happy Holi” on “DD Science”, Vigyan Prasar, Department of Science and Technology (DST); Participated as an expert in live phone-in show “Good Evening India” on 20-03-2019 at DD National, Prasar Bharati.

Professor M Ramam was President, Dermatopathology Society of India; Vice-President, Asian Society of Dermatopathology; Editor-Emeritus, Indian Journal of Dermatology, Venereology and Leprology; Ombudsman, Indian Dermatology Online Journal; Editorial Board member, Journal of Cutaneous Pathology; Visiting Professor, University of California, San Francisco.

Professor Binod K Khaitan was Chairperson in one plenary session, ASPCR-SLCD 2018, 9th Conference of Asian Society for Pigment Cell Research and 26th Annual Academic Sessions of Sri Lanka College of Dermatologists, 15-18 August 2018, Sri Lanka.

Professor Sujay Khandpur was awarded “Dr KC Kandhari memorial award” 2018 by IADVL Delhi Branch for overall contribution to field of Dermatology; My paper “Angioma like carcinoma telangiectoides: An unusual presentation of breast carcinoma metastasis” awarded best Letter to Editor in IJDVL 2018; Selected President elect of IADVL Delhi Branch; Selected as Associate Editor of IADVL Textbook of Dermatopathology; Secretary, Dermatopathology Society of India, 2018-19; Member, Special Interest Group of Dermatopathology, IADVL.

Professor G Sethuraman received AIIMS Research Excellence Award 2018 for the following paper:

Yenamantra VK, Moss C, Khan M, Sivasubbu S, Sethuraman G. Development of a clinical diagnostic matrix for characterizing Epidermolysis Bullosa. Br J Dermatol 2017 1624-1632; Member of the advisory board of International Society for Paediatric Dermatology.

Dr Neetu Bhari was Organizing Secretary, 42nd National Conference of IASSTD and AIDS, 11-13 October 2018, AIIMS, New Delhi; Assistant Editor, Indian Journal of Dermatology, Venereology and Leprology; Two-week observership in Epidermolysis bullosa at Santiago, Chile, funded by DEBRA, Chile; Participated as an Expert in live Show “Good Evening India” on 18-03-2019 at DD National, Prasar Bharati; Selected as Assistant Editor of IADVL Textbook of Dermatopathology.

9.10. Emergency Medicine		
Professor and Head		
Praveen Aggarwal		
Professors		
LR Murmu		Sanjeev Kumar Bhoi
Assistant Professors		
Nayer Jamshed		Tej Prakash
Meera Ekka		Akshay Kumar
Prakash Ranjan Mishra (Contract)		Ritin Mohindra (Contract)

HIGHLIGHTS

The department has been in the forefront of providing round-the-clock, holistic and world-standard emergency care to patients with different types of medical, pediatric and non-traumatic surgical, as well as some of the traumatic emergencies. Nearly 1,45,000 patients visited the department in the year 2018-2019. The department has been providing training to its postgraduates in the specialty of Emergency Medicine since July 2012. The departmental faculty is also involved in teaching and training of postgraduates from other departments (including Medicine, Surgery, Geriatric Medicine and several others), undergraduate students, nursing students and paramedics in the field of emergency medicine including life support courses. The department is also involved in training the existing and future faculty from other colleges and hospitals in the specialty of Emergency Medicine.

Under the aegis of the Ministry of Health and Family Welfare, the department is involved in developing guidelines for comprehensive primary health care for burns and trauma as well as for Emergency Department at District Hospitals under the Ministry. In collaboration with South East Asia Region, WHO, the department is also involved in formulating guidelines on road safety, injury prevention, as well as integration of emergency and trauma care in India. Under the AIIMS Quality Improvement Programme, Emergency Medicine Department has started several projects to further improve patient care and outcome. This has also resulted in shorter stay of patients. At international level, the department has been actively collaborating with several universities from the USA with the aim of training doctors, nurses and paramedics. Some of these Universities include University of South Florida and SUNY Downstate New York.

EDUCATION

The faculty organized life support courses for undergraduates, postgraduates and nurses posted in the department. It has conducted AIIMS Emergency ECG and rapid sequence intubation courses for the postgraduates of Institute as well as other colleges. The department runs a schedule of academic activities for the residents of Emergency Medicine (seminars, journal clubs, case discussions) once a week for 6 hours. Education and skills are imparted to residents on the use of ultrasound in emergency care of patients. Simulation-based teaching (both table-top and on high-fidelity simulator) is imparted to the residents. In addition, the department faculty was involved in didactic teaching of undergraduates, postgraduates and nursing students through lectures and seminars.

The department imparted short term training to three undergraduate students from other countries.

CONTINUING MEDICAL EDUCATION

Conferences/seminars/workshops organized

1. Valedictory function of round table meeting promulgation of emergency nursing in SEAR, JPN Apex Trauma Centre, AIIMS, 3 April 2018, New Delhi
2. Preparatory meeting for Promulgation of Emergency Nursing in SEAR, AIIMS, 2-4 April 2018, New Delhi
3. Medwork 2018 Conference, Rohilkhand Medical College and Hospital, 7-8 April 2018, Bareilly, UP
4. Comprehensive Life Support Course, JPN Apex Trauma Centre, AIIMS, 12 April 2018, New Delhi
5. Emergency Medicine Sonography EMSONO Course, JIPMER, 14-15 April 2018, Puducherry
6. Tactical Combat Casualty Care Course, JPN Apex Trauma Centre, AIIMS, 18 April 2018, New Delhi
7. Workshop on "Management of agitated patient in Emergency Department" in National CME on consultation Liaison Psychiatry, AIIMS, April 2018, New Delhi
8. Symposium on Trauma Management and Injury Prevention, JPN Apex Trauma Centre. AIIMS, 20-21 April 2018, New Delhi
9. EM-PULMOCON-2018, IGMC, 28-29 April 2018, Shimla
10. Tactical Combat Casualty Care Course, JPN Apex Trauma Centre, AIIMS, 11 May 2018, New Delhi
11. Tactical Combat Casualty Care Course, JPN Apex Trauma Centre, AIIMS, 9 June 2018, New Delhi
12. Instructor and leadership meeting of nursing of instructors, JPN Apex Trauma Centre, AIIMS, 13 June 2018, New Delhi
13. Tactical Combat, Seminar Room, JPNATC, 16 July 2018, New Delhi
14. Workshop on Triage Protocol, JPN Apex Trauma Centre, AIIMS, 22 June 2018, New Delhi
15. Basic ECG for Nurses, JPN Apex Trauma Centre, AIIMS, 23 June 2018, New Delhi
16. Basic Life Support, JPN Apex Trauma Centre, AIIMS, 9 July 2018, New Delhi
17. EMIndia 2018, Banaras Hindu University, 21-22 July 2018, Varanasi, UP
18. Basic ECG for Nurses, New Emergency, AIIMS, 25 July 2018, New Delhi
19. First Aid in Trauma Course, Seminar Room, JPNATC, 30 July 2018, New Delhi
20. Inaugural Ceremony of THIHMS Medical College, THIHMS, 1 August 2018, Arunachal Pradesh
21. Emergency Medicine (Department Class), ATSSF, JPNATC, 4 August 2018, New Delhi
22. BECC/BLS Training for CRPF, ATSSF, JPNATC, 8-9 August 2018, New Delhi
23. EM Sono, ATSSF, JPNATC, 10-11 August 2018, New Delhi
24. Meeting on regional strategy to integrate emergency and trauma care system into primary health care, Phuket, 23-25 August 2018, Thailand
25. Advance Ultrasound Trauma Life Support, ATSSF, JPNATC, 14-15 September 2018, New Delhi

26. Basic Emergency Care Course, ATSSF, JPNATC, 20 September 2018, New Delhi
27. National Legislative Convention of Organized Academic Medicine Guild of India, AIIMS, 23 September 2018, New Delhi
28. First Aid in Trauma Course, Seminar Room, JPNATC, 27 September 2018, New Delhi
29. Workshop on Emergency Radiology, Seminar Room, JPNATC, 15-17 October 2018, New Delhi
30. Basic Emergency Care Course, ATSSF, JPNATC, 25 October 2018, New Delhi
31. Comprehensive Life Support Course for BRO, ATSSF, JPNATC, 26 October 2018, New Delhi
32. Meeting of programme managers for road safety and injury prevention to support implementation of the PHUKET Commitment, Kathmandu Nepal, 12-14 November 2018, Nepal
33. Provider Course Rajasthan Capacity Building Programme, ATSSF, JPNATC, 16-18 November 2018, New Delhi
34. Basic Emergency care Course for CRPF, ATSSF, JPNATC, 22 November 2018, New Delhi
35. Instructor Course for Rajasthan Doctors, ATSSF, JPNATC, 26 November 2018, New Delhi
36. World academic congress of emergency medicine, 30 October to 4 November 2018, Doha, Qatar
37. Basic Emergency care Course for CRPF, ATSSF, JPNATC, 13 December 2018, New Delhi
38. Workshop on Basic ECG, ATSSF, JPNATC, 19 December 2018, New Delhi
39. Cadaveric Advanced Ultrasound Guided preoperative and Regional Anaesthesia workshop, New Delhi, 11-13 January 2019, New Delhi
40. AUTLS course at MEDINSPIRE 2019 Conference, DY Patil University, 14 February 2019, Mumbai
41. 4th National Emergency Medicine Board Review of India Course (NEMBRIC), National Board of Examinations, 16-20 February 2019, New Delhi
42. Simulus 4, AIIMS, 3 March 2019, New Delhi
43. 1st International Conference and Workshop on Cost Effective Use of Technology in Health Neuroscience, 28-31 March 2019, Goa
44. National Building workshop on Road Safety, Kathmandu Nepal, 21-22 March 2019, Nepal
45. Annual National Conference of Pedi STARS Shaping the Safety Culture, AIIMS, 27 February-3 March 2019, New Delhi
46. Cadaveric Advanced Ultrasound Guided preoperative and Regional Anaesthesia workshop, New Delhi, 11-13 January 2019, New Delhi

Lectures delivered

Praveen Aggarwal

1. Too Fast, Too Slow—Case discussion, EMINDIA 2018, 21-22 July 2018, Institute of Medical Sciences, Banaras Hindu University, Banaras
2. High-risk Emergency Medicine—Missed SAH, Missed ACS, Testicular torsion, vertigo and stroke (Panel discussion), EMINDIA 2018, 21-22 July 2018, Institute of Medical Sciences, Banaras Hindu University, Banaras
3. Basics of ECG, AIIMS Emergency ECG Workshop, 2 August 2017, AIIMS, New Delhi
4. Pharmacodynamic Drug-Drug Interactions (in Polypharmacy Toxicology in Emergency Department Symposium), World Academic Congress of Emergency Medicine, 1-4 November 2018, Doha, Qatar
5. Expert Opinions on Sepsis Care in the Emergency Department (Moderator), World Academic Congress of Emergency Medicine, 1-4 November 2018, Doha, Qatar
6. Acute Toxicology and Pharmacology, 4th National Emergency Medicine Board Review of India Course (NEMBRIC), Organized by Academic College of Emergency Experts in India, 16-20 February 2019, National Board of Examinations, New Delhi
7. Injuries to Bones and Joints, 4th National Emergency Medicine Board Review of India Course (NEMBRIC), Organized by Academic College of Emergency Experts in India, 16-20 February 2019, National Board of Examinations, New Delhi

Nayer Jamshed

1. Cardiotoxic drugs in India, 17th Annual Scientific Congress of Asia Pacific Association of Medical Toxicology, 15-18 November 2018, Bali, Indonesia
2. Toxidromes in poisoning, Medinspire, 14-17 February 2019, DY Patil College, Navi Mumbai

3. Nerve agents, Medinspire, 14-17 February 2019, DY Patil College, Navi Mumbai
4. Vesicants in chemical disaster, Medinspire, 14-17 February 2019, DY Patil College, Navi Mumbai

Meera Ekka

1. ECG changes in electrolyte imbalance and drug toxicity, AIIMS Emergency ECG Course, 7 May 2019, AIIMS, New Delhi
2. Moderator of session: “The Approach to patients with poisoning of unknown aetiology”, 17th Annual Scientific Congress of Asia Pacific Association of Medical Toxicology, 17 November 2018, Bali, Indonesia
3. Cardiotoxic Plants in India, 17th Annual Scientific Congress of Asia Pacific Association of Medical Toxicology, 18 November 2018, Bali, Indonesia
4. ECG changes in electrolyte Imbalance and drug toxicity, AIIMS Emergency ECG Course, 26 November 2018, AIIMS, New Delhi
5. Managing emergencies in secondary level hospital, CME for training of doctors of Coal India Limited, 7 March 2019, AIIMS, New Delhi
6. Surgical airway, Cadaveric skill development workshop for Post Graduates, 23 March 2019, AIIMS, New Delhi

Akshay Kumar

1. Bradyarrhythmia, AIIMS Emergency ECG Course, 7 May 2018, CMET, AIIMS, New Delhi
2. Cardiopulmonary Resuscitation, Critical Care Training for Nurses, 10 May, MS Seminar Room, New Delhi
3. Facilitating Group Work and Project Building, LAQSHYA—National Programme of Government of India to provide Respectable Maternal Care, 17 and 18 August 2018, Board Room, AIIMS, New Delhi
4. Needs assessment in Medical Education, Content Development Workshop, 28 September 2018, SET Facility, AIIMS, New Delhi
5. Primary assessment of Critical Patient, Acute Critical Care Course—Lead Faculty, 8-10 October 2018, Mini Auditorium, SGPPI, Lucknow
6. Approaching a patient of Altered Sensorium, Acute Critical Care Course—Lead Faculty, 8-10 October 2018, Mini Auditorium, SGPPI, Lucknow
7. CPR—AVI Module Developing, Content Development for SET—Medical Education for UG students, October 2018, SET Facility, AIIMS, New Delhi
8. Bradyarrhythmia, AIIMS Emergency ECG Course, 26 November 2018, SET Facility, AIIMS, New Delhi
9. Approaching a patient with Sepsis, Acute Critical Care Course for Interns—Lead Faculty, Organizer and Facilitator, 8-9 December 2018, SET Facility, AIIMS, New Delhi
10. Approaching a patient with Altered Sensorium, Acute Critical Care Course for Interns—Lead Faculty, Organizer and Facilitator, 8-9 December 2018, SET Facility, AIIMS, New Delhi
11. Communication Skills in Critical Setting, Acute Critical Care Course for Interns—Lead Faculty, Organizer and Facilitator, 8-9 December 2018, SET Facility, AIIMS, New Delhi
12. Implementing Change Ideas and Facilitating Workshop, Simulation based learning for improving ‘preterm baby care’ using point of care quality improvement approach, 11 January 2019, SET Facility, AIIMS, New Delhi
13. Implementing Change Ideas, EM Karnataka—Quality Improvement Workshop—Chief Faculty and Facilitator, 18-19 January 2019, St. John’s Medical College, Bangalore
14. Quality improvement for an academic institution, EM Karnataka—Quality Improvement Workshop—Chief Faculty and facilitator, 18-19 January 2019, St. John’s Medical College, Bangalore
15. Implementing Change Ideas, LAQSHYA National Programme of Government of India to provide Respectable Maternal Care, 21 January 2019, Vasant Kunj, New Delhi
16. Needle Tracking using Ultrasound, Skills Day for Emergency Medicine—Faculty, Organized and Facilitated, 23 and 30 March 2019, SET Facility and Trauma Centre, AIIMS, New Delhi
17. Communication Skills in the Emergency Room, Quality and Patient Safety Workshop for Academic Residents of AIIMS—Organized and Facilitated, 13 April 2019, Board Room, AIIMS, New Delhi

Prakash Mishra (On Contract)

1. Wide complex tachycardias, AIIMS Emergency ECG Course, 7 May 2019, AIIMS, New Delhi
2. ACLS and Arrest rhythms, AIIMS Emergency ECG Course, 7 May 2019, AIIMS, New Delhi

3. RUSH protocol: Tank and e-FAST, EM-SONO (Emergency sonography workshop), 10 August 2018, JPNATC, AIIMS, New Delhi
4. Tele ECG, CEUTEH (Cost-effective use of technology in health care), 23 October 2018, JPNATC, AIIMS, New Delhi
5. Wide complex tachycardias, AIIMS Emergency ECG course, 26 November 2018, AIIMS, New Delhi
6. Approach to Electrocardiogram, ACCC (Acute critical care course for Interns), 8 and 9 December 2018, AIIMS, New Delhi
7. Skill station instructor during USG workshop, PULMOCRIT, 28 February and 1 March 2019, AIIMS, New Delhi

Oral papers/posters presented

1. Kappagantu K, Ekka M, Aggarwal P, Bhoi S, Chumbar S. Anaphylaxis as initial presentation of Isolated Pulmonary Hydatid cyst, World Academic Congress of Emergency Medicine (WACEM 2018), 1 November 2018, Hamad Trauma Centre, Doha, Qatar
2. Brunda R, Aggarwal P. Unusual case of palpitations: Left atrial aneurysm (CPC), World Academic Congress of Emergency Medicine (WACEM 2018), November 2018, Hajjar Auditorium, Hamad General Hospital, Doha, Qatar

RESEARCH

Funded Projects

Ongoing

1. A country-level assessment of the current status of emergency and injury care at secondary and tertiary care centres in India, Sanjeev Bhoi, Niti Ayog, 6 months, 2018-2018, Rs 60 lakhs
2. To study the efficacy of Chitosan in achieving haemostasis in patients with acute traumatic wound presenting to emergency department, Sanjeev Bhoi, DRDO, 1 year, 2018-2019, Rs 55 lakhs
3. To study the role of gene expression activation of cellular signaling pathway and its correlation with clinical outcome among trauma hemorrhagic shock, Sanjeev Bhoi, ICMR, 1 year, 2018-2019, Rs 66 lakhs
4. To study the pattern of hematopoietic progenitor cells and G-CSF among trauma hemorrhagic shock, Sanjeev Bhoi, ICMR (RA Fellowship), 1 year, 2018-2019
5. Impact of alcohol on dysregulation of inflammation and recovery of trauma hemorrhagic shock patients, Tej Prakash, AIIMS, 2 years, 2018-2019, Rs 9.5 lakhs

Departmental Projects

Ongoing

1. Evaluation of Biolog-ID solution (A RFID based system) for Red Blood cell traceability and inventory management
2. To study the risk of major adverse cardiac events within 30 days of emergency department presentation in patients with acute onset chest pain categorized as low risk group based on HEART pathway
3. USG guided Ryles tube insertion and confirmation
4. Role of point of care ultrasound in patients with cardiac arrest in Emergency Department
5. To determine the improvement in outcome and management of acute exacerbation of Chronic Obstructive Pulmonary Disease (COPD) in emergency department by implementation of COPD bundle
6. To study the clinical profile and pattern of complications related to chronic kidney disease among patients visiting emergency department
7. To determine the optic nerve sheath diameter by ultrasound in pediatric patients with increased intracranial pressure compared with control group
8. Role of triple rule out dual energy CT in patients presenting with acute chest pain in emergency setting
9. Reducing door to reperfusion time in ST elevation myocardial infarction patient: Quality Improvement study in the department of Emergency Medicine, AIIMS, New Delhi
10. Comparison of three scoring systems (AIMS 65, pre-endoscopic Rockall, Glasgow Blatchford) to predict 1 week outcome in patients presenting to Emergency Department with acute upper gastrointestinal bleeding
11. Water-bath ultrasound technique in the evaluation of distal hand and foot injuries in the Emergency Department
12. Clinical profile of patients with rheumatic heart disease presenting to Emergency Department

13. Outcome of patients receiving cardiopulmonary resuscitation in the Department of Emergency Medicine, AIIMS, New Delhi
14. q-SOFA scores as a predictor of 7 and 30 days mortality in patients with suspected infection presenting to the Emergency Department
15. Biochemical markers for the prediction of outcome in patients of cardiac arrest
16. Comparison of Full Outline of Unresponsiveness (FOUR) score with Glasgow Coma Scale (GCS) for assessment of patient with altered sensorium in Emergency Department
17. Ensuring blood cultures and reducing the timing of first dose of antibiotic administration in sepsis patients: Quality improvement study in Department of Emergency Medicine, AIIMS, New Delhi
18. To study the diagnostic characteristics of point of care ultrasound in blunt trauma chest patients
19. Evaluation of diagnostic characteristics of point-of-care ultrasound in identification of maxillofacial fractures as compared to CT scan
20. Prospective observational study of transfusion practices in severely injured trauma patients in Emergency Department at level 1 Trauma Center
21. Efficacy of emergency medicine residents to correctly detect the etiology of acute dyspnea using BLUE protocol
22. Clinical profile of patients requiring emergency airway management in Department of Emergency Medicine
23. Assessing the serum chymase level as an early predictor of dengue severity
24. Evaluation of diagnostic characteristics of neutrophil-lymphocyte ratio in comparison to commonly used scores (APACHE II, CTSI and BISAP) in acute pancreatitis
25. Biochemical markers for prediction of outcome in patients of cardiac arrest
26. Evaluation and appraisal of triage protocol of AIIMS in terms of mortality
27. Feasibility of USG guided objective initial assessment of pupillary size and pupillary reflex vs clinical examination in patients with altered mental status

Completed

1. Perception of workplace violence in the Emergency Department
2. Accuracy of urinary Multistix 10 SG leukocyte esterase reagent strip test in making the diagnosis of spontaneous bacterial peritonitis
3. Utility of urinary toxicology screen in patients with undifferentiated altered level of consciousness presenting to the Emergency Department
4. Profile of acute poisoning cases in ED

PUBLICATIONS

Journals: 7

PATIENT CARE

1. Number of patients attended Emergency services

Total new patients	Total revisit patients	Total patients
1,03,455	46,083	1,49,538

2. Point of Care Testing Laboratory (POCT) data

Test type	Total test done	Grand total
Complete blood count	1,01,903	2,07,376
Quantitative Troponin I	10,031	
Blood gas analysis	91,754	
BNP and NT proBNP	1,263	
D Dimer	774	
Urine Tox screen	651	
PT/INR	800	
Procalcitonin	200	

3. Procedures done in Emergency OT

Name of procedure	Total number
Tracheostomy	233

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Our postgraduate student, Dr Brunda won the first prize in the Clinico-Pathological Case (CPC) presentation in the CPC competition held at Hajjar Auditorium, Hamad General Hospital, Doha, Qatar during the World Academic Congress of Emergency Medicine (WACEM) 2018.

Professor Praveen Aggarwal became the Chief Editor of the Journal of Emergencies, Trauma and Shock, an international journal indexed in PubMed. He also continues to be a member of Signal Review Panel of the Central Drugs Standard Control Organization and the Indian Pharmacopoeia Commission for the Pharmacovigilance Programme of India, Member of Scientific Body, Indian Pharmacopoeia Commission, Ministry of Health and Family Welfare, Government of India. He has been selected as the Vice-President of the Academic College of Emergency Experts in India and Joint Secretary of Organized Medicine Academic Guild of India which is a Guild of major medical associations and societies in India with the aim to formulate national policies in term of patient care, education and research.

Professor Sanjeev Kumar Bhoi has been designated as the Head of WHO collaborating Centre in Emergency and Trauma for the South East Asian region which has been designated at the JPNATC. Co-ordinated several indigenously designed courses in emergency medicine and is the Course Director of these courses and teaches various topics during these courses.

Dr Jamshed Nayer was involved in improvement of Triage and Screening area of the department. He is actively involved in training residents using high-fidelity simulator. He is in-charge of post-graduate teaching schedule which includes weekly seminars, journal club, Tintinalli's textbook-based topical discussion, evidence-based medicine and clinical case discussions. Actively involved in prevention of violence in the Emergency Department by continuous interaction with patients and their relatives. He participated in developing guidelines for Emergency Ambulance Services for Ministry of Health. He is nodal officer of the department for the curriculum revision for MBBS Course at AIIMS, New Delhi. He is a teaching faculty for the SET Lab AIIMS.

Dr Tej Prakash has coordinated several indigenously designed courses in Emergency Medicine and is the Course Director of a number of these courses. He teaches various topics during these courses. He is actively involved in training post graduates in Trauma Care, sonography in emergencies as well as skill development using cadavers.

Dr Meera Ekka is reviewer of several Journals and is on editorial board of Annals of Clinical Case Studies. She received training on "Basic course in medical education" at CMET, AIIMS, New Delhi. She developed new skill module for skill learning on "Needle Decompression in pneumothorax" for MBBS student in skill lab, SET facility, and is the Incharge of teaching and assessment of MBBS students. She is the Faculty Incharge, store for the Department of Emergency Medicine. She is involved in initiation of Triage and Screening OPD in the department.

Dr Akshay Kumar led several quality improvement projects in the department after testing several change ideas to streamline timely and efficient patient care in the Emergency Department. He organized several high and low fidelity simulation and hands-on skill training programmes for the academic and non-academic residents of the department. He organized several First Responder Courses for paramedical staff, trolley boys and security guards in the department. He actively participated in the Faculty Development Workshops on Medical Education at AIIMS, New Delhi.

Dr Prakash Ranjan Mishra continued to hold AIIMS Emergency ECG Course for the post-graduates for training in interpreting ECGs in emergency settings. He was also involved in quality improvement projects.

Dr Ritin Mohindra was involved with planning and implementation of quality improvement programmes. He was actively involved in coordinating with other hospitals for smooth care after transfer from Department of Emergency Medicine.

9.11. Endocrinology and Metabolism

Professor and Head

Nikhil Tandon

Professors

Nandita Gupta
Rajesh Khadgawat

Ravinder Goswami
Viveka P Jyotsna

Assistant Professors

Yashdeep Gupta

Alpesh Goyal
(from 2 January 2019)

HIGHLIGHTS

The department is engaged in many academic activities such as Endocrine-Pathology Conference every alternate week, Endocrinology-Surgery-Nuclear Medicine (Wednesday) and Endocrinology-Radio Diagnosis (Friday) meet every week. There are Seminars (Wednesday), Journal Club (Friday) and Clinical Class (Thursday) every week. During these academic events the topics of clinical importance and recent high impact articles are discussed. The department runs daily outpatient facilities, has state of the art laboratory services for hormone assays, metabolic studies and bone density measurement.

EDUCATION

Undergraduate, Postgraduate, Paramedical Training

The department was actively involved in teaching undergraduate medical and nursing students. Postgraduate students (MD) from Internal Medicine and Geriatric Medicine come for one and two month postings to the department. In addition, postgraduate fellows enrolled in MCh Breast and Endocrine Surgery, DM Nuclear Medicine and MSc Reproductive Biology also rotated for a period of 2-4 weeks in the department.

Long and Short Term Training

- Two candidates joined the DM course (One General, One Sponsored)
- Three candidates permitted for short term training

Lectures delivered

Nikhil Tandon

1. Clinical management—Prevention, Indian Society for Bone and Mineral Research (ISBMR) Osteoporosis Essential Course, 5-6 May 2018, Mumbai
2. Clinical management—Treatment II, Indian Society for Bone and Mineral Research (ISBMR) Osteoporosis Essential Course, 5-6 May 2018, Mumbai
3. Osteoporosis and Metabolic Bone Disease: Cases for Discussion, Indian Society for Bone and Mineral Research (ISBMR) Osteoporosis Essential Course, 5-6 May 2018, Mumbai
4. Diabetes, International Society for Cardiovascular Disease Epidemiology and Prevention: Ten-Day International Teaching Seminar, 17-29 June 2018, Goa
5. Physical Activity, International Society for Cardiovascular Disease Epidemiology and Prevention: Ten-Day International Teaching Seminar, 17-29 June 2018, Goa
6. Technology and Task Shifting—Improving Quality of Diabetes Care, International Society for Cardiovascular Disease Epidemiology and Prevention: Ten-Day International Teaching Seminar, 17-29 June 2018, Goa
7. Straddling both worlds: Clinician and Investigator, International Society for Cardiovascular Disease Epidemiology and Prevention: Ten-Day International Teaching Seminar, 17-29 June 2018, Goa
8. Oration: Diabetes and Heart, Armed Forces Medical College (AFMC), Pune, 9 August 2018, AFMC, Pune
9. Hypophosphatemic osteomalacia, Armed Forces Medical College (AFMC), Pune, 9 August 2018, AFMC, Pune
10. Overview and Status Update of the I-TREC project, 2nd Bi-Annual NHLBI T4 Translation Research with Lower-Middle Income Countries (Hy-TREC) Consortium Workshop, 9-12 September 2018, Dhulikhel, Nepal
11. Diabetic Retinopathy, Indian Institute of Public Health (IIPH), 16 September 2018, Hyderabad

12. Addressing Non-Communicable Diseases through Medical Education and Health Services, Medical Education Work: Christian Medical College, 8 October 2018, Webinar, Vellore
13. Young Diabetes Registry, 44th International Society for Paediatric and Adolescent Diabetes (ISPAD) Conference, 12 October 2018, Hyderabad
14. State of diabetes care in India: Tools for right impetus, IMPACT India: The 1,000 day challenge, 13 November 2018, New Delhi
15. Breaking the boundaries between basic and clinical research, Wellcome DBT India Alliance 10 year Celebrations, 13 November 2018, India Habitat Centre, New Delhi
16. Predictors of osteoporotic fractures: Strengths and Weaknesses, 48th Annual Congress of Endocrine Society of India (ESICON – 2018), 16 November 2018, Bhubaneswar
17. Cause for Concern: Growing Lifestyle Diseases, FSSAI Eat Right Mela, 15 December 2018, Indira Gandhi National Centre for Art, New Delhi
18. Technology-enabled interventions to improve healthcare delivery: Evidence from randomized trials, Wellcare Dissemination Meeting, 4 January 2019, Chandigarh
19. Diabetes, Obesity and other Metabolic Conditions: The Key Achievements at the National Level and the Future Road Map, 106th Indian Science Congress, 5 January 2019, Lovely Professional University, Phagwara
20. Primary Hyperparathyroidism: A Primer for Physicians, 2nd Annual Conference of Society for Promotion of Education in Endocrinology and Diabetes (SPEEDCON 2019), 2 February 2019, Gurugram
21. Digital Health for the Life Course: Beyond Maternal and Child Health, International Digital Health Symposium, 27 February 2019, New Delhi
22. Epidemiology of NCD's, Conference on Promoting Food and Nutrition for Health and Wellbeing, 15 March 2019, NAMS Auditorium, New Delhi
23. State of diabetes care in India, SAARC Diabetes Conference, 16 March 2019, New Delhi
24. MEN Syndrome: An update, Mid-Term ESICON, 24 March 2019, UCMS, New Delhi
25. Diabetes: What next? Joint INSA-NAMS Workshop, Unmet Needs of Health Care in India, 30 March 2019, NAMS, Auditorium, New Delhi

Ravinder Goswami

1. Hypoparathyroidism in India, "RSSDI, West Bengal Chapter and Endocrine Society of Bengal, 13 May 2018, Kolkata
2. Hypoparathyroidism: Recent Advances in India, Annual Conference of the Endocrine Society of India ESICON 2018, 17-18 November 2018, MAYFAIR Convention, Bhubaneswar

Rajesh Khadgawat

1. Hypercalcemia: 51 years old male bone pain and drowsiness, Annual Conference of Integrated Diabetes and Endocrine Academy (IDEACON), 6-7 July 2018, Kolkata
2. Management of precocious puberty, 2nd Annual Diabetes, Thyroid and Endocrine Conference, 14-16 August 2018, Jaipur
3. India is the world capital for Diabetes! How to translate this knowledge to our practice? Annual Conference of Physician of Mauritius 10th ACTVOI Conference, 25-28 October 2018, Convention Centre, Port Luis, Mauritius
4. How will diabetes management look like in 10 years? Annual Conference of Physician of Mauritius 10th ACTVOI Conference, 25-28 October 2018, Convention Centre, Port Luis, Mauritius
5. Long term management of CAH, Annual Meeting of Endocrine Society of India (ESICON 2018), 15-17 November 2018, Bhubaneswar
6. Metformin—rediscovered, Annual meeting of Rajasthan Chapter of RSSDI (Research Society for Study of Diabetes in India), 12-13 January 2019, Jaipur
7. Recent advances in management of nutritional rickets, Annual meeting of African Society of Paediatric Endocrinology, 13-15 March 2019, Convention Centre, Lagos, Nigeria
8. Management of Paediatric osteoporosis, Annual meeting of African Society of Paediatric Endocrinology, 13-15 March 2019, Convention Centre, Lagos, Nigeria

Yashdeep Gupta

1. GDM: Diagnostic dilemmas to consensus, Endocrine Society of India Conference 2018, 18 November 2018, MAYFAIR Convention, Bhubaneswar

Alpesh Goyal

1. Erectile dysfunction in diabetes: Pathophysiology and treatment options, Rajasthan RSSDI 2019, 13 January 2019, Jaipur
2. A blood pressure target of 140/90 mm Hg is safer than 120/80 mm Hg in hypertensive patients with DM, SPEEDCON 2019, 2 February 2019, Gurugram
3. Management of type 2 diabetes mellitus—An overview, CME organized by Department of Hospital Management and Administration, AIIMS, New Delhi for physicians of Coal India Ltd, behest of Indian Institute of Coal Management, Ranchi, 18 February 2019, AIIMS, New Delhi
4. Congenital adrenal hyperplasia-long-term issues, AESCON 2019, 16 March 2019, Kaziranga
5. Teriparatide should not be used as first line therapy in management of postmenopausal osteoporosis, AESCON 2019, 16 March 2019, Kaziranga
6. Management of incidentally detected foregut neuroendocrine tumor, ENDOSURG 2019, 29 March 2019, AIIMS, New Delhi

RESEARCH

Funded projects

Ongoing

1. Registry of people with diabetes in India with young age at the onset phase II, Nikhil Tandon, ICMR, 7 years, 2012-2019, Rs 246.99 lakhs
2. Changing diabetes in children, Nikhil Tandon, Novo Nordisk India Pvt Ltd, 8 years, 2012-2020, Rs 21 lakhs
3. Integrated care for co-morbid diabetes and depression, Nikhil Tandon, National Institute of Mental Health, NIH, USA, 5 years, 2014-2019, Rs 88.22 lakhs
4. Development of Phase II Clinical Trial for an Investigational New Drug, Nikhil Tandon, Torrent Pharma, 5 years, 2014-2019, Rs 72.53 lakhs
5. CARRS Translation Trial: Implementing Quality Improvement Strategies in Diabetes, Nikhil Tandon, ICMR-Emory University, 5 years, 2014-2019, \$17.55 lakhs
6. A lifestyle intervention programme for the prevention of type 2 diabetes mellitus among South Asian women with gestational diabetes mellitus, ICMR, New Delhi, Nikhil Tandon, ICMR, 5 years, 2015-2020, Rs 72.77 lakhs
7. Harmonization of existing registries of diabetes in youth: A US-India Collaborative Research Partnership, Dr Nikhil Tandon, ICMR, 3 years, 2016-2019, Rs 84.13 lakhs
8. NN1218 - 4131, Efficacy and Safety of Faster—Acting Insulin Aspart compared to NovoRapid both in combination with Insulin Degludec in Adults with Type 1 Diabetes, Nikhil Tandon, Nova Nordisk India Pvt Ltd, 4 years, 2016-2020, Rs 9.02 lakhs
9. Prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) and its association with cardio-metabolic disease risk factors in North India, Nikhil Tandon, ICMR, 3 years, 2017-2020, Rs 172.53 lakhs
10. Pioneer 6-Cardiovascular outcomes—A trial investigating the cardiovascular safety of Oral Semaglutide in subjects with type 2 diabetes, Nikhil Tandon, Nova Nordisk India Pvt Ltd, 3 years, 2017-2020, Rs 21.57 lakhs
11. Integrated Tracking Referral, and Algorithmic Management (I-TREC) System for Hypertension and Diabetes Institution, Nikhil Tandon, NIH, USA, 5 years, 2017-2022, \$6.49 lakhs
12. To develop a strategy for postpartum follow up of woman with history of gestational diabetes mellitus by using the right test and frequency of testing and developing patient centric approach after incorporating their views, Nikhil Tandon, LUPIN, 3 years, 2018-2021, Rs 40.41 lakhs
13. Effect of intervention for lifestyle modification on improvement in sleep quality, depression score and optimal breastfeeding duration in women with history of GDM: Sub study of LIVING, Nikhil Tandon, USV, 3 years, 2018-2021, Rs 53.42 lakhs
14. Centre for Advanced Research and Excellence (CARE) in Young Diabetes, Nikhil Tandon, ICMR, 5 years, 2019-2024, Rs 104.95 lakhs
15. Functional significance of calcium sensing receptor autoantibodies in patients with idiopathic hypoparathyroidism, Ravinder Goswami, DBT, 3 years, 2016-2019, Rs 44 lakhs
16. Vitamin D deficiency and bone microarchitecture in asymptomatic healthy Indians: Exploring the functional significance of low serum 25(OH)D and high PTH, Ravinder Goswami, DBT, 4 years, 2019-2023, Rs 76 lakhs
17. Functional significance of calcium sensing receptor autoantibodies in patients with idiopathic hypoparathyroidism, Ravinder Goswami, DBT, 3 years, 2016-2019, Rs 44 lakhs

18. A Randomized Placebo Controlled Prospective Phase II Clinical Study of an Ayurvedic Coded Drug 'AYUSH-D' on Glycemic control in Pre-Diabetic Subjects, Rajesh Khadgawat, Central Council for Research in Ayurvedic Sciences Ministry of AYUSH, Government of India, 3 years, 2017-2020, Rs 35 lakhs
19. A Randomized Placebo Controlled Phase 2 Clinical Study of an Ayurvedic Coded Drug 'AYUSH D' in the Management of Type 2 Diabetes Mellitus as add on Therapy to Metformin, Rajesh Khadgawat, Central Council for Research in Ayurvedic Sciences Ministry of AYUSH, Government of India, 3 years, 2017-2020, Rs 35 lakhs
20. Efficacy and safety of Liraglutide in combination with metformin versus metformin monotherapy on glycemic control in children and adolescents with type 2 diabetes: A 26 weeks double blind randomized, parallel group, placebo controlled multi-centre trial followed by a 26-week open label extension, Rajesh Khadgawat, Novo Nordisk, 5 years, 2014-2019, Rs 30 lakhs
21. A randomised, multinational, active-controlled, (open-labelled), dose finding, (double-blinded), parallel group trial investigating efficacy and safety of once-weekly NNC0195-0092 treatment compared to daily growth hormone treatment in growth hormone treatment naïve pre-pubertal children with growth hormone deficiency, Rajesh Khadgawat, Novo Nordisk, 3 years, 2017-2020, Rs 30 lakhs
22. Development of A Standardized Formulation of Trigonella foenum-graecum Seeds for Preventing or Delaying the Development of Type-2 Diabetes in Subjects with Pre-Diabetes, Rajesh Khadgawat, ICMR, 4 years, 2017-2021, Rs 35 lakhs
23. Effect and safety of semaglutide and 2.4 mg once-weekly in subject with overweight or obesity and type 2 diabetes, Rajesh Khadgawat, Novo Nordisk, 5 years, 2017-2021, Rs 30 lakhs
24. A phase 3, open-label, randomized, multicenter, 12 months, efficacy and safety study of weekly MOD-4023 compared to daily Genotropin-therapy in pre-pubertal children with growth hormone deficiency, Rajesh Khadgawat, Opko Biologicals, 3 years, 2017-2020, Rs 25 lakhs
25. A Phase IIb, Open-label, Randomized, Comparative Study to Evaluate the Safety and Efficacy of USVCAP Formulation in Type 2 Diabetes Mellitus Subjects Uncontrolled with Metformin Hydrochloride Treatment, Rajesh Khadgawat, USV Ltd, 2 years, 2019-2021, Rs 10 lakhs
26. A trial comparing the effect and safety of once weekly dosing of somapacitan with daily Norditropin® in children with growth hormone deficiency, Rajesh Khadgawat, Novo Nordisk, 5 years, 2018-2023, Rs 20 lakhs
27. A randomized, double-blind, placebo-controlled, parallel-group, multicenter study to evaluate the effect of epeglenatide on cardiovascular outcomes in Type 2 diabetes patients at High Cardiovascular Risk, Rajesh Khadgawat, Sanofi Aventis, 5 years, 2018-2023, Rs 25 lakhs
28. A randomized, 24-week, controlled, open label, parallel arm, multicenter study comparing the efficacy and safety of the insulin glargine/lixisenatide fixed ratio combination to insulin glargine in type 2 diabetes patients, inadequately controlled on Basal Insulin with or without Metformin, Rajesh Khadgawat, Sanofi Aventis, 3 years, 2017-2020, Rs 5 lakhs
29. A Phase II trial to assess the efficacy and safety of Pasireotide alone or in combination with cabergoline in patients with Cushing's Disease, Viveka P Jyotsna, Novartis, 6 years, 2015-2021, Rs 10 lakhs
30. A Phase III, multi-center, double-blind, randomized withdrawal study of LCI699 following a 24 week, single-arm, open-label dose titration and treatment period to evaluate the safety and efficacy of LCI699 for the treatment of patients with Cushing's Disease, Viveka P Jyotsna, Novartis, 5 years, 2016-2021, Rs 29.53 lakhs
31. A multicentre open label parallel arm RCT evaluating whether yoga can prevent worsening of glycaemic control in patients with type 2 diabetes mellitus on oral anti-hyperglycemic drugs, Yashdeep Gupta, ICMR, 3 years, 2017-2020, Rs 75 lakhs
32. Effect of Yoga on psychological, cognitive and glycemic control in patients with T2DM and depression: Two arm parallel randomized controlled trial, Yashdeep Gupta, DST, 3 years, 2017-2020, Rs 36.54 lakhs
33. Assessment of Cognitive, Neuroanatomical and Neurofunctional abnormalities in adults with Type 1 Diabetes, Yashdeep Gupta, DST, 3 years, 2017-2020, Rs 34.81 lakhs
34. Effect and safety of semaglutide 2.4 mg once-weekly in subjects with overweight or obesity, Yashdeep Gupta, Novo Nordisk Pvt Ltd, 2 years, 2018-2020, Rs 23 lakhs
35. The impact of Yoga on stress, metabolic parameters and cognition (Attention and Concentration) of Indian adolescents, Yashdeep Gupta, ICMR, 3 years, 2017-2020, Rs 64.64 lakhs
36. Validation of indigenously developed glucose sensing devices, Yashdeep Gupta, ICMR, 1 year, 2018-2019, Rs 2.40 lakhs

Completed

1. National alliance programme for biodesign and in-vitro diagnostics between translational health science and technology institute and All India Institute of Medical Science, Nikhil Tandon, DBT, 8 years, 2010-2018, Rs 49.45 lakhs
2. A trial comparing cardiovascular safety of insulin degludec versus glargine in subjects with Type 2 Diabetes at high risk of cardiovascular events, Nikhil Tandon, Nova Nordisk India Pvt Ltd, 4 years, 2014-2018, Rs 7.69 lakhs
3. Prevention of blindness due to Diabetes Retinopathy (DR) among patients with Type 1 Diabetes in India, Nikhil Tandon, PHFI, 2 years, 2016-2018, Rs 52.16 lakhs
4. Efficacy and Safety of Oral Semaglutide versus Placebo in Subjects in Type 2 Diabetes Mellitus treated with insulin, Yashdeep Gupta, Novo Nordisk Pvt Ltd, 1 year, 2017-2018, Rs 25 lakhs
5. 38 week trial comparing effect and safety of insulin degludec/insulin aspart vs. insulin glargine plus insulin aspart in subjects with type 2 diabetes treated with basal insulin with or without oral antidiabetic treatment in need of treatment intensification, Yashdeep Gupta, Novo Nordisk Pvt Ltd, 1 year, 2017-2018, Rs 14.72 lakhs
6. Efficacy and Semaglutide versus dulaglutide as add on to metformin in subjects with Type 2 diabetes, Yashdeep Gupta, Novo Nordisk Pvt Ltd, 2 years, 2016-2018, Rs 16.02 lakhs
7. To evaluate the distribution of glucose tolerance and risk factors predisposing to abnormal glucose tolerance in spouse of high-risk pregnant women (gestational diabetes mellitus/overweight/obese/pre-existing diabetes): A case-control study, Yashdeep Gupta, AIIMS, 2 years, 2016-2018, Rs 4 lakhs

Departmental Projects

Ongoing

1. Assessing Indian vegetarian diets with respect to their “potential protective impact” on cardio-metabolic health of urban adults in Delhi
2. Characterization of Neuroendocrine Tumors with Ga68-DOTANOC PET/CT and F18- FDG PET/CT and compare results with Histopathology
3. Determinants of bone mass in Asian Indian newborns—Nutritional perspective
4. Evaluation of eating disorders and dietary patterns and their association with metabolic parameters and glycemic control in adult patients with diabetes mellitus type 2
5. Molecular aspects in the pathogenesis of Basal ganglia calcification in Hypoparathyroidism
6. Pre and post-operative dysglycemia in cases of Pheochromocytoma/Paraganglioma—A tertiary care centre study in Northern India
7. Reversibility of Bony microarchitecture abnormalities in Hyperparathyroidism
8. To evaluate the prevalence of Non-Alcoholic Fatty Liver (NAFLD) in patients with and without previous history of gestational diabetes mellitus: A cross-sectional study
9. To study the effect of parental origin of X chromosome on clinical features and biochemical profile in patients with Turner syndrome
10. To study the effect of personality on diet quality and academic performance among adolescents: A comparison between boys and girls
11. Vitamin D status and its functional significance

Completed

1. A randomized double-blind controlled trial to investigate the effects of Vitamin D supplementation on insulin resistance and beta cell function in obese Asian-Indian subjects, aged 11-17 years
2. A study on distribution of glucose tolerance among women with history of gestational diabetes mellitus by IADPSG criteria/overt diabetes in pregnancy and their spouses
3. Assessment of arterial stiffness in obese children and adolescents in the age group of 6-18 years
4. Correlation between first trimester glucose screening and serum insulin levels with development of gestational diabetes mellitus in pregnancy
5. Effect of Vitamin D supplementation on pancreatic β cell functions in obese Indian subjects: A randomized controlled trial
6. Phenotype and radiological correlation in children with growth hormone deficiency

7. Prevalence of thyroid peroxidase antibody positivity in pregnant Asian-Indian subjects
8. Study of mitochondrial defects and VDR polymorphisms in Type 2 Diabetes
9. To assess the prevalence of Vitamin D deficiency in patients with non-traumatic fracture of hip
10. To compare the efficacy of 90,000 and 1,80,000 IU oral single dose Vitamin D for treatment of rickets in 6 months to 5 years of age
11. To compare the glycemic profiles of normoglycemic normal weight pregnant women with obese normoglycemic women with GDM during second trimester using CGMS [chief guide]
12. To Study Carotid Intima Media Thickness (CIMT) as a marker of atherosclerosis and its correlation to insulin resistance in children with obesity in the age group of 4-18 years
13. To study determinants of insulin resistance in children and adolescents with obesity
14. To study pituitary morphometry across different age groups
15. To study the clinical, biochemical and radiological features of primary hyperparathyroidism: Impact of Vitamin D Nutrition and Histopathology
16. To study the correlation of serum Vitamin D level with insulin resistance and beta cell function in subjects with obesity in the age group of 6-18 years
17. To study the determinants of insulin resistance in Asian Indian children with obesity aged 11-17 years
18. To study the impact of adiposity on serum androgen parameters in apparently healthy male subjects
19. To study the mutations in SRY, SOX9, SF1, DAX1, DHH, DMRT1 and WT1 genes in patients with 46, XY gonadal dysgenesis
20. To study the prevalence of Vitamin D deficiency in pregnant women at first and third trimester during the routine care
21. To study the variability in content strength of commercially available cholecalciferol preparations in India
22. TREC and KREC as marker of Thymic and bone-marrow T and B cell emigrant in idiopathic hypoparathyroidism
23. Vitamin D status of outdoor workers

Collaborative projects

Ongoing

1. A randomized control trial to compare the safety and outcome of trans-oral vestibular and axillo breast approach for endoscopic hemithyroidectomy in patients with benign thyroid swellings, Surgery
2. Assessment of nutritional status/parameters in acute leukemia patients undergoing induction chemotherapy, Hematology
3. In vivo assessment of somatostatin receptor expression with Ga DOTANOC PET/CT in patients with autoimmune and immune related orbitopathy, Nuclear Medicine
4. Pathogenesis of primary parathyroid adenoma, Pathology, Forensic Medicine, Anatomy
5. To study relation between components of Renin angiotensin aldosterone system and vascular functions following Angiotensin converting enzyme inhibition in type 2 diabetes patients with newly diagnosed hypertension, Physiology

Completed

1. A study to assess the knowledge and risk of chronic kidney disease among hypertension and/or diabetes patients with a view to develop educational booklet at AIIMS, New Delhi, Nursing
2. Association of Cardio-Metabolic Risk Factors with Non-Alcoholic Fatty Liver Disease: A population-based case control study, Department of Home Sciences, University of Delhi
3. Development and validation of questionnaire to assess knowledge, attitude and practice (KAP questionnaire) towards obesity among obese patients, Medicine
4. Molecular basis of basal ganglia calcification in Hypoparathyroidism, Anatomy and Forensic Medicine
5. Outcome implications of ADA/ACC guidelines-based insulin protocol in the management of hyperglycemia in hospitalized patients at AIIMS, Medicine

PUBLICATIONS

Journals: 80

Chapters in Books: 2

PATIENT CARE

OPD attendance from 1 April 2018 to 31 March 2019

Month	Old Patient	New Patient	DOY Clinic	Total
April, 2018	2,274	1,138	125	3,537
May, 2018	3,445	1079	160	4,684
June, 2018	3,034	997	142	4,173
July, 2018	3,478	1,003	152	4,633
August, 2018	3,349	1,078	158	4,585
September, 2018	3,220	968	165	4,353
October, 2018	3,775	1,043	148	4,966
November, 2018	3,232	917	123	4,272
December, 2018	3,388	919	621	4,928
January, 2019	3,181	1,058	117	4,356
February, 2019	3,272	1,009	172	4,453
March, 2019	3,369	942	189	4,500
Total	39,017	12,151	2,272	53,440

Inpatient and other patient related details may please be seen in Chapter 6. Hospital (Medical Record Division)

Laboratory Services

Hormones investigations

No	Hormone	Tube assays done	No	Hormone	Tube assays done
1	T4	14,926	13	Vitamin D	7,172
2	TSH	20,703	14	Insulin	2,718
3	TPO	2,011	15	C Peptide	999
4	LH	2,805	16	GH	1,496
5	FSH	2,810	17	GAD	2
6	PRL	3,359	18	F T4	5,864
7	Cortisol	5,954	19	T3	2,887
8	Testosterone	2,716	20	F T3	1,374
9	DHEA	1,032	21	IGF 1	1,851
10	17 OHP	4	22	E2	917
11	ACTH	1,730	23	Aldosterone	543
12	PTH	4,304	24	Renin	402
			25	FGF 23	26
Total					89,706

The HPLC—Tandem Mass Spectrophotometer system for measuring Steroid hormones in patient samples was installed and is working satisfactorily in the RIA Laboratory of the Department of Endocrinology and Metabolism.

Several validated reagent method protocols for quantitation of steroid hormones (including 25 (OH) Vitamin D) have been applied, tested and finally selected and standardized on this system by early 2019.

Currently, we are in the process of doing trial measurements of steroid hormones in patient's samples using both methods, namely HPLC-MS/MS using our validated reagent method protocols and conventional RIA for comparison of results.

Biochemical investigations

No	Investigation	Number of Samples
1	Blood glucose	17,491
2	Glycated Hemoglobin (HbA1c)	18,697

3	Urine pH	322
4	Osmolality (Urine and Serum)	816
5	Lipid Profile	8,000
	Total tests	45,326

Specialty Clinics:

- Diabetes of Young on Saturdays
- Paediatric and Adolescent Endocrine Clinic on Monday afternoons
- Gestational Diabetes Mellitus (GDM) Clinic on Friday mornings
- Community services/camps

The department regularly hold camps especially awareness and screening programmes on obesity, PCOS, diabetes, and thyroid disorders.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Nikhil Tandon was nominated by Director-General, World Health Organisation (WHO) to serve on the 13th General Programme of Work (GPW 13) Measurement and Impact Framework Committee, Geneva, Switzerland; R.M. Shah Oration “Global Dimensions of Obesity and Diabetes Mellitus: Where are we heading?”, 4th Annual Conference of DIA Care—DIACON 2018, 22 September 2018, Ahmedabad; Maharashtra RSSDI Oration 2019: Gestational Diabetes: The Post-Delivery Years, Annual Conference of Maharashtra RSSDI, 1 February 2019, “Webinar”, Nagpur; Member, Medical Council of India’s Board of Governors, New Delhi; Chairman, Scientific Advisory Committee of NIN, Hyderabad; Associate Editor for the scientific journal Global Health, Epidemiology and Genomics; Member of the KDIGO Management of Diabetes and CKD Guideline: Work Group; Member of the Governing Body of the Institute of Medical Sciences, Banaras Hindu University, Varanasi; Nominated by the Ministry of Earth Sciences, Government of India as a Member of the National Coordination Committee for Polar Science Programme (NCP), Antarctica; Member of the Governing Body of the National Institute of Health and Family Welfare (NIHFW), Ministry of Health and Family Welfare, Munirka, New Delhi; Nominated as a Chairman of the Selection Committee for the selection of Medical Officers for the 38-Indian Scientific Expedition to Antarctica (ISEA), Goa; Vice President, National Board of Examination (NBE), New Delhi; Member, Institute Body (IB), Governing Body (GB), Standing Finance Committee (SFC) and Standing Selection Committee (SSC) of AIIMS, Jodhpur, Rajasthan; Delivered Convocation Address, BHU, IMS Convocation, 30 March 2019, BHU, Varanasi.

Professor Ravinder Goswami was Member, TEC ‘Human Genetics and Genome Analysis programme’ DBT; Expert for selection of faculties in the Department of Endocrinology, AIIMS, Rishikesh 2018; Expert for the Standing Selection Committee of the All India Institute of Medical Sciences, Jodhpur for the Department of Endocrinology and Metabolism; Expert for selection of faculties in the Department of Endocrinology, Indira Gandhi Institute of Medical Sciences, Patna; Member Project Review Committee for Medical Projects, CSIR; Member Dean’s Research Committee (DRC) AIIMS, New Delhi; Member Core Committee of the Central Core Research Facility (CCRF); Member, Joint Scientific Advisory Committee of the Institute under ICMR.

Professor Rajesh Khadgawat participated in medical camps—Leh, Ladakh from 21-28 September 2018; Subject Expert for the Interview for Endocrinology—Rajasthan Public Service Commission, UPSC, Institute of Liver and Biliary Sciences (ILBS); Member, Scientific Council of Zandu foundation of Health Research, Kolkata; Expert, National Anti Doping Agency (NADA), Ministry of Youth Affairs and Sports, Government of India; DM examiner for NRS Medical College, Kolkata, Srimanata Sankaradeva University of Health Sciences, Guwahati, West Bengal University of Health Sciences, Sher-i-Kashmir Institute of Medical Sciences, Srinagar, J & K; Member, SAE-Death Committee, DCGI; Member, Subject Expert Committee (Endocrinology), DCGI New Delhi; Subject expert, Medical Council of India.

Dr Alpesh Goyal received Endocrine Society of India (ESI) AV Gandhi Award for Best Clinical Research, 2018.

Visiting Scientist

- Dr Brad Newsome, Programme Officer, National Heart Lung and Blood Institute (NHLBI), NIH, USA visited from 13 to 15 September 2018.

9.12. Forensic Medicine and Toxicology

Professor and Head

Sudhir Gupta

Professors

DN Bhardwaj

OP Murty

Millo Tabin

Sanjeev Lalwani Adarsh Kumar
(JPN Apex Trauma Centre)

Associate Professor

Chittaranjan Behera

Assistant Professors

Kulbhushan Prasad

Abhishek Yadav

Scientist-C

Nidhi Sharma

Chemist

AK Jaiswal

HIGHLIGHTS

The Department of Forensic Medicine and Toxicology is apex referral center for complicated medico legal problems in India. The department is providing expert opinions in referred cases from CBI, NIA, NHRC, Courts and Crime branch of different states. It is involved in medico-legal autopsy, embalming of MLC deaths, clinical forensic medicine services, teaching, training, research, expert opinion in referred medico-legal cases and court related works. The department is running three laboratory services-Toxicology, DNA Fingerprinting and Histopathology and two support services in form of Forensic Radiology and Forensic Anthropology. A total of 2,665 medico legal autopsies were conducted by doctors of the department and attended 642 summons from courts including both at main as well as trauma center.

The department has facilitated the organization of cadaveric workshops and training programme for many clinical departments. Work is going on for development of odorless mortuary. The department has received grant for development of “Centre of Advanced research and excellence in Virtual Autopsy” from ICMR. A Task Force project entitled “Development of DNA database and Identification portal for unidentified dead bodies autopsied at AIIMS, New Delhi, by using bioinformatics tools and techniques is granted from ICMR”. A total of 10 departmental research projects are continuing and 2 have been completed. 5 collaborative projects were completed and 1 is continuing.

EDUCATION

There are 9 postgraduate (MD) students and one PhD students enrolled in the department. The department is also imparting training in DNA—Fingerprinting and Medical Toxicology to BSc, MSc and MD students of other universities from all over India. 5 students from different universities were trained for short term training.

CMEs/Workshop/Symposium/Conferences

1. Symposium on Humanitarian Forensics on 29 August 2018.

Lectures delivered

Adarsh Kumar

1. Latest trends in Forensic Medicine, IPS Induction Training Course, 4 April 2018, Hyderabad
2. Emerging Trends and Technologies in Forensic Toxicology, TOXOCON-12, 12th Annual Conference of Indian Society of Toxicology, 6-7 April 2018, Gangtok
3. Defensive medicine as a plea of defense—How far justified, Mid Term CME jointly organized by Department of Medicine and Forensic Medicine with Punjab Academy of Forensic Medicine and Toxicology, 12 May 2018, Jalandhar
4. Latest trends in Forensic Medicine, IPS Induction Training Course, 28-29 August 2018, Hyderabad
5. Legal aspects to be dealt by Medical Officers, CME Speaker for CHS Medical Officers, 19 September 2018, New Delhi
6. Forensic consultative forum meeting, Humanitarian Forensics on Dignified Management of the Dead including Forensic Human Identification in India, 25-26 September 2018, Gandhinagar

7. Legal aspects of medical records: Challenges and solutions, National CME jointly organized by Medico Legal Society of Assam and IJHRMLP, 9 October 2018, Tejpur
8. Human rights violation issues and crime against women in Indian perspective, CME on “Crime against Females: Problems and Solutions”, 12 October 2018, Meerut
9. External expert faculty from India, Workshop on ‘Exhumation’, 28-29 November 2018, Dharan, Nepal
10. Custodial death investigation-NHRC experience, 15th Annual Conference of South India Medico Legal Association, 30 November and 1-2 December 2018, Thiruvananthapuram
11. Forensic toxicology in India—Present Scenario, 40th Annual National Conference of Indian Academy of Forensic Medicine “FORENSIC MEDICON-2019”, 1-2 February 2019, Jodhpur

Chittaranjan Behera

1. Medico legal aspects of poisoning, CGR-Acute Poisoning, Emergency Department Experience, 9 October 2018, New Delhi
2. MOHFW guidelines on medico-legal response especially sexually assaulted victims and role of medical personnel in dealing with organ trafficking, Training programme on Gender-Based Violence and Human Rights for promoting women health under NHM, 30 October 2018, New Delhi

Abhishek Yadav

1. Basics of postmortem in current legal purview, CME Programme for Medical Officers of District Ghaziabad Provincial Medical Services Association, UP, 5 May 2018, Ghaziabad
2. Forensic evidence in civil and criminal trials, Training Programme for Junior Division Judges of India, conducted by National Judicial Academy, 8 September 2018, Bhopal
3. Forensic evidence: DNA profiling, Training Programme for Bangladesh Judicial Officers, conducted by National Judicial Academy, 8 October 2018 and 19 February 2019, Bhopal
4. Applicable models to India for the large-scale preservation of bodies of the dead and practical issues for mortuary operation following Disasters, Training for Disaster Management Authorities in India, International Centre for Humanitarian Forensics in Gujarat Forensic Science University, 5 December 2018, Gandhi Nagar

AK Jaiswal

1. Basics of liquid chromatography and its scope, Workshop on LC-MS for Analysis of Drugs and Explosives, 10 December 2018, New Delhi

Oral papers/posters presented

1. Gaur S, Kaushik R, Behera C, E-suicide note, IAMLE-2018, 26-28 October 2018, Pune
2. Kishore S, Behera C, Gupta SK, Arava S, Mridha AR, Jaiswal AK, Biochemical and histopathological findings in Sudden Death in Epilepsy, 71st AAFS Annual Scientific Meeting, 18-23 February 2019, Baltimore, USA
3. Kaushik R, Gaur S, Behera C, Sewage gas poisoning: A menace in India, IAMLE-2018, 26-28 October 2018, Pune
4. Millo T, Chand K, Jaiswal AK, Gupta SK, Blood alcohol concentration and crime, TOXOCON 12th Annual National Conference of the Indian Society of Toxicology, 6-7 April 2018, Gangtok
5. Choudhary P, Verma K, Verguese LT, Jaiswal AK, Kumar A. Simultaneous determination and method validation for opioids, cannabinal and nicotine in postmortem whole blood using high performance thin layer chromatography—Mass Spectrometry, HPTLC ASIA 2018, International Symposium for High-Performance Thin Layer Chromatography, 28-30 November 2018, Bangkok, Thailand
6. Sikary AK, Behera C, Body Coloration artifacts in Forensic Autopsy, 71st AAFS Annual Scientific Meeting, 18-23 February 2019, Baltimore, USA
7. Sehrawat S, Rajoria G, Choudhary P, Jaiswal AK, Development of new solvent systems for the analysis of atorvastatin extracted from Blood using High Performance Thin Layer Chromatographic Plate, HPTLC Asia 2018 International Symposium for High-Performance Thin Layer Chromatography, 28-30 November 2018, Bangkok, Thailand
8. Sharma N, Millo T, Kumar A, Gupta SK, DNA Bill: A critical review and updates for implementation and regulation in India, 9th International Conference on Legal Medicine, Medical Negligence and Litigation in Medical Practice, 26-28 October 2018, Pune
9. Yadav A, Strangulated hernia leading to a mid-air fatality, 40th Annual National Conference of Indian Academy of Forensic Medicine (IAFM), 1 February 2019, Jodhpur

RESEARCH

Funded projects

Ongoing

1. Centre of advanced research and excellence in Virtual Autopsy, Sudhir K Gupta, ICMR, 5 years, 2019-2024, Rs 5 crores
2. TASK FORCE Project—Development of DNA database and identification portal for unidentified dead bodies autopsied at AIIMS, New Delhi, by using bioinformatics tools and techniques, Chittaranjan Behera, ICMR, 3 years, 2018-2021, Rs 1.36 crores
3. Bioinformatics identification and *invitro* evaluation of single nucleotide polymorphisms associated with completed suicide in Indian population, Chittaranjan Behera, ICMR, 3 years, 2017-2020, Rs 69.11 lakhs

Completed

1. Association of inflammatory cytokines with suicidal deaths: A hospital based comparative cross-sectional study, Chittaranjan Behera, AIIMS, 2 years, 2016-2018, Rs 10 lakhs

Departmental projects

Ongoing

1. Genetic association of cytokine gene polymorphisms with suicidal behavior in Indian population
2. Content and linguistic analysis of suicide notes collected during medico legal autopsy at AIIMS, New Delhi
3. Gross, histological and electron-microscopic study of antemortem and postmortem electrocution burn mark
4. Quantification and quality assessment of human DNA by RT PCR
5. Radiological study of internal neck injuries in cases of death due to fatal pressure on the neck
6. Study of efficacy of various preservatives as compared to formalin-based solution being used in embalming for transportation purpose
7. Study of cardiac markers, gross findings and histopathological changes in heart in cases of suspected Cardiac Deaths
8. Age estimation between age 1-18 years by radiological study of epiphyseal union around elbow and wrist joints
9. Screening of alcohol and drug of abuse in road traffic accident cases reported at mortuary AIIMS New Delhi
10. Ligature and compressing material fiber detection, collection, identification and comparison in asphyxia deaths

Completed

1. Estimation of endogenous production of alcohol in human body by different microbes after death and its relevance to medico-legal issues
2. Toxicological analysis and distribution pattern of different drugs in various biological samples and their neurobiological effects in suicidal deaths

Collaborative projects

Ongoing

1. Development of rotary ultrasonic bone drilling machine prototype, Pathology and IIT Delhi
2. To study the extent of variation in ridge characteristics and determining gender among twins using their fingerprint characteristics, Department of Forensic Medicine and Toxicology, KMC, Manipal
3. Morphometric and morphoscopic study of ear and nose in brahmin and Rajput population of Mandi, Himachal Pradesh, A Forensic Anthropological Investigation, Department of Anthropology, Punjab University, Chandigarh
4. Fibrillin 1 gene mutation and the role of TGF beta in aortic aneurysms with cystic medial degeneration, Pathology
5. The role of neuroinflammation and glial activation in the suicidal deaths: A study in human postmortem brain, Anatomy

Completed

1. Immunohistochemical analysis of Matrix Metalloproteinases (MMP-2 And 9), Tissue Inhibitors of Matrix Metalloproteinases (TIMP-1 And 2), Collagen I and Collagen IV in Ascending Thoracic Aortic Aneurysm, Pathology

PUBLICATIONS

Journals: 40

PATIENT CARE

- A. **Casualty services:** The Department of Forensic Medicine and Toxicology is providing round-the-clock medico-legal services like in cases of injury, sexual offences, poisoning etc. to the South and South-East district of Delhi

- B. **Mortuary Services:** A total of **2665 (1788+877-JPNATC)** medico legal autopsies were conducted at mortuary
- C. **Clinical Forensic Medicine;** Total **605** cases of potency and other medico-legal examination brought by investigating officer and referred from court were dealt by the department. A total of **54** cases from CBI were dealt by medical board of the department. A subsequent opinion in complicated cases including reference from casualty etc. was offered in total **658** cases
- D. **Summons:** Doctors of the department attended court of law in **642** cases from Delhi and other states
- E. **Medical Toxicology:** Total **222** tests for **79** samples were performed for various poisons referred from the clinical department of AIIMS, medico-legal cases and in academic cases
- F. **Forensic Histopathology:** The department is providing histopathology services for the samples of medico-legal autopsy cases from South and South-East district and also research purpose. Total **102** cases and **569** samples were done during this period
- G. **Embalming facility:** The department is providing embalming facility for MLC cases (Postmortem cases). Total **260** cases of embalming were done during this period
- H. **Organ Retrieval for Therapeutic Transplantation:** Total **130** corneas were retrieved at mortuary for transplantation by National Eye Bank
- I. **Forensic Radiology Services:** Forensic radiology services were provided to **101** cases for various medico legal and academic purposes. (Both autopsy and live cases)
- J. **Forensic Anthropology Services:** Age estimation for **7** cases referred from Courts as well as Sports Authorities
- K. **DNA Fingerprinting Laboratory:** Paternity/Maternity case (6 samples), Research samples (DNA extraction and quantification), 145 samples
- L. **Community services:** The department continues to participate in training programme for CBI officials, police officers and public prosecutors from all over the country

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Adarsh Kumar elected as Governing Council Member of International Academy of Legal Medicine (IALM) for 2019-2021 at Fukuoka, Japan in June 2018; received Award of Excellence in view of outstanding service to medical profession by MN Barman Charitable Trust, Guwahati at Government Medical College, Tezpur, Assam on 9 October 2018; Elected as Governing Council Member of Indo-Pacific Association of Law Medicine and Science (INPALMS) for 2016-2019 at Bali, Indonesia; Nominated as Board of Studies-External Expert Member (Forensic Medicine and Forensic Sciences) by Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka for 2017-2019; Member of Asia Pacific Medicolegal Association (APMLA) for another term of two years 2018-2020 at Japan; Medicolegal Expert to National Human Rights Commission; Member, Editorial Board of various journals: International Editorial Board Member-HSOA Journal of Forensic, Legal and Investigative Sciences (USA), Egyptian Journal of Forensic Sciences-Egypt, Adli Tip Bulletin-Turkey, The Egyptian Journal of Forensic Sciences and Applied Toxicology; Associate Editor, Medico Legal Update, Journal of Research in Medical Education and Ethics; Web Editor, International Journal of Health Research and Medico legal Practice; Member Editorial Board, Journal of Indian Society of Toxicology; Journal of Karnataka Medico legal Society; Indian Journal of Community and Family Medicine; Indian Journal of Forensic Medicine and Toxicology; Journal of Forensic Chemistry and Toxicology.

Dr Chittaranjan Behera was external examiner for 2nd MBBS at AIIMS, Bhubaneswar, Kolkata National Medical College and NDMC Medical College, Delhi; External expert for selection of faculties at Dr BSA Medical College, Delhi; Letter of appreciation from CMET, AIIMS for Institute Day Exhibition; Reviewer of Pub Med Index Journal: Journal of Affective Disorders, Journal of Forensic and Legal Medicine etc.; Editor/editorial board member: Assistant editor of International Journal of Medical Toxicology and Legal Medicine, ARC Journal of Forensic Sciences, Annals of Forensic Research and Analysis, Sci Fed Journal of Forensic, Journal of Forensic Medicine.

Dr AK Jaiswal was editorial board member for Research Journal of Forensic Science; Editor in Chief, Forensic Chemistry and Toxicology.

Dr Abhishek Yadav received Certificate of Appreciation for outstanding contribution as Faculty Incharge Mortuary to National Eye Bank by Dr RP Centre, AIIMS, on 33rd National Eye Donation Fortnight-2018, 4 September 2018; Represented India in "3rd regional conference for Government representatives and disaster management agencies" organized by International Committee of Red Cross (ICRC) for "Regional Cooperation and Policy development in Management of Dead in Emergencies" in Colombo, Srilanka, 22-23 May 2018; Represented AIIMS in "International Symposium of Humanitarian Forensics and Inauguration of International Centre for Humanitarian Forensics" at Gandhi Nagar, Gujarat from 20 to 22 June 2018" organized by International Committee of Red Cross (ICRC) and Gujarat Forensic Science University (GFSU); Awarded Letter of Appreciation after completing Certificate of Advanced Studies in Virtual Autopsy in University of Zurich, Switzerland, 27 March 2019.

9.13. Gastroenterology and Human Nutrition Unit

Professor and Head

Anoop Saraya

Professors

Pramod Garg

Vineet Ahuja

Govind K Makharia

Associate Professors

Shalimar

Baibaswat Nayak

Assistant Professors

Saurabh Kedia

Deepak Gunjan

HIGHLIGHTS

The department organized Six CME and National conferences and patient education activities. Awarded two Centers of Advanced Research Excellence in pancreatic disease and Intestinal diseases by Indian Council of Medical Research; Published 76 scientific papers. Initiated Advanced Fellowship Programme in Endoscopy, Pancreatic Diseases, Liver Diseases and Inflammatory Bowel Diseases. Initiated full-fledged gastrointestinal motility services. The faculty, residents and PhD students of the department received many awards including BEST paper awards. The faculty of the department initiated and coordinated making of national guidelines on various GI diseases.

EDUCATION

The department continued the training programme for courses on DM in Gastroenterology, and PhD in Gastroenterology and Human Nutrition. The department also participated in the training of undergraduate and postgraduate students also. The department initiated Advanced Fellowship Training Programme.

Long-term training: 24 DM students
4 PhD candidates
One: Advanced Fellowship in advanced endoscopy

Short-term training: 2 trainees were trained during 2018-2019.

CME/Workshops/Symposia organized by the department

1. IBD-Masters Class at New Delhi, 10 June 2018
2. World Hepatitis Day at the AIIMS, New Delhi, 28 July 2018
3. 2nd National Conference of Clinical Nutrition at the AIIMS, New Delhi, 31 August-2 September 2018
4. CME on "IBD Care: IBD Counselling Assistance and Research for Education" at New Delhi, 9 September 2018
5. Young Clinician Programme, Hyderabad, 17-19 August 2018
6. Gastroenterology Young Masters (GYM-2019) at AIIMS, New Delhi, 12 January 2019

Lectures delivered

Anoop Saraya

1. Symposium Autoimmune Liver Disease, Diagnosis and Standard Treatment, 26th Annual Scientific Meeting of Indian National Association for Study of the Liver (INASL), 2-5 August 2018, New Delhi
2. Nutritional therapies in alcoholic hepatitis and cirrhosis, CPLD 2018, Theme: Alcoholic Liver Disease, 13-14 October 2018, PGIMER, Chandigarh
3. Early nutrition in acute pancreatitis, ISGCON 2018, 28 November-1 December 2018, Kochi
4. Genetic dysregulation in pancreatic cancer in India Session: Advances in Pancreatic Neoplasia Indo French Conference 2019, 19-20 January 2019, New Delhi
5. Optimization of Nutrition and Physical Status in Malnourished Cirrhotic Patients awaiting Liver Transplant Course: Liver Transplant, 28th Conference of the Asian Pacific Association for the Study of the Liver (APASL 2019), 20 February 2019, Manila, Philippines

6. Nutrition in the critically-ill cirrhotic patient, Course: Nutrition in Liver Disease Symposium, APASL 2019, 23 February 2019, Manila, Philippines
7. Severe acute pancreatitis: Management in the first week, UPISGCON 2019, 30 March 2019, Lucknow
8. Debates in Liver Diseases and Transplantation, 4th International Liver Symposium, 6-8 April 2018, New Delhi
9. Management of Retained stents, Endocon 2018, 27-29 April 2018, Varanasi
10. INASL Symposium on NAFLD-East meets West, INASL 2018, 2 August 2018, New Delhi

Pramod Garg

1. Genetic testing for adult patients with chronic idiopathic pancreatitis: In real life approach, Asian-Oceanic Pancreatic Association and Korean Pancreatobiliary Association and Korean Pancreatic Surgery Club, 26-28 April 2018, Seoul, South Korea
2. Pancreatitis phenotypes and genotypes in India, 50th Jubilee Meeting of the EPC, 13-16 June 2018, Berlin, Germany
3. Hypothesis Testing and Framing a Research Question, 'Research Methodology Course' at Government Medical College, 9-10 July 2018, Tanda, HP.
4. Medical Management of Chronic Pancreatitis, Annual conference 'Pancreas Fest 2018', 25-27 July 2018, Pittsburg, USA
5. Pancreatic fluid collections—Timing and nature of intervention, Gastroenterology Update-2018, 13-14 July 2018, Vellore, Tamil Nadu
6. Organ failure in acute pancreatitis, Annual Conference of American Pancreatic Association, 31 October-3 November 2018, Miami, USA
7. Management of Pancreatic Fluid Collections, 1st India EUS Summit, 29 March 2019, Mumbai

Govind Makharia

1. Overview, ISG Task Force on Helicobacter Pylori Meeting, 7-8 April 2018, Bhubaneswar
2. Intestinal tuberculosis, Bihar Chapter of ISG, 14-15 April 2018, Bhagalpur
3. Ten mistakes we commit in the management of IBD, IBD Meet, 20 May 2018, Ludhiana
4. Ten mistakes we commit in the management of IBD, 3rd GRS Drug Review Meeting, 2 June 2018, Mumbai
5. Introduction to Delphi process, ISG-Taskforce Meeting on GERD, 16-17 June 2018, Mumbai
6. Management of acute severe colitis, 6th Annual Meeting of AOCC-2018, 21-23 June 2018, Shanghai, China
7. Train the Trainers Advanced Workshop: Leadership and Management II, Workshop on Train the Trainers Porto-2018, 25-26 June 2018, Porto, Portugal
8. Gut Microbiome and Metabolic Disorder, Eco Summit-2, 29 July 2018, Hyderabad
9. How to deliver a talk, Young Clinicians Programme-2018 (YCP), 17-19 August 2018, Hyderabad
10. Celiac Disease: Challenges and Opportunities, ISGCON of Telangana State Chapter, 25-26 August 2018, Hyderabad
11. Liver manifestations of intestinal diseases, Liver Meeting in Delhi, 8 September 2018, New Delhi
12. *C. difficile* infection, 2nd Annual State Conference of Chhattisgarh Association of Medical Microbiologists, 8-9 September 2018, Raipur
13. Non-immunological biomarkers of celiac disease, Tampere Celiac Disease Symposium- 2018, 13-15 September 2018, Tampere, Finland
14. Rescue therapy in acute severe colitis: How far to go, CEBU-2018-APAGE 3rd Clinical forum on Inflammatory Bowel Disease, 20-22 September 2018, Cebu, Philippines
15. Rescue therapy in acute severe colitis: How far to go, CEBU-2018-APAGE 3rd Clinical Forum on Inflammatory Bowel Disease, 20-22 September 2018, Cebu, Philippines
16. Intestinal tuberculosis, 28th Annual Conference of Indian Association of Surgical Gastroenterology, 3-7 October 2018, Chandigarh
17. Celiac: Who to screen and how to screen, 59th Annual Conference of Indian Society of Gastroenterology, 28 November-1 December 2018, Kochi
18. Intestinal failure, 59th Annual Conference of Indian Society of Gastroenterology, 28 November-1 December 2018, Kochi
19. Burden of Celiac Disease in Asia, Gastro-2018, 5-8 December 2018, Bangkok, Thailand
20. Coeliac Disease, 19th North East Zonal Cardiological Society of India Conference, 21-23 December 2018, Agartala
21. Intestinal tuberculosis, 28th Annual Conference of Indian Association of Surgical Gastroenterology, 3-7 October 2018, Chandigarh

22. Coeliac disease, 19th North East Zonal Cardiologist Society of India Conference, 21-23 December 2018, Agartala
23. Eradication of H. Pylori for patient of Functional Dyspepsia, GASTROCON-2019, 18-20 January 2018, Jaipur
24. How to write a complete diagnosis, Gastroenterology Young Masters Programme, 25-27 January 2019, Coimbatore
25. Ulcerative colitis, 17th North East Gastro Meet-2019, 1-3 February 2019, Guwahati
26. Non-celiac gluten sensitivity, Annual Conference of West Bengal Chapter of ISG, 8-9 February 2019, Kolkata
27. Functional GI disease, Kalinga Perspective on Liver and Digestive Disease, 9-10 February 2019, Bhubaneswar
28. Screening, magnitude and risk factors for colorectal cancer in India and Asia, 13th AIIMS Surgical Week International Conference, CME cum Live Workshop (ENDOSURG 2019), 28-31 March 2019, New Delhi
29. How reliably can we distinguish between Intestinal Tuberculosis and CD in 2019? Annual Conference of Uttar Pradesh Chapter of Gastroenterology-2019 (UPISG-2019), 29-30 March 2019, Lucknow

Shalimar

1. Adjuvant antivirals for HCC, 2018 Update of INASL Consensus on HCC, 5-6 May 2018, Puri, Odisha
2. ATT Hepatitis, 2nd PGI-GI Emergency Update, 29-30 September 2018, PGIMER, Chandigarh
3. HE in ALF/CLF and ACLF: How are they different? 18th **Current Perspectives in Liver Disease (CPLD)-2018**, 13-14 October 2018, (PGIMER), Chandigarh
4. Symposium on ACLF, 26th Annual Scientific Meeting of the Indian National Association for the Study of the Liver (INASL), 2-5 August 2018, New Delhi
5. Newer advances in Hepatology, Annual Conference of Indian Society of Gastroenterology) 2018, 1 December 2018, Kochi, Kerala
6. Conducted a panel discussion on surgical clearance in patients with cirrhosis, Annual Conference of Indian Society of Gastroenterology-2018, 1 December 2018, Kochi, Kerala
7. Hepatitis E Virus vaccines: Its readiness for use and possible strategies, LIVERCON, 6th Annual Meeting of SAASL, 13-14 July 2018, Kathmandu, Nepal
8. A case of NASH and management issues—Multi organ and multiple etiologies, 7th Kolkata Liver Meeting, 6-8 December 2018, Kolkata, West Bengal
9. Spectrum of infection and choice of antibiotics community, nosocomial and 2nd Hit, APASL ACLF Consensus Update, 1 October 2018, ILBS, Delhi
10. Acute Liver Failure, South Asian Association for Study of the Liver [SAASL], 10 February 2019, KIIT University, Bhubaneswar

Baibaswata Nayak

1. De novo assembly of Hepatitis C Virus full-length genome following next generation sequencing and genetic variations of strains circulating in north and North-East India, INTERVIROCON 2018, International Conference of Virology, 12-14 November 2018, PGIMER, Chandigarh
2. DNA Methylation in Cancer, relevant techniques and analysis, AIIMS, Seminar, 15 May 2018, AIIMS, New Delhi
3. Recent advances in molecular diagnostic, treatment and therapeutic response evaluation in hepatitis virus infections, National Seminar, 8 May 2018, SUMS Hospital, Bhubaneswar
4. Trends in Flow Cytometer Technology, Beckman-Coulter Symposium, 10 April 2018, New Delhi

Saurabh Kedia

1. Nutrition in IBD, Annual Conference of the Indian Society of Nutrition, 31 August 2018, New Delhi, India
2. Presentation of Asian working group on dietary guidelines in IBD, National IBD Meet, 16 September 2018, New Delhi, India
3. Diet as a therapy for IBD, 59th ISGCON 2018, 29 November 2018, Kochi, India
4. Very early onset IBD, West Bengal Chapter of ISG, 9 February 2019, Kolkata, India
5. Updates on Ulcerative colitis, Kalinga Perspective in Liver Disease 2019, 9 February 2019, Bhubaneswar, India
6. Treat to target therapy in IBD, Endosurg 2018, 28 March 2019, New Delhi, India
7. Physiology and pathophysiology of Achalasia cardia: Can it be set right? UP-ISGCON 2019, 29 March 2019, Lucknow, India

Deepak Gunjan

1. Acute pancreatitis and nutrition, 2nd National Conference of Indian Society of Clinical Nutrition, 31 August-2 September 2018, AIIMS, New Delhi

2. Endoscopic management of GAVE, 59th Annual Conference of ISG, ISGCON 2018, 28 November-1 December 2018, Kochi, Kerala
3. Panel discussion on acute pancreatitis: Management of suspected infected pancreatic necrosis, 59th Annual Conference of ISG, ISGCON 2018, 28 November-1 December 2018, Kochi, Kerala
4. Recent advances in pancreas, Gastroenterology Young Masters (GYM), 12 January 2019, AIIMS, New Delhi
5. Endoscopy simulation device in Gastroenterology, MedSim 2019: DBT-IISc Bioengineering and Biodesign Initiative (BBI2) Workshop on Medical Simulation, 27 February 2019, IISC, Bangalore
6. Radial EUS: Mediastinum (How I do it?), India EUS Summit, 28-30 March 2019, Mumbai
7. Walled-off Necrosis: Endoscopy or surgery, 13th AIIMS Surgical Week, International Minimal Access Surgery Conference, ENDOSURG2019, 29-31 March 2019, AIIMS, New Delhi

Oral papers/posters presented

1. Aggarwal A, Rout G, Vuyyuru SK, Gunjan D, Kedia S, Nayak B, Shalimar, Efficacy of liver stiffness measurement and platelet count in screening for high grade varies in patients with cirrhosis. European Association for the Study of the Liver (EASL) 2018, 11-15 April 2018, Paris, France
2. **Anand A**, Gunjan D, Gopi S, Kaushal K, Poudel S, Sharma S, Singh N, Saraya A, **The prevalence of vascular complications in patients with chronic pancreatitis** 59th Annual Conference of ISG, ISGCON 2018, 28 November-1 December 2018, Kochi, Kerala
3. **Chaman N, Grover I, Rashid S, Singh N**, Gunjan D, Saraya A, **Differential expression of hepatic CYP2R1 in patients with cirrhosis**, 59th Annual Conference of ISG, ISGCON 2018, 28 November-1 December 2018, Kochi, Kerala
4. Grover I, Gunjan D, Singh N, Goswami R, Ramakrishnan L, Saraya A, Vitamin D Deficiency and Metabolic Bone Disease is Highly Prevalent in Patients with Cirrhosis—A Hospital Based Study, ISGCON-2018, 28 November-1 December 2018, Kochi, Kerala
5. Grover I, Gunjan D, Singh N, Saraya A, Micronutrients Assessment in Patients with Cirrhosis, ISGCON-2018, 28 November-1 December 2018, Kochi, Kerala
6. Grover I, Singh N, Gunjan D, Chandra SH, Saraya A, Assessment of Quality of Life in Patients with Cirrhosis, INASL-2018, 2-5 August 2018, Delhi
7. Grover I, Singh N, Gunjan D, Chandra SH, Gupta V, Kaushal K, Saraya A, Comparison of triceps skinfold thickness and Bioelectrical impedance analysis with dual energy X-ray absorptiometry for assessment of Fat mass and Lean body mass in the patients with cirrhosis, APASL-2018, 14-18 March 2018, Delhi
8. Gupta S, Nayak B, Banerjee A, Mohanty S, Comprehensive analysis of tissue specific mscs derived exosomes for their therapeutic role: An approach towards cell free therapy, 1st Institute Research Day, 26 March 2018, New Delhi
9. Jain S, Namdeo D, Kedia S, et al, High Cytomegalovirus DNA load in mucosal biopsies predicts steroid failure as well as colectomy in acute severe ulcerative colitis, Poster, 28 November-1 December 2018, Kochi, Kerala
10. Kamat N, Kedia S, Aggarwal KK, et al, National Survey of Physicians on awareness of Inflammatory Bowel Disease in India, Poster, 28 November-1 December 2018, Kochi, Kerala
11. Kedia S, Das B, Ghosh TS, Jain S, et al, Gut microbiome diversity in acute severe colitis is different from mild to moderate colitis, Oral: Young investigator award session, 28 November-1 December 2018, Kochi, Kerala
12. Kedia S, Kamat N, et al, Correlation of patient reported outcome measure with clinical disease activity and fecal calprotectin in patients with ulcerative colitis, Poster, 5-9 March 2019, Copenhagen, Denmark
13. Kumar S, Kedia S, Ahuja V, et al, Long term disease course and complications in patients with fistulizing Crohn's Disease, Poster, 5-9 March 2019, Copenhagen, Denmark
14. Kumar S, Nongthombam S, Shalimar, Saraya A, Kumar S, Nayak B, Next generation sequencing for characterization of circulating HCV strains and rescue of recombinant Newcastle Disease Virus (rNDV) expressing HCV genes for understanding host immune response and vaccine development, 1st Institute Research Day, 26 March 2018, New Delhi
15. Kumar S, Yadav R, Kumar Y, Prasad C, Jha JK, Puro K, Kumar S, Saraya A, Shalimar, Nongthombam S, Nayak B, Denovo assembly of Hepatitis C Virus full-length genome following next generation sequencing and genetic variations of strains circulating in North and North-East India (Oral), 27th International Conference on Virology (Intervirocon-2018), 12-14 November 2018, PGIMER, Chandigarh
16. Nadda N, Kumar S, Paul SB, Saraya A, Shalimar, Nayak B, Identification of potential circulatory microRNA as candidate biomarker for liver cancer in Hepatitis B Virus infection, 27th International Conference on Virology (Intervirocon-2018), 12-14 November 2018, PGIMER, Chandigarh

17. Nadda N, Paul SB, Yadav PD, Kumar S, Saraya A, Gammanagatti S, Shalimar, Nayak B, Circulatory microRNA-16, -21 and -221 as early predictor of response to locoregional therapy in virus associated hepatocellular carcinoma, 1st Institute Research Day, 26 March 2018, New Delhi
18. Nayak B, Kumar S, Nongthombam S, Kumar S, Saraya A, Shalimar, Next generation sequencing to determine spectrum of resistance associated substitutions in Hepatitis C virus wild type and strains isolated from relapse patients treated with direct acting antivirals, 6th Molecular Virology Meeting 2019, 28 February-2 March 2019, School of Bioscience, IIT Kharagpur
19. Rampal R, Wari NM, Madhu D, Kedia S, et al, Prospective validation of CD4+CD25+FOXP3+ T-regulatory cells as an immunological marker to differentiate intestinal tuberculosis from Crohn's Disease, Poster, 28 November-1 December 2018, Kochi, Kerala
20. Rashid S, Rashid S, Das P, Gupta S, Das Nihar R, Chandra SH, Sharma A, Singh N, Saraya A, REG-4 expression in pancreatic ductal adenocarcinoma can serve as a potential marker both for diagnosis and assessment of prognosis, DDW-2018, 2-5 June 2018, Washington, DC
21. Rashid S, Rashid S, Dey S, Das P, Gupta S, Das Nihar R, Saraya A, Surface Plasmon Resonance (SPR) as a novel technique for elucidating the role of MUCIN-4 as a potential biomarker for pancreatic ductal adenocarcinoma, DDW-2018, 2-5 June 2018, Washington, DC
22. Rout G, Gunjan D, Jagannath S, Kedia S, Nayak B, Garg PK, Shalimar, Thromboelastography guided blood product transfusion in cirrhosis patients with acute variceal bleeding: A randomized controlled trial, 26th Annual Scientific Meeting of Indian National Association for Study of the Liver, 2-5 August 2018, New Delhi
23. Rout G, Gunjan D, Mahapatra S, Iqbal A, Kedia S, Nayak B, Shalimar, Thromboelastography guided blood product transfusion in cirrhosis patients with acute variceal bleeding: A randomized controlled trial, International Liver Congress 2018 (EASL), 11-15 April 2018, Paris, France
24. Rout G, Nayak B, Patel AH, Gunjan D, Singh V, Kedia S, Shalimar, Therapy with Oral Directly Acting Agents in Hepatitis C Infection is Associated with Reduction in Fibrosis and Increase in Hepatic Steatosis on Transient Elastography, 26th Annual Scientific Meeting of Indian National Association for Study of the Liver, 2-5 August 2018, New Delhi
25. Shalimar, Kumar S, Nayak B, Gunjan D, Kedia S, Persistent or incident hyperammonemia is associated with complications and poor outcomes in acute decompensation and acute on chronic liver failure, American Association for the Study of Liver Diseases (AASLD), 9-13 November 2018, San Francisco, USA
26. Shalimar, Rout G, Gupta S, Kedia S, Nayak B, Therapy with Oral Directly Acting Agents in Hepatitis C Infection is Associated with Reduction in Fibrosis and Increase in Hepatic Steatosis on Transient Elastography, International Liver Congress 2018 (EASL), 11-15 April 2018, Paris, France
27. Sharma S, Singh N, Kedia S, et al, Exclusive enteral nutrition is effective in adults with Crohn's Disease: Experience from a tertiary care hospital in India, Poster, 28 November-1 December 2018, Kochi, Kerala
28. Singh N, Grover I, Gunjan D, Upadhyay DA, Saraya A, Nutritional status assessment by bioelectrical impedance analysis: Comparison in patients with chronic pancreatitis and cirrhosis, DDW-2018, 2-5 June 2018, Washington, DC
29. Singh N, Gunjan D, Saraya A, Assessment of quality of life in patients with chronic pancreatitis, ISGCON-2018, 28 November-1 December 2018, Kochi, Kerala
30. **Singh N, Gunjan D, Saraya A, Assessment of quality of life in patients with chronic pancreatitis**, 59th Annual Conference of ISG, ISGCON 2018, 28 November-1 December 2018, Kochi, Kerala
31. Singh N, Rashid S, Rashid S, Gupta S, Saraya A, Quantitation of Methylation Load of Uchl1 Gene Promoter Methylation in Pancreatic Cancer, DDW-2018, 2-5 June 2018, Washington, DC
32. Sudheer, Gunjan D, Kedia S, Gammagati S, Nayak B, Shalimar, Thromboelastography guided blood product transfusion in patients with chronic liver disease undergoing invasive liver-related procedures: A randomized controlled trial, American Association for the Study of Liver Diseases (AASLD), 9-13 November 2018, San Francisco, USA
33. Yadukrishna S, Teja V, Kedia S, Thromboembolic complications in patients with Inflammatory bowel disease predict poor prognosis, Poster, 5-9 March 2019, Copenhagen, Denmark

RESEARCH

Funded projects

Ongoing

1. Role of gene-regulating and immunological markers in pathogenesis of pancreatic adenocarcinoma, Anoop Saraya, ICMR, 3 years, 2018-2021, Rs 41 lakhs

2. Role of miRNA mediated modulation of signal transduction in pancreatic cancer, Anoop Saraya, DST, 3 years, 2018-2021, Rs 58 lakhs
3. Home based blenderized formulations in acute pancreatitis: A pilot randomised control trial, Anoop Saraya, ICMR, 3 years, 2018-2021, Rs 39 lakhs
4. To study the gut mucosal injury in severe acute pancreatitis and their correlation with organ failure and mortality, Anoop Saraya, DBT, 4 years, 2015-2019, Rs 56 lakhs
5. MicroRNAs as biomarkers in chronic pancreatitis patients who are at risk of developing pancreatic cancer, Anoop Saraya, DBT, 3 years, 2016-2019, Rs 91 lakhs
6. Sarcopenia in chronic pancreatitis: Epidemiology, diagnosis and evaluation of etiological factors and molecular mechanisms responsible for sarcopenia, Anoop Saraya, ICMR, 3 years, 2019-2022, Rs 84 lakhs
7. Centre for advanced research and excellence in pancreatic diseases, Pramod Garg, ICMR, 5 years, 2019-2024, Rs 500 lakhs
8. Lypolytic Helicobacter pylori enzymes and their potential role(s) in pathogenesis, Vineet Ahuja, ICMR, 4 years, 2017-2021, Rs 56.75 lakhs
9. Gut Microbiome—Regulators of the Intestinal Stem cell niche in Health and Inflammatory Bowel Disease, Vineet Ahuja, MHRD-Scheme for Promotion of Academic and Research Collaboration (SPARC), 2 years, 2019-2021, Rs 45.97 lakhs
10. Centre of Advanced Research in Intestinal Diseases, ICMR, 5 years, 2019-2024, Rs 500 lakhs
11. To study the innate inflammatory ability of macrophages in Crohn's Disease and ITB, Vineet Ahuja, DST—SERB, 3 years, 2017-2020, Rs 27.40 lakhs
12. Crohn's Disease in India: A multi-centric study from a country where intestinal tuberculosis as well as Crohn's Disease is endemic, Vineet Ahuja, ICMR, 3 years, 2016-2019, Rs 42 lakhs
13. Combined Phase 3, Double Blind, Randomized, Placebo-Controlled Studies Evaluating the Efficacy and Safety of Filgotinib in the induction and maintenance of Remission in Subjects with Moderately to Severely Active Crohn's Disease, Vineet Ahuja, Gilead, 3 years, 2018-2021, Rs 20 lakhs
14. Combined Phase 2b/3, Double-Blind, Randomized, Placebo-Controlled Studies Evaluating the Efficacy and Safety of Filgotinib in the Induction and maintenance of Remission in Subjects with Moderately to Severely Active Ulcerative Colitis, Vineet Ahuja, Gilead, 1 year, 2018-2019, Rs 5 lakhs
15. Entyvio (Vidolizumab IV) Extended Access Programme in Ulcerative colitis and Crohn's Disease, Vineet Ahuja, PPD, 3 years, 2016-2019, Rs 3 lakhs
16. Department of Biotechnology-Consortium on celiac disease, Govind K Makharia, DBT, 3 years, 2017-2020, Rs 359 lakhs
17. Whole gut and intestinal metagenome in patients with irritable bowel syndrome and non-celiac gluten sensitivity and effect of gluten free diet, Govind K Makharia, DST, 3 years, 2018-2021, Rs 61.7 lakhs
18. Estimation of gluten content in unlabelled and labelled gluten free food products and commonly used food items used by celiac disease patients, Govind K Makharia, ICMR, 3 years, 2018-2021, Rs 24 lakhs
19. Indo-US Joint Network Centre for Excellence in Celiac Disease, Govind K Makharia, IUSSTF, 2 years, 2017-2019, Rs 43 lakhs
20. Exploration for development of wheat with low immunogenic gluten, Govind K Makharia, IARI, 5 years, 2016-2021, Rs 46 lakhs
21. To study the Resistance Associated Variants (RAVs) in Chronic Hepatitis C patients treated with Sofosbuvir-based therapy, Shalimar, Ministry of Health and Family Welfare (DHR), 3 years, 2017-2020, Rs 44 lakhs
22. Development of reverse genetic based recombinant Newcastle disease virus model for understanding immune response in patients infected with Hepatitis C Virus, B Nayak, DBT-NER, 3 years, 2016-2019, Rs 105 lakhs
23. Clinical relevance of Human Leukocyte Antigen (HLA-G) molecules and its polymorphism in Hepatocellular carcinoma, B Nayak, AIIMS, 2 years, 2016-2018, Rs 4 lakhs
24. CD14 gene variations in Alcohol-Induced Liver Disease (ALD) and Alcoholic Pancreatitis (ALP) in Co-morbid Condition and Relationship between Associated Polymorphisms and MD2 molecule binding to the CD14-LPBS-TLR4 Complex, B Nayak, DST, 3 years, 2017-2020, Rs 27 lakhs
25. Gut microbiome—Regulators of the intestinal stem cell niche in health and inflammatory bowel disease, Vineet Ahuja, SPARC, 2 years, 2019-2021, Rs 4,50,000

Completed

1. Expression of REG-4 and MUC-4 in patients with carcinoma of pancreas, Anoop Saraya, ICMR, 5 years, 2013-2018, Rs 25 lakhs

2. Effect of H. pylori eradication therapy in patients with NAFLD having H. pylori co-infection: A pilot open label randomized controlled clinical study, Shalimar, AIIMS, 2 years, 2017-2019, Rs 5 lakhs

Departmental Projects

Ongoing

1. A prospective cohort study for the identification of miRNA expression in human Non-Alcoholic Fatty Liver Disease (NAFLD)
2. A randomized control trial of exclusive enteral nutrition with corticosteroids vs corticosteroids alone in patients with acute severe ulcerative colitis
3. A study of adaptive immune response in chronic pancreatitis
4. An open label, single arm, investigator initiated phase I/II study to assess the safety and efficacy of local administration of Stempeucel® (*Adult human Bone marrow derived, cultured, pooled, Allogeneic Mesenchymal Stromal Cells*) in patients with perianal fistulizing Crohn's Disease
5. Assessment of villous enteropathy in first-degree relatives of patients with celiac disease
6. Comparative analysis of cost and nutritional composition of gluten-free food with their gluten containing counterparts
7. Consortium on Non-alcoholic Fatty Liver Disease, [ICON-D] A Multicentric Prospective Observational Study
8. Dabigatran as an Oral Anticoagulant in Hepatic Venous Outflow Tract Obstruction: A Retrospective study
9. Defining intestinal failure in patients with celiac disease
10. Development and validation of a tool for assessment of gluten free diet in Indian celiac disease patients
11. Early versus delayed percutaneous drainage for infected acute fluid collections in acute pancreatitis: A randomised controlled trial
12. Effect of supplementation of branched chain amino acids on parameters of sarcopenia in patients with liver cirrhosis: A double blinded randomized controlled trial
13. Efficacy and tolerability of hyperbaric oxygen therapy in small bowel stricturing and fistulizing Crohn' Disease: A stratified RCT
14. Epigenetic Reprogramming of Intestinal Epithelial Stem Cells (ISCs) via gut microbiota derived metabolites in Ulcerative Colitis
15. Estimation of gluten content in unlabelled and labelled gluten-free food products and commonly used food items consumed by celiac disease patients
16. Extra small intestinal GI manifestations of celiac disease
17. Genetic basis of Budd Chiari Syndrome/hepatic venous outflow tract obstruction in Indian patients
18. Gut Microbiota: Regulators of Intestinal Stem Cell—Intrinsic Signaling Pathways in Health and Ulcerative Colitis
19. Identification of stage-specific molecular signature for diagnosis of non-alcoholic fatty liver disease using the multi-omics approach
20. Intestinal permeability in patients with acute pancreatitis—Role of tight junction proteins and effect of enteral nutrition
21. L-Ornithine L-Aspartate in Treatment of Overt Hepatic Encephalopathy in Patients with Cirrhosis: A Double-Blind Randomized Controlled Trial
22. Prevalence of celiac disease in patients of Inflammatory Bowel Disease
23. Prevalence of sarcopenia in cirrhosis and its correlation with serum myostatin and myostatin gene expression in muscle biopsy
24. Prognostic role of autophagy in patients with pancreaticadenocarcinoma
25. Role of immune pathways in the pathogenesis of chronic pancreatitis
26. Role of liquid Biopsy Biomarkers in Hepatocellular carcinoma and Hepatitis B Virus induced carcinogenesis
27. Role of microRNA as biomarker and its modulation in HCC targeting mTOR pathway
28. Role of miRNA mediated modulation of signal transduction in pancreatic cancer
29. Sarcopenia in Chronic Pancreatitis: Prevalence, diagnosis and prognostic value
30. Targeted versus standard fluid therapy in predicted severe acute pancreatitis: A randomized controlled study
31. To assess the prevalence and etiology of non-responsive celiac diseases in patients on gluten free diet for one year or more
32. Treat to target strategy in active Ulcerative Colitis patients: A randomized control trial

Completed

1. A multiparameter model to differentiate intestinal tuberculosis from Crohn's Disease in ulcero-constrictive disease of the intestine
2. Assessment of oxidative stress and antioxidant levels in patients of Idiopathic Recurrent Acute Pancreatitis
3. Development of gluten-free food products for patients with celiac disease and consumer validation by clinical trials for commercialization
4. Effect of different etiologies on the outcome and long term survival of acute liver failure
5. Evaluation of the diagnostic performance of second-generation serological tests in two different ethnic populations, Assessment of Global prevalence of celiac disease
6. Modulation of Human Immune and Inflammatory Responses by Vitamin A in Inflammatory Bowel Disease (Ulcerative Colitis, Crohn's Disease)
7. Role of C-Reactive Protein (CRP) in predicting response to loco-regional therapy of HCC
8. Role of gut microbiota in the pathogenesis of alcoholic and non-alcoholic fatty liver disease in humans
9. Spectrum of clinical and subclinical endocrinopathies in treatment naïve patients with celiac disease
10. The role of miRNA(s) regulating metabolic reprogramming enzyme to promote tumor progression
11. To study the pathogenesis of Non Alcoholic Fatty liver disease in Indian Population
12. To study the pathophysiological changes in patients with acute on chronic liver failure
13. To study the prevalence of metabolic syndrome in patients with celiac disease on GFD for 1 year

Collaborative Projects

Ongoing

1. A randomized trial of endoscopic versus laparoscopic drainage of pancreatic pseudocysts, Surgery
2. Comparison of various diagnostic modalities for identification of refractory celiac disease in a cohort of patients with celiac disease unresponsive to gluten free diet, Pathology
3. Correlation of hepatic fat content and angiographic coronary artery stenosis, Department of Cardiology, VMMC and Safdarjang Hospital
4. Development of a low-cost diagnostic platform for the identification of viral DNA using CRISPR/Cas13a system, South Asian University, New Delhi
5. Effect of anti-inflammatory drugs on duct ligation and Na-Taurocholate model of experimental acute pancreatitis in rats, GI Surgery and Anatomy
6. Effect of urbanization on gut microbiome, mycobiome and virome in patients with Inflammatory Bowel Disease from Northern India, Department of Microbiology, Maharshi Dayanand University, Rohtak, Haryana
7. Estimation of pooled prevalence of celiac disease in patients with liver disease: Systematic review and meta-analysis, Beth Israel Deaconess Medical Center, USA
8. Estimation of pooled prevalence of celiac disease in patients with short stature: Systematic review and meta-analysis, Beth Israel Deaconess Medical Center, USA
9. Genetic association of cytokine with suicidality in Indian population, Forensic Medicine
10. Hepatic regenerative potential of exosomes derived from human Mesenchymal Stem Cells in liver fibrosis model, Stem Cell facility
11. Intestinal stem cells in celiac disease, Pathology
12. miRNA as disease modifier in HLA-DQ2/ DQ8 matched first degree relatives of patients with celiac disease, Pathology
13. Molecular expression and interaction between Growth Differentiation Factor-15 (GDF-15), iron trafficking proteins, micronutrient antioxidants in diabetes and Metabolic syndrome, Laboratory Medicine
14. Nanoparticles based amperometric biosensor for detection of thyroid dysfunctioning, Department of Biotechnology, Jaypee Institute of Information Technology, NOIDA, UP
15. Nanotechnology based vaccine against Hepatitis E Virus, Department of Biotechnology, Jaypee Institute of Information Technology, NOIDA, UP
16. Prevalence of acute gastrointestinal injury in critically ill children, Paediatrics
17. To assess the prognostic value of various cytokines in Acute on Chronic Liver Failure (ACLF) patients, Infectious disease

Completed

1. Correlation between serum biomarkers, dynamic contrast-enhanced magnetic resonance imaging and histopathology in paediatric osteosarcomas, Orthopaedics
2. Impact of bariatric surgery on oxidative stress and pro-anti inflammatory pathways in Non-alcoholic fatty liver disease of morbidly obese patients, Surgical Disciplines
3. Prevalence and molecular characterization of Occult Hepatitis C Virus Infection (OCI) in patients with cryptogenic liver disease, Microbiology
4. Role of multiparametric MRI and Ga-68 PSMA PET Scan in evaluation of high risk prostate cancer and its correlation with histopathology and genomic markers, Radiodiagnosis
5. Study of the role of butyrate a short-chain fatty acid, in modulating HBV Replication and Hepatocellular Carcinoma, Department of Life Sciences and Biotechnology, SAU, Chanakyapuri, New Delhi

PUBLICATIONS

Journals: 63 Abstracts: 19 Chapters in book: 1

PATIENT CARE

Routine Gastroenterology Clinic (Monday to Friday)

New cases: 27,552 Old cases: 38,606

Special clinics:

Name of the clinic	New cases	Old cases
Liver Clinic	1,382	14,329
Pancreas Clinic	772	3,431
IBD and ITB Clinic	688	7,380
Interventional Clinic	405	585
Celiac Clinic	70	735

Endoscopy services

List of procedures

Diagnostic and therapeutic endoscopies: 20,520
Diagnostic and therapeutic colonoscopies: 2,880
Diagnostic sigmoidoscopies: 2,168
Side-viewing endoscopies: 830
Endoscopic Retrograde Cholangiopancreatography (ERCP): 2,520
Endoscopic ultrasound (Diagnostic and therapeutic): 515
Fibroscan: 10,610

G.I.Motility

High resolution esophageal manometry: 437 High resolution anorectal manometry: 334
Biofeedback: 186 24 hours ambulatory PH monitoring: 12

Tests which were undertaken in the department

1.	Hepatitis B Virus quantitation by realtime PCR	2,716
2.	Hepatitis C Virus quantitation by realtime PCR	2,054
3.	HCV genotyping by real time PCR	155
4.	HEV detection quantitative	422
5.	HBsAg by ELISA	1,759
6.	HBeAg by Flurometry/ELISA	480
7.	Anti Hbe by Vidas/ELISA	188
8.	Anti HBc Total by Vidas/Elisa	938
9.	HBcIgM by Vidas	7
10.	HAV IgM by ELISA	447
11.	HEV IgM by ELISA	450
12.	Anti HCV by ELISA	1,644

13.	Arterial Ammonia	1,136
14.	IgG4 by Nephelometry	13
15.	D-Xylose by colorimetry	422
16.	Fecal Fat by ether extraction	273
17.	Fecal elastase by ELISA	398
18.	Hydrogen Breath Test	79
19.	Urea Breath Test	23
20.	Ttg IgA by FEIA	300
21.	Ttg IgA by ELISA	1,753
22.	Ceruloplasmin by turbidometry	1,615
23.	Serum Copper by colorimetry	837
24.	24 hrs. urinary copper	663
25.	Lipid peroxidation (MDA) by spectrophotometry	21
26.	Free Radical Antioxidant Potential (FRAP)	21
27.	Lactose	150
28.	Mannitol	150
29.	sHLA G ELISA	76
30.	hsCRP by ELISA	80

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Pramod Garg was awarded Om Prakash Bhasin Award in the category ‘Health and Medical Sciences’ for the year 2017, Nominated Member of Scientific Advisory Board, Indian Council of Medical Research, New Delhi, Member of Scientific Advisory Group for the Division of Non-Communicable Diseases, Indian Council of Medical Research, New Delhi, Delivered ‘KN Jalan Oration’ during the Annual Conference of the West Bengal Chapter of the Indian Society of Gastroenterology, held in Kolkata on the 8 February 2019.

Professor Govind K Makharia was nominated as the Co-chair of Clinical Research Committee, World Gastroenterology Organization (2017-2020); Co-chairman of making of Global guidelines on “Diet and Gut” by World Gastroenterology Organization; Board Member, International Association for the Studies on Celiac Disease (2015-2019); Council Member, Asian Pacific Association of Gastroenterology (APAGE); Secretary General of Indian Society of Gastroenterology (2016-2019); Editorial Advisory Board Member, Clinical and Translational Gastroenterology (American College of Gastroenterology); Coordinator of the Department of Biotechnology Consortium on Celiac Disease; Governing Council Member, Indian Motility and Functional Diseases Association; Coordinator of Indian Society of Gastroenterology Task Force on Inflammatory Bowel Disease; Coordinator of Young Clinician Programme, Indian Society of Gastroenterology.

Dr Baibaswata Nayak is the reviewer of 21 national and international journals including PLoS Pathogen, Virus Diseases, Nature Scientific Reports, Biochemistry and Biotechnology Research, Drug Research, Tropical Gastroenterology, PLoS One, Indian Journal of Medical Research, Indian Journal of Virology, Virus Research, Virology Journal, Viral Immunology, Journal of Veterinary Science, ActaTropica, BioMed Research International, BMC Medical Genomics, Molecular and Cell Biology of Lipids, Research Report, Canadian Journal of Gastroenterology and Hepatology, Computer Methods and Programmes in Biomedicine and Informatics in Medicine; is also reviewer to extramural funding of DST SERB, AYUSH/CCRH, ICMR STS expert group, ICMR ITR (innovation translation research) group and DBT nominee for Institute Biosafety Committee (IBSC).

Dr Saurabh Kedia was awarded Young Investigator Award for the paper titled ‘Gut microbiome diversity in acute severe colitis is different from mild to moderate colitis’ during the ISGCON-2018 held at Kochi, Kerala, Nominated as Member ISG Task Force on the development of Indian Guidelines on Gastroesophageal reflux disease, nominated Member of ISG-API Task Force on the development of guidelines on GERD.

VISITING SCIENTISTS

1. Dr Saurabh Mukewar, Assistant Professor, NY Presbyterian Hospital, USA on 28 August 2018
2. Dr David C Whitcomb, Professor of Medicine, Chief, Division of Gastro, Hepatology and Nutrition, University of Pittsburgh, USA on 5 December 2018
3. Dr S Dasarathy, Chairman Department of Gastroenterology, Hepatology and Nutrition, Cleveland Clinic, Ohio, USA on 2 February 2019.

9.14. Gastrointestinal Surgery and Liver Transplantation

Professor and Head

Peush Sahni

Professors

Sujoy Pal

Nihar Ranjan Dash

Assistant Professors (On contract)

Rajesh Panwar

Anand Narayan Singh

HIGHLIGHTS

The department organized the inaugural conference of the Liver Transplantation Society of India (LTSICON 2018) on 17 and 18 November 2018. We also conducted hands-on training workshops on cadaveric multi-organ retrieval and vascular anastomosis on 18 November 2018.

EDUCATION

The department is actively involved in the teaching of undergraduate students. The department offers 3-year training leading to award of MCh in Gastrointestinal Surgery. There are 14 MCh students in the department. The department also offers short-term observership for a period of 1-3 months. The weekly academic activities include a weekly audit, presentations of abstracts of recently published papers, a seminar, journal club, and discussion on research and dissertation projects. Besides these, a combined round with Gastroenterology and a GI Radiology conference are held once in a week, and a GE-GI Surgery histopathology conference once in two weeks.

CMEs/Workshops/Symposia/National and International Conferences organized by the department

1. 'Celebrating 30 years of publishing' of The National Medical Journal of India, AIIMS, New Delhi, 5-8 April 2018
2. Workshop on 'Writing a Research Paper', AIIMS, New Delhi, 5-6 April 2018
3. Workshop on 'How to Peer Review?', AIIMS, New Delhi, 6 April 2018
4. Seminar-cum-Workshop for Editors, AIIMS, New Delhi, 7-8 April 2018
5. Inaugural conference of the Liver Transplantation Society of India (LTSICON 2018), AIIMS, New Delhi, 17-18 November 2018
6. Workshop on cadaveric multiorgan retrieval, AIIMS, New Delhi, 18 November 2018
7. Workshop on vascular anastomosis, AIIMS, New Delhi, 18 November 2018

Lectures delivered

Peush Sahni

1. IMRAD format, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi
2. Discussion, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi
3. Editorial process, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi Scientific misconduct/ Predatory journals, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi
4. Choosing a journal, Workshop on Writing a paper, 5-6 April 2018, AIIMS, New Delhi
5. The peer review process: History and methods, Workshop: How to peer review, 6 April 2018, AIIMS, New Delhi
6. Authorship, COPE Workshop on Publication Misconduct, The National Medical Journal of India: 30 years of publishing in association with COPE and IAMJE, 7-8 April 2018, AIIMS, New Delhi
7. Panel discussion, Healthcare Practice watch—In the context of rational and irrational use of medical interventions, National Conference on Ethical Healthcare (NCEH 2018), Association of Doctors for Ethical Healthcare, 21-22 April 2018, AIIMS, New Delhi
8. Critical appraisal: How to read a paper for peer review, Indian Journal of Urology workshop on peer review, 14-15 April 2018, Hyderabad
9. Components of peer review: Results and discussion, Indian Journal of Urology workshop on peer review, 14-15 April 2018, Hyderabad
10. Components of peer review: Statistical issues and data, Indian Journal of Urology workshop on peer review, 14-15 April 2018, Hyderabad

11. Writing a review, Indian Journal of Urology workshop on peer review, 14-15 April 2018, Hyderabad
12. Ethics of research: Consent, IEC and trial registration, Workshop on Research and Writing, 17 April 2018, ESIC Medical College and Hospital, Hyderabad
13. Authorship issues, Scientific misconduct, 17 April 2018, ESIC Medical College and Hospital, Hyderabad
14. Pseudo/predatory journal, 17 April 2018, ESIC Medical College and Hospital, Hyderabad
15. Cystic neoplasms of pancreas—What a Surgical resident should know, Endosurg 2018, AIIMS, New Delhi, 19 April 2018
16. Communication in science: Thesis, Papers, ICMJE recommendations, PG Research Methodology Course, 5 May 2018, AIIMS, New Delhi
17. Methods, PG Research Methodology Course, 5 May 2018, AIIMS, New Delhi
18. Results, Tables/Figures, PG Research Methodology Course, 5 May 2018, AIIMS, New Delhi
19. Discussion, PG Research Methodology Course, 5 May 2018, AIIMS, New Delhi
20. References, PG Research Methodology Course, 5 May 2018, AIIMS, New Delhi
21. Gallbladder Ileus: Is a cholecystectomy needed in the emergency? Yes, SSAT International Programme: Controversial Topics in Digestive Surgery, DDW 2018, 3 June 2018, Washington DC, USA
22. Publication ethics: COPE, WAME and ICMJE initiatives, National Workshop on Publication Ethics and Scientific Writing, 5-7 July 2018, Ayush Centre of Excellence, Savitribai Phule Pune University, Pune
23. Panel discussion: Scientific publications: Should we regulate? National Workshop on Publication Ethics and Scientific Writing, 5-7 July 2018, Ayush Centre of Excellence, Savitribai Phule Pune University, Pune
24. COI and Ethics—Editor's and reviewer's perspective, National Workshop on Publication Ethics and Scientific Writing, 5-7 July 2018, Ayush Centre of Excellence, Savitribai Phule Pune University, Pune
25. Case studies—An interactive session, National Workshop on Publication Ethics and Scientific Writing, 5-7 July 2018, Ayush Centre of Excellence, Savitribai Phule Pune University, Pune
26. Control of locally advanced pancreatic cancer: Borderline to unresectable, 12 July 2018, 73rd Japanese Society of Gastroenterological Surgery, Kagoshima, Japan
27. How to improve surgeon's participation, Indian Society of Gastroenterology, Brain Storming, Hyderabad, 15 August 2018
28. How to write an abstract? Indian Society of Gastroenterology, Young Clinician's Programme 2018, 17-19 August 2018, Hyderabad
29. Submission requirements for E-journals, Dr MP Khunteta Homoeopathic Medical College, Hospital and Research Centre, Jaipur, 25 August 2018
30. IMRAD format, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
31. Choosing a journal, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
32. Editorial process, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
33. Results/Tables/Figures, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
34. Discussion, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
35. References Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
36. Scientific misconduct/Predatory journals, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
37. Conflict of interest, Workshop on writing a paper, 1-2 September 2018, IPGMER, Kolkata
38. Results, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
39. Tables and figures, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
40. Discussion, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
41. Editorial process, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
42. Scientific misconduct, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
43. Choosing a journal, Workshop on writing a research paper, 7-8 September 2018, AIIMS, New Delhi
44. Segmental Anatomy of Liver: Clinical implication for a hepatologist, Indian Association for Study of the Liver, 14 September 2018, New Delhi
45. Communication in science: Thesis, papers, ICMJE recommendations, PG Research Methodology Workshop, 28 September 2018, AIIMS, New Delhi
46. Introduction, PG Research Methodology Workshop, 28 September 2018, AIIMS, New Delhi
47. Tables/Figures, PG Research Methodology Workshop, 28 September 2018, AIIMS, New Delhi

48. Discussion, PG Research Methodology Workshop, 28 September 2018, AIIMS, New Delhi
49. Pitfalls in publishing, IASGCON 2018, 7 October 2018, Chandigarh
50. Case capsules (3), CME on HPB Oncology, 9-10 November 2018, Tata Memorial Centre, Kolkata
51. Informed consent, Trial registration, Ethics, ICMR-PGIMER Research Methodology Workshop 2018, 18-20 November 2018, PGIMER, Chandigarh
52. How to write a paper, ICMR-PGIMER Research Methodology Workshop 2018, 18-20 November 2018, PGIMER, Chandigarh
53. Scientific communication: Need, types and importance, Course on Scientific Communication, 24-25 November 2018, Sanjay Gandhi Post-graduate Institute of Medical Sciences, Lucknow
54. IMRAD: Results, including tables and figures, Course on Scientific Communication, 24-25 November 2018, Sanjay Gandhi Post-graduate Institute of Medical Sciences, Lucknow
55. Editorial process and peer review, Course on Scientific Communication, 24-25 November 2018, Sanjay Gandhi Post-graduate Institute of Medical Sciences, Lucknow
56. Choosing a journal and pseudojournals, Course on Scientific Communication, 24-25 November 2018, Sanjay Gandhi Post-graduate Institute of Medical Sciences, Lucknow
57. Shunt surgery: Certificate course in Hepato Pancreato Biliary Surgery, Indian Chapter of International Hepato Pancreato Biliary Association, Christian Medical College, Vellore, 28 November 2018
58. Portal Biliopathy: Certificate course in Hepato Pancreato Biliary Surgery, Indian Chapter of International Hepato Pancreato Biliary Association, Christian Medical College, Vellore, 28 November 2018
59. Benign liver lesions: Certificate course in Hepato Pancreato Biliary Surgery, Indian Chapter of International Hepato Pancreato Biliary Association, Christian Medical College, Vellore, 28 November 2018
60. Management of suspected infected pancreatic necrosis, Panel Discussion, Symposium on Acute Pancreatitis, 1 December 2018, Kochi
61. Lower G.I. bleed, A surgeon's nightmare, FALS Colorectal-2018, 7 December 2018, Fortis Memorial Research Institute, Gurugram
62. Keynote address: Doing meaningful research, a paradigm for medical college students, Institutional Research Day, Dayanand Medical College, Ludhiana, 19 January 2019
63. Portal biliopathy: Suspicion, pathophysiology and diagnostic algorithm, Mid-term CME of IHPBA, 19-20 January 2019, Lovely Professional University, Jalandhar
64. Algorithmic approach to management of carcinoma gall bladder, Mid-Term CME of IHPBA, 19-20 January 2019, Lovely Professional University, Jalandhar
65. Approach to a case of obstructive jaundice: How to evaluate, Hepatobiliary surgery, PG Master Classes in Surgery, 1 February 2019, Department of Surgery, IMS, BHÜ, Varanasi
66. Case Capsule: Obstructive jaundice, How to evaluate, Hepatobiliary surgery, PG Master Classes in Surgery, 1 February 2019, Department of Surgery, IMS, BHÜ, Varanasi
67. Ward round: Acute pancreatitis, Hepatobiliary surgery, PG Master Classes in Surgery, 1 February 2019, Department of Surgery, IMS, BHÜ, Varanasi
68. Types of manuscripts and what authors need to know, Pre-Conference workshop: Preparation of Scientific Research Publications, Clinical Research Advancing the Frontiers of Health, 12th Annual Indian Society for Clinical Research Conference, 14 February 2019, New Delhi
69. What do we know about peer review? 4th Annual JIPMER Research Day 2018-2019, Workshop on Scientific Writing, 6 March 2019, JIPMER, Puducherry
70. What do editors want from reviewers, 4th Annual JIPMER Research Day, 2018-2019 Workshop on Scientific Writing, 6 March 2019, JIPMER, Puducherry
71. Communication in science: Thesis, Papers, ICMJE recommendations, PG Research Methodology Workshop, 8 May 2019, AIIMS, New Delhi
72. Results, PG Research Methodology Workshop, 8 May 2019, AIIMS, New Delhi
73. Tables/Figures, PG Research Methodology Workshop, 8 May 2019, AIIMS, New Delhi
74. Discussion, PG Research Methodology Workshop, 8 May 2019, AIIMS, New Delhi
75. References, PG Research Methodology Workshop, 8 May 2019, AIIMS, New Delhi
76. Clinical perspectives on affordable medical devices, CBME MedTech Workshop, 9 March 2019, IIT Ropar, Ropar, Punjab.

Sujoy Pal

1. Bile duct injuries, MAMC Surgery Update, 24-29 September 2018, New Delhi
2. Moderator: Master video on SMA first approach to PD, 28th Annual conference of IASG, 4-7 October 2018, Chandigarh
3. Debate: Upfront surgery vs. NACT for resectable pancreatic cancer, CME: New Horizons of pancreatic cancer, 25 November 2018, New Delhi
4. Current role of Shunt Surgery in PHT, CME Meeting: GI Surgicon, 19-20 January 2019, New Delhi
5. Current role of surgery in Crohn's Disease, Annual Meeting of the WB state Chapter of ISG, 8-9 February 2019, Kolkata
6. Cystic neoplasms of the pancreas, Annual conference of the India chapter of IHPBA, 15-17 February 2019, Jaipur
7. Panelist: Panel discussion on Severe Acute Pancreatitis, Annual conference of the India chapter of IHPBA, 15-17 February 2019, Jaipur
8. Panelist: Panel discussion on bile duct injury, Annual conference of the India chapter of IHPBA, 15-17 February 2019, Jaipur
9. Moderator for panel discussion on Bile Duct Injury, Endolap MAMC, 1-3 March 2019, New Delhi
10. Surgery for IBD, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi
11. Debate: Duct to duct vs. HJ for bile duct repair following BDI, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi
12. AKI prior to transplant in CLD: Optimising strategies, Apollo LTHPS Conclave, 30-31 March 2019, Gurgaon

Nihar Ranjan Dash

1. Surgical complications of intestinal stoma, 11th Congress of the Asian Society of Stoma Rehabilitation, 22-23 February 2019, Osaka, Japan
2. From marking to maintenance of stoma, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi

Rajesh Panwar

1. Training in peer review: Does it help? 'Celebrating 30 years of publishing' of The National Medical Journal of India, AIIMS, New Delhi, 5-8 April 2018
2. Video presentation: Whipple's procedure, 12th AIIMS Surgical week ENDOSURG, 19-22 April 2018, New Delhi
3. Stoma care in IBD, 6th National IBD meet, 15-16 September 2018, New Delhi
4. Video Presentation: Constructing Ileal pouch and pouch-anal anastomosis, 28th Annual conference of IASG, 4-7 October 2018, Chandigarh
5. Management of malignancies of anal canal (excluding adenocarcinoma), 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi
6. Video presentation: IPAA, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi

Anand Narayan Singh

1. Surgical management for portal hypertension, 12th AIIMS Surgical week ENDOSURG, 19-22 April 2018, New Delhi
2. Endoscopic complications: Panel discussion, Endocon 2019, The 19th Annual Conference of SGEI, 15-17 February 2019, New Delhi
3. Surgical management of rectal prolapse, 13th AIIMS Surgical week ENDOSURG, 28-31 March 2019, New Delhi

Oral papers/posters presented

1. Aggarwal A, Dash NR, Pal S, Sharma A, Deo S, Sahni P, et al. Hyperthermic intraperitoneal chemotherapy in gall bladder carcinoma: A pilot study, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
2. Bhandare M, Chaudhari V, Pradeep R, Ramesh H, Dhar P, Pal S, et al. Surgery for cystic tumors of pancreas: Report of high volume multi institutional Indian experience over a decade, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
3. Biswas RS, Dash NR, Singh AN, Sahni P, Pal S. Outcome following hepatectomy for complex bile duct injuries, 28th Annual Conference of IASG, 4-7 October 2018, Chandigarh
4. Dash NR, Roy S, Krishna P, Madhusudhan KS. A case of haemosuccus pancreaticus treated with a technically challenging pancreatoduodenectomy and a novel reconstruction of proper hepatic artery, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland

5. Dash NR, Saraya A, Rashid S, Rashid S. Circulating miR-107 could be a potential biomarker for pancreatic ductal adenocarcinoma, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
6. George J, Pal S, Mangla V, Dash NR, Sahni P, Pande GK, et al. Is endoscopic management of oesophageal varices in Extrahepatic Portal Venous Obstruction (EHPVO) a risk factor for portal biliopathy? 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
7. Jeyakumar P, Panwar R, Aggarwal A, Shalimar S, Pal S, Dash NR, et al. Surgical resection for non-hepatic gastrointestinal malignancies in patients with chronic liver disease: Risks and early post-operative outcomes, 28th Annual Conference of IASG, 4-7 October 2018, Chandigarh
8. Jeyakumar P, Singh AN, Pal S, Bansal V, Bagga A, Rastogi A, et al. 1st National Conference of The LTSI (LTSICON 2018), 16-17 November 2018, New Delhi
9. Kilambi R, Singh AN, Pal S, Dash NR, Sahni P. Extensive resections in carcinoma gall bladder: Worth it or not? 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
10. Kilambi, R, Singh AN, Pal S, Das P, Madhusudhan KS. An unusual case of chronic pancreatitis, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
11. Mohapatra V, Reddy SHS, Madhusudan KS, Dash NR, Shalimar S, Pal S, et al. Utility of portal vein embolization in surgical management of locally advanced gallbladder cancer, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
12. Pal S, Kilambi R, Singh AN, Roy S, Bhoje A. Modified Appleby procedure in locally advanced carcinoma of the body of pancreas with inadequate circulation through the pancreaticoduodenal arcade, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
13. Raj A, Madhusudhan KS, Dey AB, Singh AN, Panwar R, Dash NR, et al. Prevalence of frailty and its association with morbidity in elderly surgical patients, 28th Annual Conference of IASG, 4-7 October 2018, Chandigarh
14. Roy S, Dash N, Pal S, Sahni P, Chattopadhyay TK, Nundy S, et al. Emergency proximal Lienorenal Shunt (LRS) for variceal bleeding in patients with Extrahepatic Portal Venous Obstruction (EHPVO), 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
15. Sahota GS, Panwar R, Aggarwal A, Singh AN, Kedia S, Shalimar S, et al. Elective splenectomy for hypersplenism in patients with chronic liver disease, 28th Annual conference of IASG, 4-7 October 2018, Chandigarh
16. Sahota GS, Roy S, Dash NR, Pal S, Sahni P. Management of biliary cystadenomas: 10 years' experience, 28th Annual Conference of IASG, 4-7 October 2018, Chandigarh
17. Singh AN, Jain H, Pal S, Das P, Yadav R, Sahota G, et al. Posterior (SMA-first) approach vs. standard pancreatoduodenectomy in patients with periampullary cancer: A randomized trial, 13th World Congress of IHPBA, 4-7 September 2018, Geneva, Switzerland
18. Singh AN, Panwar R, Pal S, Rastogi A, Dash NR, Soin A, et al. IN-VIVO SPLIT-liver transplantation and organ sharing between 2 institutions, 1st National Conference of The LTSI (LTSICON 2018), 16-17 November 2018, New Delhi
19. Thummala S, Rastogi A, Sahni P, Pal S, Dash N, Singh A, et al. In vivo split liver transplantation and organ sharing between two institutions, 28th Annual Conference of IASG, 4-7 October 2018, Chandigarh

RESEARCH

Funded projects

Ongoing

1. Development of an indigenous affordable no-frill enteral feeding pump, Peush Sahni, DST, 3 years, 2015-2018, Rs 23.85 lakhs
2. Randomized controlled trial on skin preparation with chlorhexidine alcohol prep vs. savlon/betadine prep in elective gastrointestinal surgery, Peush Sahni, AIIMS, 5 years, 2012-2018, Rs 1.50 lakhs
3. Posterior (SMA-first) approach vs. standard pancreatoduodenectomy in patients with pancreatic cancer with special focus on circumferential resection margins and medium term survival outcome: A prospective randomized controlled trial, Sujoy Pal, AIIMS, 5 years, 2013-2018, Rs 5 lakhs
4. A preliminary study to document the genetic and molecular profile of resected colorectal cancers in India, Sujoy Pal, AIIMS, 3 years, 2016-2019, Rs 5 lakhs
5. Safety and effectivity of HIPEC in Gall Bladder Cancer, Nihar Ranjan Dash, AIIMS, 3 years, 2016-2019, Rs 5 lakhs

Departmental projects

Ongoing

1. A randomized trial of peri-operative low dose vs standard dose steroid regimen in patients of ulcerative colitis
2. Safety and efficacy of hyperthermic intra peritoneal chemotherapy in the management of gastric cancer
3. A prospective study to evaluate sarcopenia in adult Chronic Liver Disease (CLD) patients waiting for liver transplantation

Completed

1. Prevalence of frailty and its association with morbidity in elderly surgical patients
2. Incidence of Deep Vein Thrombosis (DVT) in major gastrointestinal surgery: A prospective observational study
3. Outcome of post cholecystectomy biliary stricture in a tertiary care centre
4. Impact of proton pump inhibitors on the development of anastomotic complications after gastric pull-up and cervical oesophago-gastric anastomosis, A randomized control study

Collaborative projects

Ongoing

1. Isolation and molecular characterisation of colorectal cancer stem cells (Biochemistry)
2. Development of singleplex PCR based test for detecting multiple hepatitis viruses simultaneously (Laboratory Medicine)
3. Isolation, identification and characterization of cancer stem cells from different histopathological grades of colorectal carcinoma (Biochemistry)
4. Elucidating the role of differentially expressed gene(s) in colorectal cancer stem cells (Biochemistry)
5. Genomics in Gall bladder cancer in Indian Population (Radiation Oncology)

Completed

1. Assessment of frailty in geriatric patients undergoing GI surgery (Geriatric Medicine)
2. An observational study of portal vein embolization in patients with hepatobiliary malignancies (Radiodiagnosis)

PUBLICATIONS

Journals: 16

Abstracts: 17

Chapters in Books: 1

Books: 1

PATIENT CARE

OPD

Total number of new patients seen: 3,471

Total number of old patients seen: 6,925

Specialty clinics

Department is running a daily clinic for stoma patients.

Special laboratory facilities

Anal manometry, Oesophageal manometry, 24-hour ambulatory oesophageal pH monitoring, Endotraining laboratory.

Inpatients

Total Surgical procedures: 607

Elective: 480

Emergencies: 127

Special interest areas

Biliary obstruction:	130	Portal hypertension:	26
Oesophageal cancer:	31	Carcinoma gall bladder:	49
Ulcerative colitis:	57	Upper GI haemorrhage:	04
Lower GI haemorrhage:	10	Acute pancreatitis:	12
Chronic pancreatitis:	10	Biliary strictures:	13
Pancreato-duodenectomy:	57	Liver resections:	62

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Peush Sahni delivered Dr Shrish K Bhansali Memorial Oration “Evolution of Surgery for Acute Pancreatitis” on 28 December 2018 at the 78th Annual Conference of Association of Surgeons of India held at Chennai. He was

President and Chair, Education Committee, Indian Association of Surgical Gastroenterology; President, Indian Association of Medical Journal Editors; Chair, Membership Committee, World Association of Medical Editors; Member, Editorial Board, Journal of Gastrointestinal Surgery (official Journal of Society for Surgery of the Alimentary Tract) and International Representative, Member Services Committee, Society for Surgery of the Alimentary Tract, USA; Member, International Committee of Medical Journal Editors; Member, Ethics Committee, Medical Council of India; Member, Board of Studies, AIIMS, Bhubaneswar.

Professor Sujoy Pal completed the tenure of Founder President of Liver Transplantation society of India in November 2018 and was nominated as the Past President (LTSI) for the year 2018-2019. He is a member of the Scientific committee of the Indian Association of Surgical Gastroenterology, Gall bladder Cancer Registry Working group of the IHPBA and editorial board member of Indian Journal of Gastroenterology. He is also the Chief Public Information Officer of the Department of GI Surgery under the RTI Act.

Professor Nihar Ranjan Dash was re-elected as President, Indian Ostomy Society and organized the Annual Meeting of the Indian Ostomy Society. He was reviewer for European Radiology, BMC Surgery, BMC Case Reports and Tropical Gastroenterology. He was appointed Expert for Union Public Service Commission in Surgery with specialization in GI Surgery, interviews of Lecturer Surgical Gastroenterology in Health and Medical Education Department, Jammu and Kashmir, Central Drugs Standard Control Organisation (CDSCO), Prashna India, ICMR Gall Bladder Task Force, and selection of Faculty in the Department of Surgical Gastroenterology, AIIMS, Bhubaneswar.

9.15. Geriatric Medicine

Professor and Head

AB Dey

Assistant Professors

Prasun Chatterjee

Avinash Chakrawarty

Vijay Kumar

HIGHLIGHTS

The Honorable Prime Minister Shri Narendra Modi laid the foundation stone of the National Centre for Ageing at AIIMS on 29 June 2018. Shri J P Nadda, Union Minister of Health and Family Welfare, Shri Ashwini Kumar Choubey and Smt Anupriya Patel, Ministers of State for Health and Family Welfare were also present at the event. The National Centre for Ageing will provide “state of art” clinical care to the elderly population and shall play a key role in guiding research in the field of geriatric medicine and related specialties. The centre will also be a key training facility for undergraduate and post graduate courses. The centre will provide multi-specialty health care with 180 general ward beds and 20 ICU beds. It will be developed at a cost of Rs 330 crores. The Department of Geriatric Medicine organized 4th International Congress on Gerontology and Geriatric Medicine along with the Asia Pacific Geriatric Medicine Network Conference at All India Institute of Medical Sciences on 15-16 November 2018.

EDUCATION

The department is the largest postgraduate Department of Geriatric Medicine in India. In addition to active participation in institutional academic activities like clinical combined rounds the department placed major focus on postgraduate training with five sessions of teaching every week. Dr Manjula Gupta, Professor, Department of Medicine, Gandhi Medical College Bhopal, spent two weeks in the department as an observer establishing a Geriatric Service in her hospital.

CMEs/Workshops/Symposia/National and International Conferences

1. 4th International Congress on Gerontology and Geriatric Medicine along with the Asia Pacific Geriatric Medicine Network Conference, 15-16 November 2018, New Delhi

Lectures delivered

AB Dey

1. Progress in Fragility Fracture Network activities in India with special reference to hip fracture management strategies, 7th FFN Global Congress, 5 July 2018, Royal College of Surgeons, Ireland, Dublin, Ireland
2. How to provide ortho-geriatric care in different healthy care environments, 7th FFN Global Congress, 6 July 2018, Royal College of Surgeons, Ireland, Dublin, Ireland

3. Future perspective of fragility fracture care: Geriatric medicine in India, 7th FFN Global Congress, 7 July 2018, Royal College of Surgeons, Ireland, Dublin, Ireland
4. Conceptualization of an Ortho-geriatric Unit in a Tertiary Care Hospital, 6th International Conference of the Geriatric Orthopedic Society of India-GOSICON-2018, 8 September 2018, All India Institute of Medical Sciences, New Delhi
5. Progress of FFN in India, Asia-Pacific Regional Expert Meeting on the Prevention and Management of Fragility Fractures, 24 November 2018, University of Tokyo, Tokyo, Japan
6. Is surgical delay warranted in hip fractures and anticoagulant therapy? 63rd Annual Conference of Indian Orthopaedic Association: IOACON 2018, 30 November 2018, CODISSIA Trade Fair Complex, Coimbatore, Tamil Nadu
7. Diagnostic assessment of dementia in Longitudinal Ageing Study of India: Making of an innovative assessment, Asia Pacific Rim University Conference on Population Aging, 7 December 2018, HKUST Institute for Emerging Market Studies, Hong Kong
8. ICOPE pilot study for validation in India, CCHA Work stream onICOPE Pilots and Implementation, 21 February 2019, Miami, USA

Prasun Chatterjee

1. Euthanasia—The Right Right, TEDX Talk, 21 October 2018, Indian Institute of Technology, Indore, Madhya Pradesh
2. ICOPE implementation in India, CCHA Work stream onICOPE Pilots and Implementation, 21 February 2019, Miami, USA

Oral papers/posters presented

1. Bansal R, Comprehensive preoperative assessment in orthogeriatric practice, 6th International Conference of the Geriatric Orthopedic Society of India-GOSICON-2018, 8 September 2018, AIIMS, New Delhi
2. Singhal S, Sarcopenia—The new elephant in the operating room, 6th International Conference of the Geriatric Orthopedic Society of India-GOSICON-2018, 8 September 2018, AIIMS, New Delhi
3. Singh S, Impact of geriatric syndromes on post-operative outcome, 6th International Conference of the Geriatric Orthopedic Society of India-GOSICON-2018, 8 September 2018, AIIMS, New Delhi
4. Bansal R, Impact of frailty on post-operative outcome of major orthopedic surgery in older Indian, 4th ICGGM (International Congress on Gerontology and Geriatric Medicine), 16 November 2018, AIIMS, New Delhi
5. Bansal R, Role of comprehensive geriatric assessment in predicting post-operative delirium in major orthopedic surgery in Indian elderly, 16th Annual Conference of Indian Academy of Geriatrics (IAG), 8 December 2018, Government Medical College, Kota
6. Bansal R, 1-Repetitive Maximum (RM) of quadriceps femoris: A surrogate marker for diagnosing sarcopenia, 1st AIIMS Annual Research Day, 26 March 2019, AIIMS, New Delhi
7. Devangan G, Association of sarcopenia and mid upper arm circumference in older Indian population, 4th ICGGM (International Congress on Gerontology and Geriatric Medicine), 16 November 2018, AIIMS, New Delhi
8. Devangan G, Association of sarcopenia and low calf circumference in older Indians (won 1st prize), 16th Annual Conference of Indian Academy of Geriatrics (IAG), 8 December 2018, Government Medical College, Kota
9. Devangan G, Association of sarcopenia and mid upper arm circumference in older Indian population, International Conference on Frailty and Sarcopenia Research (ICFSR 2019), 21 February 2019, Miami, USA
10. Saini M, Gait and balance assessment in patients attending memory clinic, 16th Annual Conference of Indian Academy of Geriatrics (IAG), 8 December 2018, Government Medical College, Kota
11. Kumar P, Cardiovascular status and Geriatric syndrome in the very old population, 16th Annual Conference of Indian Academy of Geriatrics (IAG), 8 December 2018, Government Medical College, Kota
12. Singhal S, Serum creatinine and cystatin C based index can be a screening biomarker for sarcopenia in older population, 4th ICGGM (International Congress on Gerontology and Geriatric Medicine), 15 November 2018, AIIMS, New Delhi
13. Singhal S, Serum creatinine and cystatin C based index can be a screening biomarker for sarcopenia in older population, GERICON-18, 16th Annual Conference of Indian Academy of Geriatrics, 8 December 2018, Government Medical College, Kota (**Best poster award**)
14. Anwar M, Sestrin family of proteins: A modulating factor for rejuvenation of aged muscle stem cells, 1st AIIMS Annual Research Day, 26 March 2019, AIIMS, Delhi

15. Bajpai S, Human Rights of Elderly: The Incognizant Status in Indian Healthcare System, 76th Annual Conference on International Council of Psychologists, 24 June 2018, Montreal, Canada
16. Singh A, Serum Sirtuin level in Alzheimer's Disease as a window for the novel diagnostic marker, 14th International Conference on Alzheimer's and Parkinson's Diseases, 2019, 31 March 2019, Congress Center Lisbon, Lisbon

RESEARCH

Funded projects

Ongoing

1. Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Aging Study of India (LASI), AB Dey, NIH, 3 years, 2015-2019, Rs 528 lakhs
2. Longitudinal Aging Study of India (LASI), AB Dey, MoHFW, 4 years, 2015-2019, Rs 5 lakhs
3. www.oldagesolutions.org, A web portal for older people and their care givers, AB Dey, DST, 3 years, 2019-2022, Rs 47.38 lakhs
4. Effect of multimodal intervention in subjective impairment in comparison with health awareness, Prasun Chatterjee, DST, 2 years, 2018-2020, Rs 38.52 lakhs

Departmental projects

Ongoing

1. Impact of Nordic Walking training on functional status in the very old: A randomized control trial
2. Geriatric assessment of patients with hematological malignancies (Multiple Myeloma) by a newly developed scale for older persons with malignancy for their initial assessment, Prognostication and care
3. Evaluation of novel intracellular proteins in serum as marker of aging
4. Study of skeletal muscle regeneration in old age
5. Assessment of autonomic function across frailty status in Indian Elderly
6. Randomized Placebo Controlled Trial to assess clinical and immunological efficacy of Pneumococcal Vaccine In Indian Older Adults
7. Cardiopulmonary testing in the older Indian adults attending the Geriatric Medicine OPD
8. Development of a new clinical frailty scale in older adults
9. Biomarkers and diagnostic tools of Sarcopenia in Indian older population
10. One carbon metabolism and cognitive impairment in older Indians
11. Establishment of a clinical construct of intrinsic capacity in older adults
12. Estimation of Novel Proteins among Older Subjects as Biomarkers for Cognitive Impairment
13. Predictor of survival following hospitalization for illness of recent onset among the oldest old (>85 years)
14. Observation of Sarcopenia in community setting
15. Caregiver stress and burden among carers of cognitively impaired individuals
16. Incidence and prevalence of delirium and its socio demographic, clinical and biochemical correlates in geriatric population
17. Biological ageing indicators and its correlates in older Indians

Completed

1. Study of older patients undergoing elective orthopedic procedure in Indian Tertiary Care Hospital
2. Study of cognition in frail older adults
3. Gait and balance assessment in patient attending memory clinic
4. Clinical, biochemical and radiological profile in mild behavior impairment
5. Comprehensive geriatric assessment of older adults attending fragility clinic in a tertiary health care setting in India
6. Collaborative Multi-centric Clinical Trial to study the effect of Ayush Rasayana (A and B) on ageing in apparently healthy elderly subjects
7. Predicting frailty in Indian hospital setting; comparison of three indicators
8. A randomized clinical trial on the effect of Laser Therapy treatment on diabetic peripheral neuropathic pain in older adults
9. Impact of Nordic Walking training on functional status in the very old: An RCT

PUBLICATIONS

Journals: 7 Chapters in Books: 2

PATIENT CARE

The department provided daily OPD service and once a week afternoon Memory Clinic. During the year 51,365 (new and revisit) consultations were provided to patients in OPD and 412 (202 new and 210 old) patients were seen in the Memory Clinic. Rehabilitation services from the Day Care service of the department was provided to 14,345 patients. In the Geriatric Medicine Ward 1,401 patients were admitted during the year.

Community Service

The faculty and residents of the department participated in health camps for senior citizens organized by non-governmental organization Healthy Aging India in old age homes in Delhi NCR region.

AWARDS, HONORS AND SIGNIFICANT EVENTS

Professor AB Dey was invited to participate in WHO Clinical Consortium on Healthy Ageing meeting on 11-12 December 2018 in Geneva. Dr AB Dey was the Section Editor of the Section Gerontology in API Textbook of Medicine, 11th Edition.

VISITING SCIENTISTS

Dr Nandu Goswami, Associate Professor from Medical University of Graz, Austria Priv. Dozent, Otto Loewi Research Center for Vascular Biology, Immunology and Inflammation visited the department in February 2019.

9.16. Haematology

Professor and Head

Renu Saxena

Professors

HP Pati

S Tyagi

M Mahapatra

Tulika Seth

Assistant Professors (contract)

Mukul Agarwal

Rishi Dhawan

Scientist II

S Sazawal

Suman Lata

Scientist I

Ravi Ranjan

Ravi Kumar

HIGHLIGHTS

- The department of hematology was involved in utilizing cutting edge technology like real time PCR/PCR/flowcytometry for the diagnosis and management of hematological disorders. It was involved in routine diagnosis and management of patients with hematological disorders
- The department continues to perform allogeneic hematopoietic stem cell transplants for aplastic anemia, thalassemia, leukemias and myelodysplastic syndrome
- The ISHTM-AIIMS external quality assessment programme for hemogram, conducted by Department of Hematology, AIIMS with Dr R Saxena as coordinator, was accredited for further two years as PT provider by NABL
- Department of Hematology, with Dr R Saxena as Chief Investigator, continued to be regional training centre by International Society of Hemostasis and Thrombosis in collaboration with the Institute of Experimental Hematology and Transfusion Medicine, University Clinic Bonn
- National Policy for control of thalassemia and hemoglobinopathies and also for hemophilia was made by MOH through the endeavours of faculty of the Department of Hematology, AIIMS

EDUCATION

The department continued to conduct DM Clinical Hematology and DM Hemato-pathology courses along with PhD programme.

The faculty continues to take undergraduate classes for Hematology and Medicine, and Clinical case studies for Department of Paediatrics students. It also continues to train the MD Pathology students in Hematology. The department has provided training in the field of clinical and laboratory hematology to 2 doctors from other institutions for two weeks each. Also 7 MSc students also undertook short-term training hematology for two months each, during this year.

CMEs/Workshops/Symposia/National and International Conferences

- The department organized National Hematology Update-XI on 14-15 April 2018
- It also organized workshops on haemophilia and Central Line Insertions and Care on 13 April 2018 at AIIMS

Lectures delivered

Renu Saxena

1. Interpretation of automated hemogram, National Hematology Conference, 29 April 2018, Varanasi
2. Pathogenesis of Thrombotic Stroke in Young: Indian Scenario, Workshop on “Genomics Based Translational Approaches for High Altitude Induced Maladies: Special Reference to Thrombo-Embolic Disorders”, 4, 5 October 2018, DRDO, Delhi
3. Risk stratification in AML—Where are we now, Indian Society of Haematology and Blood Transfusion (ISHBT), 26-28 October 2018, Kochi, Kerala
4. Strengthening diagnostic infrastructure in India, Initiative on Hemophilia Care-IV, 17 April 2018, New Delhi
5. Bleeding in Females, 8th National Haemostasis Update (NHU), 11 August 2018, Bengaluru
6. Hemostatic abnormalities in chronic liver diseases, ISTH-ILBS Symposium on coagulopathy in liver disease, 2 March 2019, New Delhi
7. Laboratory services, 3rd Foundation Training Programme (FTP) for GDMOs under CHS, 6 September 2018, New Delhi
8. Carrier detection and prenatal testing in bleeding disorders, Seminar on Women with Bleeding Disorders organized by HFI, 16 September 2018, New Delhi
9. Approach to disseminated intra-vascular coagulation, International CME in Hematology and 10th Annual Meet of Odisha Hematology, 11 November 2018, Berhampur, Odisha
10. Flow cytometry in pediatric haematolymphoid malignancies, CME on Paediatric Pathology, 16 March 2019, NOIDA
11. Quality control in Hematology, NMLPW, 23 July 2018, AIIMS, New Delhi
12. Panelist, Sickle Cell Anaemia: Clinical Symptoms, diagnosis and treatment, Rajasthan Conclave-6, 20-22 October 2018, Jodhpur

HP Pati

1. Basic approach to bleeding disorders, National Haematology Update, 7-8 April 2018, New Delhi
2. Thrombocytopenia, pathogenesis and approach to Diagnosis, 2nd Haematology Update, 27-29 July 2018, Jodhpur
3. MPN: Still a morphological domain, Northeast chapter of ISHTM, 22-23 November 2018, Guwahati
4. Laboratory approach on Non-immune hemolytic anemias, 59th ISHBT, 26-28 October 2018, Kochi
5. Aging Hemopoietic Stem Cells and its reversibility, 59th ISHBT Conference, 26-28 October 2018, Kochi
6. Diagnosing chronic hematological malignancy starts with physicians, 38th Annual Conference of APICON, 10-11 November 2018, Burla
7. Diagnostic challenges in Hemoglobinopathy, 9th National Thalassemia Conference, 25-26 November 2018, LHMC, New Delhi
8. Advances in MDS, Eastern Hematology Group—ASH Highlights, 19 January 2019, Bhubaneswar

M Mahapatra

1. Venous Thromboembolism in India, Highlights of ASH in Asia-Pacific, 23-24 February 2019, Bangkok, Thailand
2. Acute Myeloid Leukemia: Moving beyond 7 +3, EHG-ASH Highlights, 19 January 2019, Bhubaneswar, Odisha
3. Refractory Anemia: How to Approach? XXIX Annual conference of Delhi Chapter of API, 22-23 December 2018, New Delhi

4. Immune Thrombocytopenic Purpura: Diagnosis and Management, 10th Annual Conference of Odisha Hematology, 10-11 November 2018, Berhampur, Odisha
5. Challenges in Management of Aplastic Anemia in India, 59th Annual conference of Indian Society of Hematology and Blood Transfusion, 25-28 October 2018, Kochi, Kerala
6. How I treat Aplastic Anemia, 2nd Hematology Update, 28-29 July 2018, Jodhpur, Rajasthan

Seema Tyagi

1. Optimal utilization of thrombophilia testing, 2nd National Update in Hemato-Pathology, 21-23 December 2018, Mumbai
2. HPLC/CZE for diagnosis of Hemoglobinopathies, National Hematology Update: XI 2018, 14 April 2018, AIIMS, Delhi

Tulika Seth

1. Evidence based medicine, CEU Evidence Based Medicine Workshop, 31 March and 1 April 2018, New Delhi
2. Paediatric palliative care, 17th Annual Conference on Palliative Care. Cansupport and IRCH, AIIMS, 15 April 2018, New Delhi
3. Panel discussion-inborn errors, 3rd South Asian and 19th Asian LSD Symposium, Satellite Workshop on Gaucher Disease, 22 April 2018, New Delhi
4. Paediatric prophylaxis: Is India poised? Initiative on hemophilia care IV, 17 April 2018, New Delhi
5. Hemophilia workshop management and complication in hemophilia therapy, XIth NHU, 13-15 April 2018, New Delhi
6. Moderator panel discussion CML and discussion on CML AP, XIth NHU, 13-15 April 2018, New Delhi
7. Oleptiss, new iron chelator, World Thalassaemia Day, Seminar the basics of Thalassaemia Management, Care and Prevention, 8 May 2018, New Delhi
8. Prophylaxis for hemophilia and management of complications, Hemophilia Patients Awareness Programme, 13 May 2018, New Delhi
9. Moderator for panel discussion—Interventions targeting behavioural change for prevention of environmental and occupational cancers, ISCO First Conference on Environmental and Occupational Determinants of Cancer: Interventions for Primary Prevention, 26-27 May 2018, New Delhi
10. Panelist, For panel discussion on Tobacco Control, ISCO First Conference on Environmental and Occupational Determinants of Cancer: Interventions for Primary Prevention, 26-27 May 2018, New Delhi
11. Panelist session 5: Pediatric diseases, EBMT Highlights 2018, APAC Region, 26-27 May 2018, New Delhi
12. Moderator for panel discussion and case scenario: How to avoid and deal with misconduct? Organization and Ethics of Biomedical Research Publications 1 June 2018 ICMR-NIRTH, Jabalpur, 1 June 2018, Jabalpur
13. Diagnosis and treatment of inhibitors in India, Changing the landscape of hemophilia management in India, 9 June 2018, Bangalore
14. Hemophilia scenario in India, current management, Raising the bar in hemophilia management, 5 July 2018, New Delhi
15. Need for establishment of HSCT donor registry in India, Meeting under chairperson Secretary H&FW for “Establishment of Stem Cell Donor Registry”, 5 July 2018, New Delhi
16. Panelist discussion—Survivorship, Best of ASCO, 29 July 2018, New Delhi, Case discussion on update in MPN and CML, Best of EHA, 4 August 2018, New Delhi
17. Muscle bleed, And Ilio-Psoas Bleed, 8th National Haemostasis Update (NHU), 11-12 August 2018, Bangalore
18. Diagnosis and Management of Patients with Inhibitors in Hemophilia, ESI Doctors Meet, 18-19 August 2018, Mumbai
19. International panel discussion with Dr P Dolan, UK on ITP with case discussion, Webcast in 5 cities in India, ITP Update, 17 August 2018, New Delhi
20. Community based screening and awareness, ISCO—Principles and practices of cancer control and prevention for North Eastern states, 17-22 September 2018, New Delhi
21. Case discussion on lymphomas, Presented difficult lymphoma case, Mumbai Hematology Group Meeting 2018 and Indian B Cell Malignancies Conclave, 1,2 September 2018, Mumbai
22. Case Presentation Polycythemia Vera, ASH Update, 24 January 2019, Mumbai
23. Genetics of bleeding disorder, Conference for Women, hemophilia, HFI, 2 February 2019, Hyderabad

24. Panel discussion, Normal coagulogram and inherited bone marrow failure syndrome, PEDICON, 8 February 2019, Mumbai
25. Panel discussion CLL session, Hematology Update, year in review 2018, 15 February 2019, New Delhi
26. Indian changing scenario of hemophilia, Delhi State Hemophilia Meet, 23 February 2019, New Delhi
27. Moderator panel discussion multiple myeloma monitoring updates, Oncocon 2019, 3 March 2019, New Delhi
28. Infectious complications of hematopoietic stem cell transplantation, Frontiers in Health Sciences NCFHS 2019, 11-12 March 2019, BHU, Varanasi
29. Severe Aplastic Anemia, Clinical Manifestations, International conference on emerging cellular and immunotherapies in hematological disorders, 16-18 March 2019, New Delhi
30. Moderator panel discussion, Prophylaxis in Haemophilia-challenges and ways to overcome them
31. Panelists Dr Maitreyee Bhattacharyya Dr S Das Dr Santanu Basu, Pioneering disability free haemophilia in India, 30-31 March 2019, Gurugram

Mukul Aggarwal

1. Introduction to central lines, indications and types, National Hematology Update XI, 13 April 2018, Delhi
2. Learning through interesting case (A case of paraplegia), National Hematology Update XI, 14 April 2018, New Delhi
3. BCR ABL negative myeloproliferative neoplasm: Case based panel discussion, Second Haematology Update, 29 July 2018, Jodhpur, Rajasthan
4. Haematologist's perspective on Haemophagocytic Lymphohistiocytosis, Second Haematology Update, 29 July 2018, Jodhpur
5. Case presentation-MF, 22 September 2019, New Delhi
6. Multiple myeloma-management update, Oncocon 2019, 3 March 2019, New Delhi
7. Panel discussion-BMT, Year in Review 2018, 16 February 2019, New Delhi
8. Case presentation-sickle cell anemia, Best of ASH, 2018, 26 January 2019, Mumbai

Oral papers/posters presented

1. Sharma V, Kumar P, Namdeo M, Mitra DK, Saxena R, Sazawal S, Kanga U, Seth T, Cytokines in acquired aplastic anemia and their relationship with disease severity: A comparative study of bone marrow and blood plasma levels, AIIMS Research Program, 25 March 2019, New Delhi
2. Ragesh R*, Seth T, Mahapatra M, Saxena R, Jineesh V, Impact of infection prior to the initiation of induction chemotherapy on induction outcomes in patients with newly diagnosed acute leukemia in a tertiary centre hospital in India, 23rd European Haematology Association (EHA) Annual Congress, 14-17 June 2018, Stockholm, Sweden
3. Lunkad* S, Mahapatra M, Seth T, Mahapatra S, Aggarwal M, Dhawan R, Halder R, Kumar A, Saxena R, Pati HP, Tyagi S, Outcome of high risk febrile neutropenic patients with gut colonization with Carbapenem Resistant Enterobacteriaceae (CRE) in surveillance cultures, 23rd European Haematology Association (EHA) Annual Congress, 14-17 June 2018, Stockholm, Sweden
4. Halder* R, Aggarwal M, Mahapatra M, Dhawan R, Seth T, Tyagi S, Pati HP, Saxena R, Mirgh S, Kothari S, Kumar U, Chauhan R, Paroxysmal nocturnal hemoglobinuria in childhood and adolescence- a 5-year retrospective analysis from a single tertiary care center from North India, 23rd European Haematology Association (EHA) Annual Congress, 14-17 June 2018, Stockholm, Sweden
5. Jain* A, Irom A, Mahapatra M, Seth T, Saxena R, Comparison of molecular responses and outcomes in chronic myeloid leukemia—Chronic phase patients treated with nilotinib initially followed by imatinib, compared to treatment with imatinib upfront, 23rd European Haematology Association (EHA) Annual Congress, 14-17 June 2018, Stockholm, Sweden
6. Mirgh* S, Mahapatra M, Seth T, Saxena R, Pati HP, Tyagi S, Aggarwal M, Dhawan R, Halder R, Kothari S, Chauhan R, Young adults with multiple myeloma—Unveiling a different spectrum in a resource constrained setting, 23rd European Haematology Association (EHA) Annual Congress, 14-17 June 2018, Stockholm, Sweden
7. Halder* R, Aggarwal M, Mahapatra M, Seth T, Kumar U, Dhawan R, Pati HP, Tyagi S, Saxena R, Mirgh S, Kothari S, Chauhan R, Myeloid sarcomas—More common than expected in AML translocation, 23rd European Haematology Association (EHA) Annual Congress, 14-17 June 2018, Stockholm, Sweden
8. Halder* R, Aggarwal M, Mahapatra M, Dhawan R, Seth T, Tyagi S, Pati HP, Saxena R, Mirgh S, Kothari S, Kumar U, Chauhan R, Paroxysmal nocturnal hemoglobinuria in childhood and adolescence, A 5-year retrospective analysis from a single tertiary care center from North India, 23rd European Haematology Association (EHA) Annual Congress, 14-17 June 2018, Stockholm, Sweden

9. Mandal M, Kant S, Saxena R, Yadav K, Haldar P, Kaur R, Almost one-third elderly persons affected with anemia, A cross-sectional community-based study from rural India, 9th International Conference on Preventive Medicine and Public Health, 16 and 17 July 2018, London, UK
10. Gupta* A, Sazawal S, Mahapatra M, Pati HP, Saxena R, Immunohistochemistry as a tool to detect calreticulin mutation in patients of primary Myelofibrosis and essential thrombocythemia and its comparison with PCR HAEMATOCON 2018, Kochi, 25-28 October 2018
11. Mirgh* SP, Seth T, Mahapatra M, Aggarwal M, Dhawan R, Saxena R, Pati HP, Tyagi S, Gupta N, Meenakshi BA, Comparison of allopurinol and febuxostat for prevention of hyperuricemia in Acute leukemias, HAEMATOCON 2018, Kochi, 25-28 October 2018
12. Gupta* N, Aggarwal M, Dhawan R, Seth T, Mirgh S, Meenakshi BA, Sazwal S, Saxena R, Mahapatra M, Prevalence and predisposing factors of non-adherence to imatinib in patients with Chronic myeloid leukemia and its impact on treatment outcomes, HAEMATOCON 2018, Kochi, 25-28 October 2018
13. Aranha* MA, Seth T, Mahapatra M, Pati HP, Dhawan R, Aggarwal M, Saxena R, Gupta N, Mirgh S, A prospective observational study to understand the cumulative effect of cytarabine As consolidation in acute myeloid leukaemia, HAEMATOCON 2018, Kochi, 25-28 October 2018
14. Kumar R, Sazawal S, Sharma A, Kishor K, Mahapatra M, Saxena R, Utility of prognostic markers in chronic lymphocytic leukemia: IGVH gene mutational status, P53 gene mutation, ZAP-70 expression and s-β2 microglobulin level are independent prognostic factors, HAEMATOCON 2018, Kochi, 25-28 October 2018
15. Tripathi* P, Pati HP, Mahapatra M, Tyagi S, Saxena R, Utility of labile plasma iron assay in thalassemia major patients, HAEMATOCON 2018, Kochi, 25-28 October 2018
16. Sharma* R, Mahapatra M, Sazawal S, Seth T, Mishra P, Chhikara S, Saxena R, Role of pretreatment multi drug resistance gene expression in minimal residual disease development and prognosis of adult b-lineage acute lymphoblastic leukemia patients, HAEMATOCON 2018, Kochi, 25-28 October 2018
17. Ranjan* R, Sharma A, Kumar S, Kishor K, Pandey H, Seth T, Mahapatra M, Saxena R, Screening of factor XIII Val34leu polymorphism for identifying it's role in Indian myocardial infarction patients, HAEMATOCON 2018, Kochi, 25-28 October 2018
18. Sazawal* S, Chhikara S, Chaubey R, Mahapatra M, Seth T, Saxena R, Chronic myeloid leukemia with rare fusion transcript, b2a3 (e13a3) bcr-abl1: A report of Four cases from aiims, HAEMATOCON 2018, Kochi, 25-28 October 2018
19. Mirgh* SP, Seth T, Mahapatra M, Aggarwal M, Dhawan R, Saxena R, Pati HP, Tyagi S, Gupta N, Meenakshi BA, Comparison of allopurinol and febuxostat for prevention of hyperuricemia in Acute Leukemias, HAEMATOCON 2018, Kochi, 25-28 October 2018
20. Chhikara* S, Sazawal S, Chaubey R, Mahapatra M, Seth T, Saxena R, Analysis of BCR-ABL kinase domain mutations in imatinib mesylate-resistant chronic Myelogenous Leukemia patients: AIIMS experience, HAEMATOCON 2018, Kochi, 25-28 October 2018
21. Sharma* V, Seth T, Kumar P, Namdeo M, Saxena R, Sazawal S, Kanga U, Mitra DK, Immunological and molecular aberrations in acquired aplastic anemia, HAEMATOCON 2018, Kochi, 25-28 October 2018
22. Gupta* A, Sazawal S, Mahapatra M, Pati HP, Tyagi S, Saxena R, Immunohistochemistry as a tool to detect calreticulin mutation in patients of primary myelofibrosis and essential thrombocythemia and its comparison with polymerase chain reaction, HAEMATOCON 2018, Kochi, 25-28 October 2018

* **Won awards**

RESEARCH

Funded projects

Ongoing

1. Diagnostic efficacy of digital hemoglobinometer (TrueHb), HemoCue and non-invasive devices for screening patients for anemia in the field settings, Renu Saxena, DHR, 1 year, 2018-2019, Rs 25 lakhs
2. Socio-ecological impact and tribal health: A study on epidemiological diversity of thalassemia mutations among tribes in India and impact of socio-ecological influences, Renu Saxena, DST, 3 years, 2017-2020, Rs 4.38 lakhs per year
3. Safety of turoctocog alfa for prophylaxis and treatment of bleeding episodes in previously treated patients with moderate or severe Haemophilia A in India, Tulika Seth, Novo Nordisk India Private Ltd, 1 year.
4. Clinical outcomes of CLL and MCL patients treated with Ibrutinib: An observational retrospective medical chart review from India, Tulika Seth, Siro Clin Pharma Pvt Ltd, 1 year, 2018-2019

Completed

1. Myeloproliferative neoplasms Epidemiological Registry in Growing and Emerging markets The MERGE Study, Tulika Seth, Novartis India, 3 years, 2015-2018
2. Role of activated platelets in the regulation of monocyte functions and immune responses in hemolytic disorders, Tulika Seth, DBT, 1 year, 2017-2018

Departmental projects

Ongoing

1. Impact of molecular genetics on the phenotype of Indian sickle cell syndrome patients
2. Role of hMICL in BCR-abl 1 negative MPNs by FCM
3. Immunophenotyping and MRD analysis in Multiple Myeloma
4. Flow cytometric ploidy analysis in B-cell acute lymphoblastic leukemia
5. Assessment of Nutritional status/Parameters in acute leukemia patients undergoing induction chemotherapy
6. Efficacy of low dose rasburicase in management of tumor lysis syndrome in leukaemia and lymphoma patients
7. Abdominal infections in immunocompromised hosts: A clinical, microbiological and radiological correlation
8. Nilotinib versus Imatinib deep molecular response in CML
9. Role of IHC with CD 61 and p53 on bone marrow biopsies in enhancing diagnosis in suspected MDS cases- retrospective and prospective study
10. Correlation of serum iron profile and Heparin level in patient with microcytic hypochromic anemia
11. Study of bone marrow lymphocyte subset in acute myeloid leukemia Chief guide
12. Study of expression of cereblon protein by immunohistochemistry in newly diagnosed and treated multiple myeloma patient
13. To compare the diagnostic performance of Whole Body Low dose Computed Tomography (WB LDCT) and Conventional Skeletal Survey (CSS) in diagnosis and management of patients with Multiple Myeloma (MM) in a Tertiary Care Centre
14. Effect of tyrosine kinase inhibitor on sperm parameters and pituitary gonadal axis in male patients with Chronic Myeloid Leukaemia
15. Imatinib dose escalation in CML: Indication, responses and outcomes

Completed

1. Immunohistochemistry as a tool to detect calreticulin mutation in patients of primary myelofibrosis and essential thrombocythemia and its comparison with PCR
2. An observational study on the prevalence and factors leading to non adherence to imatinib therapy in patients of chronic Myeloid Leukemia
3. Priyanka thesis
4. Comparison of allopurinol and Febuxostat for prevention of hyperuricemia in Acute leukemias
5. Uday thesis
6. Evaluate the role of tissue factor and tissue factor pathway inhibitor gene polymorphisms in the pathogenesis of deep vein thrombosis in India
7. To understand the cumulative effect of high dose cytarabine as consolidation in Acute Myeloid Leukemia
8. Evaluation of 'AML Maturity Score' as a marker of prognosis in patients with Acute Myeloid Leukemia by quantitative immune-phenotyping by Flow Cytometry

Collaborative projects

Ongoing

1. Minimal residual disease in Multiple myeloma, IRCH
2. Prevalence of anaemia among community-dwelling elderly persons in rural Ballabgarh, district Faridabad, Haryana, CCM
3. An observational study of the association of plasma activated Protein C and other coagulation factors with post primary PCI coronary re-flow phenomenon in patients of acute ST elevated myocardial infarction undergoing primary PCI, Cardiology

4. Study of aspirin and clopidogrel resistance by platelet aggregation and its association with adverse outcomes in Indian Stable Coronary Artery Disease Patients, Cardiology
5. Randomized control trial to evaluate safety and efficacy of intra vitreal injection of autologous bone marrow derived stem cells in acute cases of ischaemic central retinal vein occlusion, Dr RP Centre for Ophthalmic Sciences
6. A population based prospective cohort study to unravel the causes of stroke and cognitive decline: A cross cultural perspective, DBT International Co-Operation Division and Erasmus Medical Center Rotterdam, Netherlands, Clinical Epidemiology Unit, AIIMS
7. Ocular GVHD in post allogeneic HSCT patients, Dr RP Centre for Ophthalmic Sciences
8. Immune reconstitution in Haplo Identical HSCT, Transplant Immunology and Immunogenetics
9. Multiple Myeloma, Biochemistry
10. Standardization of voriconazole/posaconazole levels for Paediatric Hematology Patients, Microbiology
11. Study of efficacy of topical rituximab encapsulated in nanoparticle in oral pemphigus vulgaris, A randomized double blinded placebo-controlled trial, Dermatology

Completed

1. Directly observed iron supplementation during pregnancy in a rural population in Haryana: A randomized control trial, CCM
2. Epidemiology and prognostic utility of cellular components of hematological system in sepsis, Anaesthesia
3. A study of endothelial Nitric Oxide Synthase (eNOS), Nitric Oxide (nO), cytokines, vascular endothelial growth factor, A (Vegf-A) in lower limb arterial disease and the alteration with the clinical outcome, Surgery
4. The effect of negative pressures used during ultrafiltration on erythrocyte, CTVS

PUBLICATIONS

Journals: 34 Abstracts: 24 Chapters in Books: 8

PATIENT CARE

Laboratories of department of hematology have following state of the art facilities:

1. Bone marrow aspirate, bone marrow biopsies and peripheral smears
2. Immunohistochemistry
3. Molecular genetics
4. Hemolytic anemia workup
5. Flow cytometry
6. Capillary electrophoresis for hemoglobinopathies
7. Coagulation workup for inherited and acquired bleeding disorders
8. Platelet aggregometry
9. Thrombophilia workup
10. Prenatal diagnosis of Hemophilia and hemoglobinopathies

Clinical Services

(a) OPD runs all 6 days:

1. Monday: CML, Hemato-oncology
2. Tuesday: Transplant Clinic
3. Wednesday: Hemolytic anemias and ITP, CMPD
4. Thursday: Coagulation and Bleeding clinic
5. Friday: AA, CLPD
6. Saturday: Leukemia Survivor clinic

(b) In Patient care:

- i) Inpatients: C2, C6, D6, Emergency ward, Private wards
- ii) Stem cell Transplant: 4 new allogeneic transplants per month
- iii) Hematology Day care

Hematology OPD

New patients: 5984

Follow-up patients: 13,414

Chemotherapy: 3800

Hematology Day Care

Admission 13742

PRBC	4158	Chemo	5436	PRP	2248
FFP	237	Cryo	12	SDP	68
Bm bx	1701	IT	558	Phlebotomy	362
Hickman removal	17				

Male 5513

Female 2741

Children 5488

(a) Community services

The department has been active in the area of thalassemia and hemophilia awareness at both community sensitization programmes, and public forums at AIIMS and with the thalassemia and Hemophilia Society. The new disability bill included inputs from the department faculty. A workshop for women carriers of hemophilia conducted with both genetic counseling and psycho-social counseling by department faculty. The department conducted ISHTM—AIIMS external quality assessment programme for hemogram for 3,000 labs across India under Dr R Saxena as coordinator.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Renu Saxena was member of expert committee meeting on INSPIRE fellowship, DST; Member, Project Review Committee, ICMR; Member of Taskforce on Human Genetics and Genome Analysis-DBT; Member New Drug Advisory Committee for Hematology and Oncology, DCGI; Member of Medical Device Advisory Committee, DCGI; Expert member, NABL (DST) Accreditation Committee for PT provider; Chairman, Ethics committee, ICMR Campus 2; Member Ethics Committee, IIT Delhi; Coordinator Indian Society of Hematology and Transfusion Medicine, AIIMS EQAP Programme.

Professor HP Pati was Professor J B Chatterjea Memorial Lecture (Oration) at Professor J B Chatterjea Centenary celebration and BeSCON-2019, Kolkata, 16-17 February 2019; Dr Malti Sathe Oration Award 2018, Indian Society of Hematology and Blood Transfusion at 59th Annual Conference (HEMATOCON), Kochi October 2018; Professor J B Chatterjea Memorial Lecture (Oration) 2019 at Professor J B Chatterjea Centenary Celebration and Bengal Society Conference-2019, Kolkata 16-17 February 2019; Continuing as Editor-in-Chief, Indian J hematology and blood transfusion.

Professor M Mahapatra was Honorary Secretary of Indian Society of Hematology and Blood Transfusion (ISHBT); Elected as Vice-President of Indian Society of Hematology and Blood Transfusion (ISHBT); Represented as an Indian leader to attend Annual Congress of European hematology Association (EHA) at Stockholm, Sweden to discuss with European leaders in hematological education and research collaborations; Represented as an Indian leader to moderate a session on hemostasis during Highlights of ASH in Asia-pacific at Bangkok, Thailand in March 2018.

Professor Tulika Seth was Member Secretary of ethics committee CanSupport; Member of Ethics Committees, AIIMS-PG; Member of Ethics Committees, Delhi University; Member of Ethics Committees, AYUSH; Nominated Member of NBE for Hematology; Selected to contribute to framing National policy of Thalassemia and Hemophilia; Was Session Co-Ordinator for Hematology (leukemia, lymphoma, myeloma) of best of ASCO 28-29 July 2018, New Delhi; Conducted international webcast with UK expert on ITP, simultaneously transmitted to 5 cities in India.

VISITING SCIENTIST

- Professor Parinda Mehta, Cinninnati, Childrens Hospital, 7 April 2018
- Professor Francesco Passamonti from Varese, Italy, 22 October 2018
- Dr Nitin Jain, MD Anderson USA
- Professor Francesco Passamonti, Professor of Hematology at the University of Insubria, Varese, (Italy) and Head of the Hematology at the Ospedale di Circolo of Varese (Italy).

9.17. Hospital Administration

Professor and Head

Sidhartha Satpathy

Medical Superintendent, Dr RP Centre

Shakti Kumar Gupta

Medical Superintendent, Main Hospital

DK Sharma

Professors

IB Singh

Sanjay Arya

Aarti Vij

Associate Professors

Nirupam Madaan

Anoop Daga

Amit Lathwal

Mahesh R

Assistant Professors

Angel Rajan Singh

Vijaydeep Siddharth

Parmeshwar Kumar

Jitender Sodhi

Abdul Hakim

EDUCATION

The department is running a postgraduate degree programme for medical graduates, MD (Hospital Administration). The earlier course viz. MHA (Masters in Hospital Administration) was started in February 1966, for the first time in India and has since been recognized as a distinct postgraduate discipline. Re-nomenclature of this course which was effective from January 2016, has been done in accordance with decision of Academic Committee (AC-113/10) duly ratified by GB (GB-152/7) during its meeting held on 13 April 2015. The Residency Programme in Hospital Administration focuses on 'hands on' training, where Resident Administrators are posted in the 'Administrative Control Room' of hospital, round the clock as 'Duty Officers', and coordinate all the hospital activities after duty hours. It is also the nerve centre of the hospital.

Faculty members conducted several training programmes for doctors working in various organizations including Central, State Governments, Paramilitary Forces and in various PSUs such as IICM, Ranchi and also other management institutes.

Short- and Long-Term Training

1. One Student of MD (HA) from BPKIHS, Dharan, Nepal

Continuing Medical Education

1. Organized 16th Healthcare Executive Management Development Programme (HxMDP) at Mysuru, Karnataka from 2 to 9 February 2019
2. Symposium on "Plant Based Nutrition for Prevention and Treatment of Chronic Diseases" on 30 July 2018 at Ramalingaswamy Board Room, AIIMS, New Delhi
3. Organized workshop on Communication Skills among Nursing Personnel at Board Room AIIMS, New-Delhi on 26 February 2019
4. Workshop on "Infection Prevention in Oral Health Care" on 10 April 2018 at CDER, AIIMS

Lectures delivered

Sidhartha Satpathy

1. NABH standards—Access assessment of care, Training programme on Quality and Accreditation for Senior Medical Officers of Royal Government of Bhutan, 23 April 2018, IIHMR, Dwarka, New Delhi
2. Overview of Laws applicable to hospitals and CPA-2 lectures, Senior Professional Programme (04/18) for Sr Medical Officers of IRMS, 7 May 2018, National Institute of Indian Railways, Vadodara, Gujarat
3. Overview of Laws applicable to hospitals and CPA-2 lectures, Senior Professional Course for Sr Admn Grade Officers of IRMS, 18 July 2018, National Institute of Indian Railways, Vadodara, Gujarat

4. Handling and safe disposal of BMW—Statutory issues, Symposium on Waste management, 27 July 2018, Government Medical College, J&K
5. NABH standards—Introduction, Documentation, Statutory requirements, CPA, Syndicate Exercises-5 lectures, Quality Management and Accreditation of Healthcare Organization Course (Gujarat Government), 17-18 September 2018, Gandhinagar, Gujarat
6. CPA in hospitals and Medical Audit-2 lectures, Senior Professional Course for Sr Admn Grade Officers of IRMS, 17 October 2018, National Institute of Indian Railways, Vadodara, Gujarat
7. Patient related chapters NABH standards-5 lectures, Quality management and Accreditation of Health Care Organization Course, 30 October 2018, NOIDA, UP
8. Panel Discussion on “New BMW rules 2016 and 2018-way forward”, ISHWMCON-2018, 1-2 December 2018, KGMU, Lucknow, UP
9. Mock drills and return to normal functioning; Co-ordination with External agencies-2 lectures, Training Programme on District preparedness for PHEs, 16 January 2019, National Institute of Health and Family Welfare, New Delhi
10. Organizational Behavior Lab and Hosp topics-6 lectures, Training Programme on Hospital management and Administration for MS and GDMOs of Coal India Hospitals, 21-23 January 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
11. Lecture on Medico-legal systems, Consumer Protection Act in hospitals and Open House on Healthcare Ethics, Hospital Executive Management Development Programme (HxMDP), 8-9 February 2019, Mysuru, Karnataka
12. Panel discussion on, Advances in Health-Care management Services, IIM, Ahmedabad, 16-17 February 2019, IIM, Ahmedabad
13. Bio-medical waste management—An overview, Training Programme on Hospital Management for Medical Officers of ONGC, 1 March 2019, IIHMR, Dwarka, New Delhi
14. Patient Care related chapters in NABH standards-5 lectures, Senior Prof Management Course for Sr. Medical Officers of Railways, 6 March 2019, National Institute of Indian Railways, Vadodara, Gujarat
15. NABH Standards—Organ related Chapters 6-10, ROM, CQI, FMS, HRM, IMS (5 lectures), Quality Management and Accreditation of Healthcare Organization by Academy of Hospital Administration, 13 March 2019, Noida, UP

Shakti Kumar Gupta

1. Quality and patient safety in Healthcare institutions—An Inescapable Necessity, Quality and Patient safety Conclave, 16 March 2019, Medical College, J&K
2. Importance of Pharmacokinetics in Government Hospitals, Procurement: Pharmacoeconomics Principles and Best Practice, 12 March 2019, India Habitat Centre, New Delhi
3. Challenges before Hospital Administrators and Changing Role of Hospitals, 16th Healthcare Executive Management Development Programme (HxMDP), 2-9 February 2019, Mysuru, Karnataka
4. Exploring the New Frontiers in Hospital Management, Nepal Netra Jyoti Sangh Britnagar Eye Hospital, 28 April 2018, Biratnagar, Nepal

DK Sharma

1. Disaster and Trauma Management, CME on/disaster and Trauma Management, 5-6 May 2018, Military Hospital, Jalandhar

IB Singh

1. A study on Incidence of Wrong Dose Administration, Errors in ICUs at AIIMS, New Delhi, Fourth International Conference on Medical and Health Sciences themed: “Improving Quality and Patient Safety in Health Care”, 9-11 November 2018, Thimpu, Bhutan
2. The Contract Labour (Regulation and Abolition) Act, Act no, 37 of 1970, Workshop cum Sensitization on Legal and Ethical Issues in Hospital Management, 26-27 February 2019, Agartala Government Medical College, Tripura

Sanjay Arya

1. 6 lectures on Special Programme on Hospital Management and Administration for Medical Superintendents, GDMO’s of Coal India Ltd, 7-9 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand

Nirupam Madaan

1. 4 lectures, Training Programme on Hospital Management and Administration for Medical Superintendents GDMOs, 27-29 January 2019, IICM, Ranchi

Anoop Daga

1. Hospital Support Services (4 lectures), Management Development Programme on Hospital Administration for Medical Officers, 17 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
2. Lectures on various topics of 'Quality in Hospital Support Services', Contact Programme of PGQM and AHO for Gujarat Government, September 2018 and February 2019, Academy of Hospital Administration, NOIDA, Ahmedabad, Gujarat
3. Session Chair on 'Ayushman Bharat and its implications for private healthcare in India', 4th IIMA International Conference on Advances in Healthcare Management Services (ICAHMS) on 16-17 February 2019, Organized by Indian Institute of Management, Ahmedabad, Gujarat

Amit Lathwal

1. 6 lectures, Hospital Management and Administration, 27-29 January 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
2. Resource faculty, Mass Casualty Incident and Trauma Nurse Co-ordinator Training Programme, 5 September 2018, IICM, Ranchi, Jharkhand
3. Resource Faculty, Training course on "District Preparedness for Public Health Emergencies", 14 January 2019, NIHFW, New Delhi

Mahesh R

1. 6 lectures, Special Programme on Hospital Management and Administration for Medical Superintendents, GDMO's of Coal India Ltd, 7-9 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
2. 4 lectures on Research Methodology and Project Writing, Planning and Quality needs in OPD, Accident and Emergency Services, IPD and Human Resource Management, Quality Management and Accreditation of Health Care Organization [QM&AHO] Programme, 18-23 February 2019, Academy of Hospital Administration, NOIDA, Uttar Pradesh
3. 1 lecture on Management of Dietary Services, 94th Training Course on Hospital Administrator for Senior Hospital Administrators, 26 September 2018, National Institute of Health and Family Welfare, New Delhi

Angel Rajan Singh

1. 1 lecture on Health Risk Assessment and Management for Environment Pollution, Training programme for "Environmental Pollution and Its Health impacts", 5 July 2018, Haryana Institute of Public Administration, Gurgaon, Haryana

P Kumar

1. 6 lectures, Training programme on Hospital Management and Administration for Medical Superintendents GDMOs, Non Specialist of Coal India Ltd at IICM, 4-6 February 2019, Indian Institute of Coal Management, Ranchi

Vijaydeep Siddharth

1. 6 lectures, Training programme on Hospital Management and Administration for Medical Superintendents GDMOs, Non Specialist of Coal India Ltd at IICM, 4-6 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand
2. 1 lecture, 95th Training Course on Hospital Administration for Senior Hospital Administrators, NIHFW, 14 February 2019, NIHFW, New Delhi
3. 2 lectures, Workshop on Patient Safety, Legal and Ethical Issues in Hospital Management, Agartala Government Medical College, 26-27 February 2019, Government Medical College, Agartala, Tripura
4. 1 lecture, Senior Nursing Officers Empowerment Programme, AIIMS, August to December 2018, AIIMS, New Delhi

Abdul Hakim

1. 6 lectures, Training programme on Hospital Management and Administration for Medical Superintendents GDMOs, Non Specialist of Coal India Ltd at IICM, 7-9 February 2019, Indian Institute of Coal Management, Ranchi, Jharkhand

RESEARCH

Funded projects

1. A study to assess the impact of application of software based process and system simulation in operationalization of out-patient department at National Cancer Institute, AIIMS, Angel Rajan Singh, Assistant Professor of Hospital Administration, AIIMS, 1 year, 2018-2019, Rs 4.5 lakhs

Departmental projects

Ongoing

1. A comparative study of the engineering department of select hospitals in Delhi with 100 and above beds, against standard guidelines
2. A study of experiences and scope of practice of nurses as transplant coordinators and to explore the status and position of potential donor referrals from the hospital before and after placement of nurse as transplant coordinators at the AIIMS Hospitals, New Delhi
3. A study of process handling of medico-legal cases at the Emergency Department of AIIMS from the perspective of systematic improvement
4. A study of the effectiveness of the “never use” list of abbreviations in medical prescriptions at AIIMS
5. A study of the leadership styles of unit heads/HoDs of various departments and its effectiveness on the work performance and well being of fellow doctors
6. A study of time utilization and effectiveness of Administrative nurses across AIIMS Hospital
7. A study of time utilization and effectiveness of nursing administrators in various clinical areas across All India Institute of Medical Sciences, New Delhi
8. Optimizing blood inventory management at a super-specialty blood centre in India
9. Study the impact of OPD information project in RAK OPD of AIIMS

Completed

1. A study on costing of management of cardiac patients admitted in CT Centre, AIIMS
2. Physical and chemical hazards identification and risk analysis for healthcare workers at AIIMS
3. To study the role of healthcare analytics in monitoring hospital indices at AIIMS

Collaborative projects

Ongoing

1. Evaluation of stress among MBBS students of a tertiary care teaching institution, Psychiatry
2. Evaluation of the impact of training amongst the food handlers in dietary services on knowledge, practices and beliefs of food safety behavior, Dietetics

PUBLICATIONS

Journals: 19

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Sidhartha Satpathy was nominated as Member of National Accreditation Board for Hospital and Health care providers (NABH) as AIIMS representative by Director, AIIMS; Contributed as Expert to finalize National Guidelines on Infection Prevention and Control on 29-30 May 2018 under aegis of WHO Country Office at Manesar, Gurgaon; Participated as External Technical Expert of Assessment Committee for assessment of NTPC Project hospitals for “Swarn Shakti” awards during September-October 2018; Contributed to development of AIIMS Bhubaneswar as Mentor and Subject Expert to assist Selection Committee for Assistant Professor Hospital Administration and other non-Faculty posts at AIIMS, Bhubaneswar; Member of Visiting Committee to develop future road-map for Institute of Medical Sciences, BHU under the aegis of NitiAyog, Government of India; Expert Member of Committee for Development of Bhopal Memorial Hospital and Research Center (BMHRC) by Department of Health Research, GoI; Expert member of Committee for Development of Quality Standards in AB-PM JAY scheme under aegis of National Health Authority, New Delhi; Member of Building Committee of National Brain Research Institute, providing oversight for development of Auditorium, Academic Block and Laboratories; Contributed as Expert Member of Academic Audit Committee of IIMR University, for improvement of academics as mandated by UGC; Member of Committee for rationalization of recruitment rules for posts at upcoming CAPFIMS under the aegis of Ministry of Home Affairs, Government of India; Contributed as Editorial Committee member of JAHA and IJRFHHA, and Reviewer for National Medical Journal of India; Contributed for development of National Cancer Institute at Jhajjar, Haryana; External Subject Expert Member of Selection Committee of PGIMER for post of Assistant Professor, Hospital Administration and Deputy Medical Superintendent.

Dr Shakti Kumar Gupta was honored with Capital Foundation National Award in September 2018 by Governor of Assam for tremendous contribution to the field of Health Care Administration; Awarded with Times Healthcare Achievers Award, 2018 by Times of India in Honor of Excellence in Healthcare; Member for the selection committee meeting for selection of Medical Superintendent and Nursing Superintendent on 19 January 2019 at New Delhi; Member for the master plan for AIIMS, Jammu at MoHFW, New Delhi on 22 January 2019; Member of the expert committee for setting of a Psychiatric and Mental Hospital at Juba, South Sudan from 2 to 5 November 2018; Member of National Executive Committee of Hemovigilance Programme of India at National Institute of Biological, Noida on 18 September 2018; Jury Member for the evaluation of prospective incubates to the Mediivalley and Biovalley incubation parks at Vishakhapatnam on 11 September 2018; Expert for the panel selection committee for recruitment of Faculty in the Department of Hospital Administration at AIIMS, Bhopal on 6 September 2018; Honored with Chairman position for FICCI Taskforce Chair for Costing of Select Medical Procedures and to share the outcome of AIIMS studies on costing with FICCI; Member of the Board of Directors for International Association for Applied Management (IAAM), USA, 2018; Expert for the selection of candidates for the promotion/selection in the speciality of Hospital Administration on 1 August 2017 at Soura, Srinagar, Jammu and Kashmir; Honorary Consultant for National Mineral Development Corporation Limited for establishing 200 Bedded Multi Specialty Hospital, New Nagarnar, Jagdalpur, Chhattisgarh; Programme Director for 3rd Lean Six Sigma Green Belt International Programme in Healthcare, New Delhi from 22 to 24 June 2018; Expert member for the standing selection committee for selection of “Faculty post” of NEIGRIHMS in the Department of Hospital Administration on 2 May 2018 at AIIMS, New Delhi; Attended Grand Finale of Healers of India Awards on 19 April 2018; Invited to “CME on Future of Healthcare Gen. Next” as Guest of Honor for inauguration of “Indo US Academy of Health and Hospital Administration” at Hyderabad on 15 April 2018; Attended the Symposium on Pharmacologists in Indian Healthcare System, Director’s Board Room, AIIMS, New Delhi on 15 April 2018; Attended CII Regional Lifesciences Summit 2018 at India Habitat Centre, New Delhi on 13 April 2018; Expert member of the Task Force in Healthcare at FICCI, New Delhi on 12 April 2018; Invited as an expert member for the selection committee for Casual Medical Officers at Institute of Liver and Biliary Sciences, Vasant Kung, New Dellhi on 9 April 2018; Honorary Board Member of the Patient Safety and Access Initiative of India Foundation; Honorary Board Member of the Patient Safety and Access Initiative of India Foundation; Chaired the Annual Conference of International Association for Applied Management held from 17 to 19 July 2018, Nevada, USA.

Dr DK Sharma was External Examiner for MD (Hospital Administration) at Nizam’s Institute of Medical Sciences, Hyderabad; Subject expert for recruitment of faculty on contractual basis for Department of Hospital Administration at AIIMS, Raipur; Subject expert for Faculty posts of Associate Professor (Hospital Administration) NEIGRIHMS, Shillong; Subject Expert for selection of faculty at Sanjay Gandhi Post Graduate Institute of Medical Sciences (SGPGI), Lucknow, UP; Visited NEIGRIHMS Shillong to attend meeting of the committee constituted by the MoH&FW for Finalization of Recruitment Rules of the post of Director, Dean and Medical Superintendent of NEIGRIHMS, Shillong and RIMS, Imphal; Visited Solina Srinagar (J&K) as an expert for conducting interviews of Deputy Medical Superintendent, Government Medical College (Jammu/Srinagar) in Health and Medical Education Department at J&K Public Service Commission, Srinagar; Member, Selection Committee, for the selection of Medical Officer for IIT Jammu; Visited Srinagar (J&K) as External Examiner for practical of MD Hospital Administration Annual Examination (Batch-2015) for Sher-I-Kashmir Institute of Medical Sciences, Soura Srinagar; External Expert, Standing Senior Staff Selection Committee Meeting for direct recruitment of Senior Medical Records Officer at SCTIMST, Thiruvananthapuram; Subject Expert, Standing Selection Committee meeting for Selection/Promotion of Faculty of Hospital Administration, Chief Nursing Officer and Medical Officer, PGIMER, Chandigarh; Chief Guest, Hospital Medicine Conclave 2018, Amrita Institute of Medical Sciences, Kochi; Subject Expert, Selection Committee meeting, Selection/Recruitment of Senior Resident of Hospital Administration, Bhubaneswar, AIIMS; Subject Expert, Selection committee meeting, Post of Medical Superintendent, SHKM Government Medical College, Nalhar, Nuh, Rohtak; Member of Board of Studies for MBA (HM), IIMR University, Institute of Health Management Research, Jaipur; Visited Dehradun, Uttarakhand as an Examiner for the MHA Final Semester Viva-Voce and Dissertation for University Examination at Swami Rama Himalayan University (SRHU) Dehradun, Uttarakhand; Expert at Institute of Liver and Biliary Sciences, Vasant Kunj, New Delhi; Standing Selection Committee Meeting as an External Expert for selection of Faculty at AIIMS, Jodhpur; Subject expert for recruitment to the post of Chief Pharmacist and Sanitation Officer on deputation basis at AIIMS, Raipur; Attended the meeting as a member of Board of Studies, IIMR University, Institute of Health Management Research, Jaipur; External Expert, Selection Committee meeting, Assistant Professor, Department of Hospital Administration at Indira Gandhi Institute of Medical Sciences, Patna; Subject Expert, Selection committee meeting for the selection of Professor, Associate Professor, Assistant Professor and Medical Officer at Rajiv Gandhi Super Specialty Hospital, Tahirpur, New Delhi; Visited Hyderabad as a part of central team constituted by MoHFW, for setting up new AIIMS in Telangana State; Part of central team constituted by MoHFW, to inspect the suitability of site at Kalyani offered by Government of West Bengal for early operationalisation of new AIIMS; Visited Rewari (Haryana) for site inspection of new AIIMS like institute to be established by MoHFW; Part of central team constituted by MoHFW to inspect the site at Bilaspur (Himachal Pradesh); Part of central team constituted by MoHFW to inspect the site at Gujarat (Ahmadabad, Vadodara and Rajkot); Part of central team constituted by MoHFW to inspect the facilities of Government Siddhartha Medical College, Vijayawada for early operationalisation of AIIMS-Mangalagiri, Andhra Pradesh.

Professor IB Singh was external examiner for conduct of practical of MD Hospital Administration Annual Examination (Batch-2015) Session, May 2019, Sher-e-Kashmir Institute of Medical Sciences, J&K.

Professor Aarti Vij received FLO Icon Award (Women Transforming India) for achievements in the field of Healthcare and Wellness in the 24th Annual Session of FICCI Ladies Organization, New Delhi held on 5 April 2018, Shri Ram Nath Kovind, Honourable President of India was the Chief Guest of the programme; Awarded Certificate of Appreciation for outstanding contribution to National Eye Bank, Dr RP Centre for Ophthalmology, AIIMS; Letter of Thanks from Mr NC Jhingta, Secretary to Former PM Late Sh. Atal Bihari Vajpayee; Member Inspection Committee for Registration of Hospital for Transplantation/Retrieval of Organ and Tissue, Delhi Organ and Tissue Transplantation Cell; ORBO Donor Pledge Form was made available online for spreading awareness about Organ donation and to increase the pool of voluntary Organ donors; Android OS based App has been developed for spreading awareness about Organ donation and to increase the pool of voluntary organ donors; A QR Code based ORBO Donor Pledge Form has been developed for easy message dissemination across various social media tools for spreading awareness about Organ donation and to increase the pool of voluntary Organ donors; 27 Nos of awareness camps were organized for public education and awareness generation on Organ and Tissue donation; 7,229 persons pledged for organ and tissue donation on motivation of ORBO.

Dr Nirupam Madaan received Chevening's Gurukul Fellowship Award in Leadership and Excellence 2018, from the British High Commission, Foreign and Commonwealth Office, UK; Member, Editorial Board, International Journal of Research Foundation of Hospital and Healthcare Administration (IJRFHHA), New Delhi, India; Nominated Member of Health Informatics, MHD-17, from AIIMS, New Delhi; Member, Committee to Revise the CGHS rates for Medical Reimbursements form MOHFW; Member, Committee to draft framework agreement on development cooperation between the Government of South Korea and India.

Dr Anoop Daga was Associate Editor, Journal of Academy of Hospital Administration (JAHA), Noida, India; Member, Editorial Board, International Journal of Research Foundation of Hospital and Healthcare Administration (IJRFHHA), New Delhi, India.

Dr Mahesh R was continuing to Contribute as Principal Member of Medical Equipment and Hospital Planning Division Council (MHDC), Bureau of Indian Standards; Contributed as Expert in the committee for development of Pack Warnings, MoHFW, GOI (Tobacco Control Division); Contributed as Member Sub-Committee for Development of Minimum Standards for Clinical Establishments, GOI, DGHS; Authored a chapter on Blood Transfusion Services under Support and Utility services for the syllabus of Post graduate certificate in Quality Management Accreditation of Health Care Organization (QM-AHO); Contributes as Expert in Standardization of training material on Hospital Preparedness for Health Emergencies for Senior Hospital Administrators.

Dr Angel Rajan Singh was granted fellowship by Harvard T.H. Chan School of Public Health, USA for attending the programme on 'Health Care Project Management: The Intersection of Strategy, People, and Process' from 16 to 18 July 2018.

Dr Parmeshwar Kumar was member of Editorial Board, International Journal of Health Scope (Iran); Member of Editorial Board, International Journal of Research Foundation of Hospital and Healthcare Administration (IJRFHHA), New Delhi, India; Member of Editorial Board, Journal of Indian Society of Hospital Waste Management; External expert and temporary advisor with WHO (EMRO) for HRM for Senior Hospital Administrators from 22 nations.

9.18. Laboratory Medicine

Professors and Head

AK Mukhopadhyay (up to 31 May 2018)

M Irshad (from 1 June 2018)

Professor

Sarman Singh (On deputation)

Assistant Professors

Sudip Kumar Datta
Raghavendra L (up to 21 June 2018)
(Contract)

Shyam Prakash
Priyam Batra
(Contract)

HIGHLIGHTS

The Department of Laboratory Medicine contributes in the areas of patient care, teaching and research on regular basis. With an annual test-load of more than 85 lakhs tests, this department conducts tests and submits reports on-line and ensures quality results by a regular check *via* internal and external quality assurance programmes. Introduction of the appointment system at the Central Blood Collection Facility and the use of automated phlebotomy tube-labeler in this facility has

improved the blood collection operation. A total of 4,44,270 phlebotomy were made in 2018-2019 in the extended time-period of 7:30 AM to 11:00 AM. Several members of other departments were also trained in phlebotomy at this centre. Faculty of this department remains engaged in management of routine services and teaching at UG/PG level. Simultaneously, the faculty also bring intramural and extramural research grants. The faculty and staff organized CMEs, scientific events and participated in conferences, both in India and outside. Besides a regular teaching and training programme, this year four candidates were awarded the degree of MD (Laboratory Medicine), two candidates - PhD and three candidates obtained certificate for training. Renowned faculties from other institutions were invited to deliver lectures in the department. The development of new technologies and expansion of test-profile remain the major goals to be achieved in the Department of Laboratory Medicine.

EDUCATION

Training: 164 candidates of Paramedical staff were trained in Laboratory procedures.

CMEs/Workshops/Symposia/Conferences Organized

The department organized the first CME on “Gut Microbiome: Emerging role in health and disease” on 9 January 2019 in AIIMS, New Delhi under the aegis of American Association of Clinical Chemistry (AACC), India Section.

Lectures delivered

Sudip Kumar Datta

1. Discrepancies in electrolyte measurements by direct and indirect ion selective electrodes due to interferences, North Zone ACBICON 2018, 7-8 April 2018, Jodhpur
2. Discrepancies in electrolyte measurements between direct and indirect Ion-Selective Electrodes (ISEs), Delivered Brown Bag Session at 70th Annual Meeting of American Association of Clinical Chemistry (AACC), 29 July- 2 August 2019, Chicago, USA
3. Uncertainty of measurement in clinical laboratories, Method Validation and Verification- CLSI perspective, 3-4 October 2018, New Delhi
4. Quiz Master for AFMC-ACBI Quiz, 45th Annual Conference of Clinical Biochemists of India (ACBICON), 24-27 October 2018, Goa
5. Active communication between laboratory professional and clinician: Case Studies, AACC, India Section Symposium, 45th ACBICON, 24-27 October 2018, Goa
6. Panelist in panel discussion: Latest challenges in the clinical laboratory, 26th Annual Conference of Medical Biochemists of India (AMBICON), 2018, 15-17 November 2018, New Delhi

Shyam Prakash

1. Expression of GDF involved in changing of lifestyle diseases a manifestation of metabolic diseases, 7th Annual Conference IABS-2018, 20-22 April 2018, Srinagar
2. Dysregulation of asymmetric dimethyl arginine and molecular expression of tight junction proteins in gastric cancer International mini Symposium on biotechnology in medical research, MIET, 24 April 2018, Meerut
3. Dysregulation of ADMA and molecular expression of tight junction proteins in gastric cancer, Central Zone ACBICON 2018, 21-22 July 2018, Lucknow
4. Expression of GDF-15 in NAFLD and metabolic syndrome, 45th National Conference of Associations of Clinical Biochemists of India (ACBICON-2018), 24-28 October 2018, Goa
5. An emerging molecular expression of GDF-15 and novel macrophages cytokine in NAFLD and metabolic syndrome, 8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Translation of Basic Scientific Insights into Affordable Healthcare Products, 25-27 February 2019, Thiruvananthapuram
6. Prokineticins and GDF-15 as interlinked potential biomarkers for NAFLD and metabolic syndrome, National Conference on Recent Developments in Biomedical, Unani and Ayurvedic Translational Research and Darker side of Rampant Use of Lead Based Products IABS and In SLAR, 11-12 March 2019, Aligarh

Oral papers/posters presented

1. Albert V, Subramanian A, Prakash S, Trikha V, Kumar A, Malhotra R, Association of microRNA's signature in traumatic fractures of osteoporotic patients, NextGen Genomics, Biology, Bioinformatics and Technologies (NGBT), 30 September-2 October 2018, Jaipur
2. Amit, Himani, Thapar H, Singh A, Mahajan S, Datta SK, Effect of renal transplantation on organochlorine pesticide (OCPs) levels in chronic kidney disease patients (CKD-5d): A longitudinal study, 22nd North American ISSX (International Society for Study of Xenobiotics), 15-19 July 2018, Montreal, Canada

3. Amit, Himani, Thapar H, Singh A, Mahajan S, Datta SK, Effect of renal transplantation on organochlorine pesticide (OCPs) levels in chronic kidney disease patients (CKD-5D): A longitudinal study, 1st Research Day, AIIMS, 26 March 2019, New Delhi
4. Arora P, Datta SK, Sarkar A, Mahor DS, Discrepancies in Electrolyte Measurements by Direct and Indirect Ion Selective Electrodes due to Interferences by Proteins and Lipids, 70th Annual Meeting of American Association of Clinical Chemistry (AACC), 29 July-2 August 2019, Chicago, USA
5. Datta SK, Himani, Ansari JA, Sharma D, Mahdi AA, Association of glutathione S-transferase genes (GSTM1 and GSTT1) with blood lead levels in occupationally lead-exposed workers, 22nd North American ISSX (International Society for Study of Xenobiotics), 15-19 July 2018, Montreal, Canada
6. Gupta P, Irshad M, Standardization of Quadruplex TaqMan Real-Time PCR Assay for simultaneous detection of Hepatitis B, C, D and E viruses, 5th International Viral Hepatitis Elimination Meeting (IVHEM), 7-8 December 2018, Amsterdam, Netherland
7. Gupta P, Irshad M, TaqMan Probe Based Multiplex Real-Time PCR Assay for simultaneous detection of six Hepatitis Viruses (A-G), First Annual Research Day, AIIMS, 26 March 2019, New Delhi
8. Himani, Kumar R, Ansari JA, Mahdi AA, Sharma D, Karunanand B, Datta SK, Evaluation of blood lead levels and vitamin D receptor gene polymorphism (Apa I and Bsm I) in occupationally exposed battery workers, 45th ACBICON, 24-27 October 2018, Goa
9. Himani, Datta SK, Kumar R, Ansari JA, Mahdi AA, Sharma D, Karunanand B, Association of high blood lead levels with FOK1, APA1 and BSM1 vitamin D receptor gene polymorphism in occupationally exposed battery workers, 22nd North American ISSX (International Society for Study of Xenobiotics), 15-19 July 2018, Montreal, Canada
10. Kumar A, Himani, Thakkar H, Datta SK, Mahajan S, Singh A, Bioaccumulation of organochlorine pesticides in occupationally non-exposed otherwise healthy population: A gender-based study, North Zone ACBICON 2018, 7-8 April 2018, Jodhpur
11. Prakash A, Priyatma, Saroj M, Shalimar, Subramanian A, Vikram NK, Prokineticin and GDF-15 as interlinked potential biomarkers for NAFLD and Metabolic Syndrome, National Conference on Recent Developments in Biomedical, Unani and Ayurvedic Translational Research and Darker side of Rampant Use of Lead Based Products IABS and InSLAR, 11-12 March 2019, Aligarh
12. Priyatma, M Saroj, Makharia G, Prakash S, Role of asymmetric dimethyl arginine and MMP-7 expression in gastric cancer, 1st Annual Conference IABS-2018, 20-22 April 2018, Srinagar
13. Priyatma, Saroj M, Makharia G, Prakash S, Circulating Chromogranin and MMP-7 expression in gastric cancer, 45th National Conference of Associations of Clinical Biochemists of India (ACBICON-2018), 24-28 October 2018, Goa
14. Saroj M, Priyatma, Vikram NK, Prakash S, Relationship between mean platelet volume and Diabetes with metabolic syndrome in Indian patients, 45th National Conference of Associations of Clinical Biochemists of India (ACBICON-2018), 24-28 October 2018, Goa
15. Sharma A, Chaudhary SP, Raina V, Shukla NK, Sreenivas V, Prakash S, Priyatma, Bharti S, Final results of a phase II/III, randomized, double blind, placebo-controlled study to investigate the efficacy of a high potency multistrain probiotic, on chemotherapy induced diarrhea in cancer patients receiving Fluoropyrimidines and/or Irinotecan based therapy, ESMO-2018 Congress, 19-23 October 2018, Munich, Germany
16. Singh A, Verma AK, Das P, Prakash S, Gupta SD, Kumar L, Ahuja V, Makharia GK, Non-invasive biomarkers for assessment of villous abnormalities in patients with cardiac disease and other enteropathies: An alternative to mucosal biopsies, 51st Annual Meeting of European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPHAN), 9-12 May 2018, Geneva, Switzerland

RESEARCH

Funded projects

Ongoing

1. Genotypic characterization of Autosomal Dominant Polycystic Kidney Disease (ADPKD) in Indian population: A pilot study, Sudip Kumar Datta, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
2. Molecular expression and interaction between growth differentiation factor-15 and iron trafficking proteins in nonalcoholic fatty liver disease, Shyam Prakash, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
3. Rapid diagnostic evaluation of micro PCR for hepatitis B virus DNA (HBVDNA) and HCV RNA quantitation, Shyam Prakash, BigTec Bangalore, 6 years, 2013-2019, Rs 25 lakhs

4. Clinical validation of two versions of salivary glucose and urea analyzers for developing of rapid non-invasive prototypes, Shyam Prakash, AIIMS-IIT Delhi collaborative research Funds, 2 years, 2019-2021, Rs 10 lakhs
5. Molecular expression and interaction between growth differentiation factor-15 and nitric oxide regulatory genes in diabetes and metabolic syndrome, Shyam Prakash, ICMR, 3 years, 2018-2021, Rs 13.7 lakhs
6. CAP-53194, a novel predictive tumor inhibitor of Polo Like Kinase-1, Shyam Prakash, DST, 3 years, 2019-2022, Rs 14.73 lakhs

Completed

1. An inexpensive and rapid diagnostic method for detection of Hepatitis C viral RNA (HCV RNA) by loop mediated isothermal amplification (LAMP), Shyam Prakash, DBT, 5 years, 2013-2018, Rs 32 lakhs

Departmental projects

Ongoing

1. Abnormality of platelet functions and effect of ammonia levels in Acute liver failure and Acute on chronic liver failure
2. CAP-53194, a novel predictive tumor inhibitor of polo-like kinase-1
3. Cloning expression and purification of the novel recombinant protein from *Toxoplasma gondii* and its evaluation for the diagnosis of human toxoplasmosis
4. Development of a multiplex Real Time PCR (qPCR) assay for simultaneous detection of hepatitis viruses (A-G) in serum Flowcytometric Assessment of CD4+T and CD8+T cell subset populations in active pulmonary tuberculosis with and without type 2 diabetes mellitus
5. Dysregulation of asymmetric dimethyl arginine and molecular expression of tight junctions (claudins) and programmed cell death ligand-1 in gastric cancer
6. Evaluation of myelin loss and oligodendrocyte pathology in severe traumatic brain injury
7. Molecular expression and interaction between growth differentiation factor-15 (GDF-15), iron trafficking proteins, micronutrient antioxidants in diabetes and metabolic syndrome
8. Molecular interaction of reactive oxygen species in mitochondrial dysfunction and Nrf-2 gene expressions in polycystic ovary syndrome (PCOS)
9. Monitoring of thiopurine drug metabolites and hematological indices in inflammatory bowel disease: An assessment of efficacy and outcome
10. Randomized controlled trial to compare the impact of exercise and nutritional interventions on changes in skeletal muscle mass and function in obese patients with sarcopenia
11. Study of mild traumatic brain injury induced novel circulating brain protein SNTF as a rapid diagnostic and prognostic biomarker for brain dysfunction
12. Translational application of novel clinically accessible biological predictors to improved identification of mild and moderate Traumatic Brain Injury (TBI) induced neuro psychological impairment

Completed

1. A cross-sectional pathfinder study to assess the serum vitamin D level in patients undergoing non-surgical endodontic therapy and observe its potential association with periapical healing
2. Biomarker(s) for assessment of villous abnormalities in patients with celiac disease and other enteropathies
3. Effectiveness of intravenous iron sucrose in the treatment of moderate anemia among pregnant women, attending a sub district hospital in Haryana, North India
4. N22 Region of Torque teno virus: Cloning, expression and use of translational peptides in immunological assays and proteomic analysis
5. Study of platelet dysfunction in trauma patients requiring platelet transfusion
6. To assess the effect of renal transplantation on organochlorine pesticides levels in chronic kidney disease (stage 5D) patients
7. To study the role of lead exposure on Calcium metabolism and its relation with VDR polymorphism in battery workers in Delhi-NCR region

Collaborative projects

Ongoing

1. Application of Integrated Care Tool-BRIEF (ICT-BRIEF) in detection of Intrinsic Capacity and Geriatric Syndromes of older Indians, Geriatric Medicine

2. Comparative evaluation of endocrine disrupter chemicals (organochlorine, organophosphate, Biphenyl A, Phthalate) in polycystic ovary syndrome, type 2 diabetes mellitus and healthy reproductive age Indian women, and their correlation with dietary habits (vegetarian Vs non-vegetarian) and genetic variability, Multi-centric project: SKIMS, Srinagar; PGI, Chandigarh; MIRRH, Mumbai; GMC, Trivandrum; IPGMER, Kolkata; NEIGRIHMS, Shillong; AIIMS, Raipur; Swami Medical College, Hyderabad; Maternal Health and Research Trust, Hyderabad
3. Effect of low dose Rasburicase in management of tumor lysis syndrome, Haematology
4. Evaluation of HE4 level in epithelial ovarian cancer for diagnosis and and monitoring of therapy, Laboratory Oncology
5. Evaluation of prevalence, regional phenotypic variation, co morbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with polycystic ovary syndrome (PCOS): A multicenter study across India, SKIMS, Srinagar
6. Prevalence of vitamin B12 deficiency among Indian Women with PCOS and the impact of Vit. B12 supplementation on the efficacy of conventional drugs in the management of women with PCOS, SKIMS, Srinagar
7. Psychosocial stress and lipid profile as predictors of adverse pregnancy outcomes, Obstetrics and Gynaecology
8. Role of spot urine sodium in furosemide stress test in volume overloaded critically ill patients with acute kidney injury, Anaesthesia and Critical Care
9. Single arm open label trial to assess effectiveness of intravenous Ferric Carboxy Maltose (FCM) in improving haemoglobin level among pregnant women with moderate to severe anaemia attending a Sub District Hospital, district Faridabad, Haryana, Community Medicine
10. Urine albumin creatinine ratio as a marker for predicting acute kidney injury and patient outcome in critically ill sepsis patients—A prospective observational study, Anaesthesia and Critical Care

Completed

1. Macronutrient composition of very preterm (<32 weeks) breast milk—A prospective observational study, Paediatrics

PUBLICATIONS

Journals: 6 Abstracts: 6

PATIENT CARE

Centralised Blood Collection Facility

I. Total Phlebotomy:	4,44,370
II. Distribution of Blood Samples:	
A) Laboratory Medicine	
Clinical Biochemistry Division:	2,20,000
Haematology Division:	2,01,500
Clinical Microbiology Division:	10,500
B) Outside of Laboratory Medicine:	12,370



Emergency Laboratory Services (Round the clock)

Haematology Division

Test	Number	Test	Number
Hb	1,00,241	Blood C/S and CSF C/S	10,932
TLC	1,00,241	Slide Stain	16,200
PLT	1,00,241	MCV	1,00,241
PT	1,03,297	MCH	1,00,241
APTT	51,182	MCHC	1,00,241
CSF Cells	14,325	PCV	1,00,241
Urine	1,460	RBC	1,00,241
Total	9,99,324		

Clinical Biochemistry Division

Test	Number	Test	Number
B. Glucose	4,758	Cl ⁻	1,70,296
B. Urea	3,03,705	Ca ⁺⁺	1,70,296
S. Creatinine	3,03,824	SGOT	1,254
S. Bilirubin-T	2,37,005	SGPT	1,254
Amylase	7,929	ALP	1,254
ABG	29,200	CSF-Glu.	5,282
Na ⁺	1,70,296	CSF-Prot.	5,282
K ⁺	1,70,296		
Total	15,81,931		

Grand Total = 25,81,255

Haematology routine services

S. No.	Test	OPD	Ward
1.	Hb	1,27,011	89,318
2.	TLC	1,27,011	89,318
3.	PCV	1,27,011	89,318
4.	DLC	1,27,011	89,318
5.	ESR	40,000	10,935
6.	P/s Morphology	25,485	33,490
7.	PLT	1,27,011	89,318
8.	Retic Count	1,407	60
9.	Abs Eos. Count	1,27,011	89,318
10.	ANC	1,27,011	89,318
11.	MP	1,143	56
12.	MCV	1,27,011	89,318
13.	MCHC	1,27,011	89,318
14.	MCH	1,27,011	89,318
15.	RBC	1,27,011	89,318
16.	RDW	1,27,011	89,318
17.	MPV	1,27,011	89,318
18.	PT	6,992	9,671
19.	APTT	1,249	1,547
	Total	17,27,419	12,16,893

Grand Total = 29,44,312



Clinical Biochemistry Routine Services

Test	Blood	Urine and Fluid
Sugar	3,76,967	2,599
Urea	3,19,982	1,455
Creatinine	3,22,965	18,753
Calcium	3,20,807	7,744
Phosphate	3,20,346	7,744
Uric Acid	3,20,733	6,100
Na	3,18,819	6,049
K	3,18,819	6,049
SGOT	3,15,941	–
SGPT	3,15,941	–
Alk. Phosphatase	3,16,629	–
Bilirubin		–
i) Total	3,15,490	
ii) Conj.	2,86,621	
T. Protein	3,15,323	22,895
Albumin	3,15,323	2,564
Cholesterol	13,856	–
Amylase	4,598	2,531
ACP	–	4,253
24h Albumin	–	18,980
Total	48,19,160	1,07,716

Clinical Biochemistry (Investigations on request or for research)

Test	Number	Test	Number
HBsAg/HBV-DNA	450	TTV-DNA	200
IgM anti HBc	100	CK	100
Anti HCV	300	LDH	50
IgM Anti HEV	100	TG	400
IgM Anti HAV	100	LDLc	400
HCV-RNA	300	HDLc	400
Total	2,900		
Grand Total	49,29,776		



Clinical Microbiology Services

Routine investigations

1. Urine

Name of the Test	OPD	Ward	Total
Medical board	0	1,531	1,531
Routine	41,915	40,987	82,902
Microscopic	41,915	40,987	82,902
pH	41,915	40,987	82,902
Specific gravity	41,915	40,987	82,902
Acetone	41,915	40,987	82,902
Bile pigment/salt	41,915	40,987	82,902

Urobilinogen	41,915	40,987	82,902
Bence Jones Protein	52	64	116
Chyluria	61	53	114
Urine Cultures	21,438	0	21,438
Strain identifications tests	16,108	0	16,108
Antibiotic Sensitivity	31,701	0	31,701
Sub Total	3,62,765	2,88,557	6,51,322

2. Stool

Name of the Test	OPD	Ward	Total
Wet mount saline	8,713	3,963	12,676
Wet Iodine stain	8,713	3,963	12,676
Occult blood in stool	2,953	2,905	5,858
Fat globules	127	71	198
Special stains for stool Z-N stain, Modified Z-N Stain, Trichrome and chromotope	436	99	535
Sub Total	20,942	11,001	31,943

3. Semen analysis

Name of the Test	OPD	Ward	Total
Routine	5,234	-	5,234
No. of Reactions	5,234	-	5,234
Motility	5,234	-	5,234
Count	3,633	-	3,633
Fructose	2,064	-	2,064
Subtotal	21,399		21,399

4. Sputum Analysis

Name of the Tests	OPD	Ward	Total
Total Number of samples received	1,719	54	1,773
ZN staining (Microscopy)	3,068	84	3,152
MTB Culture	352	0	352
Sub total	5,139	138	5,277

5. Urine AFB Analysis

Name of the Test	OPD	Total
Total Number of samples received	1,304	1,304
ZN staining (Microscopy)	1,994	1,994
Sub total	3,298	3,298

Specialized Investigations

Immuno-Serological and Molecular Diagnosis Tests

Test (these remained suspended for most of the year)	Total	Test (these remained suspended for most of the year)	Total
Toxoplasma gondii IgG	1,657	Anti HBs	640
Toxoplasma gondii IgM	1,777	Anti HCV antibody	45,745
Rubella IgG	1,841	HEV IgM	216
Rubella IgM	1,947	HIV	39,906
Cytomegalovirus IgG	1,852	HBV DNA	209

Cytomegalovirus IgM	1,865	HCV RNA	116
Herpes Simplex virus IgG	495	CMV (RT PCR)	1,095
Herpes Simplex virus 2 IgG	487	Lab Strain Maintenance in Hamster	792
Herpes Simplex virus (1+2) IgM	28	Total number of samples received	652
HAV IgM	1,777	ZN staining:	1,004
HBsAg	46,365	LJ medium inoculated	749
HBc IgM	97	GeneXpert MTB/RIF	332
HBeAg	2,079		
TOTAL	1,53,723		

Grand Total: 8,66,962



AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor M Irshad, as a Head of the Department, made several changes in the working system of this department to further improve the patient-care and teaching pattern at UG/PG level. On academic front, he was listed among renowned icons (3%) of the world by Marquis, USA for his notable contribution in front-line research. He was selected as an active

member of editorial board for World J. of Hepatology. He was also selected as a member of editorial board of several journals and had a significant role in peer review of articles submitted to the journals under publishers like BMC, Elsevier (CLINRE, Gene Reports) and BPG (WJG, WJH, WJGO, etc.). A part of published work by his research team entitled, “Immune reaction cascade for HCV-mediated hepatic cell lysis” was selected for cover page of Journal, **Viral Immunology**. He was invited as a speaker to several international conferences this year too.

Dr Sudip Kumar Datta was awarded International Travel Grant for 2018 by American Association of Clinical Chemistry (AACC) at Chicago during AACC 2018 Annual Meeting. He is also Corresponding Member from India for International Federation of Clinical Chemistry (IFCC) Task Force on Ethics (2018-till date) and Secretary, American Association of Clinical Chemistry (AACC)- India Section (2018-till date).

Dr Shyam Prakash organized 16th Annual Meeting of Society for Free Radical Research in India (SFRRRI-2018) and International Conference on Translational Research in Free Radicals, Micronutrient Antioxidants and Functional Foods at AIIMS, New Delhi. He is a member of Project Review Committee of the SERC division of DST and Project Review Committee of the Nutrition Division of ICMR. He is also reviewer of research paper of the Indian J of Clinical Biochemistry and Clinical Nutrition ESPEN.

9.19. Medicine

Professor and Head

Rita Sood

Professors

Naveet Wig
Sanjeev Sinha

Ashutosh Biswas
Naval K Vikram

Associate Professors

Manish Soneja

Piyush Ranjan

Assistant Professors

Neeraj Nischal
Ranveer Singh Jadon
Prayas Sethi
(On contract)

Pankaj Jorwal
Animesh Ray
Prabhat Kumar
(On contract)

Arvind Kumar
Upendra Baitha
Ved Prakash Meena
(On contract)

HIGHLIGHTS

The Department of Medicine is a vibrant department providing holistic services including patient care, medical education and research. Besides the routine services, it has a strong presence in the fields of infectious diseases, metabolic disorders, chest medicine and sleep disorders and a large number of medical problems requiring multi-disciplinary care. The patient-care activities at the infectious diseases, Travel Health and Adult Immunization Clinic recorded a substantial jump with more than 5-fold increase in the number of patients. This year the department initiated a series of symposia to enhance the clinical skills of undergraduate and postgraduate students, which was very well received. We hosted world-renowned infectious diseases specialists like Dr David Denning and Dr Ricard Ferrer, who interacted with our students. The department received re-designation as a WHO Collaborating Centre for Training and Research in Tuberculosis for the next four years.

EDUCATION

The department runs comprehensive undergraduate and postgraduate teaching programmes which includes integrated lectures, seminars, journal club and bedside clinical case discussions. Currently 58 MD students, 37 DM-Infectious Diseases (17 Junior Residents and 20 Senior Residents) and 16 Senior Residents are being trained in the department. It is striving to improve the clinical training of undergraduates and postgraduates with better alignment between the expected outcomes, learning opportunities and assessments. There is increasing focus on regular formative assessments and feedback to students.

CMEs/Workshops/Symposia/National and International Conferences

(Organized by the department/departmental faculty)

1. Symposium on “Clinical Skills in Cardiovascular System” on 8 April 2018 at AIIMS, New Delhi
2. Symposium on “Neglected Infectious Diseases” on 22 April 2018 at AIIMS, New Delhi

- Public lecture on “Dengue Fever” on occasion of “National Dengue Day” on 16 May 2018 at AIIMS, New Delhi
- Symposium on “Infectious Diseases” on 23 May 2018 at AIIMS, New Delhi
- Update on “NIPAH Virus” on 24 May 2018 at AIIMS, New Delhi
- Symposium on medical procedures from a medicine resident on 5-6 June 2018 at AIIMS, New Delhi
- Symposium on “Evidence Based Medicine” on 6 October 2018 at AIIMS, New Delhi
- Symposium on “How to write a research paper” on 13 October 2018 at AIIMS, New Delhi
- Symposium on “Research Methodology Part II” on 3 November 2018 at AIIMS, New Delhi
- Guest lecture on “Recent advances in fungal infections and their management: How many lives can be saved?” on 5 December 2018 at AIIMS

Lectures delivered

Ashutosh Biswas

- Pitfalls in the management of severe dengue in adults, 1st National Conference on Dengue, 21-22 April 2018, Mysuru
- Clinical management of dengue, National Dengue Day, 2018, Department of Medicine and NVBDCP, Moh&FW, GoI, 16 May 2018, New Delhi
- Management and updated guidelines in HIV/AIDS, Delhi, API Chapter, 12 August 2018, New Delhi
- Approach to diarrhea in HIV, IACMCON 2018, 11 November 2018, Patiala
- Antibiotic prescribing in the community vis-à-vis hospital setting, 10th Annual Conference of Indian Society for Rational Pharmacotherapeutics, ISRPTON–2018, 23-25 November 2018, Patna
- Clinical aspects of human leptospirosis, Diagnostic approach, D/D, Case management, complications, referral protocol, tertiary care management, etc., Workshop on Leptospirosis, 27 March 2019, Kerala

Sanjeev Sinha

- Carcinoma Lung, NAPCON–2018, 29 November-2 December 2018, Ahmedabad

Naval K Vikram

- Maternal Nutrition Technical Protocol for PMSMA/ANC, Strengthening Maternal Nutrition Services in Antenatal Care Health Care Delivery Platforms (PMSMA and ANC at Facility and Community level): Two-day Training Workshop, 30-31 July 2018, New Delhi
- Diet in NAFLD: What is the best? 2nd National Conference of Indian Society of Clinical Nutrition (INSCN), 31 August-2 September 2018, New Delhi
- Medical management of obesity: Present and future, 13th National Obesity Conference, AIAAROCON 18, 7-9 September 2018, Aurangabad
- Panelist of high consumption of fat, sugar and salt, Rajasthan Conclave-6, 20-22 October 2018, Jodhpur
- Nonalcoholic fatty liver disease in metabolically healthy obese, 46th Annual Meeting of Research Society for Study of Diabetes in India, 22-25 November 2018, Ahmedabad
- Finding and citing articles from internet, 2nd National Research Workshop of Physician Research Foundation, 12-13 January 2019, New Delhi
- PRF Publication Workshop, 74th Annual Conference of the Association of Physicians of India (APICON), 7-10 February 2019, Kochi
- Consensus statement for metabolic surgery by Diabetes India, 9th World Congress of Diabetes India—Diabetes India 2019, 28 February-3 March 2019, Jaipur

Manish Soneja

- Influenza: Management Guidelines, Expert group meeting, 25 February 2019, New Delhi

Neeraj Nischal

- Standard treatment guidelines, Certificate Course in Healthcare Quality, Public Health Foundation of India, 20 July 2018, Noida
- Hospital antibiotic policy: Applying guidelines to general practice, 3rd Professional Development Programme Leading Healthcare Quality and Safety Improvement: Essentials for Managers, 15 March 2019, New Delhi

Arvind Kumar

1. Utility of bedside ultrasonography in bedside clinical medicine, BAPICON 2019, 2 March 2019, Bettiah
2. Workshop on resuscitation, BAPICON 2019, 1-3 March 2019, Bettiah

Upendra Baitha

1. Workshop on resuscitation, BAPICON 2019, 1-3 March 2019, Bettiah

Oral papers/posters presented

1. Bhatt M, Soneja M, Farooqui FA, Vikram NK, Biswas A, Roy A, Wig N, Myocarditis in dengue: A prospective observational study, AIIMS Research Day, 25 March 2019, New Delhi
2. Sagnik B, Soneja M, Kumar A, Roy A, Biswas A, Wig N, Role of N Terminal Pro BNP and Cardiac Troponin-I as Biomarkers to Predict Outcome in Patients with Sepsis, CIDSCON, 16 August 2018, Vellore
3. Sahu H, Soneja M, Singh N, Shalimar, Kalaivani M, Ray A, Ranjan P, Vikram NK, Biswas A, Wig N, Effect of implementation of protocol based nutrition therapy in medical ICU, AIIMS Research Day, 25 March 2019, New Delhi (**2nd prize for Poster category**)
4. Vikram NK, Khatiwada S, Mohta S, Ranjan P, Madhusudhan KS, Lakshmy R, Karthikeyan G, Pandey RM, Sood R, Association of Ectopic Fat Deposits with Metabolic Syndrome in Asian Indians, In the Obesity Week 2018, 11-15 November 2018, Nashville, Tennessee, USA

RESEARCH

Funded projects

Ongoing

1. Initiating antimicrobial stewardship activities in hospitals in India, Rita Sood, ICMR, 1 year, 2018-2019, Rs 10 lakhs
2. Functional analysis of human CD8 T cell response induced during dengue disease, Naveet Wig, DBT, 3 years, 2019-2022, Rs 25 lakhs
3. Seroprevalence of dengue infection, Ashutosh Biswas, NVBDCP, MoH&FW, 3 years, 2016-2019, Rs 30 lakhs
4. To study the effect of mobile phones on well-being, sleep and cognitive function (Multicentric project having 3 sites from all over country, AIIMS, New Delhi is LRI), Sanjeev Sinha, DST, 4 years, 2015-2019
5. Prevention of relapse in category I treated pulmonary tuberculosis patients with and without vitamin D3 supplementation: A randomized double-blind control clinical trial, Professor Sanjeev Sinha, ICMR, 1 year, 2016
6. Asha improving health and nutrition of Indian women with AIDS and their children, Sanjeev Sinha, NIH, USA, 1 year, 2013
7. Consumption pattern of food and food products/items high in fat, salt and sugar among selected cities/towns and rural population of India, Naval K Vikram, ICMR, 15 months, May 2018 onwards, Rs 62.59 lakhs
8. Mechanism of rapid propagation of dengue virus during infection, Naval K Vikram, DBT, 3 years, March 2018 onwards, Rs 20 lakhs
9. Effect of electromagnetic radiations due to mobile phone use on sleep and neurocognitive functions: A molecular approach, Manish Soneja, DST, 4 years, 2015-2019, Rs 65 lakhs
10. Role of biomarkers and its utility in algorithm for early diagnosis of invasive fungal infections, Manish Soneja, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
11. A study to evaluate the safety and efficacy of Saroglitazar 4 mg versus placebo in the treatment of HIV associated lipodystrophy, Neeraj Nischal, Zydus, 2016-2019, Rs 30 lakhs
12. To evaluate the role of Kit-based Loop Mediated Isothermal Amplification (TB-LAMP) in the diagnosis of Extra-pulmonary Tuberculosis, Neeraj Nischal, AIIMS, 2018-2019, Rs 3 lakhs
13. To study current practice in the management of bacterial urinary tract infection in patients at AIIMS, New Delhi with focus on current antibiotic usage and clinical outcomes, Arvind Kumar, AIIMS, 2 years, 2017-2019, Rs 1 lakh
14. Paradoxical reaction in lymph node tuberculosis among non-HIV subjects—Clinical implications and outcome, Pankaj Jorwal, RNTCP, 1 year, 2019-2020, Rs 1.9 lakhs
15. A study comparing nebulised amphotericin B with oral itraconazole for treatment of chronic cavitary pulmonary aspergillosis patients, Animesh Ray, AIIMS, 1 year, 2019-2020, Rs 5 lakhs
16. A study on the effects of simulation on resident doctors and nurse's knowledge and skills about basic and advanced life support, Upendra Baitha, AIIMS, 2 years, 2018-2020, Rs 5 lakhs

Completed

1. A prospective, multi-center, randomized, double-blind, parallel-group, active-controlled, phase III study to compare the efficacy, safety and immunogenicity of premixed human insulin biphasic (30% human insulin soluble injection and 70% human insulin isophane suspension) injectable suspension of MJ Biopharm Private Limited with Huminsulin® 30/70 in treatment of patients diagnosed with type 2 diabetes mellitus, Naval K Vikram, JSS Medical Research India Pvt Ltd, 1 year, 2017-2018, Rs 4.17 lakhs
2. A phase 3, multicenter, randomized, double blind, placebo controlled, parallel study to evaluate the efficacy and safety of lorcaserin hydrochloride in the treatment of obesity, Naval K Vikram, Dr Reddys Laboratories, 1 year, June 2017-October 2018, Rs 9 lakhs
3. The pattern of invasive fungal infections in high risk patients in medical ICU at AIIMS, New Delhi, Pankaj Jorwal, AIIMS, 2 years, 2016-2018, Rs 5 lakhs

Departmental projects

Ongoing

1. Active surveillance and targeted intervention in an ICU and HIC practices and its impact on ventilator associated pneumonia
2. Anti tubercular drug induced liver injury in patients with fatty liver
3. Anti-tubercular therapy induced liver injury in patients with type 2 diabetes mellitus: Prospective cohort study
4. A prospective observational study on clinical profile and outcome of patients to standard care of chronic pulmonary aspergillosis attending tertiary hospital
5. Assessment of body composition and metabolic profile of young health care providers
6. Association of lean mass, muscle strength and physical performance with diabetes and metabolic parameters
7. A study to compare the clinico-radiological and pulmonary function test profile of post tubercular COPD patients and smoking related COPD patients
8. Characteristics and clinical outcomes of patients with spinal tuberculosis presenting to a tertiary care hospital in India
9. Clinical and etiological profile of patients with eosinophilia
10. Clinical and serological characterization of autoimmune hemolytic anemia
11. Clinical and socio-demographic correlates of the patients presenting with medically unexplained physical symptoms in Medicine Outpatient Clinic
12. Clinical etiological and laboratory profile of patients with pericardial effusion
13. Clinical profile and outcome of renal tuberculosis and utility of gene expert in its diagnosis
14. Clinical radiological and functional correlation in treated pulmonary tuberculosis sequelae patients
15. Clinical spectrum, laboratory profile and outcome of patients with acute febrile encephalopathy: A prospective study from a tertiary care hospital in North India
16. Clinical, etiological and laboratory profile of patients with pericardial effusion
17. Clinico-microbiological profile and outcome of patients with urosepsis—A prospective study in a tertiary care hospital in North India
18. Comparison between obese and non-obese individuals with non-alcoholic fatty liver disease
19. Comparison of CPR quality pre and post training through the usage of high quality CPR markers
20. Cryptococcal Antigenemia in people living with HIV and AIDS
21. Diagnosis of patients with oligoarthritis with special reference to Brucellosis and Lyme disease
22. Dyslipidemia—A cardiovascular risk factor in HIV-AIDS patients
23. Effect of implementation of protocol based nutrition therapy on outcomes in Medical ICU
24. Effectiveness of Isoniazid Preventive Therapy for tuberculosis among retro positive individuals
25. Evaluating adherence to and outcome of evidence based practices in the care of the mechanically ventilated patient: A quasi-interventional study
26. Evaluation of TB LAMP assay in diagnosis of tubercular meningitis
27. Functional analysis of human CD8 T cell response induced during dengue disease
28. Impact of active continuous surveillance in an Intensive Care Unit on Ventilator Associated Pneumonia and Association of Exogenous flora with Ventilator Associated Pneumonia

29. Impact of surveillance and preventive interventions on device associated infections in Medical Intensive Care Unit (ICU)
30. Incidence of respiratory syncytial virus infection in adults in the first year following hematopoietic stem cell transplant
31. Invasive fungal infections and role of biomarkers and molecular approaches in early diagnosis
32. Outcome implications of protocol-based management in sepsis
33. Outcome implications of standardized checklist and protocol on incidence of adverse events during intra-hospital transport of critically ill patients
34. Outcome of implementation of guidelines on artificial airway maintenance and tube care in mechanically ventilated patients in Medicine Department at AIIMS, New Delhi
35. Outcome predictors of secondary hemophagocytic lymphohistiocytosis
36. Paradoxical reactions in HIV negative EPTB patients-incidence, outcome and predictive factors
37. Prevalence of immunologic failure among adult HIV/AIDS patients on Anti-Retroviral Therapy (ART)
38. Psychiatric morbidities in TB-HIV co-infection
39. Quality improvement of invasive procedures in Medicine Wards
40. Role of Impulse Oscillometry (IOS) in the evaluation and follow-up of newly diagnosed cases of Interstitial Lung Disease
41. Role of N-Terminal pro-BNP and Cardiac Troponin-I as biomarkers to predict outcome in patients with sepsis
42. Role of Serum CA-125 Level in diagnosis and monitoring of treatment response in pulmonary and extra-pulmonary tuberculosis
43. Role of serum procalcitonin levels in the management of sepsis
44. Secondary Hemophagocytic Lymphohistiocytosis (HLH) in patients with sepsis
45. Sonographic comparison of subclavian vein and inferior vena cava collapsibility for assessment of volume status of hypotensive patients
46. Spectrum of systemic fungal infections in Medical Wards at AIIMS
47. Sterile pyuria in patients admitted to medical wards: Incidence of Chlamydia trachomatis, Urea plasma urealyticum, Mycoplasma hominis and Mycoplasma genitalium
48. Study of clinico-epidemiological profile of acute undifferentiated febrile illness patients at a tertiary care centre
49. Study of prevalence of medically unexplained physical symptoms (MUPS), in Medicine OPD, associated disability and caregiver burden
50. Study of the effect of implementation of 'Critical Pathways' on the quality of management of community acquired pneumonia
51. Synthesis, quality control and biodistribution studies of ^{99m}Tc (99mTc) labelled antibiotics for infection imaging
52. The pharmacokinetics of nebulized and intravenous colistin in mechanically ventilated patients in medicine ICU
53. Thromboelastographic abnormalities and correlation with bleeding manifestations in dengue fever
54. To evaluate the risk factors associated with HIV TB co-infection
55. To evaluate the role of 'Kit-based commercial Loop-Mediated Isothermal Amplification (TB-LAMP)' assay in the diagnosis of Tubercular Lymphadenitis

Completed

1. Adherence to lifestyle modification advices in non alcoholic fatty liver disease
2. Burden of dengue among adult population in DELHI/NCR AIIMS, New Delhi
3. Cardiac manifestations in hospitalized patients with dengue fever
4. Effect of implementation of protocol-based nutrition therapy on outcomes in Medical ICU
5. Epidemiology of Invasive fungal infections in ICU at AIIMS, New Delhi
6. Erectile dysfunction in nonalcoholic fatty liver disease
7. Hepatic left lobe volume as a sensitive index of metabolic improvement in patients with Nonalcoholic Fatty Liver Disease (NAFLD)
8. Nutritional and lifestyle risk factors associated with NAFLD (Non Alcoholic Fatty Liver Disease)
9. Outcome implications of ADA/AACE guidelines based insulin protocol in the management of hyperglycemia in hospitalised patients at AIIMS

10. To evaluate the incidence and risk factors of mortality in dengue infection
11. To study the current practice of management of bacterial UTI

Collaborative projects

Ongoing

1. A 26 week randomised open label parallel group comparison of SAR 341402 mix 70/30 to NovoMix® 30 in adult patients with diabetes mellitus using pre-mix insulin analogs, Endocrinology and Metabolism
2. A randomised 24-week controlled open label parallel arm multicentered study comparing the efficacy and safety of the insulin glargine/lixisenatide fixed ratio combination to insulin glargine in T2DM patients, inadequately controlled on basal insulin with or without metformin, Endocrinology and Metabolism
3. A randomised double blind placebo control parallel group multicentered study to demonstrate the effects of Sotagliflozin on cardiovascular risk and renal events in patients with T2DM cardiovascular risk factor and moderately impaired renal function, Endocrinology and Metabolism
4. A randomized double blind placebo controlled parallel group multicentered study to evaluate the effect of EFPEGLENATIDE on cardiovascular outcomes in T2DM patients at high cardiovascular risk, Endocrinology and Metabolism
5. A randomized placebo controlled prospective phase II clinical study of an Ayurvedic Coded Drug 'AYUSH-D' on Glycaemic control in Pre-Diabetic Subjects, Endocrinology and Metabolism
6. A randomized, double-blind, placebo- and active-controlled, multicenter, phase 3 study to assess the efficacy and safety of filgotinib administered for 52 weeks in combination with methotrexate to subjects with moderately to severely active rheumatoid arthritis who have an inadequate response to methotrexate, Rheumatology
7. A randomized, double-blind, placebo and active-controlled, multicenter, phase 3 study to assess the efficacy and safety of filgotinib administered for 52 weeks alone and in combination with Methotrexate (MTX) to subjects with moderately to severely active rheumatoid arthritis who are Naïve to MTX Therapy, Rheumatology
8. Effect and safety of semaglutide 2.4 mg once-weekly in subjects with overweight or obesity and type 2 diabetes, Endocrinology and Metabolism
9. Efficacy and safety of oral semaglutide versus placebo in subjects with type 2 diabetes mellitus treated with insulin, A 52-week, randomised, placebo-controlled trial, double-blinded study, Endocrinology
10. Identifying the role of exogenous ATP in joint inflammation, Rheumatology
11. Musculoskeletal symptoms and their impact in adolescent school children, Rheumatology

PUBLICATIONS

Journals: 67 Abstracts: 3 Chapters in books: 1

PATIENT CARE

Medicine OPD is a direct non-referral clinic running 6 days a week. The department runs speciality clinics including Sleep Disorders Clinic (Monday 2 PM), Infectious Diseases, Travel Health and Adult Immunization Clinic (Monday 2 PM), Chest Clinic (Friday 2 PM) and Obesity and Metabolic Disorders Clinic (Wednesday 2 PM). The department also runs ART centre under national programmes. The department has a Pulmonary Function Tests Lab (MOPD room no 34) wherein, there is no waiting period and the investigations are done and reports given on the same day. Bronchoscopy Lab is situated in DII ward and equipped with state-of-the-art Endobronchial Ultrasound System. Sleep Lab located in CII Ward is equipped with polysomnography machines, ambulatory Blood Pressure Monitoring System, and equipment for non-invasive assessment of endothelial dysfunction. The Department of Medicine provides diagnostic facilities for tuberculosis to patients coming to the AIIMS hospital as well as those referred from 5 zones of Delhi (Chest Clinics) under the RNTCP (Revised National Tuberculosis Control Programme). The department has state-of-art biosafety level 3 (BSL-3) lab.

Following is the data of patients in various clinics and laboratory investigations run by the department

Medical OPD

Total cases **1,65,322**

Infectious Diseases, Travel Health and Adult Immunization Clinic (Monday 2 PM)

Total cases **3,523**

Sleep Clinic

Total cases **786**

Chest Clinic

Total cases **4,649**

Obesity and Metabolic Disorders Clinic

Total cases **1,283**

Antiretroviral (ART) Centre

Pre-ART **995** ART **791**

Laboratories

Sleep

Sleep studies **278** Endothelial dysfunction studies **8**
Ambulatory monitoring of blood pressure **20**

PFT

Pulmonary function test **6,822** 6 Minute walk test **269**

Number of Bronchoscopy done

Fibre-optic bronchoscopy **381** EBUS **83**

ADA/ACE Lab

ACE tests **85**

Intermediate Reference Laboratory (IRL) services:

Sputum smear	7,000	Solid culture	500
Liquid culture	15,426	Solid drug susceptibility test	87
Liquid DST (1st line)	224	Liquid DST (2nd line)	716
Line Probe Assay (1st line LPA)	4,093	Line Probe Assay (2nd LPA)	1,378
Gene/Xpert	8,276		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Naveet Wig was Nodal Officer, WHO Collaborating Centre for Training and Research in Tuberculosis; Chairman, National Technical Working Group on TB – comorbidities; Chairman Expert Committee, DHR – ICMR for funded workshop on clinical training and translational research; Co-chair, Standing Treatment Guidelines (Medicine), ICMR; Member, Governing Body of All India Institute of Ayurveda; Member of Scientific Body of Indian Pharmacopoeia Commission; Member of ICMR Technical Resource Group on HIV/AIDS and member of HIV/AIDS Project Review Committee (PRC) of ICMR.

Professor Ashutosh Biswas was nominated as expert member with Central Team Deputed for reviewing Nipah outbreak in Kozhikode, Kerala by Ministry of Health and Family Welfare and DGHS, Emergency Medical Relief, 21-28 May 2018; Expert member for High Level Central Team to visit Ahmedabad, Gujarat to review public health measures (Including containment and surveillance) by Ministry of Health and Family Welfare, Directorate General of Health Services (Emergency Medical Relief) and the state health department for Zika Virus Disease outbreak on 20 October 2018 at Ahmedabad, Gujarat; Expert member for High Level Central Team to visit Jaipur, Rajasthan to review public health measures (Including containment and surveillance) by Government of India, Ministry of Health and Family Welfare, the Directorate General of Health Services (Emergency Medical Relief) and the state health department for Zika Virus outbreak, 5-10 October 2018 at Jaipur, Rajasthan; Expert to Assessment Board for promotion of ICMR scientists-B&F under Flexible Complementing Scheme; Expert member in central team to frame new guidelines for clinical management for Nipah virus disease by Central Team, MoH&FW; External expert, Standing Selection Committee for post of Assistant and Associate Professor, Department of General Medicine at IGIMS, Patna; External expert, Standing Selection Committee for the post of Assistant Professor, Department of General Medicine (Trauma and Emergency) at IGIMS, Patna; Expert member for workshop to develop a Nipah virus Research and Development roadmap for India, 6-7 August 2018, organized by ICMR and WHO-SEARO; Expert member for workshop on Malaria on occasion of World Malaria Day on 25 April 2018 organized by SEARO-WHO; Expert member for the meeting for Nipah: An emerging threat, country preparedness and challenges ahead' organized by National Centre for Diseases Control (NCDC), New Delhi; Expert member for National Vector Borne Disease Control Programme (NVBDCP), Ministry of Health and Family Welfare, on evaluating different National Polices for prevention, control and management of Vector Borne Diseases; Expert member of Human Rights Commission, Government of India responsible for giving expert opinion in case of custodial death for legal proceeding; Expert member of Advisory Committee Group, ICMR, New Delhi; External Examiner of various National Universities/Medical Colleges; Expert member of selection board for combined Medical Services, Union Public Service Commission (UPSC), New Delhi; Expert member of selection board of the faculty in IGIMS, Patna, Bihar, highly appreciated by NVBDCP, Ministry of Health and Family Welfare, Government of India for organizing National Dengue Day and Dengue Symposium and Public Lecture organized in AIIMS, New Delhi, Special Invited for talk on Delhi Doordarshan Broadcasting: Topic - "Malaria" on

“Total Health Programme” on dated 29 April 2018 at Delhi Doordarshan, DD Bhawan (Tower – 2), Mandi House, New Delhi, Special Invited to talk on All INDIA RADIO LIVE SHOW topic: Zika Virus on 5 November 2018 at Akashvani Bhavan, Parliament Street, New Delhi.

Professor Sanjeev Sinha was Member of Medical Board Antarctica Expedition, Government of India, Goa; Member of Scientific Committee, NACO, Ministry of Health and FW, Government of India; Member of Health Wellness Programme, Ministry of Tourism, Government of India; Member of Review Committee of Journal of Physical Education and Sport Management, Published from South Africa; Member of Review Committee of Journal IJMR; Member of Review Committee of Journal of Current HIV Research; Member of Review Committee of projects funded by DHR, ICMR, Government of India; Member of Negotiation Committee of Central Store, AIIMS; Member Secretary of AIIMS Ethics Committee of PGR.

Professor Naval K Vikram was declared winner of ‘2018 8th Annual Research in Diverse Populations Tour Award’ for the abstract ‘Association of ectopic fat deposits with metabolic syndrome in Asian Indians’ in the The Obesity Week on 13 November 2018, in Nashville, Tennessee, USA; Awarded the ‘WORLD-INDIA DIABETES FOUNDATION (WIDF) 2019 INNOVATION AWARD’ on 6 January 2019 in Mumbai in recognition of innovative research in diabetes with potential application in patient management.

Dr Manish Soneja was Chairman Sub-Committee of Management of Influenza Guidelines, NCDC; Member Expert Group of National Guidelines on Dengue, Chikungunya and Influenza, Member Expert Group of ICMR Antibiotic Policy, and Sub-Committee of Standing National Committee on Medicines (SNCM) on Hygeine and other health care Products.

VISITING SCIENTIST

1. Professor David V Denning, Professor of Infectious Diseases in Global Health and a consultant in Infectious Diseases and Medical Mycology, Wythenshawe Hospital and University of Manchester, UK
2. Dr Ricard Ferrer, Head of Intensive Care, Valld’Hebron University Hospital, Barcelona, Spain on 27 March 2019.

9.20. Microbiology

Professor and Head

Gita Satpathy

Professors

Rama Chaudhry

Arti Kapil

Lalit Dar

Bimal K Das

Bijay Ranjan Mirdha

Immaculata Xess

Benu Dhawan

Seema Sood

Urvashi B Singh

Assistant Professors

Sarita Mohapatra

Aashish Choudhary

Gagandeep Singh

Hitender Gautam

Nishant Verma

Nishat Hussain Ahmed

Kiran Bala

Megha Brijwal

HIGHLIGHTS

The Department of Microbiology has always been dedicated towards patient care, teaching, research and CME programmes. It has been actively involved in teaching undergraduate and postgraduate students enrolled in MBBS, MD, PhD and BSc (Nursing) courses. The DM (Infectious Diseases) courses (3- and 6-years) have continued with the Department of Medicine.

The Department of Microbiology, which is an essential component of health care services, contributed significantly towards patient care. During this year it carried out a total of 2,81,601 diagnostic tests and also played a prime role in hospital infection control. The external inspection committee for Kaya Kalp made several visits to laboratories and other areas of the department and were extremely satisfied with the level of cleanliness and Bio-Medical waste management standards being followed. The department continued with the process of NABL accreditation.

The department made a significant contribution in terms of research with 73 publications in indexed national and international journals. Several funded research projects were started or continued during the period, many of which were in collaboration with other departments or institutes. Many award winning oral and poster presentations were made at national and international conferences.

The department was involved in the organization of a one day workshop on ‘Diagnostic Techniques in Mycology’ on 30 August 2018 and a workshop was organized for State Reference Laboratory (SRLs)—“EQAS panel distribution

Workshop” on 10 January 2019 (Participants: PGIMER, Chandigarh, Government Medical College Amritsar, Government Medical College, Patiala and Indiar Gandhi Medical College, Shimla and HIV Laboratory Staff of AIIMS.)

EDUCATION

Undergraduate

MBBS for Medical Microbiology

BSc (Nursing) - Medical Microbiology

Postgraduate

PhD (Microbiology)

Lecture - Once/week

Journal Club - Once/week

MD (Microbiology)

Lecture/Seminar - Once/week

Journal Club - Once/week

Tutorial - Twice/month

Practical Exercise presentation - Twice/month

Laboratory postings in different sections of the department

DM (Infectious Diseases)

Seminar - Once/week

Laboratory postings in different sections of the department

Short-Term Training

The department provided short-term training to 18 candidates from various parts of the country.

CMEs/Workshops/Symposia/National and International Conferences

Organized by the department

1. One day workshop on ‘Diagnostic Techniques in Mycology’ on the 30 August 2018
2. Workshop Organized for State Reference Laboratory (SRLs)
 - EQAS panel distribution Workshop - 10 January 2019
(Participants: PGIMER, Chandigarh, Government Medical College, Amritsar, Government Medical College, Patiala and Indira Gandhi Medical College, Shimla and HIV Laboratory Staff of AIIMS)

Lectures delivered

Gita Satpathy

1. Molecular Diagnosis of Paediatric Sepsis, CME on ‘Paediatric Sepsis’, 4 May 2018, Delhi

Rama Chaudhry

1. Probiotics—The wonder Drugs, CME on Probiotics at the Inaugural session of Chandigarh Region Menopause Society (CRMS), 14 April 2018, Chandigarh
2. Role of probiotics in prevention of neonatal sepsis, PEDS SEPSIS-2018, 4 May 2018, Delhi
3. Probiotics: An immunomodulator in health and disease, 2nd International Conference on Ear, Nose and Throat Disorders, 14-15 May 2018, Osaka, Japan
4. Clinical spectrum of *M. Pneumoniae* in Indian Patients, Joint Congress of 7th Meeting of the Asian Organization for Mycoplasma (7th AOM), 45th Meeting of the Japanese Society of Mycoplasma (JSM), 18-20 May 2018 Tokyo, Japan
5. Fermentation technology in probiotic supplementation for health benefits, Opportunities and challenges in fermentation based industrial processes, 13-14 September 2018, Jammu
6. Study on Gut Microbiota using Next Generation Sequencing in the Indian Population, “NGBT-2018” Next gen Genomics, Biology, Bioinformatics and Technology, 30 September-2 October 2018, Jaipur
7. Invited speaker, World congress on Infectious disease and antibiotics 2018, 28-29 November 2018, Bengaluru
8. Update on Emerging Infectious Diseases in India, MICROCON Bengaluru 2018, 29-30 November 2018, Bengaluru

Arti Kapil

1. Sterilization and Disinfection, Workshop on “Infection prevention, decontamination in oral health care”, 10 April 2018, AIIMS, New Delhi
2. Healthcare associated infections, Conference on “Infection control practices in ophthalmic nursing”, 12 April 2018, AIIMS, New Delhi

3. Emergence of multi drug resistant pathologies in pediatric sepsis, “Paediatrics sepsis during PEDS SEPSIS 2018”, 4 May 2018, Chacha Nehru Bal Chikitsalaya, Delhi
4. Infection prevention aspects of indwelling intravascular medical devices, HISI Delhi NCR Chapter Meet, 7 July 2018, Indraprastha Apollo Hospital, New Delhi
5. Preparing quality antibiogram for disseminating AMR data, MICRO-D-CUM 2018, 10th Annual Conference, CME 2018, 2 November 2018, Indian Habitat Center, New Delhi
6. Antibiotic for Treatment of Typhoid Fever: Have we run out of the options, World Congress on Infectious Diseases and Antibiotics 2018 International Conference, 28 November to 1 December 2018, Bangalore, Karnataka
7. Molecular diagnosis of AMR, CME on “Antibiotic Resistance”, 1-2 February 2019, AIIMS, Jodhpur

Lalit Dar

1. Nipah Virus, Faculty Continuing Medical Education Programme, 4 June 2018, New Delhi
2. Large group teaching, CMET workshop, 7 August 2018, Faridabad, Haryana
3. Nasal shedding of vaccine viruses in children 2-10 years of age after immunization with a Russian backbone Live-Attenuated Influenza Vaccine (LAIV), CDC Atlanta—AIIMS Delhi Cooperative Agreement Project Meeting, 23 August 2018, Atlanta, USA
4. Sequencing and phylogenetic matching of LAIV viruses with the wild type influenza viruses isolated in the post-vaccination period, CDC Atlanta—AIIMS Delhi Cooperative Agreement Project Meeting, 23 August 2018, Atlanta, USA
5. Guidelines for the management of occupational exposure to HBV, HCV, HIV, and recommendations for PEP, National Training of Trainers for Laboratory Diagnosis: National Viral Hepatitis Control Programme (NVHCP), 11 October 2018, New Delhi
6. Influenza—Prevention and Infection control issues, Influenza A H1N1-Myths and Facts, 1 March 2019, New Delhi

BR Mirdha

1. Mutational analysis of human pneumocystosis : Delineating outcome, MYCOCON 2018, 21-23 September 2018, New Delhi
2. Emerging Parasitic diseases, One day workshop on “Emerging Infectious Diseases”, 6 March 2019, Rohtak

Immaculata Xess

1. Fungal Infections in Febrile neutropenia: Challenges to Microbiologist, National Hematology Update 2018, 14-15 April 2018, New Delhi
2. Diagnosis of invasive fungal infections in pediatrics, Paediatrics Sepsis, 4 May 2018, Delhi
3. Black fungi endemic in India, Mycocon 2018, 22-23 September 2018, New Delhi
4. Resistances to antifungal agents, mechanism and clinical impact, XIIth Annual State Conference of Indian Association of Medical Microbiologist, 7 October 2018, Berhampur

Benu Dhawan

1. Extragenital sexually transmitted chlamydial infection, ASTICON 2018, 11-13 October 2018, New Delhi

Seema Sood

1. Antibiotic resistance crisis in *Neisseria gonorrhoeae*: Focus on India, 42nd National Conference of IASSTD and AIDS (ASTICON-2018), 11-13 October 2018, New Delhi
2. DNA Biosensor for Diagnosis of Gonorrhoea, Indo-Japan Workshop on Biomedical Electronics and Organic Nanotechnology for Environment Preservation (IJWBME-2018), 6-9 December 2018, New Delhi

Urvashi B Singh

1. The Enigma of Latent TB, Panel Discussion, Pulmocrit 2019, 2 March 2019, New Delhi

Sarita Mohapatra

1. Introduction to HAI: An overview in Cardiothoracic Centre, Infection control workshop for health care personal, 4 April 2018, New Delhi
2. Collection and transport of specimens, Infection control workshop for health care personal, 4 April 2018, New Delhi
3. Hand Hygiene, Hospital infection control and prevention strategies and Hand Hygiene, 2 May 2018, New Delhi

4. Case based discussion on CAP, HAP and VAP, Imaging of chest infections, 4 August 2018, New Delhi
5. Current approach in the laboratory diagnosis of fungal pathogens, XIIth Annual State Conference of Indian Association of Medical Microbiologists, 7 October 2018, Berhampur, Odisha
6. Optimization of antimicrobial prescription by drug dosing and MIC, AIIMS Neuroanaesthesia Update 2018, 4 November 2018, New Delhi
7. Collection and transport of blood and other samples, CME for residents, Paediatrics, 11 November 2018, New Delhi
8. Antibiotic resistance: An overview, Antibiotic Awareness Week: Workshop for nurses (12-15 November 2018), 15 November 18, New Delhi

Aashish Choudhary

1. Anti-Viral Drug Susceptibility Testing, PG Assembly, Indian Association of Medical Microbiologists (IAMM)-Delhi Chapter, 17 August 2018, New Delhi
2. Laboratory diagnosis of influenza, Influenza A H1N1—Myths and Facts, 1 March 2019, New Delhi
3. Emerging viral infections—Indian Scenario, National Conference on Emerging Infectious Diseases, 6 March 2019, Rohtak, Haryana

Gagandeep Singh

1. How to diagnose and manage PCP? MYCOCON 2019, 22 and 23 September 2018, New Delhi
2. Management issues in hospital laboratory services, 93rd Training Course on Hospital Administration for Senior Hospital Administrators, 27 September 2018, New Delhi
3. Diagnostics in Mycology: What's new? CME on 'Recent Advances in Diagnostic Microbiology', 25 November 2018, Noida
4. Sterilization and disinfection, Residents Induction training and Nurses training programme on infection control, Regular intervals, New Delhi
5. Standard precautions, Residents induction training and Nurses training programme on infection control, Regular Intervals, New Delhi

Hitender Gautam

1. Antimicrobial Resistance (AMR) in Hospital Associated Infections at IRCH, Clinical Grand Round for Department of Microbiology, 16 October 2018, New Delhi

Nishant Verma

1. Infections in dental settings, 1st Workshop on "Infection prevention, decontamination in oral health care", 10 April 2018, AIIMS, New Delhi
2. Newer agents of parasitic diarrhea, 12th National Conference of Indian Academy of Tropical Parasitology (TROPACON 2018), 7-9 September 2018, Varanasi, Uttar Pradesh

Nishat Hussain Ahmed

1. Antimicrobial Resistance in Ocular Pathogens, Microbiology Clinical Grand Round, 16 October 2018, AIIMS, New Delhi

Megha Brijwal

1. Influenza—Virology and Epidemiology, Influenza A H1N1—Myths and Facts, 1 March 2019, New Delhi

Oral papers/posters presented

1. Agarwal R, Singh G, Mani P, Pandey M, Sachdev J, Verma KK, Xess I, Identification of clinical dermatophytes using MALDI-TOF mass spectrometry, ISHAM 2018, 30 June to 4 July 2018, Amsterdam
2. Aggarwal A, Dhawan B, Chaudhry R, Kapil A, Wig N, Vikram N, Soneja M, Sterile pyuria in patients admitted to medical wards: Incidence of *Chlamydia trachomatis*, *Ureaplasma urealyticum*, *Mycoplasma hominis* and *Mycoplasma genitalium*, MICROCON, 42nd Annual Conference of Indian Association of Medical Microbiologists, 28 November-2 December 2018, Bengaluru
3. Ahmed J, Singh G, Mohan A, Xess I, Rapid identification of respiratory moulds by MALDI-TOF in patients admitted to pulmonary ward and ICU, MYCOCON 2019, 22-23 September 2018, New Delhi

4. Ahmed NH, Satpathy G, Chawla R, Tandon R, Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type-1 and Type-2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral Infections, National Conference of the Clinical Infectious Diseases Society CIDSCON-2018, 17 August 2018, Vellore
5. Arif N, Rawre J, Agrawal S, Khanna N, Juyal D, Dhawan B, A case of multiple sites of sexual contact infection due to *Mycoplasma genitalium* and *Chlamydia trachomatis* in a bisexual male, Indian association for the study of STD and AIDS, ASTICON 2018 at All India Institute of Medical Sciences, 11-13 October 2018, New Delhi
6. Basu A, Sachdev J, Agarwal R Singh G, Xess I, A case of otomycosis with yeast and mould co-infection in a recipient of Haematopoietic Stem Cell Transplant, PEDS SEPSIS 2018, 4 May 2018, New Delhi
7. Bir R, Gautam H, Arif N, Tyagi S, Mohapatra S, Sood S, Das BK, Kapil A, Colistin Susceptibility Testing and *mcr-1* detection for Enterobacteriaceae: Comparison of phenotypic tests with Broth Microdilution (BMD), AIIMS 1st Research Day, 26 March 2019, New Delhi
8. Biswal D, Agrawal SK, Choudhary SK, Chaudhry R, Anaerobes in cardiac infections: An under reported issue, World Congress on Infectious Diseases and Antibiotics-2018, 28-29 November 2018, Bangalore
9. Chaudhry R, Bamola VD, Kapardar RK, Sharma A, Lal B, Metagenomic Mapping of Gut Microbiota by 16S rRNA Sequencing in Indian Healthy Subjects and Patients of Colon Cancer, 1st AIIMS Research Day, 26 March 2019, New Delhi
10. Chaudhry R, Sreenath K, Valavane A, Sagar T, Vinayaraj EV, Kabra SK, Anand V, Nandan D, Molecular detection of *Mycoplasma pneumoniae* in patients having pneumonia by real-time PCR targeting *CARDS* toxin, ECCMID, 21-24 April 2018, Madrid, Spain
11. Dabas Y, Mohan A, Xess I, Galactomannan antigen as a diagnostic and prognostic marker in ICU subpopulation suspected of Invasive Aspergillosis, ISHAM 2018, 30 June-4 July 2018, Amsterdam
12. Dabas Y, Xess I, Environmentally acquired mutations in *Aspergillus fumigatus* leading to azole resistance: An Asian situation, ISHAM 2018, 30 June-4 July 2018, Amsterdam
13. Dabas Y, Xess I, Molecular identification and antifungal susceptibility patterns of invasive *Aspergillus* species following CLSI and EUCAST guidelines, ISHAM 2018, 30 June-4 July 2018, Amsterdam
14. Dhawan B, Rawre J, Dhawan N, Bhatia R, Gupta V, Khanna N, High prevalence of *Mycoplasma genitalium* in men who have sex with men in a tertiary care hospital in New Delhi, Indian association for the study of STD and AIDS, ASTICON 2018 at All India Institute of Medical Sciences, 11-13 October 2018, New Delhi
15. Dubey D, Bamola VD, Kapardar RK, Lal B, Chaudhry R, A search for microbial Biomarkers for colon cancer in Indian population using a Next Generation sequencing Approach, 9th India Probiotic Symposium, "Probiotics through the lifespan", 24-25 November 2018, Kolkata
16. Gautam H, Choudhary AH, Kumar S, Dhawan B, Das BK, Kapil A, Postoperative infections among cancer patients in a tertiary care setting, HISICON 2018, 4-6 October 2018, Hyderabad
17. George S, Mohapatra S, Varghese B, Dabral J, Suri A, Pandia MP, Bhatia R, Borkar S, Dubey S, Dash D, Jagdevan A, Kapil A, Impact of adherence to care bundles to reduce Central Line Associated Blood Stream Infection in Neurology and Neurosurgical ICU patients, HISICON, 4-6 October 2018, Hyderabad
18. Jawed A, Sachdev J, Agarwal R, Singh G, Xess I, Osteomyelitis caused by *Aspergillus* spp. in paediatric patient with chronic granulomatous disease, PEDS SEPSIS 2018, 4 May 2018, New Delhi
19. Jethani J, Dar L, Joshi V, Angel B, Choudhary A, Brijwal M, Viral infections in adults following Hematopoietic Stem Cell Transplant (HSCT), The International Conference on Advances in Biosciences and Biotechnology (ICABB-2019), 1 February 2019, Noida, UP
20. Khullar S, Biswal D, Agrawal SK, Choudhary SK, Chaudhry R, Anaerobes in cardiac infections: An AIIMS experience, 1st AIIMS Research Day, 26 March 2019, New Delhi
21. Khullar S, Brijwal M, Shalimar, Nayak B, Dar L, Choudhary A, Molecular detection of occult hepatitis C infection in cryptogenic liver disease: A North Indian tertiary care experience, American Society of Microbiology (ASM) Microbe, 10 June 2018, Atlanta, USA
22. Khullar S, Pandey M, Agarwal R, Mani P, Sachdev J, Singh G, Xess I, Coinfection of mucormycosis and aspergillosis: Case series, ISHAM 2018, 30 June to 4 July 2018, Amsterdam
23. Kothari S, Dhawan R, Aggarwal M, Seth T, Rath S, Mahapatra M, Gut Colonization with Carbapenem Resistant Enterobacteriaceae (CRE) Leads to More Chemotherapy Interruptions and Higher Mortality in Patients with Acute Leukemias Receiving Remission Induction Chemotherapy, American Society of Hematology Annual Meeting, 3 December 2018, USA
24. Mohapatra S, Kapil A, George S, Varghese B, Dabral J, Suri A, Pandia MP, Bhatia R, Borkar S, Dubey S, Dash D, Jagdevan A, Impact of continuous teaching and training of Hand Hygiene Practices among the nursing staffs in reduction of device-associated infection, MICROCON, 28 November-2 December 2018, Bengaluru

25. Panda A, Mirdha BR, Malhotra P, Mohammed A, Study of cytoadherence molecules in Cerebral malaria due to Plasmodium falciparum, 29th National Congress of Parasitology and International Symposium on Malaria Biology, 1-3 November 2018, Hyderabad
26. Pandey M, Xess I, Agarwal R, Dabas Y, Singh G, Diagnostic value of molecular methods in diagnosis of mucormycosis, ISHAM 2018, 30 June-4 July 2018, Amsterdam
27. Parul, Kapil A, Mohapatra S, Narang R, Sahoo M, Hasija S, Rajashekhar P, Palsingh S, Menon R, Verma S, Babu R, Shamsiya, Margam A, Trend of Central Line Associated Blood Stream Infection among the post-operative ICU patients after Cardio-thoracic Vascular Surgery, HISICON, 4-6 October 2018, Hyderabad
28. Perumalla S, Singh G, Sachdev J, Gupta S, Xess I, Recalcitrant Eumycotic Mycetoma: A case report, MYCOCON 2019, 22 and 23 September 2018, New Delhi
29. Prakash H, Ghosh AK, Rudramurthy SM, Singh P, Xess I, Savio J, Pamidimukkal U, Jillwin J, Varma S, Das A, Panda NK, Singh S, Bal A, Chakrabarti A, A prospective multi-centre study on mucormycosis in India: Epidemiology, diagnosis and treatment, ISHAM 2018, 30 June-4 July 2018, Amsterdam
30. Ramprasad A, Singh G, Xess I, Vikram NK, Rastogi N, Successful Treatment of Disseminated Phaeohyphomycosis caused by *Exophiala jeanselmei*, MYCOCON 2019, 22 and 23 September 2018, New Delhi
31. Rawre J, Brijwal M, Das R, Khanna N, Dar L, Dhawan B, Etiology of Genital ulcer disease in patients attending the sexually transmitted disease clinic of a tertiary care hospital: Evaluation of Multiplex-PCR assay, Indian association for the study of STD and AIDS, ASTICON 2018 at All India Institute of Medical Sciences, 11-13 October 2018, New Delhi
32. Rawre J, Dhawan N, Bhatia R, Gupta V, Khanna N, Dhawan B, High prevalence of *Mycoplasma genitalium* in men who have sex with men in a Tertiary Hospital in New Delhi, First Annual Research Day, AIIMS, 25-26 March, New Delhi
33. Rawre J, Namdeo D, Das R, Khanna N, Dar L, Dhawan B, Herpes Simplex Virus Type 2 and Cytomegalovirus in an HIV infected woman with a perigenital ulcer, INTERVIROCON 2018 at PGI, 12-14 November 2018, Chandigarh
34. Raza MS, Das BK, Goyal V, Lodha R, Sood S, Gautam H, Shehgal K, Chaudhry R, Kapil A, "Application of Real Time PCR in the Diagnosis of Neonatal Acute Bacterial Meningitis in a Tertiary Health Care Center in India", INNOPHARM 3, 22-23 October 2018, GOA
35. Raza MS, Das BK, Tyagi S, Goyal V, Lodha R, Sood S, Gautam H, Chaudhry R, Sreenivas V, Nair D, Mohapatra S, Kapil A, Antibiotic Susceptibility Pattern of the pathogens isolated from Acute Bacterial Meningitis in a Tertiary Health care Centre in North India, MICROCON, 28 November-2 December 2018, Bengaluru
36. Raza MS, Kapil A, Goyal V, Lodha R, Sood S, Gautam H, Chaudhry R, Sreenivas V, Nair D, Mohapatra S, Das BK, Impact of the Real Time PCR in the Diagnosis of Acute Bacterial Meningitis in Infants in a Tertiary Health Care Center in India, IMED-2018, International Meeting on Emerging Diseases and Surveillance. Under International Society for Infectious Diseases (ISID), 9-12 November 2018, Vienna, Austria
37. Rudramurthy SM, Dhaliwal M, Singh R, Xess I, Michael SJ, Walia K, Ohri V, Kaur H, Ghosh A, Chakrabarti A, Report from the AMRSN-Antimicrobial Resistance Surveillance Network; data from 2013-2017 spanning four geographically distant tertiary care hospitals in India, ISHAM 2018, 30 June-4 July 2018, Amsterdam
38. Sachdev J, Agarwal R, Singh G, Thomas D, Xess I, Invasive disseminated Candidiasis in neonates: A case Report and discussion, PEDS SEPSIS 2018, 4 May 2018, New Delhi
39. Sahu M, Brijwal M, Kundu N, Choudhary A, Singh UB, Biswas A, Dar L, Molecular typing of dengue virus isolates from Delhi during 2013-2015, AIIMS 1st Annual Research Day, 25 March 2019, New Delhi
40. Sahu M, Xess I, Soneja M, Wig N, Singh G, Outbreak of *Candida auris* in a Medical ICU in a Tertiary Care Hospital and its Containment, MYCOCON 2019, 22 and 23 September 2018, New Delhi
41. Samad AS, Dar L, Kumar L, Choudhary A, Brijwal M, Ray A, Respiratory Syncytial Virus infection in adults following hematopoietic stem cell transplantation, AIIMS 1st Annual Research Day, 26 March 2019, New Delhi
42. Samanta P, Bamola VD, Chaudhry R, Evaluation of Functional Attributes, Survival Strength and Immunomodulatory Potential of Indigenous *Lactobacillus acidophilus* Strains of Indian Gut, ASM MICROBE, 7-11 June 2018, Atlanta, Georgia
43. Samanta P, Bamola VD, Chaudhry R, Modulation of Mucosal Immunity by Indigenous *Lactobacilli* for Preventive, Therapeutic and Clinical Application, 9th India Probiotic Symposium, "Probiotics through the lifespan", 24-25 November 2018, Kolkata
44. Sebastian S, Malhotra R, Sreenivas V, Kapil A, Chaudhry R, Dhawan B, A Clinico-microbiological Study of Prosthetic Joint Infections in an Indian Tertiary Care Hospital: Role of Universal 16S rRNA Gene PCR and Sequencing in Diagnosis, First Annual Research Day, AIIMS, 25-26 March 2019, New Delhi

45. Sharad N, Singh G, Xess I, Agarwal R, Seth T, Reeta KH, Therapeutic Drug Monitoring (TDM) of voriconazole in haematologic malignancy patients, ISHAM 2018, 30 June-4 July 2018, Amsterdam
46. Sharma N, Gautam H, Tyagi S, Maheshwari B, Mourya SP, Mohapatra S, Sood S, Kapil A, Das BK, Multiplex PCR for early diagnosis of acute bacterial meningitis from CSF in paediatric and adult cases, AIIMS 1st Research Day, 26 March 2019, New Delhi
47. Singh G, Xess I, Pandey M, Agarwal R, Spectrum of *Scedosporium apiospermum* infections in a tertiary care centre in North India: Experience over three years, ISHAM 2018, 30 June-4 July 2018, Amsterdam
48. Singh R, Gautam H, Lodha R, Kabra SK, Das BK, Impact of HAART on activation and exhaustion of B cell subpopulations in pediatric HIV infection, AIIMS 1st Research Day, 26 March 2019, New Delhi
49. Singh Y, Mirdha BR, Guleria R, Oral presentation on “*Pneumocystis jirovecii* pneumonia among pediatric population: Emergence of novel mutations and its association with treatment failure and mortality”, MYCOCON 2018, 21-23 September 2018, New Delhi
50. Sood S, Agarwal SK, Singh R, Gupta S, Sharma VK, *In vitro* Assessment of Gentamicin and Azithromycin Based Combination Therapy against *Neisseria gonorrhoeae* isolates in India, IUSTI-AP Sexual Health Congress, 1-3 November 2018, Auckland, New Zealand
51. Sood S, Mahajan N, Agarwal SK, Singh R, Kapil A, Gupta S, Kar HK, Sharma VK, Analysis of *Neisseria gonorrhoeae* susceptibility trends (MIC creep): 10 years experience !! (*Received IUSTI-IASSTD and AIDS Scholarship), 42nd National Conference of IASSTD and AIDS (ASTICON-2018), 11-13 October 2018, New Delhi
52. Sreenath K, Chaudhry R, Antibiotic susceptibility of *L.pneumophila* isolates from water systems of a tertiary health care center, India, ASM MICROBE, 7-11 June 2018, Atlanta, Georgia
53. Thakur CK, Chaudhry R, Gupta N, Das BK, Jadon RS, Lodha R, et al, Trends in the incidence of scrub typhus: A five year study from New Delhi, 1st AIIMS Research Day, 26 March 2019, New Delhi
54. Tyagi S, Jain S, Raza S, Kumar S, Gautam H, Mohapatra S, Kairo AK, Sood S, Kapil A, Chaudhry R, Guleria R, Dwivedi SN, Lodha R, Das BK, Prevalence and Antimicrobial Susceptibility of Non-typeable Haemophilus influenzae (NTHi) in North India, ICCMID, 18 and 19 August 2018, Delhi
55. Tyagi S, Jain S, Raza S, Kumar S, Gautam H, Mohapatra S, Kairo AK, Sood S, Kapil A, Chaudhry R, Guleria R, Dwivedi SN, Lodha R, Das BK, Prevalence and Antimicrobial Susceptibility of Non-Typeable Haemophilus influenzae (NTHi) In North India, AIIMS 1st Research Day, 26 March 2019, New Delhi
56. Varghese B, Mohapatra S, George S, Dabral J, Suri A, Pandia MP, Bhatia R, Borkar S, Dubey S, Dash D, Jagdevan A, Kapil A, Catheter Associated Urinary Tract Infections (CAUTI) and Antibiotic Sensitivity Pattern from Confirmed Cases of CAUTI in a Tertiary Care Hospital: A prospective study, HISICON, 4-6 October 2018, Hyderabad
57. Xess I, Singh G, Pandey M, Agarwal R, Emerging Rhizopus microspores infections in India, ISHAM 2018: Official conference of ‘The International Society for Human and Animal Mycology’, 30 June-4 July 2018, Amsterdam
58. Yadav VS, Gautam H, Mohapatra S, Sood S, Dhawan B, Chaudhry R, Kapil A, Das BK, Identification, antimicrobial susceptibility pattern and clinical correlation of the rare pathogens detected by MALDI-TOF MS in North India, AIIMS 1st Research Day, 26 March 2019, New Delhi

RESEARCH

Funded projects

Ongoing

1. Seroepidemiological study of Rickettsia and Scrub typhus among patients with acute febrile illness and molecular detection by Real time PCR, Rama Chaudhry, DBT, 3 years, 2019-2022, Rs 69.8 lakhs
2. A detail study to understand the non-putrefying property of river Ganga in both water and sediment, Rama Chaudhry, Ministry of Water Resources—Government of India, 2 years, 2017-2019, Rs 68 lakhs
3. A study to assess the effect of a probiotic strains (*Bacillus clausii*) on gut microbiota and mucosal immunity in *Inflammatory Bowel Disease* (Ulcerative Colitis/Crohn’s Disease), Rama Chaudhry, Unique Biotech Pvt Ltd, 4 years, 2016-2020, Rs 60 lakhs
4. Characterization of bacteriocins produced by *Lactobacillus* and assessment of Antimicrobial Profile, Rama Chaudhry, AIIMS, 2 years, 2017-2019, Rs 10 lakhs
5. Nodal Center for National surveillance of Antimicrobial resistance - 2013-2017 ICMR, New Delhi, Arti Kapil, ICMR, 5 years, 2019-2023 (cont from 2014-2018), Rs 65 lakhs for 1st year
6. National Surveillance System for Enteric Fever in India (NSSEFI) - Tier 3, Arti Kapil, ICMR, 2 years, 2018, Rs 40 lakhs for 1st year

7. NACO Regional Reference Lab for HIV Viral Load (VL) and Early Infant Diagnosis (EID), Lalit Dar, National AIDS Control Organization (NACO), 2012-Ongoing, Rs 10.98 lakhs (per annum)+reagent support
8. National Vector Borne Disease Control Programme apex laboratory for dengue and chikungunya, Lalit Dar, National Vector-borne Disease Control Programme (NVBDCP), 2012-Ongoing, Rs 3 lakhs (per annum)+reagent support
9. A multi-centric observational study to examine replicative fitness and pathogenic properties of the emerging new viral strains of HIV-1 in India, Bimal K Das, DBT, 2 years, 2018-2019, Rs 21 lakhs
10. External Quality Assurance Scheme, Bimal K Das, National AIDS Control Organisation, Ministry of Health and family welfare, Government of India, 2 years, 2018-2019, Rs 9.9 lakhs
11. CD4 Testing, Bimal Kr Das, National AIDS Control Organisation, Ministry of Health and Family Welfare, Government of India, 2 years, 2018-2019, Rs 25,000
12. Multicentric prospective hospital based sentinel surveillance to determine the etiology of acute bacterial in children with conventional and molecular methods, Bimal K. Das, Central Research Laboratory, KIMS Medical College, Bangalore, 2 years, 2018-2019, Rs 1.45 lakhs
13. Study of immunopathogenesis and disease dynamics of *Pneumocystis jirovecii* pneumonia (Pneumocystis pneumonia), BR Mirdha, SERB, DST, 3 years, 2018-2021, Rs 44 lakhs
14. Invasive Fungal Infections: Epidemiology, Drug Resistance and Molecular characterization of the clinical and environmental isolates from the hospital, Immaculata Xess, ICMR, 3 years, 2017-2020, Rs 52 lakhs
15. Early detection of *Hemophilus ducreyi*, *Treponema pallidum*, Herpes Simplex Virus type 1 and 2 from patients with genital ulcer disease by Multiplex PCR in a tertiary care hospital, Benu Dhawan, ICMR, 3 years, 2017-2020, Rs 37.63 lakhs
16. Nano-enabled Biosensor for detection of *N. gonorrhoeae*, Seema Sood, DBT, 3 years, 2016-2019, Rs 50 lakhs
17. Development of an aptamer based detection system for *N. gonorrhoeae*, Seema Sood, DHR, 3 years, 2016-2019, Rs 46.5 lakhs
18. Studies on halophilic/haloalkaliphilic actinomycetes and bacteria from hyper saline habitat as potential source of antibacterial molecules for drug resistant microbes, Arti Kapil and Seema Sood, AIIMS-IIT Delhi Collaborative Research Grant, 2 years, 2019-2021, Rs 10 lakhs
19. Crohn's Disease in India: A multicenter study from a country where intestinal tuberculosis as well as Crohn's Disease is endemic, Urvashi B Singh, DHR, 3 years, 2016-2019, Rs ~5 crores
20. Utility of Moxifloxacin as a treatment option in Pre-XDR-TB, Urvashi B Singh, Delhi State OR Task Force, RNTCP, 1 year, 2017-2018, Rs 2 lakhs
21. Prognostic value of serum markers in Category II tuberculosis patients, Urvashi B Singh, Delhi State OR Task Force, RNTCP, 1 year, 2017-2018, Rs 2 lakhs
22. Diagnosis of pulmonary and extra pulmonary tuberculosis patients using differentially expressed proteins as potential biomarkers: an approach towards development of point of care test, Urvashi B Singh, ICMR, 3 years, 2018-2021, Rs ~60 lakhs
23. Rapid Molecular Drug Resistance Detection for MDR And XDR-TB And Molecular Typing of *Mycobacterium tuberculosis* from Ziehl-Neelsen's Stained Microscopic Slides From Delhi State, Urvashi B Singh, ICMR, 3 years, 2018-2021, Rs ~60 lakhs
24. Mapping hotspots of MDR-TB in Sikkim, Assam and Tripura using Genomics approaches, Urvashi B Singh, DBT-NER, 3 years, 2018-2021, Rs ~4 crores
25. Validation of Novel Bio-signature for Diagnosis of Active Pulmonary Tuberculosis in Children, Urvashi B Singh, DBT, 3 years, 2018-2021, Rs ~38 lakhs
26. Design and Validation of point of Care Disposable Sensor Strip for Diagnosis of Tuberculosis from Urine samples, Urvashi B Singh, DBT, 3 years, 2018-2021, Rs ~60 lakhs
27. Multi-centric Validation of Conventional Phenotypic Assays for diagnosis of Drug Resistant tuberculosis from Sputum samples, Urvashi B Singh, DBT, 2 years, 2018-2020, Rs ~100 lakhs
28. Validation of indigenously developed technologies for diagnosis of Paediatric Pulmonary tuberculosis: Multicentric, Urvashi B Singh, ICMR, 1 year, 2018-2019, Rs ~1.25 crores
29. Validation of indigenously developed technologies for diagnosis of Extra-Pulmonary tuberculosis: Multicentric, Urvashi B Singh, ICMR, 1 year, 2018-2019, Rs ~1.25 crores
30. Prevalence of Histoplasmosis in HIV positive patients, Gagandeep Singh, AIIMS, 2 years, 2017-2019, Rs 6 lakhs
31. Biomarkers for bacteremia, antimicrobial resistance and hospital acquired infections by NMR and Mass Spectrometry among febrile neutropenic patients, Hitender Gautam, Biotechnology Industry Research Assistance Council (BIRAC), DBT, 1.5 years, 2019-2020, Rs 36.46 lakhs

32. Investigation of Colistin sensitivity by different methods and rapid detection of Colistin resistance in *Enterobacteriaceae*, Hitender Gautam, AIIMS, 1 year, 2018-2019, Rs 4.94 lakhs
33. Magnitude of asymptomatic malaria infections in pregnant women in a community hospital, Nishant Verma, AIIMS, 1 year, 2018-2019, Rs 4.98 lakhs
34. Clinical evaluation of viability assays for assessing treatment response in pulmonary tuberculosis, Kiran Bala, AIIMS, New Delhi, 1 year, 2018-2019, Rs 4.94 lakhs
35. Detection and genotyping of BK polyomavirus in renal transplant recipients, Megha Brijwal, AIIMS, 2 years, 2017-2019, Rs 4.20 lakhs
36. Investigation of viral aetiologies in neonates with microcephaly, Megha Brijwal, Scheme for Promotion of Academic and Research Collaboration (SPARC), MHRD, 2 years, 2019-2021, Rs 63.66 lakhs

Completed

1. Defining ECOFF value for Azythromycin susceptibility in Salmonella enteric serovar Typhi and Paratyphi A, Arti Kapil, ICMR, 2 years, 2016-2018, Rs 22 lakhs
2. Enhancing bio-risk mitigation awareness in public health community and creating lab networks for surveillance and outbreaks of high-risk group viral pathogens causing VHF and respiratory infections, Lalit Dar, Centre for Disease Control (CDC), Atlanta (through NIV, Pune), 3 years, 2015-2018, Rs 44.38 lakhs per annum
3. Quantitative real time PCR and genotyping for Human Cytomegalovirus (HCMV) in ulcerative colitis, Lalit Dar, ICMR, 4 years, 2014-2018, Rs 7.08 lakhs
4. Population genetics study of *Pneumocystis jirovecii* in respiratory clinical specimens and its correlation with the clinical status of patients with Pneumocystis pneumonia, BR Mirdha, SERB, DST, 3 years, 2014-2017, Rs 28 lakhs
5. Identification of *Plasmodium falciparum* cytoadherence molecule in Cerebral malaria, B R Mirdha, DBT, 2 years, 2016-2018, Rs 36 lakhs
6. Molecular analysis of *N. gonorrhoeae* isolates obtained from STD patients from across the country with *in vitro* decreased susceptibility to cephalosporins and macrolide resistance, Seema Sood, ICMR, 2.5 years, 2015-2017, Rs 35 lakhs
7. To Study Current Practice in the Management of Bacterial Urinary tract infection in patients at AIIMS, New Delhi with focus on current antibiotic usage and clinical outcome, Sarita Mohapatra, AIIMS, 1 year, 2018-2019, Rs 1 lakh
8. Prevalence and molecular characterization of Occult Hepatitis C Infection (OCI) in patients with cryptogenic liver disease, Aashish Choudhary, AIIMS, 3 years, 2015-2018, Rs 3.45 lakhs per annum
9. To study the association of *Mycobacterium tuberculosis* with pancytopenia, Hitender Gautam, AIIMS, New Delhi, 2 years, 2016-2018, Rs 4.50 lakhs
10. Prevalence of Microsporidia and their molecular characterization, Nishant Verma, AIIMS, 1 year, 2015-2018, Rs 5 lakhs
11. Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type 1 and Type 2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral Infections, Nishat Hussain Ahmed, AIIMS, 2 years, 2016-2018, Rs 7.7 lakhs

Departmental projects

Ongoing

1. Audit for antifungal treatment usage in adults with invasive fungal infections
2. BK and JC polyomavirus detection in patients with allogenic hematopoietic stem cell transplant
3. Characterization of *Lactobacillus* strains and assessment of their immunomodulatory effects
4. Clinico-microbiological profile and outcome of urosepsis—A prospective study in a tertiary care hospital in North India
5. Correlation of antibiotic resistance patterns of ocular bacterial isolates and antibiotic use in patients admitted to hospital—A step towards antimicrobial stewardship
6. Detection of *N. gonorrhoeae* in genital and extra genital sites in men who have sex with men (MSM)
7. Etiological agent in ventilator associated pneumonia with special emphasis on atypical organisms
8. Magnitude of Prosthetic Joint Infections and role of amplification based DNA analysis for identifying microbial profile of prosthetic joint infection in a tertiary care hospital

9. Microbiological follow up and genotypic investigation of close contacts of MDR-TB patients
10. Molecular detection and characterization of tick borne Lyme Borreliosis, Human Monocytic Ehrlichiosis and Human Granulocytic Anaplasmosis
11. Molecular detection and characterization of *Rickettsia* among patients with acute febrile illness
12. Molecular detection of *Legionella pneumophila* by real time PCR and characterization of isolates by sequence based typing
13. Occurrence of *Chlamydia trachomatis*, *Ureaplasma urealyticum*, *Mycoplasma hominis* and *Mycoplasma genitalium* in patients with sterile pyuria
14. PCR for EBV DNA PCR in patients with suspected nasopharyngeal carcinoma
15. Real time PCR for diagnosis of invasive fungal infections
16. Role of aptamer technology in detection of Bacterial Vaginosis (BV) associated bacteria
17. Role of HCMV reactivation in causing pneumonia in immunocompetent, mechanically-ventilated patients
18. Screening for Candida Colonization, with Special Reference to Candida auris Among Patients Admitted in Medicine ICU
19. Serum Homocysteine (HCY) as a non-invasive diagnostic marker of spontaneous bacterial peritonitis
20. Small Molecule Bio-signatures in diagnosis of childhood intra-thoracic tuberculosis
21. Species Identification and Determination of Virulence Factors of Coagulase Negative Staphylococci in Ocular Infections
22. *Staphylococcus aureus* colonization in HIV infected patients: Incidence, risk factors and subsequent skin and soft tissue infections
23. Study of bacterial infections in a cohort of patients clinically diagnosed of *Pneumocystis jirovecii* Pneumonia (PjP)/ *Pneumocystis* Pneumonia (PCP) and its impact on outcome of the disease
24. Study of *Pneumocystis jirovecii* as an etiology of bronchiectasis and its effect on disease progression
25. The bacterial etiology and risk factors of early onset and late onset ventilator associated pneumonia in pediatric intensive care unit patients
26. Use of advanced genomics in Microbiology of culture negative infections

Completed

1. Detection and molecular characterization of Microsporidia in Inflammatory Bowel Disease
2. Diagnosis of *Clostridium difficile* from diarrheal stool samples and detection of toxin A and B by ELISA and conventional Polymerase Chain Reaction (PCR)
3. High Resolution Melting (HRM) curve analysis for Detection of Decreased Susceptibility to Extended Spectrum Cephalosporins in *N. gonorrhoeae*
4. Incidence of Respiratory Syncytial Virus (RSV) infection in adults following haematopoietic stem cell transplantation
5. Infectious vs. non infectious causes of mono/oligoarticular inflammatory arthritis: A prospective study from a tertiary care hospital in North India
6. Isolation and identification of human gut microbiota from fecal samples by conventional culture techniques
7. Molecular Characterization of Fungi from Mycotic Keratitis and Invasive Infections and Comparison with conventional methods like direct detection and culture
8. Prevalence of intestinal colonization and blood-stream infection due to Carbapenem resistant Enterobacteriaceae in haematological malignancy patients
9. Prevalence of moulds and nocardial infections in patient admitted to pulmonary ward and ICU
10. Quantitative real time PCR and genotyping for cytomegalovirus in ulcerative colitis
11. Study of human Intestinal microbiota by Metagenomics approach and host innate immune response in Indian obese and lean individuals
12. The effect of implementation of Antibiotic Stewardship in Pulmonary Medicine ward and ICU
13. The effects of an antimicrobial stewardship model in the medical wards and intensive care unit of a tertiary care hospital
14. To identify prognostic markers for Category II pulmonary tuberculosis patients

Collaborative projects

Ongoing

1. A Phase-IV, double blind, comparative, prospective, multicentric study to assess safety and efficacy of fixed dose combination of Clindamycin 100 mg and Clotrimazole 100 mg vs Clotrimazole 100 mg vaginal suppositories in patients with mixed vaginal infection, Obstetrics and Gynaecology
2. A prospective observational study on clinical profile and treatment outcome of patients with Chronic Pulmonary Aspergillosis attending tertiary care hospital, Medicine
3. AMR-Diag: A novel diagnostic tool for sequence based prediction of antimicrobial resistance, Biophysics
4. Analysis of the diagnostic or predictive potential of metabolomics in BV, its treatment failure, relapse and susceptibilities to other STIs, Dermatology
5. Analysis of vaginal microbiome and metabolome in women affected with bacterial vaginosis before and after treatment and their correlation with relapse or recurrences, Dermatology
6. Association of therapeutic drug levels and worm infestation with treatment response in patients with TB lymphadenitis, Medicine
7. CDC-AIIMS Cooperative Agreement projects on Influenza and other respiratory viruses, Centre for Disease Control (CDC), Atlanta (USA) and Centre for Community Medicine
8. Clinical efficacy of using MALDI-TOF MS over Conventional processing in Blood Stream Infections patients combined with Prescription pattern monitoring: A pre-post quasi experimental study, Medicine
9. Comprehensive National Nutrition Survey, UNICEF
10. Cryptococcal antigenemia in people living with HIV and AIDS, Medicine
11. Detection of *V. cholerae* in stool samples by loop mediated isothermal amplification method, Biomedical Engineering, AIIMS and IIT, Delhi
12. Effect of probiotic supplementation on cognition and motor symptom in patients with fluctuating Parkinson's Disease, Physiology
13. Efficacy of enriched fecal microbiota transplantation in patients with treatment naïve ulcerative colitis: A randomized control trial, Gastroenterology
14. Elucidating Role of microRNA in the pathogenesis of active generalized vitiligo and in pigment regulation, Dermatology
15. Evaluation of risk factors for severity in *Plasmodium vivax* infection—A prospective study, Medicine
16. Evaluation of various clinical and immunological parameters in predicting the outcome of sino-nasal and skull base invasive fungal diseases: A descriptive study, Otorhinolaryngology
17. Exploration of alternate salivary diagnostic strategies for ovarian cancer, Biophysics
18. Invasive fungal infections and role of biomarkers and molecular approaches in early diagnosis, Medicine
19. Molecular Detection of Colistin Resistance in Multidrug Resistance Gram Negative bacilli from various Clinical Samples, Texila American University
20. Multi-centric prospective hospital based sentinel surveillance to determine the aetiology of acute bacterial meningitis in children, Central Research Laboratory, K.I.M.S. Hospital and Research Centre, Kempegowda Institute of Medical Sciences, Bangalore
21. Multiplexed Point-of-Care Test for acute febrile illness (mPOCT), Paediatrics
22. Study of virulence factors of Uropathogenic Escherichia coli and its antibiotic susceptibility pattern, Texila American University
23. The clinicopathological evaluation of cholesteatoma aggressiveness, ENT
24. The effect of candida and antifungal therapy on pro-inflammatory cytokines in Oral Leukoplakia—A pilot study, Oral Medicine and Radiology, CDER,
25. To study diagnostic performance of presepsin in Sepsis: A pilot study, Medicine
26. To study the dynamic relationship of airway colonization and Endotracheal Tube Biofilm with Ventilator Associated Pneumonia, Pulmonary Medicine

Completed

1. A clinical study on the investigation of carries risk in children with Clify Lip and or Palate (CL/P) and non-cleft control, Orthodontics, CDER
2. A phase IIB Open Label Randomized trial to evaluate the anti-bacterial activity, pharmacokinetics, safety and tolerability of metformin when given along with rifampicin, isoniazid, pyrazinamide and ethambutol in adults

with newly diagnosed sputum positive pulmonary tuberculosis: An 8-week study, Pulmonary Medicine and Sleep Disorders

3. A proof-of-concept study of 3 days intravenous Ceftriaxone followed by switch to oral Cefexime with Nephrotic Syndrome, Paediatrics
4. Assessment of Microflora of Dental carries in Indian children using anaerobic culture and molecular techniques, Paedodontics, CDER
5. Epidemiology of chronic dermatophytosis, Dermatology
6. Phase III, randomized, double-blind, placebo controlled trial to evaluate the efficacy and safety of VPM1002, Immunovac *Vaccines in Preventing of Tuberculosis Disease in Healthy Household Contacts of Newly Diagnosed Sputum Positive Pulmonary TB (PTB) Patients*, Pulmonary Medicine and Sleep Disorders
7. Randomized controlled trial to compare efficacy of Decongestive Compression Therapy and injection Benzathine Penicillin G vs Decongestive Compression Therapy, injection Benzathine Penicillin - G and Placement of Hydrophobic Silicone tube in upper limb Lymphedema following ALND in Breast Cancer, Surgery
8. Study of intestinal microbiota in Juvenile Idiopathic Arthritis—A cross-sectional observational study, Lady Hardinge Medical College and Associated Hospitals, New Delhi
9. To determine if colonization of gut with carbapenemase resistant enterobacteriaceae in surveillance cultures affect the outcome of the high risk febrile neutropenic patients, Hematology
10. To study the antimicrobial prescribing practices in critically ill patients in Pulmonary Medicine ICU, Pulmonary Medicine
11. Utility of isotretinoin with or without terbinafine in patients with chronic dermatophytosis, Dermatology

PUBLICATIONS

Journals: 53

Abstracts: 15

Chapters in Books: 4

Books: 2

PATIENT CARE

The Department of Microbiology did a total of **2,81,601 tests** during the year 2018-2019.

Name of assay/test/investigation	No. of tests performed	Name of assay/test/investigation	No. of tests performed
BACTERIOLOGY LAB		PARASITOLOGY LAB	
Pus samples culture and identification	17,174	Intestinal parasitosis	
Urine samples culture and identification	33,560	Stool examination - Ova/Parasites (wet mount/concentration)	2,536
Blood samples culture and identification	26,325	Coccidian parasites - Mod. Acid-fast/special staining	2,536
Sputum/Throat swab/Tracheal swab samples culture and identification	16,969	In-vitro culture	42
CSF samples culture and identification	9,072	PCR assay for Microsporidia	21
Stool samples culture and identification	1,451	Malaria	
Antimicrobial susceptibility testing		Giemsa staining	4,411
Pus/Exudates/Tissue - Antimicrobial susceptibility testing	2,839	Acridine Orange (AO) fluorescent staining	4,411
Urine - Antimicrobial susceptibility testing	2,629	Quantitative Buffy Coat (QBC)	4,411
Blood - Antimicrobial susceptibility testing	1,726	Malaria Antigen detection assay	4,411
Respiratory samples - Antimicrobial susceptibility testing	2,397	Leishmaniasis (Kala azar)	
CSF and other fluids - Antimicrobial susceptibility testing	739	Giemsa staining	36
Stool - Antimicrobial susceptibility testing	0	Acridine Orange (AO) fluorescent staining	36
Total	1,14,881	Kala-azar serology (rk-39)	766

		Filariasis	
HOSPITAL INFECTION CONTROL (HIC) LAB.		Direct examination and concentration of blood	542
Surveillance cultures	23,731	Thin Smear	542
CSSD/Sterilization Monitoring	7,034	Thick Smear	542
Water samples	1,947	Acridine Orange (AO) fluorescent staining	542
Total	32,712	Filaria antigen detection	542
		Quantitative Buffy Coat (QBC)	542
ANAEROBIC, SPECIAL PATHOGENS AND MYCOPLASMA LABS		Other investigations	
Anaerobic culture (Blood, Bile, BAL, CSF, Tissue)	682	Investigation for detection of <i>Pneumocystis jirovecii</i> infection (PCP) by staining and PCR assay	350
<i>C. difficile</i> stool culture	358	Cerebrospinal fluid examination for Free Living Amoebae (FLA)	51
Stool samples for <i>C. difficile</i> ELISA	357	Worm specimens	6
Bartonella culture	23	Arthropod specimens	2
Bartonella IFA	23	Parasitic serology	
Leptospira culture - Blood	51	Amoebic Serology for anti-amoebic IgG antibodies by ELISA	122
Leptospira culture - Urine	47	Hydatid disease serology (ELISA/IHA)	111
Anti-Leptospira IgM (ELISA)	4584	Toxoplasmosis serology for IgG antibodies by ELISA	23
Leptospira - Urine dark ground microscopy	654	Miscellaneous	
Leptospira - Plasma dark ground microscopy	658	Examination of aspirates (Sputum. Pus etc.)	58
Legionella serology	404	Total	27,592
Legionella Urine Antigen	80		
Legionella culture	205	VIROLOGY LAB	
Legionella environmental sampling	75	Molecular tests (PCR, RT-PCR)	
Legionella PCR	404	Influenza real time multiplex RT-PCR	1,347
Scrub typhus IgM ELISA	714	Respiratory virus panel (other than influenza) multiplex PCR	1,180
Scrub typhus IFA	438	HSV 1&2 DNA PCR (CSF, GUD, Ocular etc.)	955
Scrub typhus PCR	162	HCMV DNA PCR (Urine, Colonic biopsy, CSF etc.)	1,483
ICT for Scrub typhus	522	HIV-1 total nucleic acid RT-PCR (Early Infant Diagnosis)	3,720
Mycoplasma serology	404	HIV-1 RNA RT-PCR (viral load)	62
Mycoplasma culture	324	Dengue, Chikungunya and Zika virus real time RT-PCR	170
Mycoplasma PCR	404	Polyomavirus (BK/JC) real time RT-PCR	307
<i>Mycoplasma hominis</i> culture	304	John Cunningham (JC) virus nested PCR	26
<i>Mycoplasma hominis</i> PCR	419	Viral Meningitis/encephalitis PCR panel (HSV, Enteroviruses, Parechoviruses, VZV, Mumps)	61
<i>Ureaplasma urealyticum</i> culture	304	Varicella Zoster Virus (VZV) DNA PCR	14
<i>Ureaplasma urealyticum</i> PCR	419	Epstein-Barr Virus (EBV) DNA PCR	08

ELISA for <i>Chlamydia pneumoniae</i> IgM antibodies	404	Parvovirus B19 real time PCR	10
<i>Chlamydia trachomatis</i> PCR	451	Virus isolation	
<i>Mycoplasma genitalium</i> PCR	231	Cell culture (Influenza A/B, Dengue, HSV 1&2, Adenovirus, etc.)	155
Total	14,105	Antigen detection	
		HCMV pp65 antigenemia (Immunofluorescence test)	21
SEXUALLY TRANSMITTED DISEASES (STD) LAB		Dengue NS1 antigen (ELISA)	3,888
High vaginal swabs (HVS)	305	Antibody detection	
Semen	1,176	Anti-Dengue IgM (ELISA)	4,197
Expressed prostatic secretions (EPS)	39	Anti-Chikungunya IgM (ELISA)	254
Urethral discharge	83	Anti-Japanese Encephalitis IgM (ELISA)	48
Cervical discharge	140	Anti-Measles antibody- Complement Fixation Test (CFT)- for SSPE diagnosis (CSF/serum)	332
Vaginal discharge	26	Anti-Measles IgG/total IgG (ELISA) (CSF/serum)	381
Pharyngeal swabs	40	Miscellaneous	
Rectal swabs	40	Tzanck smear (for HSV 1&2, VZV)	11
Urethral swabs	158	Total	18,630
Vaginal swabs for BV (Microscopy alone)	217		
Urethral discharge - PCR for <i>Neisseria gonorrhoea</i>	83	MYCOLOGY AND ICP LAB	
Vaginal discharge - PCR for <i>Neisseria gonorrhoea</i>	26	Direct Microscopy/Culture	
Cervical discharge - PCR for <i>Neisseria gonorrhoea</i>	140	Blood culture /Bone marrow/Blood BACTEC	1,242
Rectal swabs - PCR for <i>Neisseria gonorrhoea</i>	40	Respiratory (BAL, Sputum, Tracheal aspirate)	5,216
Pharyngeal swabs - PCR for <i>Neisseria gonorrhoea</i>	40	Urine	1,235
Antimicrobial susceptibility testing		C.S.F	1,460
High Vaginal Swabs (HVS)	103	Tissue/Biopsy	619
Semen	126	Skin scrapings/Nail/Hair	211
Expressed prostatic secretions (EPS)	16	Fluid (Peritoneal, Pericardial and Ascitic fluid)	740
Urethral discharge	04	Pus	380
Cervical discharge	01	Miscellaneous (Plates, Swabs, Catheter tips)	1,892
Vaginal discharge	–	Fungal Serology/Antifungal /TDM/ PCR	
Pharyngeal swabs	–	Cryptococcal antigen	1,436
Rectal swabs	–	Galatomannan antigen	3,044
Total	2,803	Urinary Histoplasma antigen	185
		β D Glucan assay	137
HIV IMMUNOLOGY LAB.		Histoplasma antibody	61
HIV testing	2,544	Aspergillus antibody	257
CD4 counts	11,593	TDM (Voriconazole)	122

Western blot for HIV indeterminate samples (Received from linked State Reference Laboratories)	7	Antifungal susceptibility	558
Total	14,144	PCR (Panfungal 11, Histoplasma 3, Cryptococcus 1, Aspergillus 2)	16
		Total	18,811
SEROLOGY LAB.			
VDRL	9,295	TUBERCULOSIS LAB	
Widal	4,668	Samples processed for ZN Smear	6,979
TPHA	212	Culture on LJ medium	6,414
ASO	101	Rapid Culture on MGIT 960	3,584
Total	14,276	MGIT DST	90
		PCR for <i>Mycobacterium tuberculosis</i>	5,769
		Genxpert MTB/RIF	811
		Total	23,647

HIV Immunology Laboratory:

- NABL accredited laboratory - Successful NABL reassessment in July 2018
- Quality Control Programme (External Quality Control Activities)
 - o EQAS activity with Apex Lab National AIDS Research Institute, Pune
 - July 2018 and December 2019: Performance: 100%
 - o EQAS Panel Distributed to 4 State Reference Laboratories (SRLs)
 - September 2018 and January 2019 - 100% Participation
 - o International EQAS activity with National Serology Reference Laboratory (NSRL), Australia
 - June 2018 and September 2018. Performance: 100%
- ICTC activity
 - o Pre-test Counseling: 2,561 Patients
 - o Post test counseling: 2,515 Patients
 - o Referred to RNTCP center: 30 Patients

Parasitology Laboratory:

- Quality Control Programme (External Quality Control Activities)
 - o Accorded Grade A by Indian Academy of Tropical Parasitology for its routine diagnostic services

Serology Laboratory:

- External Quality Assessment Scheme (EQAS): Participated in EQAS for Syphilis Serology (VDRL/TPHA/RPR) with APEX Regional STD Laboratory, Department of Microbiology, Safdarjung Hospital, New Delhi and our performance was excellent

STD Laboratory:

- External Quality Assessment: Participated in External Quality Assurance (EQA) programme of WHO GASP (Gonococcal Antimicrobial Surveillance Programme) and our percentage score was 97.3%

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Gita Satpathy made a scientific advisory group member for the Epidemiology and Communicable Diseases Division of ICMR.

Professor Rama Chaudhry: American Society for Microbiology (ASM) 4th National Hands on Workshop on Anaerobic Culture Techniques “An Encounter with Anaerobes” on 9 April 2018 at Father Muller Medical College, Kankanady, Mangalore, India; ASM Round Table on Reducing Food Borne Illness: Strengthening Surveillance Capabilities and Epidemiological Investigations” to bring all stakeholders under one roof including WHO, NCDC, FSSAI, FAO CDC-India on 27 April 2018 at New Delhi, India; Appointed as a member of American Society for Microbiology (ASM) Ambassador Leadership Circle (ALC) for 2018-2019; Reappointed as ASM international ambassador to India 2018-2021; Travel grant under the category of “Young Investigator Award,” to present the paper in 9th India Probiotic Symposium, “Probiotics through the lifespan,” held at Amity University, Kolkata, 24-25 November 2018, organized by Yakult Gut Microbiota foundation for the paper “A search for microbial biomarkers for colon cancer in Indian population using a Next Generation sequencing

Approach.” Presenter D Dubey, VD Bamola, R Kapardar, B Lal and R Chaudhry*; Travel Grant under the category of ‘Young Investigator award’, 9th India probiotic symposium: “Probiotics through the life span” Amity University, Kolkata, 24-25 November 2018, organized by Yakult Gut Microbiota foundation for the paper “Modulation of Mucosal Immunity by Indigenous *Lactobacilli* for Preventive, Therapeutic and Clinical Application; Presenter: Projoyita Samanta, V Deepak Bamola and Rama Chaudhry*; ASM Student and Postdoctoral Travel Award CPHM to assist in covering travel expenses to attend ASM Microbe 2018 in Atlanta, GA, on 7-11 June 2018; For the poster Antibiotic susceptibility of *L.pneumophila* isolates from water systems of a tertiary health care center, India; Presenter: K Sreenath, Rama Chaudhry; ASM-student and Postdoctoral Travel Award CPHM on behalf of American Society of Microbiology ASM Microbe 2018 Atlanta GA, 7-11 June 2018, For the poster laboratory testing of emerging Lyme disease in India; An experience of two-tiered serological testing in a tertiary health care centre; Presenter: Vinayaraj EV, Chaudhry R, Nitin Gupta, Sreenath K, Vaishakh Anand, Sheffali Gulati, and chaired a session, World Congress on Infectious disease and Antibiotics 2018, 28-29 November 2018, Bengaluru.

Professor Benu Dhawan was awarded second prize for Dr PS Ranganathan Memorial Award for the paper entitled “High prevalence of Mycoplasma genitalium in Men who have sex with men in a tertiary care hospital in New Delhi”. Dhawan B, Rawre J, Dhawan N, Bhatia R, Gupta V, Khanna N at the 42nd Indian association for the study of STD and AIDS (ASTICON 2018) held at All India Institute of Medical Sciences, New Delhi on 11-13 October; Awarded Dr CN Sowmini Award for poster entitled “A case of multiple sites of sexual contact infection due to Mycoplasma genitalium and Chlamydia trachomatis in a bisexual male”. Arif N, Rawre J, Agrawal S, Khanna N, Juyal D, *Dhawan B at Indian association for the study of STD and AIDS (ASTICON 2018) held at All India Institute of Medical Sciences, New Delhi on 11-13 October. *Senior author; Awarded the Global Health Travel Award funded by The Bill and Melinda Gates Foundation to present the poster “Association between dysbiosis of the vaginal microbiota and bacterial infections”. Apoorva, Gupta S, Sood S, *Dhawan B, Kachhawa G, Saxena AK, Sharma VK at Keystone Symposia S6: Role of the Genital Tract Microbiome in Sexual and Reproductive Health held in Cape Town, South Africa, 11-15 December 2018.*Co-author.

Professor Immaculata Xess and Dr Gagandeep Singh received best poster award: **Monalisa Sahu**, Immaculata Xess, Manish Soneja, Naveet Wig, Gagandeep Singh. Outbreak of *Candida auris* in a Medical ICU in a Tertiary Care Hospital and its Containment. MYCOCON 2019. September 2019.

Professor Seema Sood received IUSTI-IASSTD and AIDS Scholarship; Member - Stream Committee (Scientific Programme Committee-SPC) of 2018 IUSTI Asia Pacific Sexual Health Congress held in Auckland, 1-3 November 2018, Executive member - IUSTI Asia Pacific Region, Faculty - National Board of Examination (NBE), Member - Organizing team of ASTICON-2018, Member - Project Monitoring Committee, BIRAC, DBT, Member - Student Research Advisory Committee (SRAC) Jamia Millia Islamia, Member - Institution Human Ethical Committee (IHEC), ACBR (Dr BR Ambedkar Centre for Biomedical Research), Appointed Examiner for DNB Exam - Government College, Baroda.

Professor Urvashi B Singh was Co-Chair Person, National Technical Expert Group on Diagnosis of Tuberculosis under RNTCP, constituted in 2018; Member, National Technical Working Group on LTBI Management in India, constituted in 2018; Member, National Technical Expert Group on Treatment of Tuberculosis under RNTCP, constituted in 2018; Member, National Technical Expert Group on Treatment of Paediatric Tuberculosis under RNTCP, constituted in 2018; Member, National Technical Working Group on TB Co-morbidities, constituted in 2019; Member, Technical Specifications Committee for RNTCP; Member ‘STOP TB New Diagnostics Working Group’, WHO since 2009; Expert in ‘Expert Committee for finalizing validation protocols for Indian Indigenous Technologies’, ICMR since 2014; India TB Research Consortium, ICMR, Member on Diagnostic, Therapeutic, Vaccine and Implementation Research Groups; Member, State TB Task Force and or Committee; Expert member on International SAG Committee of India TB Research Consortium, ICMR since 2016; Judge-First Annual AIIMS Research Day, 26 March 2019, New Delhi; Reviewer: Emerging Infectious Diseases, Medical Microbiology, Microbes and Infection, Epidemiology and Infection, PLOS One, Journal of Biosciences, Indian J Med Research, Indian J Tuberculosis.

Dr Sarita Mohapatra conducted workshop under Swacchata Action Plan: “Antibiotic Awareness Week” from 12 to 15 November 2018 at Neurosciences Center, AIIMS, New Delhi; Conducted Nukkad Natak, Knowledge Attitude Surveillance on Antibiotic Awareness in the community from 12 to 15 of November 2018 as a part of “Antibiotic Awareness Week” celebration.

Dr Hitender Gautam was member of Public Health Teams (Microbiologist) in flood affected district (Pathanamthitta) of Kerala from 1 to 15 September 2018 at AIIMS, New Delhi and Ministry of Health and Family Welfare, Government of India for outbreak management; Co-Guide for PhD in Medicine by Research Medical Microbiology Programme at Texila American University; Management of Bio-Medical Waste and KAYA KALP rounds for Department of Microbiology; Nominated faculty from Department of Microbiology, AIIMS, New Delhi as a committee member for CSSD at 12 New AIIMS and Government Medical College under Pradhan Mantri Swasthya Suraksha Yojana Phase IV and V; Technical Expert for procurement of PPE kits and Body bags for Nipah virus disease management, DGHS, MOHFW, Government of India, May 2018; Co-Organized Institute Day for Department of Microbiology at 63rd AIIMS Institute Day 2018; Committee Member for Technical Specification/Evaluation Committee of AIIMS, New Delhi for Disinfectant chemicals;

Member Secretary: Infection Control Committee in Dr BRA IRCH, AIIMS, New Delhi; As a Hospital Infection Control Officer, Dr BRA IRCH, AIIMS, New Delhi, initiated automated blood culture in IRCH, AIIMS, New Delhi; As Hospital Infection Control Officer, IRCH, Member of Internal Assessment Committee for Dr BRA IRCH for Swachhata Awards as a part of celebration of Rashtriya Swachhata Divas on 2 October 2018.

Dr Nishant Verma was expert committee member for upgraded Department of Parasitic Diseases (DPD) at NCDC, Delhi; Member, Panel meeting for formulation of Indian Standard for malaria rapid diagnostic Kits at Manak Bhawan, BIS HQ; External examiner (Theory, oral and practical) for MBBS II (Annual) examination, Microbiology, at LHMC, New Delhi; Executive committee member, Indian Association of Tropical Parasitologists; Member, Hospital Infection Society, India; Member, IAMM-Delhi Chapter; Member Secretary, Infection Control Committee at CDER, AIIMS, New Delhi; Nodal officer for departmental annual report; Compilation of Coffee table book for the department; Reviewer, Journal of Hospital Infection, Tropical Parasitology; Judge for posters (Award category) at TROPACON 2018 held at Varanasi (7-9 September 2018).

Dr Nishat Hussain Ahmed was awarded third prize in poster presentation titled 'Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type-1 and Type-2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral Infections' in National Conference of the Clinical Infectious Diseases Society-2018, held at Christian Medical College, Vellore, Tamil Nadu.

Dr Kiran Bala was member, Indian Association of Medical Microbiologists (Life Membership 3301/19), The Union International union against tuberculosis and lung disease (Membership CU 0783207); Expert member BSL-3, BSL-2 Subcommittee of CCRF core committee at AIIMS, New Delhi 2018; Reviewer, Indian J of Urology, International J of Medicine and Public Health, Medical Mycology, Indian J Med Research, Indian J Tuberculosis, Mycopathologia; Participated in the workshop 'Writing a research paper' at CMET, AIIMS, New Delhi from 5-6 April 2018.

VISITING SCIENTISTS

1. Professor Dr Marcio Poças, Laboratory of Gene Regulation and Mutagenesis, Department of Genetics and Morphology, Institute of Biological Sciences, University of Brasilia, Brazil, 17-22 December 2018
2. Dr Gyanu Lamichhane, Associate Professor of Medicine, JHU, USA, Lecture on 14 November 2018 on topic: "Beta-Lactams: Do we know how they work".

9.21. Nephrology

Professor and Head

Sanjay Kumar Agarwal

Professors

Dipankar Madhusudhan Bhowmik

Sandeep Mahajan

Associate Professor

Soumita Kamalkumar Bagchi

Assistant Professors

Raj Kumar Yadav

Arun Kumar Subbiah (Contract from 15 February 2018)

HIGHLIGHTS

Department is regularly doing state of art nephrology care including renal transplantation at affordable cost. ABO-incompatible Renal Transplant in the institute during this period are regularly being done. Department is continuing immunosuppressive drug monitoring and monitoring of infection in renal transplant free of charge for all renal transplant patients. In addition, the department is providing haemodialysis to nearly 80 patients per week at very low cost and free for patients below poverty lines. A bio-repository of samples is being run by the department for potential research in renal sciences for patients of primary glomerular disease and chronic kidney disease. Department faculty is in almost all government policy-making bodies related to chronic kidney disease, dialysis and renal transplantation. Dr SK Agarwal is technical advisor to National Organ and Tissue Transplant Organization (NOTTO) and officer in charge of National Organ and Tissue Transplant Registry (NOTTR). Department has also started interventional nephrology programme for vascular access for hemodialysis and peritoneal access for peritoneal dialysis within own department.

EDUCATION

Long-term training

The department runs DM Nephrology, a three-year degree course for post MD (Medicine and Paediatrics) candidates, selected by AIIMS on the basis of merit through all India entrance examination. Along with AIIMS Delhi, department is conducting examination for other AIIMS like institution as per need. Four candidates were admitted to DM nephrology course at AIIMS, New Delhi during this period. Residents from Department of Paediatrics, and Pathology regularly comes for the training courses in Nephropathology. At present the department has three non-academic junior residents for 6 months each.

Short-term training

The department provided short-term training for following:

1. Postgraduates from the Department of Internal Medicine, Geriatric Medicine, Emergency Medicine, Urology, Anaesthesia and Critical Care Medicine and Transfusion Medicine are posted on rotational basis for a variable period of few weeks to few months
2. Ms Jyoti Pant, BSC Dialysis student from Jamia Hamdard University, New Delhi came for training from 25 July to 24 September 2018
3. Dr Sanjay Vikrant, Professor and Head of Nephrology, Indira Gandhi Medical College, Shimla had short-term training in nephrology between 22 and 31 March 2019

CME/Workshops/Symposia/National and International Conference Organised by Department

1. **“World Kidney Day-2019”, Public Lecture on 13 March 2019** and public awareness regarding kidney diseases was organized in collaboration with RML Hospital, at AIIMS and RML Hospital and ESI Hospital, New Delhi on 13 and 14 March 2019

Lectures delivered

SK Agarwal

1. Role of NOTTO, SOTTO and ROTTO in Deceased Donor Transplant in India, Indian Society of Organ Transplant (ISOT) Mid-term meeting, 13-14 April 2018, Chandigarh
2. Basic of CKD and Kidney Transplantation, Transplant coordinator course organized by NOTTO, 24-28 April 2018, New Delhi
3. Antibody Mediated Rejection, 11th Annual Conference of Nephrology, Urology and Transplantation Society of SAARC countries, 27-28 April 2018, Kathmandu
4. Treatment of HCV in ESRD and after Renal Transplant, North East Nephrology Conference (NENCON-2018), 16-17 June 2018, Guwahati
5. Deceased Organ Donation: Understanding the basics on occasion of Organ Donation week on 13 August 2018, Organ Donation Day of MOHFW and Directorate General Health Services in Nirman Bhawan, 13 August 2018, New Delhi
6. Different Transplant Policy in Different States in spite of same law of land: Good or Bad, Annual conference of Indian Society of Organ Transplant, 4-7 October 2018, Hyderabad
7. Deceased donor transplantation: Understanding the basics, Safdarjung Hospital Medicine Invited Talk, 12 October 2018, New Delhi
8. Liver biopsy in chronic kidney disease, INASL and Indian Society of Nephrology combined meeting, 20-21 October 2018, New Delhi
9. CMV Infection in RT: Indian Perspective, Bangladesh Renal Association Conference 2018, 17-18 November 2018, Dhaka
10. Post-RT DSA Monitoring and its implication, Bangladesh Renal Association Conference 2018, 17-18 November 2018, Dhaka
11. Issues in deceased donor programme, 9th Indian Organ Donation Day, 27 November 2018, New Delhi
12. Management of HCV during renal replacement therapy, Nephrology CME on the occasion of World Kidney Day-2019, 16 March 2019, Bhubaneswar

Dipankar Bhowmik

1. How to manage rejections with infections, ISOT Midterm Meeting, 14 April 2018, Chandigarh
2. Nutritional and pharmacological strategies for preserving residual renal function, Advance Course in Renal Nutrition and Metabolism, 19-20 May 2018, Lucknow

3. Which organ donors are unacceptable—Case Based, Solid Organ Transplant Infections, 29 July 2018, Mumbai
4. HCV Treatment—Before or after? Nephron Conclave, 11 August 2018, Goa
5. Post transplant infection management in deceased donors, Symposium on deceased donors-ROTTO East Zone, 8 December 2018, Kolkata
6. Renal Lesions in cancer, 49th ISNCON, 22 December 2018, Bhubaneswar
7. Role of plasmapheresis in renal vasculitis, NEPH-IMMUNE 2019, 3 February 2019, Delhi
8. Continuous Renal Replacement Therapy and Concept of Artificial Kidney, Nursing Update, 14 March 2019, Delhi
9. Legal Requirements in Renal Transplantation for donor and recipient, National Seminar on World Kidney Day, 16 March 2019, Bhubaneswar

Sandeep Mahajan

1. Impact of functioning AV fistula in renal graft perfusion, AVATAR 2018, 19 July 2018, New Delhi
2. Nutritional Complications post renal transplant, 2nd National conference of Indian Society of Clinical Nutrition, 1 September 2018, New Delhi
3. APD: Patient selection, deciding on the initial prescription and prescription management based on patient characteristics, PDSICON 18, 8 September 2018, Aurangabad
4. Deceased donor allocation criteria: Time for consensus, ISOTCON 2018, 6 October 2018, Hyderabad
5. Oral hypoglycaemic drugs in CKD, Medicine Update, 1 December 2018, Delhi
6. Management of culture negative peritonitis, 2nd J&K Medical Science Congress and 1st Annual Conference of Metabolic Syndrome, 20 December 2018, Bhubaneswar
7. Outcomes of ABOi Transplant, ABO Incompatible Conclave, 12 January 2019, Ahmedabad

Soumita Bagchi

1. Rituximab in nephrology, Delhi Nephrology Society-Annual Update-2019, 8 April 2018, Delhi
2. Recurrent diarrhea in a renal transplant recipient, Transplant Update on Infectious Diseases, 18 November 2018, Delhi
3. Dilemma in diagnosing active lupus nephritis, Lupus and Glomerulonephritis Update, 22 February 2019, Chandigarh
4. Assessment of risk of disease progression and pharmacological management of ADPKD, Delhi Nephrology Society-Annual Update 2019, 31 March 2019, Delhi

RK Yadav

1. Principles of handling psychiatric comorbidities in Nephrology, Principles of handling psychiatric comorbidities in non-communicable diseases, 9 April 2018, New Delhi
2. Recent Update on Nephrology, New Generation Calcium channel Blockers (CCB), 25 May 2018, Kathmandu, Nepal
3. Tropical nephrology—An overview, CHETMEDICON 2018, 18 August 2018, Chennai
4. Hemodialysis Machine and safety Alarms, National Seminar on Kidney Diseases, 11 November 2018, Lucknow
5. Prevention of CKD, WKD-2019, VMMC and Safdarjung Hospital, 14 March 2019, New Delhi

Arunkumar S

1. What is new in Anemia in CKD, Delhi Nephrology Society Annual Update 2018, 8 April 2018, New Delhi
2. Software applications for CKD patients, Nursing and Healthcare Innovations: Sharing the Learning, 14 March 2019, New Delhi
3. Role of the kidney in homeostasis, World Kidney Day Symposium, 14 March 2019, New Delhi

Oral papers/posters presented

1. Arunkumar S, Agarwal SK, Bhowmik D, Bagchi S, Mahajan S, Yadav RK, AKI in a developing country: Clinical course, Renal Recovery and Patient Outcome, ASN (American Society of Nephrology) Kidney Week 2018, 25-28 October 2018, San Diego, California, USA
2. Bagchi S, Barwad A, Singh G, Bhowmik D, Yadav RK, Mahajan S, Agarwal SK, Corticosteroid therapy in IgA nephropathy, American Society of Nephrology Renal Week, 25 October 2018, San Diego, USA
3. Behera V, Yadav RK, Bhowmik D, Kapil A, Kumar A, Bagchi S, Mahajan S, Agarwal SK, Prospective study of Clinical Profile, Outcomes and survival of Temporary femoral hemodialysis catheters, 49th Annual conference of Indian society of Nephrology, 22 December 2018, Bhubaneswar

4. Bhowmik D, Singh G, Dinda A, Mahajan S, Agarwal SK, Donor Kidney Microthrombi in deceased donor transplantation—An important cause of delayed graft function with good outcome, 1st regional Conference of Transplantation Society - 2019, 28-29 April 2019, Istanbul, Turkey
5. Mahajan S, Kanna R, Roy A, Kumar A, Effect of renal transplantation on CIMT, LVMI and CKD-MBD markers: A longitudinal study, ASN Kidney Week, 25 October 2018, San Diego, USA
6. Philip NM, Bhowmik D, Mahajan S, Bagchi S, Yadav RK, Arunkumar S, Agarwal SK, Post-renal transplant malignancy in India: A single center experience, 49th Annual Conference of Indian Society of Nephrology, 20-23 December 2018, Bhubaneswar
7. Yadav RK, Behera V, Sangha SS, Bhowmik D, Kapil A, Subbiah AK, Bagchi S, Mahajan S, Agarwal SK, Clinical and microbiological profile and outcomes of catheter related blood stream infections in hemodialysis catheters in a tertiary care centre, First Annual Research Day Celebrations of AIIMS, 25 March 2019, New Delhi

RESEARCH

Funded Projects

Ongoing

1. Multicentric study to find out prevalence of chronic kidney disease in adults in urban Indian population, SK Agarwal, ICMR, New Delhi, 6 years, 2012-2018, Rs 90 lakhs
2. Prospective cohort study to find Circulating Levels of Anti Phospholipase A2 receptor (PLA2R) Antibodies and its Correlation with Idiopathic Membranous Nephropathy (IMGN), SK Agarwal, ICMR, New Delhi, 3 years, 2017-2020, Rs 31 lakhs
3. Prevalence and significance of serum galactose deficient IgA1 in Indian patients with IgA nephropathy: A case control study, Soumita Bagchi, AIIMS, 1 year, 2017-2018, Rs 5 lakhs
4. Pattern of CYP3A5 and MDR-1 single nucleotide polymorphism and its Impact on Individualization of Tacrolimus based Immunosuppression in Living Renal Allograft Recipient, RK Yadav, AIIMS, 3 years, 2016-2019, Rs 4.05 lakhs
5. A Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicenter Study to Demonstrate the Effects of Sotagliflozin on Cardiovascular and Renal Events in Patients with Type 2 Diabetes, Cardiovascular Risk Factors and Moderately Impaired Renal Function, RK Yadav, Sanofi Pharma, 5 years, 2018-2023, Rs 4.71 lakhs per patient

Completed

1. A dose ranging study to evaluate the role of hydroxychloroquine in preserving the kidney function by slowing down the progression of kidney disease due to Type-II diabetes, SK Agarwal, IPCA Pharmaceutical, 18 months, 2016-2017, Rs 8.5 lakhs
2. Prospective monitoring of BK virus replication in the first year following renal transplantation in Indian patients, Soumita Bagchi, AIIMS, 2 years, 2014-2016, Rs 6.20 lakhs
3. Prevalence and significance of serum galactose deficient IgA1 in Indian patients with IgA nephropathy: A case control study, Soumita Bagchi, AIIMS, 1 year, 2017-2018, Rs 5 lakhs

Departmental projects

Ongoing

1. A cohort study to evaluate the change in exercise tolerance and nutritional status in Chronic Kidney Disease (CKD) patients on hemodialysis before and after renal transplant
2. A cross sectional study to assess the link between fluid overload status and quality of sleep in patients on maintenance haemodialysis at AIIMS, New Delhi
3. Clinicopathological correlation of HBV and HCV infection in patients on renal replacement therapy
4. Correlation of serum Immunoglobulin A/complement factor 3(IgA/C3) with the clinical and histologic severity in patients with IgA nephropathy
5. Designing of rapid and cost-effective Nano-LAMP based detections of BK virus from serum and urine samples of post-renal transplant patients
6. Electrolyte and acid base disturbances in post renal transplant patients: Prospective study
7. Evaluation of changes in measured GFR, Echocardiography, markers of bone mineral metabolism and Carotid Intimal Medial Thickness (CIMT) after renal donation

8. Study of cognitive function in patients with chronic kidney disease and the effect of renal transplantation
9. Supportive management of IgA nephropathy—A prospective study
10. Three arm randomized comparison of laparoscopic peritoneal dialysis catheter insertion with or without omentectomy versus conventional open peritoneal dialysis catheter insertion in chronic kidney disease stage 5 patients in terms of catheter malfunction and post operative complications
11. To study the demographic and clinical profile of non-proteinuric kidney disease in Type 2 diabetic patients

Completed

1. A study to assess the effect of intradialytic exercises on urea-creatinine clearance and fatigue level of CKD patients undergoing hemodialysis at a tertiary care hospital
2. Assessment of arterial stiffness and autonomic function before and after renal transplantation
3. Long term outcome of renal donors
4. Prospective cohort study of the process and outcome of Chronic Kidney Disease (CKD) care in India
5. Pulmonary infections in renal transplant recipients: Prospective cohort observational study
6. Retrospective study for evaluating the Oxford classification of IgA nephropathy in the Indian population
7. Retrospective study for evaluating the clinical profile and treatment response and outcome of adult patients with primary FSGS
8. Retrospective study for evaluating the profile of biopsy proven kidney disease in elderly patients in India
9. The profile and risk factors of infections requiring hospitalisation in the first year after renal transplantation
10. To delineate the pattern of biopsy proven renal disease in a tertiary care hospital in India
11. To study the outcomes of percutaneous hemodialysis catheters in tertiary care nephrology centre

Collaborative projects

Ongoing

1. A prospective study comparing outcomes and quality of life after Laparoscopic donor nephrectomy versus open donor nephrectomy, Surgery
2. A study to assess the knowledge and quality of life among CAPD patients at AIIMS hospital with a view to develop an information booklet, College of Nursing, AIIMS
3. An immunohistochemical and ultra-structural study of glomerular capillary endothelial injury in cellular rejection, Pathology
4. Antifungal susceptibility testing and genotyping of Cryptococcal isolates from Delhi and other parts of India, Microbiology
5. Detection and genotype distribution of BK polyomavirus in renal transplant recipients, Microbiology (PI)
6. Detection and genotyping of Human Cytomegalovirus from Neonates and Renal Transplant Recipients, Microbiology
7. Development of immunoblot assay for diagnosis of subclinical Cryptococcus, Microbiology
8. Genotypic characterization of Autosomal Dominant Polycystic Kidney Disease (ADPKD) in Indian population: A pilot study, Department of Biochemistry
9. Intravascular fluid guided therapy versus standard fluid therapy in predicted severe acute pancreatitis: A randomized controlled study, Gastroenterology
10. Membranous nephropathy: A study of immunofluorescence, electron microscopy and PLA2R profile with clinical correlation, Pathology (PI)
11. Molecular detection and characterization of *Pneumocystis jirovecii* in respiratory samples from the patients both immunocompromised as well immunocompetent with suspected interstitial pneumonia and other chronic lung diseases, Microbiology
12. Prevalence of sarcopenia in cirrhosis and its correlation with serum myostatin and myostatin gene expression in muscle biopsy, Department of Gastroenterology
13. Stent vs no stent in ureteroneocystostomy in live related renal transplant: A prospective randomized controlled trial, Department of Surgery
14. Study of muscle enzyme elevation in neurosurgery and its relevance in postop acute kidney injury: A pilot study, Neuroanaesthesia (PI)

15. Study of population genetics of clinical strains of *Pneumocystis Jiroveci* and its clinico-epidemiological correlation (PhD Microbiology), Microbiology
16. To define intestinal insufficiency in patients with celiac disease, Gastroenterology
17. To study the prevalence of UL 97 Gene Mutation In Ganciclovir Non-Responders vis a vis Responders in Indian Renal Transplant Patients, Lab Medicine

Completed

1. Evaluation of Plasma and Urine Neutrophil Gelatinase – Associated Lipocalin (NGAL) as an early marker in predicting Acute Kidney Injury (AKI) in trauma patients in surgical intensive care unit, Anaesthesia
2. Evaluation of the effect of renal transplantation on organochlorine pesticides levels in chronic kidney disease (stage 5D) patients, Lab Medicine
3. Identification of biomarkers that predict response to treatment in lupus nephritis, Medicine
4. Impact of intra-operative determinants on graft outcome following live donor renal transplant, Surgery
5. Long-term outcome of anti-complement factor H antibody associated atypical hemolytic uremic syndrome, Paediatric
6. Post transplant diabetes mellitus—A prospective observational study, Pharmacology
7. To study the effect of handgrip exercise on the outcome of arteriovenous fistula surgery: A randomized controlled trial, Surgery

PUBLICATIONS

Journals: 10

Books: 1

PATIENT CARE

In addition to providing general nephrology care for all nephrology related illnesses, department provides state of art renal replacement therapy; hemodialysis, CAPD and renal transplant at very low cost to any patient of end stage renal disease. Swap transplant and ABO incompatible renal transplant is supported by the department. Department also provides immunosuppressive drug monitoring free of cost. During hemodialysis, ultrapure water is provided to machine so that absolutely safe hemodialysis can be provided to patients.

Following number of patients were provided respective facility.

S No	Area	Sub-heading	2,018
1	HD Related	HD New Patients	1,469
		Emergency HD Patients	1,144
		Total HD	11,003
		Plasmapheresis	89
		Femoral Vein catheterization	877
		Jugular / Subclavian catheterization	328
		AV Shunts	0
		AV Fistula	531
		Permcath Insertion	114
		2	ICU Related	CRRT/SLED	26
3	Peritoneal Dialysis	Acute PD	41
		CAPD	30
4	Indoor Related	Kidney Biopsy	690
		Liver Biopsy	2
		Indoor regular admission	1,287
		Indoor short admission	3,936
		Indoor Death / male	44/17

		Nephrology consultation	6,523
		Ultrasound	646
5	Day Care Treatment	Pulse Methylprednisolone Tt	79
		IV iron Therapy	163
		IV Cyclophosphamide Therapy	45
		Other Miscellaneous Therapies	3,649
6	Renal Transplant	Evaluation of LRRT	475
		Evaluation of Cadaver recipient	118
		Living RT done	121
		Cadaver RT done	6
7	Renal Lab related	Blood sampling	1,42,157
		Biochemistry (Urea, Cr, Na, K)	80,553
		Urine osmolality	9
		24 hr urine testing	17,229
		Hemogram for RT Patients	18,974
		CO2	23,468
		Serum iron	8,764
		TIBC	8,764
		UIBC	8,764
		T Saturation	8,764
		Serum Ferritin	2,316
		NGAL	0
		Tac Level	4,878
		Vit-D and PTH	185
		Urine PO4	0
8	OPD Related	Renal clinic new patient	10,802
		Renal clinic old patient	43,101
		Renal clinic Total Patients	53,903
		RTCC New Cases	463
		RTCC Old Cases	1,910
		RT new cases	127
		RT old cases	10,423
		RT Clinic Total Patients	10,550

AWARDS, HONORS AND SIGNIFICANT EVENTS

Professor Sanjay Kumar Agarwal Chaired Global Burden of Disease: Indian CKD Group (Continuing); Member “Subject Expert Committee” of “Cardio-Renal Division” of Central Drugs Standard Control Organization; Member of South Asian Board of Nephrology, a division of International Society of Nephrology; Invited for electronic media with additional Secretary, MOHFW, Government of India for promotion of National Haemodialysis Programme of Hon’ble Prime Minister; Invited by Director AIIMS Bhopal for establishing the Haemodialysis Set-up at that Institute; Member of the Appellate Committee of National Organ Transplant Programme, Government of India; Member of committee of MOHFW for deciding the fitness of renal transplant patients for the government jobs; Member of expert group for review of draft guidelines for CKD by National Center of Disease Control, Government of India; Editor of Indian J of Nephrology, 2015-continuing; Core group member of National Acute Kidney Injury registry of Indian Society of Nephrology; Invited to be member

of Technical Expert Committee for National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke (NPCDCS), August 2017-continuing; Invited as an expert in Medical Technology Assessment Board (MTAB) of Government of India for renal replacement therapy in the country, 2017-continuing; Member of expert committee for making guidelines for National Organ Transplant Programme; Member of expert committee making operational guidelines for continuous ambulatory peritoneal dialysis in India; Elected by the ISN-Advancing Clinical Trial (ACT) as ISN-ACT Committee member for 2016-2018; Member of Board of Study (BOS), Member for Dialysis Management at Taxila American University; Invited to be member of “Expert Group” constituted for Kidney Diseases under Grant-in-aid (GIA) scheme of Inter-Sectoral Convergence and Coordination for Promotion and Guidance on Health Research formed by Department of Health Research, 2018-Continuing; Invited to be editorial board member of European Medical Journal, 2018; Invited to be editorial board member of Archives in Nephrology, 2018; Invited as Chief Guest for the World Kidney Day-2019 function at Safdarjung Hospital, New Delhi on 14 March 2019.

Professor Dipankar Madhusudhan Bhowmik was member of DBT Task-force on Bioengineering; Member of ICMR Ad-hoc Committee in Non-Communicable Diseases; Secretary of Indian Society on Nephrology - Northern Zone; Associate Editor of Indian Journal of Nephrology; Treasurer of Institute Kidney Foundation of Delhi; External expert for faculty selection in: AIIMS Rishikesh, ILBS, New Delhi, IGMER RML Hospital, Rajiv Gandhi Superspecialty Hospital, Tahirpur, Delhi; DM examiner for various national institutes, PGI Chandigarh, SMS Jaipur, IGMC Shimla; External Expert for Store Purchase Committee in IGIMS, Patna; Trustee of Guru Kripa Trust; Appeared in DD National, October 2018 and AIR to increase public awareness on kidney diseases; Member of CSIR selection committee for Pool officers; Member of National Committee List of Essential Medicines (Devices); Organised World Kidney Day celebrations in March 2019 in AIIMS, RML and Safdarjung in association with ISNNZ and IFKD.

Professor Sandeep Mahajan was member of the National PD Guidelines committee (2014-continue); North Zonal Executive of the Peritoneal Dialysis Society of India (2014-continue); Invited to the National Expert Panel of the Certificate Course in Management of Hypertension by Public Health Foundation of India (2016-continue); Member of the Scientific Committee of Indian Society of Nephrology (2016-2018); Chair for the Post Graduate Medical Programme (Nephrology) for the Texila American University (2017-continue); Expert member of the reconstituted Task Force of Metabolic Disorders and Auto-Immune Diseases, by Department of Biotechnology, Ministry of Science and Technology (2017-continue); Member of Committee for roll-out of Peritoneal Dialysis under the National Health Mission (2017-continue); Nominated as Co-chairperson for the Expert Group set up by ICMR, for the preparation of Standard Treatment Workflows (STWs) for Nephrology (2018); Member of the ICMR expert team for the CKD in the Uddanam area of Andhra Pradesh (2018); Nominated as Member of South Asian Guidelines for Travel and endemic infections in solid organ recipients (2019); Member of the Drug Selection Committee of AIIMS (2018); Member of the Committee on Extra Budgetary Resources and Corporate Social Responsibility (2018); Member of the AIIMS Public Awareness Committee (2018); Member of the AIIMS Project Management Committee for New Paid Ward Block (2018); Member of the Committee to Review Plans for Expansion of AIIMS, New Delhi.

Dr Raj Kumar Yadav was awarded National Eco-Friendly Treatment Award on 47th World Environment Day Celebration in National Environment Convention 2018 by confederation of Indian University at New Delhi; Member, Standing National Committee on Medicines for Revision of National List of Essential Medicines (NLEM) Sub-Committee under Department of Health and Family Welfare (Drugs Regulation Section), Ministry of Health and Family Welfare, Government of India; Appointed as Assessor, Revision in process of assessment of Medical Colleges of UG/PG course by Chairman, Board of Governors in super-session of Medical Council of India.

Dr Arunkumar Subbiah was recipient of ISOT (Indian Society of Organ Transplantation) Novartis Transplant Education Grant for 2018.

VISITING SCIENTIST

1. **Professor Pravin Singhal**, Professor of Medicine and Nephrology, at Long Island Jewish Medical Center, New York visited Department of Nephrology on 8 March 2019 and had interaction with residents and gave a talk on “Focal and Segmental Glomerulosclerosis: Podocytopathy and Molecular Signature”
2. **Professor Amit Govil**, Professor of Medicine, Chief, Transplant Section, Medical Director, Kidney and Pancreas Transplant Programmes, Director, Transplant Fellowship Programme, Division of Nephrology, Kidney CARE Programme, University of Cincinnati Medical Center 231, Albert Sabin Way, Cincinnati, visited department and spoke on “Current trends of renal transplantation in US” on 27 March 2019.

9.22. Nuclear Magnetic Resonance

Professor and Head
NR Jagannathan

Professors

Rama Jayasundar

S Senthil Kumaran

Associate Professors

Uma Sharma

Virendra Kumar

Scientists

Sujeet Kumar Mewar

Pawan Kumar

HIGHLIGHTS

Professor NR Jagannathan was elected as Fellow of the Indian Science Congress Association (FISC). From 15 August 2018 the timing for patient care clinical MRI services were increased from 7 am to 11 pm from Monday to Saturday and there after 11 pm to 7 am. One MRI scanner is for emergency cases on all days including Sundays and holidays.

EDUCATION

The faculty and scientists participated and delivered lectures for course titled “*Course 10: Structural Biology and NMR Technology, Course 11: Bioinformatics*” and “*Molecular Medicine*”, of MBIotech programme of the Department of Biotechnology, AIIMS; MBBS Course Third Semester and MD Physiology course.

Short/Long Term Training

Ten persons from medical and science disciplines from various Institutes and Universities from India and BSc Radiography students, AIIMS, underwent training in MRI, fMRI and MRS techniques.

CMEs/Workshops/Symposia/National and International Conferences

The department organized 4 days National level Conference on Magnetic Resonance in Medicine along with the 25th National Magnetic Resonance Society (NMRS) meeting from 13 February to 17 February 2019. Over 250 scientists and students from all over the country and 20 scientists from USA, UK, Germany, Switzerland, Singapore and other countries participated.

Lectures delivered

NR Jagannathan

1. Basics of MRI, Basic aspects of Magnetic Resonance and its applications, 26 November 2018, Roorkee
2. In-vivo NMR spectroscopy applications, Basic aspects of Magnetic Resonance and its applications, 26 November 2018, Roorkee
3. Study of breast cancer metabolism by MRI and in-vivo MR spectroscopy (Invited talk), 10th Asian Biophysics Association (ABA) Symposium, 5 December 2018, Melbourne, Australia
4. Drug discovery and development: Role of NMR, New Horizons in Drug Discovery and Development (NHDDD-3): The Role of NMR, 18 February 2019, New Delhi
5. Role of NMR in medicine (Plenary talk), Emerging Trends in Chemical Sciences, 23 February 2019, Aligarh
6. Basics of magnetic resonance imaging and applications in medicine, Workshop on NMR and its Applications, 11 March 2019, Sagar, MP
7. In vivo magnetic resonance spectroscopy and applications, Workshop on NMR and its Applications, 11 March 2019, Sagar, MP
8. Delivering MR to patients in India’s busiest hospital, International Society for Magnetic Resonance in Medicine (ISMRM) workshop on Accessible MRI for the World, 29 March 2019, New Delhi

Rama Jayasundar

1. Basics of MRI, 4th Annual Workshop on Medical Imaging Techniques, Post Processing and Clinical Applications, 13 April 2018, New Delhi

2. MR and Traditional Indian Medicine: Transcending traditional boundaries, Guest Lecture, 24 April 2018, New York
3. MR and Ayurveda: Transcending traditional boundaries, Guest Lecture, 25 April 2018, Little Rock
4. Ayurveda: Antiquated or state of the art? Guest Lecture, 26 April, Little Rock
5. Language-dependent shift in neurochemical asymmetry observed by in vivo proton MRS during vocal meditation, 59th Experimental NMR Conference (ENC), 30 April 2018, Orlando
6. MR based research in Ayurveda, Guest Lecture, 4 May 2018, New York
7. Traditional system of medicine: Ayurveda, 2nd Special Course for Foreign Diplomats, 14 May 2018, New Delhi
8. Ayurveda: Antiquated or state of the art? Public Lecture, 18 May 2018, Nagpur
9. Novel applications of MR, Guest Lecture, 15 June 2018, Jülich, Germany
10. Targeted and untargeted NMR phytometabolomics for polar chemosensory markers and signatures, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 19 June 2018, Paris, France
11. Traditional system of medicine: Ayurveda, 1st Special Course for Foreign Diplomats, 11 July 2018, New Delhi
12. Science and Technology in Indian Knowledge Systems, Plenary Lecture, National Conference on Ancient Indian Knowledge: Science and Technology, 17 July 2018, New Delhi
13. MR and Ayurveda: Transcending traditional boundaries, Guest Lecture, 16 August 2018, Pune
14. Novel applications of MR, 2nd National Symposium creating conducive environment for Ayurveda research, 17 August 2018, Pune
15. Research Methodologies, Orientation Programme for the PG Scholars, 30 August 2018, New Delhi
16. Shifting neurochemical asymmetry: Language dependent changes during vocal meditation observed by in vivo proton MRS, World Molecular Imaging Congress (WMIC-2018), 15 September 2018, Seattle, USA
17. Traditional System of Medicine: Ayurveda, 66th Professional Course for Foreign Diplomats, 26 September 2018, New Delhi
18. Ayurvedic pharmacology, AICTE sponsored 1st Continuing Education Programme, 27 September 2018, New Delhi
19. Basic Research to Translational Research, 23rd Refresher Course in Life Sciences and Biotechnology, 12 October 2018, New Delhi
20. Ancient medical system and Ayurveda and environment protection in ancient India-panelist, Workshop on Ancient Medical System and Ayurveda and Environment Protection in Ancient India, 23 October 2018, New Delhi
21. Scientific Research in Ayurveda using NMR, Guest lecture, 27 October 2018, New Delhi
22. Traditional system of medicine: Ayurveda, 1st Special Course for Tunisian Diplomats on Ayurveda, 9 November 2018, New Delhi
23. Research methodologies for translation research, DHR Winter School on Traditional Medicine and Integrative Health, 12 December 2018, Pune
24. MR based research work in Ayurveda, DHR Winter School on Traditional Medicine and Integrative Health, 13 December 2018, Pune
25. Research methodologies applicable to traditional systems of medicine, Invited Lecture, Transdisciplinary Research Conclave, 8th World Ayurveda Congress, Ministry of AYUSH, Government of India, 17 December 2018, Ahmedabad
26. MR in brain tumors, Indo-US ARC and ADTP Symposium, 18 December 2018, New Delhi
27. MR based research work on traditional medicine, Plenary Lecture, 1st International Conference on Integrating Traditional Indian Healing Practices with Contemporary Western Health System, 9 January 2019, New Delhi
28. Innovative use of NMR, MRI and MRS in traditional systems of medicine in like Ayurveda, Guest lecture, 4-5 February 2019, Pune
29. Ayurvedic pharmacology: Looking beyond molecules, Symposium on Accelerating Biology-2019 towards Thinking Machines, 7 February 2019, Pune
30. NMR metabolomics, Workshop on NMR as a tool for fingerprinting materials, 20 February 2019, New Delhi
31. Innovative applications of NMR, MRI and MRS in Ayurveda, Lead Lecture, 13th Uttarakhand State Science and Technology Congress, 27 February 2019, Dehradun
32. Traditional system of medicine: Ayurveda, 67th Professional Course for Diplomats, 22 March 2019, New Delhi

Uma Sharma

1. Diagnosis of breast cancer, MedImg: 4th annual workshop on medical imaging techniques, post-processing and clinical applications, 15 April 2018, New Delhi

Virendra Kumar

1. Magnetic resonance spectroscopic imaging (MRSI) acquisition and analysis, Workshop on Medical Imaging Techniques, Post-processing and Clinical Applications, 16 April 2018, New Delhi
2. Added value of magnetic resonance spectroscopic imaging to multiparametric MRI for detection of prostate cancer using PIRADS version 2, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 20 June 2018, Paris, France

Oral papers/posters presented

1. Ankeeta, Kumaran S, Saxena R, Jagannathan NR, Neuro-anatomical changes in the early blind, late blind during critical developmental time: Voxel Based Morphometry study, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
2. Ankeeta, Kumaran SS, Jagannathan NR, Discriminated cortical thickness of visual cortex in early blind, late blind during critical developmental time, 25th Conference of the National Magnetic Resonance Society of India, 13-16 February 2019, New Delhi
3. Bhasin A, Kumaran S, Kumar P, Mewar SK, Srivastava PMV, Serum in-vitro spectroscopy of bone marrow derived stem cells in Stroke, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
4. Bhattacharya S, Singh D, Kumar V, Das CJ, Singh A, Mehndiratta A, SLICS based automatic segmentation of prostate gland, Conference on Magnetic Resonance in Medicine and 25th Natl Magn Reson Soc (NMRS) Meeting, 13-16 February 2019, New Delhi
5. Chaudhary K, Kumaran SS, Chandra PS, Wadhawan AN, Tripathi M, Language reorganization in pre- and post-operative drug refractory extra temporal lobe epilepsy patients: An fMRI based study, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
6. Chaudhary K, Kumaran SS, Chandra SP, Wadhawan AN, Tripathi M, Semantic verbal memory outcome in TLE and ETLE patients after surgery using fMRI, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
7. Chaudhary S, Kumar SS, Goyal V, Srivastava A, Kaloiya G, Kalaivani M, Sagar R, Jagannathan NR, Analysis of colour discrimination ability in Parkinson's Disease patients using fMRI, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 19 June 2018, Paris, France
8. Das CJ, Lanka V, Sharma S, Nayyar R, Kumar V, Performance of PIRADSV2 3 and 4 scores as cut-offs for the detection of prostate cancer, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
9. Gudwani S, Kumaran S, Behari M, Clinical diagnosis based on speech mechanics with dynamic (real time) MRI, functional MRI and acoustics of speech (spectrogram), Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
10. Jagannathan NR, Agarwal K, Sharma U, Hari S, Seenu V, Mathur S, Dutta Gupta S, Parshad R, Addition of in-vivo proton MRS to DCEMRI increases the sensitivity of cancer detection in breast cancer patients especially in cases of indeterminate dynamic MRI findings, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 19 June 2018, Paris, France
11. Jagannathan NR, Kumar P, Kumar R, Kumar V, Kumaran SS, Thulkar S, Sharma S and Dutta Gupta S, Metabolic profiling of blood plasma for distinguishing prostate cancer in patients with positive biopsy and negative biopsy using NMR spectroscopy, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018,

Paris, France

12. Jagannathan NR, Sharma U, Agarwal K, Sah RG, Mathur S, Seenu V, Datta Gupta S, Parshad R, Multiparametric MR approach for monitoring the pathological response of breast cancer patients to neoadjuvant chemotherapy, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 18 June 2018, Paris, France
13. Jayasundar R, Ayurvedic pharmacology: Looking beyond molecules, Symposium on Accelerating Biology-2019 towards Thinking Machines, 7 February 2019, Pune
14. Jayasundar R, Basics of MRI, 4th Annual Workshop on Medical Imaging Techniques, Post Processing and Clinical Applications, 13 April 2018, Sonapat
15. Jayasundar R, Health 2030: Challenges and Opportunities in the Industry Academia, 4th India International Science Festival, Ministry of Science and Technology, Government of India, 7 October 2018, Lucknow
16. Jayasundar R, Innovative applications of NMR, MRI and MRS in Ayurveda, 13th Uttarakhand State Science and Technology Congress, 27 February 2019, Dehradun
17. Jayasundar R, Language-dependent shift in neurochemical asymmetry observed by in vivo proton MRS during vocal meditation, 59th Experimental NMR Conference (ENC), 30 April 2018, Orlando, USA
18. Jayasundar R, MR based research work on traditional medicine, 1st International Conference on Integrating Traditional Indian Healing Practices with Contemporary Western Health System, 9 January 2019, New Delhi
19. Jayasundar R, MR in brain tumours, Indo-US ARC and ADTP Symposium, 18 December 2018, New Delhi
20. Jayasundar R, NMR metabolomics, Workshop on NMR as a tool for fingerprinting materials, 20 February 2019, New Delhi
21. Jayasundar R, Novel applications of MR, 2nd National Symposium on creating conducive environment for Ayurveda research, 17 August 2018, Pune
22. Jayasundar R, Research methodologies applicable to traditional systems of medicine, 8th World Ayurveda Congress, Ministry of AYUSH, Government of India, 17 December 2018, Ahmedabad
23. Jayasundar R, Science and Technology in Indian Knowledge Systems, National Conference on Ancient Indian Knowledge: Science and Technology, 17 July 2018, New Delhi
24. Jayasundar R, Shifting neurochemical asymmetry: Language dependent changes during vocal meditation observed by in vivo proton MRS, World Molecular Imaging Society (WMIS), USA, 15 September 2018, Seattle, USA
25. Jayasundar R, Singh A, Kumar D, Non-polar phytometabolites as chemosensory markers by NMR metabolomics, 59th Experimental NMR Conference (ENC), 29 April 2018, Orlando, USA
26. Jayasundar R, Singh A, Makhdoomi M, Luthra K, Velpandian T, In vitro screening of drug response in HIV-1 pseudovirus infected cells using NMR, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 19 June 2018, Paris, France
27. Kumar P, Kumar R, Kumar V, Kumaran SS, Thulkar S, Dutta Gupta S, Jagannathan NR, Study of altered urinary metabolism in prostate cancer patients using NMR metabolomics, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
28. Kumar P, Kumar R, Mewar S, Gupta D, Gupta AK, Bakhshi S, Tanwar P, Kumar V, Metabolic biomarkers in bone marrow of childhood acute lymphoblastic leukemia, Conference on Magnetic Resonance in Medicine and 25th Natl Magn Reson Soc (NMRS) Meeting, 13-16 February 2019, New Delhi
29. Kumar P, Kumar R, Mewar S, Gupta D, Gupta AK, Bakhshi S, Tanwar P, Kumar V, NMR based metabolomics study of blood plasma of acute lymphoblastic leukemia, Conference on Magnetic Resonance in Medicine and 25th Natl Magn Reson Soc (NMRS) Meeting, 13-16 February 2019, New Delhi
30. Kumar P, Kumar R, Thulkar S, Sharma S, Sharma U, Kumaran SS, Jagannathan NR, Metabolic profiling of patients with type 2 diabetic prostate cancer using ¹H-NMR spectroscopy, 25th Conference of the National Magnetic Resonance Society of India, 13-16 February 2019, New Delhi
31. Kumar P, Kumar R, Thulkar S, Sharma S, Sharma U, Kumaran SS, Jagannathan NR, NMR based metabolomic study to identify potential urinary biomarker/s for early metastatic prostate cancer detection, 43rd Annual Meeting of Indian Biophysical Society: Molecules to Systems, 15-17 March 2019, Kolkata
32. Kumar P, Sharma U, Kumaran SS, Kumar V, Thulkar S, Datta Gupta S, Kumar R, Jagannathan NR, Non-invasive urinary metabolic profiling discriminates prostate cancer with positive biopsy from negative biopsy patients using ¹H NMR spectroscopy, ISMRM Workshop on Accessible MRI for the World, 29-31 March 2019, New Delhi

33. Kumar V, Kumar P, Gupta D, Kumar R, Mewar S, Gupta AK, Bakhshi S, Tanwar P, Bone marrow metabolomics of acute myeloid leukemia, Conference on Magnetic Resonance in Medicine and 25th Natl Magn Reson Soc (NMRS) Meeting, 13-16 February 2019, New Delhi
34. Kumar V, Kumar P, Kumar R, Mewar S, Gupta D, Gupta AK, Bakhshi S, Tanwar P, Metabolic profile changes after therapy in childhood acute lymphoblastic leukemia studied by NMR, Conference on Magnetic Resonance in Medicine and 25th Natl Magn Reson Soc (NMRS) Meeting, 13-16 February 2019, New Delhi
35. Kumar V, Lanka V, Sharma S, Nayyar R, Das CJ, Added value of magnetic resonance spectroscopic imaging to multiparametric MRI for detection of prostate cancer using PIRADS version 2, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
36. Kumaran S, Kumari S, Goyal V, Dwivedi SN, Srivastava A, Jagannathan NR, 1H NMR based metabolomic study on an experimental model of Parkinson's Disease induced by 6-hydroxydopamine (6-OHDA), Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
37. Mehndiratta A, Singh N, Sharma D, Saini M, Anand S, Kumar N, Kumaran SS, BOLD activation pattern of cerebrum for unilateral and bilateral wrist extension task among stroke patients and healthy subjects, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
38. Mewar S, Gupta D, Kumar R, Kumar P, Gupta AK, Bakhshi S, Tanwar P, Kumar V, Blood plasma shows metabolic changes in patients of acute myeloid leukemia studied by NMR metabolomics, Conference on Magnetic Resonance in Medicine and 25th Natl Magn Reson Soc (NMRS) Meeting, 13-16 February 2019, New Delhi
39. Mewar S, Sharma S, Dhamijia E, Bhattacharjee R, Thulkar S, Kumar P, Kumar V, Kumaran SS, Dutta Gupta S, Kumar R, Jagannathan NR, In-bore MR guided prostate biopsy using multiparametric MRI to avoid unnecessary biopsies, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 16-21 June 2018, Paris, France
40. Ramawat S, Kumaran S, Chaudhary S, Gudwani S, Kumari S, Saxena R, Jagannathan NR, A comparison of audiovisual and auditory cue based gaming using fMRI, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in medicine and Biology (ESMRMB), 19 June 2018, Paris, France
41. Singh A, Kumar D, Jayasundar R, Targeted and untargeted NMR phytometabolomics for polar chemosensory markers and signatures, Joint Annual Meeting of International Society for Magnetic Resonance in Medicine (ISMRM) and European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), 19 June 2018, Paris, France
42. Singh D, Kumar V, Das CJ, Singh A, Mehndiratta A, Multiparametric MRI based PI-RADS assessment of prostate cancer, Conference on Magnetic Resonance in Medicine and 25th Natl Magn Reson Soc (NMRS) Meeting, 13-16 February 2019, New Delhi
43. Upadhyay D, Das P, Dutta Gupta S, Makharia GK, Jagannathan NR, Sharma U, Urinary metabolomic profiling to identify potential biomarkers for the assessment of histological recovery in CeD after gluten free diet, 43rd Annual Meeting of Indian Biophysical Society: Molecules to Systems, 15-17 March 2019, Kolkata
44. Upadhyay D, Das P, Jagannathan NR, Sharma U, NMR based metabolomics of intestinal mucosal biopsies and blood in Celiac Disease: Identification of biomarkers for villous atrophy, 25th Conference of the National Magnetic Resonance Society of India, 13-16 February 2019, New Delhi

RESEARCH

Funded projects

Ongoing

1. Funds for improvement of S&T infrastructure in Universities and Higher Educational Institutions (FIST), NR Jagannathan, DST, 5 years, 2014-2019, Rs 147 lakhs
2. Spectroscopic analysis of medicinal plants for standardization and quality assessment, Rama Jayasundar, National Medicinal Plant Board (NMPB), Ministry of AYUSH, Government of India, 5 years, 2014-2019, Rs 48.96 lakhs
3. NMR phytometabolomics and studies of chemosensory signature to address the fundamental question of 'rasa' in ayurvedic pharmacology, Rama Jayasundar, Science and Engineering Research Board (SERB), DST, 3 years, 2017-2020, Rs 74.76 lakhs

4. Elucidating the pathobiology of classical ayurvedic interventions in post stroke recovery using Magnetic Resonance and other techniques based structural, functional and chemical biomarkers, Rama Jayasundar, Science and Engineering Research Board (SERB), DST, 3 years, 2017-2020, Rs 79 lakhs
5. Elucidating the science of yoga as a therapeutic intervention in post stroke recovery study of brain using the technique of Magnetic Resonance, Rama Jayasundar, Science and Engineering Research Board (SERB), DST, 2 years, 2017-2019, Rs 43.23 lakhs
6. Effects of environment and occupational noise on cognition, S Senthil Kumaran, LSRB, DRDO, 3 years, 2017-2020, Rs 59.25 lakhs
7. Morphological and Neurobiological Changes in Spinocerebellar Ataxia Affected Patients (SCA) through MRI Techniques Using Computer Vision Based Analysis, S Senthil Kumaran, SERB, 2 years, 2019-2021, Rs 21.01 lakhs

Completed

1. Morphological, functional, biochemical and behavioural evaluation post-EMF radiation (electromagnetic radiation from mobile handsets), S Senthil Kumaran, SERB, 3.5 years, 2015-2018, Rs 52.57 lakhs

Departmental projects

Ongoing

1. Evaluation of dihydromyricetin in experimental model of stroke and post stroke seizure susceptibility in rats
2. Evaluation of Fumaric Acid Esters (FAEs) in experimental model of stroke in rats
3. Identification of biomarkers in Parkinson's Disease using NMR Technique
4. In-bore MR guided targeted prostate biopsy in patients suffering from prostate cancer
5. Magnetic Resonance (MR) multi-parametric approach to the study of breast cancer and its correlation with molecular markers
6. Mapping functional and biochemical correlates in brain of Parkinson's patients with Mild Cognitive Impairment
7. Metabolomic profile of healthy neonates
8. Metabolomics of patients with gluten ataxia
9. Metabonomics study of celiac disease by NMR spectroscopy
10. Molecular and biochemical characterization of hepatic glycogenoses type I and III
11. MRI and MRS of prostate cancer
12. NMR metabolomics and pharmacological assays for functional signatures of medicinal plants used Ayurveda
13. NMR metabolomics study blood and urine in prostate cancer patients
14. NMR phytometabolomics for chemosensory and pharmacological evaluation for functional signatures of select medicinal plants
15. Role of Magnetic Resonance in assessing therapeutic efficacy of Ayurveda interventions in stroke patients
16. Role of Magnetic Resonance in assessing therapeutic efficacy of Yoga interventions in stroke patients

Completed

1. Neuroprotective study of lercanidipine and citalopram in experimental model of stroke in rats
2. NMR phytometabolomics and analysis of chemosensory signatures of select ayurvedic medicinal plants

Collaborative projects

Ongoing

1. Abnormalities in brain neurochemistry assessed by magnetic resonance spectroscopy in unmedicated obsessive compulsive disorder patients and changes after 12 weeks of escitalopram treatment, Psychiatry
2. A comparative study of neurochemical alteration on 1 h MRS in schizophrenia, obsessive compulsive disorder and schizophrenia with obsessive compulsive symptoms, Psychiatry
3. A morphological and functional study on intracerebroventricular streptozotocin induced rat model of Alzheimer's Disease: Effect of magnetic field stimulation, Physiology

4. Assessment of Gray Matter Volume and White Matter Integrity in patients with suicidality in Bipolar Disorder type I, Psychiatry
5. Comparing the efficacy of virtual reality therapy with modified constraint induced movement therapy versus modified constraint induced movement therapy alone for children with hemiparetic cerebral palsy aged >5-18 years—An open labeled randomized controlled, parallel design, superiority trial, Paediatric Neurology
6. Cortical reorganization in complete spinal cord injured rats: Effect of superparamagnetic nanoparticles and low intensity magnetic field exposure, Physiology
7. Effect of angiotensin receptor modulation in rat middle cerebral artery occlusion: A morphological and biochemical study, Anatomy
8. Effect of cognitive and emotional stress in patients with multisomatoform pain disorder: An fMRI based case control study, Psychiatry
9. Elucidating the pathobiology of classical ayurvedic interventions in post stroke recovery using Magnetic Resonance and other technique based structural, functional and chemical, biomarkers, Neurology and Neuroradiology
10. Elucidating the science of Yoga as a therapeutic intervention in post stroke recovery study of brain using the technique of Magnetic Resonance, Neurology and Neuroradiology
11. Evaluation of dihydromyricetin in experimental model of stroke and post stroke seizure susceptibility in rats, Pharmacology
12. HIV associated neurocognitive decline and brain metabolism, Medicine
13. Neurocognitive correlates of emotion and cognition among Yoga practitioners, physically active and sedentary lifestyle individuals: An fMRI and neuropsychological study, CIMR
14. Neuroprotective study of nano carrier based Berberine chloride in middle cerebral artery occlusion model of transient focal cerebral ischemia in rats, Pharmacology
15. NMR phytometabolomics and studies of chemosensory signature to address the fundamental question of 'rasa' in ayurvedic pharmacology, Ocular Pharmacology and Pharmacy
16. Role of advanced ultrasound and advanced MRI in evaluation of prostate cancer, Radiodiagnosis
17. Role of mediodorsal thalamic nuclei in sleep, Physiology
18. Role of multiparametric MRI in detection and localization of prostate cancer, Centre for Biomedical Engineering, IIT-Delhi
19. Small molecule Bio-signatures in Diagnosis of Tuberculosis, Microbiology, AIIMS
20. Spectroscopic analysis of medicinal plants for standardization and quality assessment, Ocular Pharmacology and Pharmacy
21. Studies on anti-HIV medicinal plants, Biochemistry
22. The effect of prosthodontic rehabilitation of completely edentulous geriatric patients with mild cognitive impairment on their memory process—A functional MRI based study, Prosthodontics, Centre for Dental Education and Research

Completed

1. Functional imaging of olfactory dysfunction in Parkinson's Disease—A pilot study, Neurology
2. Measuring organ cross talk in Acute-on Chronic Liver Failure (ACLF) through metabolomics: A pilot study, Biochemistry
3. Neuroimaging and cerebral metabolite changes in children undergoing treatment for acute lymphoblastic leukemia: A pilot study, Paediatrics
4. Understanding movement execution and its cognitive processing in Parkinson's Disease—A pilot study, Department of Neurology, LHMC, New Delhi

PUBLICATIONS

Journals: 9

PATIENT CARE

The department has three whole body MRI scanners (one 1.5 Tesla and two 3.0 Tesla scanners) for patient care and research. The department provides the Clinical MRI facility, and the time is divided between the three user-departments namely, Radio Diagnosis, Neuro Radiology and Cardiac Radiology. The MRI timings are from 7.00 am to 11.30 pm from

Monday to Saturday and thereafter one MRI scanner for emergency cases round the clock including Sunday and holidays. A total of 8,102 MRI/MRS/fMRI scans were performed from April 2018 to March 2019.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor NR Jagannathan was elected as Fellow of the Indian Science Congress Association (FISC) in 2019; Chairperson, SERB Internal Committee on Scientific Ethics and Plagiarism (ICSEP), SERB, DST, Government of India; Co-Chair, Scientific Advisory Group—Devices and Diagnostics, National Bio-pharma Mission (NBPM), Biotechnology Industry Research Assistance Council (BIRAC), Government of India; Member, Governing Council, Centre for Co-operation in Science and Technology among Developing Societies, (CCSTDS) under INSA, Chennai; Currently, Vice-President of Indian National Science Academy (INSA); Council Member, Indian Science Congress Association; Chairperson, INSA Committee for International Union of Pure and Applied Biophysics (IUPAB); JC Bose National Fellowship of Department of Science and Technology, Government of India; Member, Facility Management Committee (FMC), Sophisticated Analytical Instruments Facility, Indian Institute of Science, Bangalore; Chairperson of National Steering Committee (NSC) for “Indigenous Magnetic Resonance Imaging (IMRI)—A National Mission”, Department of Electronics and Information Technology, Ministry of Communication and Information Technology, Government of India; Member of Science Advisory Committee (SAC), Center of Biomedical Research (CBMR), SGPGI Campus, Lucknow; Member of Fund for Improvement of S&T Infrastructure in Higher Educational Institutions (FIST) of the Department of Science and Technology (DST), Government of India; Chairperson of IIPME of the Medical Electronics Evaluation and Advisory Group (MEAG), BIRAC, Government of India; Continues to be a member of the editorial board of the following international journals: (a) “MAGMA” (Magnetic Resonance Materials in Physics, Biology and Medicine), (Springer); (b) “Magnetic Resonance Insights” (Libertas Academica, USA); (c) Deputy Editor of “Neuroscience Imaging”; (d) “NMR Biomedicine (John Wiley & Sons); (e) “Magnetic Resonance Imaging” (Elsevier); (f) “Biomedical Spectroscopy and Imaging” (IOC Press, Netherlands); (g) Dy. Editor of “Biophysical Reviews” (Springer) He continues to be a member of the steering committee of Asian Biophysics Association (ABA); Co-chair of the expert panel on “Biomedical Devices and Bioengineering”, Life Sciences Research Board, DRDO; Member, Scientific Advisory Committee, Biosciences and Bioengineering Group, IIT Indore; Member, Science Advisory Council, National Brain Research Center (NBRC), Manesar, Haryana; Fellow of Indian Academy of Sciences (FASc), Bangalore; Fellow of National Academy of Sciences (FNASc), Allahabad; Fellow of National Medical Academy of Sciences (FAMS), Delhi; Fellow of International Society for Magnetic Resonance in Medicine (ISMRM), USA and Fellow (FNA) of the Indian National Science Academy (INSA).

Professor Rama Jayasundar was interviewed by Australian Radio about the MRI studies on the effect of Sanskrit carried out by an American neuroscientist; Invited as a Chief Guest and Guest of honour in five scientific meetings and conferences; Invited lectures in International Universities—Department of Radiology, Stony Brook Medicine (USA), University of Arkansas at Little Rock (USA), Fordham University (USA), Department of MR, Institute of Neuroscience and Medicine, Julich (Germany); Member of Advisory Committee of CSIR-Traditional Knowledge Digital Library (CSIR-TKDL); Council of Scientific and Industrial Research, New Delhi for three years from November 2018; Member of the Scientific Advisory Committee, Centre of Excellence, Interdisciplinary School of Health Sciences, Savitribhai Phule Pune University 3 years till 2021; Nominated by Hon’ble President of India as a member of the Executive Council of Delhi University for a period of three years from March 2019; Nominated by Hon’ble President of India as a Visitor’s nominee for Indian Institute of Technology (IIT), Mumbai for a period of three years from November 2018; Nominated by Ministry of Human Resource Development (MHRD), Government of India for the Board of Governors of Indian Institute of Science Education and Research (IISER), Kolkata for a period of three years till 2020; Nominated by Ministry of Human Resource Development (MHRD), Government of India has nominated as a Council’s Nominee on the selection committee for appointment of Professors in the Indian Institute of Science Education and Research (IISER), Mohali till 2020.

Dr Uma Sharma was distinguished reviewer for Journal of Magnetic Resonance Imaging 2018.

Dr Virendra Kumar won E K Zavoisky Award-2018, Intl. Soc. Magn. Reson. Med. (ISMRM), CA, USA; Editorial Board Panel of Annals of Urology and Nephrology; Editorial Board Panel of Chinese Medical Sciences Journal; Founder Member, Translational Biomedical Research Society, India (TBRSI); Reviewer of Journals: Computational and Mathematical Methods in Medicine and Annals of Urology and Nephrology.

9.23. Nuclear Medicine

Professor and Head

CS Bal

Professors

Rakesh Kumar

Chetan D Patel (CN Centre)

Associate Professors

Madhavi Tripathi

Anil K Pandey (Medical Physics)

Assistant Professors

Nishikant A Damle

Shamim A Shamim

HIGHLIGHTS

The Department of Nuclear Medicine (Main) is equipped with three SPECT/CTs, two dual head and one single head gamma cameras, an uptake probe with well-counter, invitro lab and a well-equipped Radiopharmacy Laboratory. There are two PET/CT scanners with a functioning 11 MeV Cylotron and hot lab to synthesize all PET radiopharmaceuticals. We are proud to mention here that department is currently doing 12 different types of PET scans compared to any best institutes in the world. The waiting list for various investigations is ever increasing in institute, due to dependence on diagnostic modalities to diagnose complex medical problems by the clinicians. In spite of huge initiative to reduce the waiting list of all investigations, department cannot accommodate all in short notice due to severe shortage of space. The department is running a daily OPD for Radionuclide therapy and all 5 consultants in the department run the OPDs. This year we replaced a single head gamma camera by dual head SPECT camera and another old single head gamma camera is replaced by new single head gamma camera.

In spite of space crunch there is phenomenal increase in the number of scans and radionuclide therapies performed this year. All investigations in Nuclear Medicine at AIIMS are done at very nominal charges. Thus, the poor and middle-class patients greatly benefit since these investigations are available at very few centers across the country and that too at high cost. Currently the department has 8 DM students, 20 MD students, 20 MSc students and 2 PhD students. They are actively involved in daily academic activities as well as research work.

Nuclear Medicine in Cardiothoracic Centre (CTC) routinely performs diagnostic nuclear cardiological procedures. Nuclear Medicine postgraduate and Nuclear Medicine technology students are trained on rotational basis in nuclear cardiology procedures. The unit is involved in international multi-center research project.

EDUCATION

The faculty of the department participated in and delivered 41 lectures in continuing medical education programme, workshop, Symposia and annual conference during the year 2017-2018.

CMEs, National and International Conferences

Lectures delivered

CS Bal

1. Initial experience of patients treated with Lu-177 PSMA617 for advanced prostate cancer—Safety, efficacy and quality of life, 12th Congress of the World Federation of Nuclear Medicine and Biology, 20-24 April 2018, Melbourne, Australia
2. How do we implement multicentric RCT in India-Challenges and future, 16th Annual Conference of ANMPI, 22-23 September 2018, Cochin
3. Multimodality management of undifferentiated thyroid cancer, 16th Annual Conference of ANMPI, 22-23 September 2018, Cochin
4. Surveillance and management of persistent and recurrent thyroid cancers, 3rd National meeting of the Indian Society of Thyroid Surgeons, 24-26 August 2018, Tata Memorial Hospital, Mumbai
5. Theranostics in endocrinology, 48th Annual Conference of Endocrine Society of India, 15-18 November 2018, Bhubaneswar, Odisha
6. Prostate theranostics: Yesterday's palliation is tomorrow's cure, 50th Annual Conference of Society of Nuclear

Medicine India, 23 November 2018, PGIMER, Chandigarh

7. Diagnosis and management of Thyroxine Refractory-hypothyroidism, IGCAD Metabolic Conclave, 16 March 2019, Dubai, United Arab Emirates
8. Introduction to Nuclear Oncology, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
9. PET skeletal imaging, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
10. Read with the expert: Typical and rare cases in paediatric oncology, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
11. 18FDG PET/CT in head and neck oncology, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
12. 18FDG PET/CT in lung oncology, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
13. Planar, SPECT/CT and PET/CT in thyroid and parathyroid imaging, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
14. Management of differentiated thyroid cancer (Recent update), Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
15. 18FDG in the management of lymphoma, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
16. Management of metastatic castration resistant prostate cancer-68Ga-PSMA, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh
17. Imaging and 177Lu-PSMA therapy, Clinical Applications of PET/CT and Paediatric Nuclear Medicine, 1-5 October 2018, Dhaka, Bangladesh

Rakesh Kumar

1. PET/CT in Lung Cancer, Pulmocrit-2018, 1 April 2018, AIIMS, New Delhi
2. PET/CT in brain tumours, Nuclear Medicine Symposium, 7 and 8 April 2018, AIIMS, Rishikesh
3. PET/CT and SPECT/CT imaging in Dementia, World Federation of Nuclear Medicine and Biology, 20-24 April 2018, Melbourne, Australia
4. PET/CT in lung cancer—Panel discussion, Lung Cancer Update, AIIMS-NCI, Jhajjar
5. Imaging in chest infections, 4-5 August 2018, AIIMS, New Delhi
6. PET and SPECT imaging in epilepsy, Neuropedicon, 8-9 September 2018
7. PET/CT advances in breast cancer, ABSOCON, 9-11 October 2018, AIIMS, Delhi
8. PET/CT in breast cancer, BISICON, 16-18 November 2018, AIIMS, Patna
9. Mediastinal staging PET vs EBUS, 2nd Annual Conference: Lung Cancer, December 2018, AIIMS, Delhi
10. Imaging of lymphoma, hematology and radiation therapy, 15 December 2018, Delhi
11. Nuclear medicine imaging in Paediatric Surgery, Paediatric Surgery Update, 22-25 March 2019, MAMC, Delhi

Chetan D Patel

1. Cardio-Oncology, Nuclear medicine option, Consultant Meeting on Cardio-Oncology, 23-27 July 2018, IAEA, Vienna, Austria
2. Nuclear medicine in evaluation of cardiac sympathetic innervation, 16th Annual Conference of Association of Nuclear Medicine Physicians of India, 22-23 September 2018, Kochi, Kerala
3. Panel discussion on Nuclear Cardiology, 50th Annual Conference of Society Nuclear Medicine, 22-25 November 2018, PGIMER, Chandigarh
4. Clinical application of nuclear imaging in CAD, 2nd World Congress on Cardiac Imaging and Clinical Cardiology, 22-24 February 2019, Sahar, Mumbai

Anil K Pandey

1. Interaction of radiation with matter, Basic Nuclear Medicine Physics and Radiation Safety, 28-29 July 2018, AIIMS, New Delhi
2. Radiation hazard evaluation and control, Basic Nuclear Medicine Physics and Radiation Safety, 28-29 July 2018, AIIMS, New Delhi

3. Basic radiation physics, Basic Nuclear Medicine Physics and Radiation Safety, 28-29 July 2018, AIIMS, New Delhi
4. Texture analysis a way extracting more information from PET/CT images, 50th Annual Conference of Society of Nuclear Medicine, India, SNMICON 2018, 22-25 November 2018, PGIMER, Chandigarh
5. Emergency response plan and preparedness, Seminar on Radiation Safety Updates, 23 February 2019, AIIMS, Bhubaneswar
6. Radiation detection and measurement, Seminar on Radiation Safety Updates, 23 February 2019, AIIMS, Bhubaneswar

Madhavi Tripathi

1. Nuclear medicine in Neurology and Neurosurgery, 25th UP-UK Neurocon, Organised by Cawnpore Neurological Society, 3 February 2019, Kanpur, UP
2. Radiopharmaceuticals in Paediatric Nephro-urology, Paediatric Nephrology Urology CME, 9 December 2018, MAMC, New Delhi
3. Dementia—News and views, 50th SNMIC 2018, 25 November 2018, PGIMER, Chandigarh
4. PET and SPECT in Epilepsy—What the clinician wants, 15th National EEG workshop and Masterclass for Epilepsy Surgery, 21 November 2018, BHU, Varanasi
5. PET and SPECT in DRE, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association, 8 March 2019, AIIMS, New Delhi

Shamim A Shamim

1. Role of nuclear imaging in multiple bone lesions in elderly, GOSICON-FFN-CCA 2018, September 2018
2. Should PET-CT replace all others in staging of breast cancer, 2nd Asian Society of Mastology (ASOMA) Congress, October 2018
3. Choosing between PET CT and contrast enhanced CT, Chaturtha Conference CRAB-E-CON 2018, October 2018
4. Adrenal and pancreas, ENDOSURG 2019, March 2019
5. Procedural Guidelines for Diuresis Renography in Infants and Children, Radionucleotides in Paediatric Nephrology and Urology CME, Department of Paediatric Surgery, MAMC, December 2018, New Delhi

Oral papers/poster presented

1. Dheer P, Gupta P, Taywade S, Passah A, Pandey AK, Patel C, Ordered subset expectation maximization parameters for image reconstruction in Tc99mMIBI myocardial perfusion single photon emission computed tomography in Indian population, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh
2. Dual Point 68Ga-PSMA PET/CT Imaging: Potential tool for diagnostic improvement of Prostate Carcinoma. J Nucl Med 2018;59:1495. Presented at Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, June 2018, Philadelphia, USA
3. Goyal H, Bal CS, Patel CD, Goyal V, Tripathi M, Gupta P, Kumar P, Evaluation of cardiac sympathetic denervation using L-3,4-dihydroxy-6-F18fluorodihydroxyphenylalanine-positron emission tomography-computed tomography in Parkinson Disease, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGIMER, Chandigarh
4. Goyal H, Patel C, Parida G, Goyal V, Bal CS, Evaluation of cardiac sympathetic denervation using 18F-FDOPA PET-CT in Idiopathic Parkinson Disease, SNMMI 2018 Annual Meeting, 23-26 June 2018, Pennsylvania Convention Center, Philadelphia, USA
5. Goyal H, Tripathi M, Goyal V, Patel CD, Kumar P, Bal CS, Semiquantitative analysis of 18F-FDOPA brain PET-CT in Idiopathic Parkinson Disease patients in correlation with clinical rating scale and in tremor predominant subgroup, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Düsseldorf, Germany
6. Kaushik P, Patel CD, Kumar R, Gulati GS, Parakh N, Seth S, Guleria R, Bal CS, Role of 68Ga-DOTANOC positron emission tomography/computed tomography and myocardial perfusion imaging in cardiac sarcoidosis: A comparison to cardiac magnetic resonance, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh
7. Pandey AK, Lal S, Sharma A, Kumar R, Patel C, Bal CS, Optimization of number of principal components to be used for reconstructing 99mTc-MDP bone scan for reporting purpose, 50th Annual Conference of society of Nuclear Medicine, India, SNMICON 2018, 22-25 November 2018, PGIMER, Chandigarh

8. Patel CD, Goyal H, Goyal V, Gupta P, Bal CS, Tripathi M, Evaluation of myocardial sympathetic denervation in advanced Parkinson Disease patients with autonomic dysfunction using 18F-FDOPA PET-CT, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Düsseldorf, Germany
9. Role of 18F-FDG PET/CT in evaluation of response to therapy in patients with choroma. Eur J Nucl Med Mol Imaging 2018;45(Suppl 1):S563. Presented at Annual Meeting of European Society of Nuclear Medicine and Molecular Imaging, October 2018, Düsseldorf, Germany
10. Role of metabolic tumor volume based parameters evaluated from baseline whole body F18-FDG PET/CT in prediction of overall survival in non-small cell lung cancer. J Nucl Med 2018;59:207. Presented at Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, June 2018, Philadelphia, USA
11. Role of texture parameters evaluated from baseline whole body F18-FDG PET/CT in prediction of overall survival in non-small cell lung cancer. J Nucl Med 2018;59:210. Presented at Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, June 2018, Philadelphia, USA
12. Role of texture parameters evaluated from F18-FDG PET/CT in treatment response assessment of non-small cell lung cancer. J Nucl Med 2018;59:281. Presented at Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, June 2018, Philadelphia, USA
13. Singh S, Pandey AK, Sharma A, Patel C, Bal CS, Optimization of the value of MEVIS Image Registration Toolkit module parameters for positron emission tomography/computed tomography image registration on personal computer, 50th Annual Conference of Society of Nuclear Medicine, India, SNMICON 2018, 22-25 November 2018, PGIMER, Chandigarh

RESEARCH

Funded projects

Ongoing

1. Dosimetry of 177Lu-Labelled PSMA-617 in Castration Resistant Prostate Cancer Patients, Bal CS, ICMR, 3 years, 2017-2020
2. Mutation spectrum of BRAF gene among patients with Papillary Thyroid Carcinoma: A pathogenetic study in Indian population, Bal CS, ICMR, 3 years, 2018-2021
3. Prospective single arm post marketing phase IV study to assess the safety and efficacy of lenvatinib in subjects with locally recurrent or metastatic, progressive, radioiodine refractory differentiated thyroid cancer, Bal CS, Phase IV FDA Trial, Clianza Research Ltd
4. Use of PET-CT with Gallium-68 labeled prostate specific membrane antigen in the diagnosis and follow-up of patients with prostate cancer, Rakesh Kumar, International Atomic Energy Agency (IAEA), Vienna, Austria, 5 years, 2017-2022

Departmental projects

Ongoing

1. A pilot study to assess the therapeutic potential of 177Lu PSMA DKFZ In 68-Gapsma Hbed Cc PET/CT positive anaplastic carcinoma thyroid
2. A prospective study to compare the role of 68-Ga PSMA and 68-Ga-Gul-Nota PSMA in evaluation of prostate cancer
3. A prospective study to determine the efficacy of PET CT scan in detecting residual disease in locally advanced head and neck squamous cell carcinoma managed with primary chemoradiotherapy
4. A prospective study to evaluate in vivo PSMA expression in patients with recurrent anaplastic astrocytoma and glioblastoma multiforme using 68-Ga PSMA PET/CT
5. A retrospective cohort study to analyse the diagnostic accuracy of SISCOS in drug refractory epilepsy
6. Carotid plaque imaging with F-18 flurodeoxy mannose in patients with moderate to severe carotid stenosis
7. Comparison and standardization of techniques for the labelling of 18F FDG leukocytes
8. Comparison between 18-FDG PET/CT and bone marrow biopsy for evaluation of bone marrow metastasis in newly diagnosed patients with Ewing's sarcoma
9. Comparison of 68-Ga PSMA PET/CT and 18-F Fluoride PET/CT for detection of bone metastasis in high risk prostate cancer patients
10. Comparison of left ventricular ejection fraction (LVEF) derived on ordered subset expectation maximization (OSEM) and filtered back projection (FBP) reconstructed images In Tc99m-Mibi Myocardial Perfusion Spect: Validation with LVEF derived on equilibrium radionuclide angiography (ERNA)

11. Effect of dietary intervention in reducing interfering infra cardiac activity in patients undergoing Tc99m Mibi myocardial perfusion SPECT
12. Efficacy of Re-188 Hdd Lipiodol/Re-188 N-Dedc Lipiodol in hepatocellular carcinoma with malignant portal vein thrombosis
13. Estimation of plasma volume deficit by 51Cr labelled RBC in acute pancreatitis patients
14. Evaluation of cardiac sympathetic denervation in advanced idiopathic Parkinson's Disease by using F-18 F DOPA
15. Evaluation of mild cognitive impairment using F-18 MI-108 Tau PET/CT and F-18 FDG PET/CT
16. Image compression using principal component analysis
17. Image denoising using wavelet transform
18. Image enhancement using stochastic resonance
19. Image segmentation using adaptive thresholding
20. Imaging PSMA expression in metastatic triple negative breast cancer using Ga 68 PSMA PET-CT
21. Interim treatment response evaluation of patient with high grade lymphoma using texture analysis on F-18 FDG PET/CT study
22. In vivo assessment of somatostatin receptor expression with Ga 68 Dotanoc PET CT in patients with autoimmune orbitopathy
23. Normal 18F-FDG database for brain and whole body
24. PET/CT imaging of chloromas in acute myeloid leukemia
25. Prospective evaluation of somatostatin receptor expression in hepatocellular carcinoma and its theranostic feasibility
26. Prospective study to compare the role of 18-F Dopa PET/CT And I-131 MIBG in neuroblastoma
27. Role of 18-F Dopa PET/CT in adult and pediatric patients with insulinoma
28. Role of 18-F Flurocholine PET/CT in culprit lesions in patients presenting with recurrent/persistent primary hyperparathyroidism
29. Role of 68Ga-PSMA PET/CT imaging in differentiated thyroid cancer patients with negative whole body radioiodine scan
30. Role of diuretic FDG PET/CT in the patient of renal cell carcinoma and correlation PET parameters with histopathological subtype
31. Role of Ga-68 Dotanoc PET/CT in cardiac sarcoidosis: Comparison with cardiac MRI
32. Role of PET/CT in staging and early treatment response evaluation in patients of soft tissue sarcoma
33. Standardization of Ec clearance in normal human subjects and comparison with GFR in vivo by two step method
34. Synthesis, quality control and biodistribution of Tc-99m labelled antibiotics (ethambutol, ciprofloxacin and ceftriaxone)
35. To assess the feasibility of F18 F Dopa in evaluation of the sympathetic deinnervation in heart failure patients, Comparison with C11 Hed

Completed

1. 18FDG PET/CT in the standardization of Paediatric Lymphoma
2. Value of intraventricular synchronism assessment by Gated SPECT myocardial perfusion imaging (MPI) in the management of heart failure patients submitted to cardiac resynchronization therapy

Collaborative projects

Ongoing

1. Comparison of conventional MDP bone scan and somatostatin receptor PET/CT in articular manifestation of rheumatoid arthritis, Rheumatology
2. International Study of Comparative Health Effectiveness with Medical and Invasive Approaches (ISCHEMIA Trial), Cardiology
3. Prevalence of symptomatic and asymptomatic coronary artery disease in patients with ischemic stroke and TIA, Neurology, Cardiology
4. Value of Gated-SPECT MPI for Ischemia-Guided PCI of non-culprit vessels in STEMI patients with multivessel disease after primary PCI, Cardiology

PUBLICATIONS

Journals: 50

Abstracts: 30

Chapters in Books: 6

PATIENT CARE

Diagnostic scan and radionuclide therapies administered

Diagnostic: General Nucl Med

1.	Tc99m Thyroid Scan	346
2.	I-131 WB Scan (Diagnostic)	1,082
3.	RAIU	790
4.	I-131 WB Scan (Post-Therapy)	715
5.	99mTc-MDP Bone Scan	2,727
6.	Renal Dynamic Scan	4,436
7.	GFR	2,270
8.	DRCG	271
9.	HIDA scan	349
10.	GET (Gastric Emptying Time)	86
11.	Blood Pool	27
12.	Gastro Esophageal Reflux	773
13.	Lymphoscintigraphy	324
14.	Sentinel Lymphnode	21
15.	MIBG Scan (Diagnostic)	308
16.	GHA	6
17.	Liver Spleen	7
18.	MAG-3	8
19.	Meckle's scan	57
20.	Parathyroid	259
21.	TRODAT Scan	409
22.	SPECT-CT (ECD-ICT and ECD-INT)	614
23.	DMSA	1,621
Therapeutic		
24.	Thyroid Cancer Treatment	1,115
25.	Thyrotoxicosis Treatment	408
26.	Ac-225-DOTA-TATE	115
27.	MIBG Therapy	9
28.	Lutetium 177-DOTATATE	218
29.	177Lu PSMA-617	138
30.	177Lu EDTMP	20
31.	225Ac PSMA	30
32.	177Lu DOTMP	13
33.	177Lu BPAMB	6
34.	177Lu Zoledronic Acid	7
35.	Rhenium 188- Radiosynovectomy	36
36.	TARE	11
Diagnostics—Positron Emission Tomography (PET/CT)		
37.	18F FDG	7210
38.	Ga68 PSMA	566
39.	Ga68 DOTA NOC	714
40.	F18 Choline	55
41.	68Ga Exendin 4	6
42.	F18 DOPA	83
43.	F18 TAU	19

44.	Sodium Fluoride Bone Scan	23
45.	F18-Labeled -WBC Scan	7
46.	Ga-68 DATA-TOC	6
47.	NCCT	391
Cardiac Centre Activities		
48.	Cardiac F18FDG PET	156
49.	99mTc/Myocardial perfusion study	1,859
50.	RNV Study(MUGA)	562
51.	Misc. (V/Q Scan, 1st Pass)	147

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor CS Bal was recognized by British Nuclear Medicine Society's Journal Nuclear Medicine Communication awarded "Top Reviewer Certificate" for the year 2018; Delivered an IGCAD Oration on "Role of Nuclear Medicine in Thyroid Disorders" at Metabolic Conclave 2019 on 17 March 2019 at Dubai, United Arab Emirates.

Professor Bal's International Contribution: IAEA Expert Mission to Bangladesh under TC-BGD6027 "Strengthening Cancer Management through Capacity Building in Molecular Imaging Technology and Radiation Oncology" from 1 October to 5 October 2018 at Dhaka, Bangladesh.

Professor Rakesh Kumar was overseas Editor, Nuclear Medicine Communications; Reviewer of scientific abstracts submitted at the 65th Annual Meeting of Society of Nuclear Medicine (SNM), to be held in June 2019, Philadelphia, USA.

Professor Chetan D Patel was external expert in Technical Specification Committee for purchase of solid state detector SPECT camera at PGIMER, Chandigarh; Member of Executive Committee, Society of Nuclear Medicine India; Member of Executive Committee, Association of Nuclear Medicine Physicians of India; Member of Executive Committee, Nuclear Cardiological Society of India.

Dr Madhavi Tripathi was Editorial Board Member of Indian Journal of Nuclear Medicine, Chairperson for session on Imaging in movement disorders in 4th Annual Conference of Movement Disorders Society of India, 23 February 2019, New Delhi.

9.24. Obstetrics and Gynaecology

Professor and Head

Alka Kriplani (up to 24 August 2018)

Sunesh Kumar (from 25 August 2018)

Professors

Dipika Deka (on deputation)

Neerja Bhatla

KK Roy

Neena Malhotra

Vatsla Dadhwal

JB Sharma

Neeta Singh

Associate Professors

K Aparna Sharma

Garima Kachhawa

Reeta Mahey

P Vanamail

Assistant Professors

Vidushi Kulshrestha

Seema Singhal

Rajesh Kumari

Jyoti Meena

Juhi Bharti

Scientists

Rohini Sehgal (G. III)

Arun Kumar (G. I)

HIGHLIGHTS

Two Days International Conference on Newer Horizons of Reproductive Medicine and live workshop on 'surgical sperm retrieval techniques' was organized by Division of Reproductive Medicine, on 2 and 3 February 2019. The Conference was inaugurated by Honorable Minister of State, MOHFW. A number of eminent international faculty from USA, UK, Germany, Spain and Australia deliberated on various debatable issues and it was well attended.



Short Term Training

The department offers short term training in various super specialty subjects like 'Gynae Endoscopic Surgery', 'Maternal and Fetal Medicine', 'Gynae Oncology', 'Ultrasonography' and 'Infertility'. The following doctors were trained in different disciplines:

S. No.	Name of the Candidate	Place	Training Period	Speciality
1.	Kevin Mark Fong	New Zealand	21 May 2018 to 22 June 2018	Observer
2.	Etna Bouchier	France	2 July 2018 to 24 August 2018	Observer
3.	Swikriti Sharma	Pleven	17 July 2018 to 31 July 2018	Observer
4.	Alexis Rick	France	17 July 2018 to 30 July 2018	Observer
5.	Anjana Jha	Jharkhand	6 August 2018 to 18 August 2018	Basic Laparoscopic Gynaecology Surgery
6.	Dibakar Debbarma	Agartala	1 November 2018	Observer
7.	Kashish Garg	Agartala	1 November 2018 to 31 December 2018	Observer
8.	Prasanta Kumar Nayak	Raipur	19 November 2018 to 18 December 2018	Observer (Reproductive Medicine Centre)
9.	Stav Oved	Israel	3 December 2018 to 7 December 2018	Observer
10.	Jane Ripley	Australia	10 December 2018 to 6 January 2019	Observer
11.	Merlyn Mathew	Australia	14 January 2019 to 18 January 2019	Observer
12.	Cathy King	Australia	14 January 2019 to 18 January 2019	Observer
13.	Uma Pandey	Varanasi	16 January 2019 to 23 January 2019	Observer
14.	Seema Hakim	Aligarh	21 January 2019 to 3 February 2019	Observer
15.	Beela Venkata Radha Kumari	Visakhapatnam	15 March 2019 to 15 May 2019	Observer
16.	Sangeeta Raman Joshi	Chhattisgarh	15 March 2019 to 29 March 2019	Observer

Long Term Training

S. No.	Name of the Candidate	Place	Training Period	Speciality
1.	Lt Col (Dr) Mhaske Nilesh Madhukar	Armed Forces	15 October 2018 to 14 October 2019	Maternal and Fetal Medicine
2.	Lt Col (Dr) Venus Deshwal	Armed Forces	16 October 2018 to 5 November 2018	MIS Gynae Endoscopy
3.	Dr Abhijeet Kumar	Armed Forces	1 January 2019 to 31 December 2020	Observer

CMEs/Workshops/Symposia/National and International Conferences Organized in the Department

1. Women's health initiative training course in Minimally Invasive Gynaecology, 16-21 April 2018, AIIMS, New Delhi
2. CME series on high risk pregnancy, 13 May 2018, AIIMS, New Delhi
3. Women's health initiative training course in Minimally Invasive Gynaecology, 4-9 June 2018, AIIMS, New Delhi
4. Preconference AOGD Workshop on Hysteroscopy, Organized by Department of Obstetrics and Gynaecology, AIIMS, New Delhi and Association of Obstetricians and Gynaecologists of Delhi, 23 August 2018, AIIMS, New Delhi
5. Workshop for successful implementation of 'LaQshya' programme in Medical Colleges, 17 and 18 September 2018, AIIMS, New Delhi-Dr K Aparna Sharma
6. Inter-country Training of Trainers for Quality Improvement for care of Mothers and Newborns, 3-5 October 2018, Vasant Kunj, New Delhi-Dr K Aparna Sharma
7. FIGO Pre-Congress Workshop: Mastering Techniques for Screening of Breast and Cervical Cancer and Management of Preinvasive Cervical Lesions (in collaboration with IFPC and Jhpiego)-Dr Neerja Bhatla, 14 October 2018, Rio de Janeiro, Brazil
8. FIGO Video Workshop: Preventive Oncology for the Practising Gynaecologist-Dr Neerja Bhatla, 16 October 2018, Rio de Janeiro, Brazil
9. FIGO Video Workshop: Gynecologic Oncology Surgery—Learning from the Masters-Dr Neerja Bhatla, 19 October 2018, Rio de Janeiro, Brazil
10. CME on Gynecologic Oncology Update (in collaboration with AOGD Oncology Committee) and SGO, USA, 14 November 2018, AIIMS, New Delhi

11. Hysteroscopy Pre-Congress AOGD Workshop, Organized by Department of Obstetrics and Gynaecology and Association of Obstetricians and Gynaecologists of Delhi, 22 November 2018, AIIMS, New Delhi
12. Workshop for successful implementation of 'LaQshya' programme in Medical Colleges, 21 and 22 January 2019, AIIMS, New Delhi-Dr K Aparna Sharma
13. An international conference cum workshop 3rd FERTICON 2019 (First live workshop on surgical sperm retrieval), 2 and 3 February 2019, AIIMS, New Delhi
14. Suture Practicum Workshop for Postgraduates and Senior Residents, 9 March 2019, New Delhi

Lectures delivered

Sunesh Kumar

1. "Minimally invasive Gynaecology" on 'Laparoscopy-pt. positioning pneumoperitoneum safe first entry, selection of accessory ports indications/contradictions, At training course in "Minimally invasive Gynaecology", 17 April 2018, New Delhi
2. Demonstrative and delivered lecture on "Forceps and Ventouse", At FOGSI FORCE RAJDHANI-Academic Programme, 6 May 2018, New Delhi
3. Case discussion on "Cervical Cancer", At FOGSI FORCE RAJDHANI-Academic Programme, 6 May 2018, New Delhi
4. "Minimally invasive Gynaecology" on 'Laparoscopy-pt. positioning pneumoperitoneum safe first entry, selection of accessory ports indications/contradictions, At training course in "Minimally invasive Gynaecology", 9 June 2018, New Delhi
5. Demonstration of Instrumental Delivery, 15th Practical Course and CME in Obstetrics and Gynaecology, 9 September 2018, New Delhi
6. Demonstrate and delivered lecture on "Forceps and Ventouse", FOGSI FORCE RAJDHANI-Academic Programme, 26 March 2019, New Delhi

Neerja Bhatla

1. Fertility preservation in endometrial cancer—When and How? FIGO Regional Congress of Middle East and Africa 2018, 11-13 April 2018, Dubai, U.A.E.
2. Audit and Indications of Hysterectomy, Hysterectomy: New Evidence and Directions for Advocacy, Research and Programmes, 28 July 2018, New Delhi
3. Practicalities of cervical screening in the India/Sri Lanka and Bhutan, 32nd International Papillomavirus Conference (IPVC 2018) in conjunction with AOGIN 2018, 2-6 October 2018, Sydney, Australia
4. New Revised FIGO Staging of Cervical Cancer (2018), XXII FIGO World Congress of Gynecology and Obstetrics, 15 October 2018, Rio de Janeiro, Brazil
5. Cervical cancer screening in post—HPV vaccine era in the LMICs, XXII FIGO World Congress of Gynecology and Obstetrics, 16 October 2018, Rio de Janeiro, Brazil
6. "Cryotherapy and thermal ablation" Video, XXII FIGO World Congress of Gynecology and Obstetrics, 16 October 2018, Rio de Janeiro, Brazil
7. Ovarian Transposition—Video, XXII FIGO World Congress of Gynecology and Obstetrics, 19 October 2018, Rio de Janeiro, Brazil
8. Cervical Screening Practice and Opportunities in Asia, XXII FIGO World Congress of Gynecology and Obstetrics, 19 October 2018, Rio de Janeiro, Brazil
9. New revised FIGO staging of cervical cancer (2018), CME on Gynecologic Oncology Update, 14 November 2018, New Delhi
10. FOGSI GCPR on Screening and Management of Preinvasive Cervical Lesions and HPV Vaccination, National conference and Training of Trainers programme on Prevention of Cervical Cancer—FOGSI Oncology Committee, 17 February 2019, Manesar
11. Panelist in panel discussion on vulvar abnormalities and VIN, NARCHI Preconference Workshop on Vulval Disorders from Adolescence to Menopause, 21 February 2019, New Delhi
12. Panelist in panel discussion on training programmes in gynaecological oncology, 1st Annual Meeting of KolGoTrg, 2-4 March 2019, Kolkata
13. New FIGO Staging and perspective of trials in LMIC, 1st Annual Meeting of KolGoTrg, 2-4 March 2019, Kolkata
14. Update on Cancer—FIGO Staging 2018, An Update on GTD and Gynaecological Cancer Conference, 15-17 March 2019, Kovalam

15. Panelist in panel discussion on What should be the strategy for cervical cancer screening for Indian Population? An Update on GTD and Gynaecological Cancer Conference, 15-17 March 2019, Kovalam
16. Moderator in Case discussion on Cervical Cancer, PG Academic Programme, “FOGSI Force Rajdhani”, 27 March 2019, New Delhi

Kallol Kumar Roy

1. Post-operative complication of Hysteroscopic surgery and prevention, 23rd Annual Congress of Indian Society for Assisted Reproduction (ISAR 2018), 19 and 20 April 2018, Kolkata.
2. “Fetal Growth Restriction” on 6 May 2018, FOGSI Force Rajdhani, PG Academic Programme by Association of Obstetricians and Gynaecologists of Delhi (AOGD) in Association with Medical Education Committee (FOGSI), 6 May 2018, New Delhi
3. Recent concepts of Letrozole for induction of ovulation CME organized by the Amritsar Gynaecology and Obstetrics Society, affiliated to FOGSI (MUMBAI), 26 May 2018, Amritsar
4. Recurrent Pregnancy Loss and Luteal Phase Defect: Current scenario, the CME organized by the Jodhpur Gynaecology and Obstetrics Society, Jodhpur, 19 May 2018, Jodhpur
5. Hysteroscopy: Diagnostic and Operative—Our Experiences, 33rd training course in MINIMALLY INVASIVE GYNAECOLOGY, 4-9 June 2018, New Delhi
6. Thyroid Disorders in Gynaecology of India (GESI), National Conference Gynae Endoscopy 2018, 15-17 June 2018, Pune
7. Management of Endometriosis: Recent Scenario, CME on Infertility by Surat Obstetrics and Gynaecology Society, 8 July 2018, Surat
8. Recent trends in the management of recurrent pregnancy loss and role of progesterone, CME by the Lucknow Obstetrics and Gynecology (LOGS), 28 July 2018, Lucknow
9. Management of endometriosis: Recent scenario, CME Organized by the Obstetrics and Gynaecology Society (Mohali), 25 August 2018, Mohali
10. Management of endometriosis: Recent scenario, CME organized by the Jalandhar Gynaecology and Obstetrics Society, 15 September 2018, Jalandhar
11. Preventing near miss maternal mortality on “Professor SN Mukherjee oration”, 14th World Conference and 22nd Indian Conference of NARCHI, 28 and 29 September 2018, Nagpur
12. Abortion, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
13. Ante partum Haemorrhage, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
14. Genital fistula, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
15. Prenatal Diagnosis, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
16. Amenorrhoea, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
17. Coagulation failure, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
18. Gestational Diabetes, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
19. Genital TB, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
20. Multifetal Gestation, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
21. Preterm prelabour rupture of membranes, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
22. Genital Infections, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 3 November 2018, Kolkata
23. Evaluation of laparoscopic ovarian drilling by harmonic scalpel vs monopolar drilling needle in cases of clomiphene citrate resistant polycystic ovarian response, 47th Global Congress on Minimally invasive (MOGS) Gynaecology, 11-15 November 2018, Las Vegas, Nevada (USA)

24. Case Discussion: Difficult Situations at Laparoscopy, 44th Annual Conference of The Bengal Obstetric Gynaecological Society (BOGS), “BOGSCON 44”, 21-23 December 2018, Kolkata
25. Primary and Secondary Infertility, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
26. Contraception in details, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
27. PCOS and Hirsutism, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
28. MTP in details, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
29. Primary and Secondary Infertility, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
30. MTP, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
31. Contraception, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
32. Ectopic, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
33. PCOS and Hirsutism, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
34. Abnormal uterine bleeding, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
35. Endometriosis, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
36. Early pregnancy Bleeding, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
37. Antibiotic prophylaxis in obstetrics and gynaecology, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
38. Common infection in Gynaecology, DGO class room programme, National Association for Reproductive and Child Health of India (NARCHI), 16 February 2019, Kolkata
39. Difficulties and Dilemma in surgical management of Endometriosis, 25th Annual conference, NARCHI Delhi, 23-24 February 2019, Delhi

Vatsla Dadhwal

1. Antiphospholipid antibody syndrome: An enigma, 4th UPGOG MID TERM CME, 10 May 2018, Agra
2. Moderated panel on Fetal Infections, GFMCON 2018 FOGSI ISPAT Conference on Genetics and Fetal Medicine, 17 June 2018, Patna
3. Panelist: Pregnancy outcome in women with PCOS, PCOS Workshop, 24 June 2018, Gurugram
4. Antiphospholipid antibody syndrome: An enigma, CME of Saharanpur Obstetrics and Gynaecology Society, 26 July 2018, Saharanpur, Uttar Pradesh
5. Dual marker interpretations: Case based, CME—Innovations in Fetal Medicine, 23 August 2018, Gurugram
6. Panelist—Genetic Prognostication in Common Clinical Scenarios: How much and when, Society of Fetal Medicine First Quarterly Meeting 2018-2019, 29 August 2018, New Delhi
7. Management of Complicated twin Panelist—Inverting pyramid of ANC, 1st International Conference on Maternal and Fetal Medicine, 1 and 2 September 2018, Dhaka, Bangladesh
8. Case Discussion on “Twin pregnancy”, 21st Practical Course and CME, 9 September 2018, New Delhi
9. Panelist—Common structural, chromosomal and genetic abnormalities—Casewise management and counselling Role of USG in Prediction and Monitoring of threatened preterm birth, Society for Fetal Medicine (SFM)Corbett Retreat, 22 and 23 September 2018, Uttarakhand
10. Feto Maternal Medicine Workshop—Interventions in twins, 32nd AICC RCOG Annual Conference 2018, 1 and 2 November 2018, New Delhi
11. Panelist—Management of Abnormal maternal serum screening: Case Scenarios, 32nd AICC RCOG Annual Conference 2018, 4 November 2018, New Delhi

12. Fetal therapy—What to do, what not to do, National Conference on Principles, Protocols and Practices in Obstetrics and Gynaecology, 16 November 2018, Hyderabad
13. Fertility and Pregnancy in Thalassaemia Major and NTDT, 9th National Thalassaemia Conference, 24 and 25 November 2018, New Delhi
14. Moderator for Panel: Multiple Pregnancy: Optimising care, 40th Annual Conference of AOGD, 24 and 25 November 2018, New Delhi
15. Role of soft markers in today's era Evaluation and management of Rh isoimmunised pregnancy, Fetal medicine workshop, 30 November 2018, Madurai
16. Interventions in Twins: Where do we Stand Today? Second Quarterly Meet 'Society of Fetal Medicine', 19 December 2018, New Delhi
17. Fetal Emergencies! Need skilled intervention, Pre-Congress NARCHI WORKSHOP on Fetal Medicine: Common Fetal Problems, 22 February 2019, New Delhi
18. Can NIPT Replace Prenatal Invasive Testing? 25th Annual Conference NARCHI DELHI, 23 and 24 February 2019, New Delhi
19. Antenatal Care, CRPF-FOGSI Joint Wellness Initiative-2019 Sexual and Reproductive Health Awareness Programme, 14 March 2019, New Delhi
20. Fetal Reduction, National Conference Gestosis 2019, 24 March 2019, Lucknow
21. Panel discussion on Fetal anomalies—Right advice for right outcome, 35th National ISOPARB Conference 2019, 30 and 31 March 2019, Hyderabad

JB Sharma

1. How to deal with Apex, North Zone Yuva FOGSI, 27-29 April 2018, Uttarakhand
2. Dissipation of information on disorder of sex development to unravel science behind DSD and Sensitizing common people of North-East-Phase-II, Workshop, 5 and 6 May 2018, Assam
3. Role of Progesterone in LPD, threatened abortion and PTL, Varanasi Obstetric and Gynecological Society, 27 May 2018, Varanasi
4. Health issues pertaining to Obstetrics and Gynecology Panel Discussion on present day Health issues related to Life style and Environment, National Conference on Wellbeing and Health, 11 August 2018, Punjab
5. Prediction and Prevention of Preterm labour and Overactive bladder—Management options, CME on "Obs Gynae-Revisited", 2 September 2018, Punjab
6. Role of progestogens in endometriosis", IUGA is partnering with the Urogynecology and Reconstructive Pelvic Surgery Society of India (URPSSI), 7-9 September 2018, Tamil Nadu
7. Bad obstetric history, Kota Obstetrics and Gynaecology Society Rajasthan, 7 October 2018, Rajasthan
8. Native tissue repair for prolapse: A possible alternative to mesh, 32nd AICC RCOG Annual Conference, 4 November 2018, New Delhi
9. Current thinking in diagnosis and management of Female Genital Tuberculosis, 40th Annual Conference AOGD, 24 November 2018, New Delhi
10. Chairperson, 73rd NATCON, 6 January 2019, Nagpur
11. Role of Calcium from Intra Uterine Life to Menopause, 62nd All India Congress of Obstetrics and Gynaecology, 10 and 11 January 2019, Bengaluru

Neeta Singh

1. Social Egg Freezing, National Conference of Gynae Endocrinology 2018, 16 June 2018, Pune
2. Fertility Preservation—Technique and Technology, 2nd Congress of ASFP and Fertiprotect 2018 (5th Annual Conference of FPSI), 22-23 September 2018, New Delhi
3. Reproductive Medicine—Clinical Update, 32nd AICC RCOG Annual Conference, 1-2 November 2018, New Delhi
4. Role of Stem Cells in Refractory Asherman Syndrome—Hope or Hype? Annual 2018 Conference of the Foundation for Reproductive Medicine Translational Reproductive Biology and Clinical Reproductive Endocrinology, 15-18 November 2018, New York, USA
5. Role of Intralipids as an immunomodulator in RIF, 24th Annual Congress of the Indian Society for Assisted Reproduction Conference-2019, 1-3 March 2019, Mumbai

K Aparna Sharma

1. Fetal Endoscopy, WHI, 16 April 2018, New Delhi
2. Fetal Endoscopy, WHI, 20 April 2018, New Delhi
3. POCQI approach, Quality Convention, 21 April 2018, New Delhi
4. POCQI step 1 and II, Faculty Workshop on Quality Improvement, 25 April 2018, New Delhi
5. Hands on Trainer for Fetal Medicine Workshop, NZYF, 27 April 2018, Dehradun
6. Sutures and Knots, NZYF, 28 April 2018, Dehradun
7. Diabetes, FORCE PG, 5 May 2018, New Delhi
8. Pedagogy Session, FORCE PG, 5 May 2018, New Delhi
9. Screening in Diabetes, CME series in High Risk Obstetrics, 13 May 2018, New Delhi
10. QI vs QA, NNF and UNICEF National Level training of Trainers for Accreditation Guidelines Workshop, 20 May 2018, Gurgaon
11. Safety of GI drugs in pregnancy, INASL-FOGSI Liver meet 2018, 26 May 2018, Gurgaon
12. Moderator for Panel on Prevention of Gyn Cancers, FIWHS, 1-3 June 2018, Gurgaon
13. Indications and Contraindications of Induction of Labor, FOGSI-ICOG GCPR on Induction of Labor, 3 June 2018, Gurgaon
14. Fetal Endoscopy, WHI, 4 June 2018, New Delhi
15. Fetal Endoscopy, WHI Endoscopy Training, 8 June 2018, New Delhi
16. Twin Twin Transfusion Syndrome, GFMCON, 17 June 2018, Patna
17. Panel Moderator on Hemoglobinopathies, GFMCON, 17 June 2018, Patna
18. Anemia in Pregnancy, PG Assembly, 4 August 2018, New Delhi
19. PE screening, TOT on Preeclampsia, 12 August 2018, Bangalore
20. Non-Invasive Prenatal Testing, Fetal Medicine Update, 24 August 2018, Gurgaon
21. Prognostication in first trimester, SFM Quarterly Meet, 29 August 2018, New Delhi
22. Case discussion on “Twin pregnancy”, 21st Practical Course and CME, 9 November 2018
23. Preeclampsia Screening, FOGSI CME on Preeclampsia, 6 October 2018, Aligarh
24. Feto Maternal Medicine Workshop—Interventions in twins, 32nd AICC RCOG Annual Conference 2018, 1 November 2018, New Delhi
25. Cell-free fetal DNA testing (NIPT) FOGSI-ICOG: Principles, Protocols and Practices in Obstetrics and Gynaecology, 16 November 2018, Hyderabad
26. Reversed end diastolic flows in early preterm pregnancy, 40th Annual Conference of AOGD, 24 November 2018, New Delhi
27. Raised NT, Annual Conference of Madurai ObsGyn Society, 30 November 2018, Madurai
28. Cell-free fetal DNA testing (NIPT), Annual Conference of Madurai ObsGyn Society, 30 November 2018, Madurai
29. FOGSI-Workshop on HDP, CME Jammu ObsGyn Society, 9 December 2018, Jammu
30. POCQI in Laqshya, State ToT for LaQshya Programme in Chhattisgarh, 11 December 2018, Raipur
31. Panel on Challenges in management of twin pregnancy, SFM 3rd Quarterly Meet, 19 December 2018, New Delhi
32. Learning platforms in QI, Workshop for successful implementation of ‘LaQshya’ programme in Medical Colleges, 22 January 2019, New Delhi
33. Induction of Labor, North Zone YuvaFogsi, 1 February 2019, Noida
34. Challenges in management of Rh Isoimmunised pregnancy, North Zone YuvaFogsi, 1 February 2019, Noida
35. Understanding QI methodology, Workshop on Patient Safety and Quality Care, 5 February 2019, Raipur
36. Importance of Quality in Healthcare, Workshop on Patient Safety and Quality Care, 5 February 2019, Raipur
37. Soft markers in pregnancy, 25th Annual Conference of NARCHI, 22 February 2019, New Delhi
38. Collating experience on learning in QI, WHO QED Network Meeting in Ethiopia, 15 March 2019, Ethiopia
39. Aneuploidy screening in first trimester, National Conference Gestosis, 24 March 2019, Lucknow
40. Zika virus in pregnancy, Annual Conference of ISOPARB, 31 March 2019, Hyderabad
41. Panel discussion, Annual Conference of ISOPARB, 31 March 2019, Hyderabad

Garima Kachhawa

1. Laparoscopic management of ectopic pregnancy, 32nd WHI Training Course, Minimally Invasive Gynaecology, 16-21 April 2018, AIIMS, New Delhi
2. Laparoscopic management of ectopic pregnancy, 33rd WHI Training Course, Minimally Invasive Gynaecology, 9 June 2018, AIIMS, New Delhi
3. Role of Estrogen in development of Secondary Sexual Characters, the session of Mixed Bag, 5th National Conference Gynae Endocrinology—GESICON-2018, 15-17 June 2018, Pune
4. AUB diagnostic approach: The rightway session of mixed bag, 5th National Conference Gynae Endocrinology—GESICON-2018, 15-17 June 2018, Pune
5. Newer avenues for cabergoline, CME, 20 June 2018, New Delhi
6. Partogram, West Zone Yuva FOGSI-2018, 20-22 July 2018, Udaipur
7. ART and CRAFT of vaginal delivery, West Zone Yuva FOGSI-2018, 20-22 July 2018, Udaipur
8. Medical management of endometriosis, CME, 12 August 2018, Gwalior
9. Dermoid cyst in adolescent—How to tackle, DGES—ESGE 2018, 17-19 August 2018, New Delhi
10. Prevention of vault prolapse in TLH, North Zone Yuva FOGSI 2019, 1-3 February 2019, Noida

Reeta Mahey

1. Ovulation induction in endometriosis, GESICON 2018, 15-17 June 2018, Pune
2. Controlled ovarian stimulation protocols for cancer patients, YUVA-ISAR 2018, 29-30 July 2018, Chennai
3. Errorless oocyte pick up and embryo transfer—Is it possible? QA/QC conference organized by India Fertility Society, 23 September 2018, Patna
4. Laparoscopy in infertility, Hariyana ISAR Conference, 7 October 2018, Sonapat
5. How to improve success of IUI cycles—Moderator, YUVA-ISAR 2018, 1-3 December 2018, Jaipur
6. Insulin resistance, PCOS and obesity—A prescribed solution to address challenges, BOGSCON 2018, 21-23 December 2018, Kolkata
7. Management of thin endometrium in ART—Panelist, Delhi ISAR Installation Programme, 15 January 2019, Delhi
8. Controlled Ovarian stimulation protocols—in IVF, National CME by Indian Fertility Society, 17 February 2019, Kolkata
9. Recent advances in management of fibroid and endometriosis, Delhi ISAR CME, 8 March 2019, New Delhi

Vidushi Kulshrestha

1. Adolescent PCOS, 4th UPCOG Midterm CME, organized by UPCOG and Agra Obstetrics and Gynae Society, 10 May 2018, Agra
2. Bad obstetric history: Trimester wise case-based discussion (Panelist), CME on High Risk Pregnancy, Organized by Division of Fetal Medicine, Department of Obs and Gynae, AIIMS, 13 May 2018, New Delhi
3. AUB management in special case scenarios—Case based discussion, 5th National Conference of Gynae Endocrinology-GESICON 2018, organized by Gynae Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS), 15 June 2018, Pune
4. Turners syndrome in adolescence, 5th National Conference of Gynae Endocrinology—GESICON 2018, organized by Gynae Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS), 16 June 2018, Pune
5. AUB: Good clinical practice recommendations, CME organized by Gwalior Obs and Gynae Society, 12 August 2018, Gwalior
6. Hysteroscopic cannulation, Annual Conference of DGES, 17 September 2018, New Delhi
7. Conduct of normal labour module, Trial 3 of Skill Teaching Module for UG Teaching (eSET facility), 20 December 2018, New Delhi
8. Intrapartum fetal monitoring, Pre-congress Workshop of North Zone Yuva FOGSI, Radisson Blue, 1 February 2019, Noida

Seema Singhal

1. Basic components of Pre-conceptual care, CME series on High Risk Pregnancy, 13 May 2018, AIIMS
2. Case based Discussion Ca Endometrium, Speed dating in Gynae Oncology, 19 May 2018, New Delhi

3. Cervical Cancer Screening Methods and Guidelines, Speed dating in Gynae Oncology, 31 May 2018, New Delhi
4. Quiz master for Quiz on Endometriosis, CME on Endometriosis, 15-17 June 2018, New Delhi
5. Moderator for Panel Discussion on Treatment of refractory/Recurrent sarcoma, 1st Delhi Gynae Oncology Meeting, 4 July 2018, New Delhi
6. Expert member for revision of LSAS curriculum, Expert group meeting, 6-7 July 2018, 12 July 2018, NIHFW
7. Session on Gynecological cancers coordinator faculty Best of ASCO 2018 Annual meeting, ISCO—An initiative of NCI, 28 and 29 July 2018, AIIMS, New Delhi
8. Hereditary ovarian cancers: Role of BRCA, Speed dating in Gynae Oncology, 11 August 2018, New Delhi
9. Screening of pre-malignant lesion of cervix and endometrium, CME on Screening in Obstetrics and Gynecology—Prevention and early detection is always better, 22 September 2018, Vardha
10. Post pregnancy family planning lecture under Family Planning Division GOI initial management of women with cervical carcinoma, Certified digital course screening and management of carcinoma cervix by Omnicuris, FOGSI Website
11. Mentored the participants for group work and make their projects lecture on How to present the Step 1, Inter country Training of Trainers for Quality Improvement (QI) of care of women and newborns from New Delhi, 3-5 October 2018, New Delhi
12. Epidemiology of cervical cancer in India: Where do we stand today, AOGIN India CME, 3 November 2018, Vellore
13. Barriers to prevention, AOGIN India CME, 3 November 2018, Vellore
14. Moderator for panel discussion HRT in cancer survivors, 40th Annual Conference of Association of Obstetricians and Gynecologists of Delhi (AOGD), 25 November 2018, New Delhi
15. Debate—Laparoscopy is the standard of care for ovarian tumors, 40th Annual Conference of Association of Obstetricians and Gynecologists of Delhi (AOGD), 24 November 2018, New Delhi
16. Panelist case-based discussion cervical cancer screening, Cervicon, 26 December 2018, Ghaziabad
17. Improvement Process Step 1, Two-Day LaQshya Orientation workshop cum Training for Medical Colleges, 21-22 January 2019, New Delhi
18. Women's Health and Hygiene, Theme based health talks, 21 February 2019, DGHS Nirman Bhawan

Jyoti Meena

1. Menstrual problems in adolescent girls with autism, Public lecture—"Autism: Empowering with skill development", 11 April 2018, New Delhi
2. Hair in urine: Patient's nightmare, AOGD Meet, 28 July 2018, New Delhi
3. A scary tale of hairy urine, Clinical combined round, 1 September 2018, New Delhi
4. Gynaecological cancer: Prevention, screening, diagnosis and treatment, Short curriculum on cancer control prevention: Principles and practice of cancer prevention and control for North Eastern States, 20 September 2018, New Delhi
5. Pelvic examination, Trial-2, skill teaching module for UG teaching, 26 October 2018, New Delhi
6. Conduct of normal delivery, Trial-3 skill teaching module for UG teaching, 20 December 2018, New Delhi

Juhi Bharti

1. Facilitator for group work, Workshop for Implementation of Laqshya Labor Room Transformation Programme in Medical Colleges, 17-18 September 2018, New Delhi
2. Pelvic examination, Trial-2 Skill Teaching Module for UG Teaching, 26 October 2018, New Delhi,
3. Episiotomy, Trial-3 Skill Teaching Module for UG Teaching, 20 December 2018, New Delhi
4. Video demonstration on scrubbing, Patient Preparation and Surgical Safety Checklist, Academic Programme by PG Heights Top, 20 January 2019, New Delhi
5. Group facilitator for making own projects, Two Day LaQshya Orientation Workshop cum Training for Medical Colleges, 21 and 22 January 2019, New Delhi

Oral papers/posters presented

1. Apoorva, Gupta S, Sood S, Dhawan B, Kachhawa G, Saxena AK, Association between dysbiosis of the vaginal microbiota and bacterial infections, Keystone Symposia—Role of the Genital Tract Microbiome in Sexual and Reproductive Health Conference, 11-15 December 2018, South Africa

2. Bachani S, Dadhwal V, Sharma AK, Bhawana, Correlation between fetal liver blood flow and neonatal adiposity in gestational diabetes mellitus and fetal growth restriction, 17th World Congress in Fetal Medicine, 24-28 June 2018, Athens, Greece
3. Bhatla N, Natarajan J, Kumari S, Ovarian cancer masquerading as cervical carcinoma—A diagnostic dilemma, ASGO 5th International Workshop on Gynecologic Oncology, 24 and 25 August 2018, Suwon, Korea
4. Dadhwal V, Deka D, Malhotra N, Sharma AK, Perumal V, Kamalsha T, Correlation of placental volume and vascular indices in first trimester with birth weight, 28th World Congress on Ultrasound in Obstetrics and Gynaecology, 20-24 October 2018, Singapore
5. Dadhwal V, Deka D, Sharma AK, Chawla L, Perinatal outcome after selective feticide in monochorionic twin pregnancies, 28th World Congress on Ultrasound in Obstetrics and Gynaecology, 20-24 October 2018, Singapore
6. Dadhwal V, Sharma AK, Bansal P, Rana A, Chawla J, Jain A, Fetal-Neonatal Alloimmune Thrombocytopenia (FNAIT), A successful neonatal outcome with antenatal intravenous immunoglobulin, North Zone Yuva FOGSI, 3 February 2019, New Delhi, **Poster presentation, 1st prize**
7. Dadhwal V, Sharma AK, Priyanka, Priya S, Transabdominal cerclage for uterine didelphys unicollis during pregnancy: A case report, North Zone Yuva FOGSI, 3 February 2019, Noida
8. Dadhwal V, Sharma AK, Rana A, Chawla J, Prenatal sonographic diagnosis of meconium peritonitis and postnatal management: A report of two cases, YUVA FOGSI North Zone, 2 February 2019, Noida, **Poster presentation, 2nd prize**
9. Dadhwal V, Sharma AK, Rana A, Deka D, Invasive prenatal diagnostic procedures: A single centre experience, 35th ISOPARB National Conference, 31 March 2019, Hyderabad, **Vidya Bhasin award (Free paper presentation 1st prize)**
10. Deka D, Dadhwal V, Sharma AK, Agarwal N, Bansal P, Maternal and perinatal outcomes of twin pregnancies in a tertiary care centre in North India, 17th World Congress in Fetal Medicine, 24 and 28 June 2018, Athens, Greece
11. Deka D, Dadhwal V, Sharma AK, Bachani S, Profile of patients referred for invasive prenatal diagnostic procedure in Maternal-Fetal Medicine Unit, AIIMS, New Delhi, FETOCON, April 2018, Mumbai, **Best oral paper**
12. Deka D, Dadhwal V, Sharma AK, Bajaj R, Gupta N, Non-immune hydrops fetalis a single centre experience of 47 cases, 22nd International Conference on Prenatal Diagnosis and Therapy at Antwerp, 9 July 2018, Belgium
13. Deka D, Dadhwal V, Sharma AK, Chawla J, Complete congenital heart block: A tale of mysteries, 40th Annual Conference of AOGD, 24 November 2018, New Delhi
14. Deka D, Dadhwal V, Sharma AK, Deedwania P, Bachani S, Technique and tips for adequate chorionic villus sampling as a prenatal diagnostic procedure, YUVA FOGSI Dehradun, April 2018 Video Presentation, 28 April 2018, Dehradun
15. Deka D, Dadhwal V, Sharma AK, Rajan S, Transfusion dependent beta thalassemia intermedia: Challenges in pregnancy, a case report, 40th Annual Conference of AOGD, 25 November 2018, New Delhi
16. Deka D, Malhotra N, Dadhwal V, Sharma AK, Deepika, Congenital Utero-Cervical-Abnormalities Series of Cases Classified According to CONUTA, 40th Annual Conference of AOGD, 24 and 25 November 2018, New Delhi
17. Deoghare M, Kumari R, Kulshreshtha V, Sahoo I, Mathur S, Kachhawa G, Mahey R, Sharma JB, Bhatla N, Case report on placental mesenchymal dysplasia: Rare but needs care, Annual Conference of AOGD, 24 and 25 November 2018, New Delhi
18. Gupta M, Mahey R, Kandpal S, Jaiswal P, Perumal V, Malhotra N, Bhatla N, Knowledge and awareness about fertility preservation among female cancer patients—A prospective cohort study, 1st Annual AIIMS Research Day, 26 March 2019, New Delhi
19. Gupta T, Sharma H, Bajpai J, Kachhawa G, Kulshreshtha V, Khadgawat R, Gupta N, Vishnubhatla S, Selvi A, Jain V, A randomized double blind controlled trial to investigate the effects of vitamin D supplementation on maternal and new-born baby's vitamin D status in Asian-Indian subjects, ICE 2018 (18th International Congress of Endocrinology), 1-4 December 2018, South Africa
20. Kachhawa G, Nihlani H, Mahey R, Kulshreshtha V, Kumari R, Khadgawat R, Jaryal AK, Bhatla N, Kriplani A, Compare insulin resistance and and cardio vascular risk factors in lean versus overweight women with PCOS, Annual Conference of AOGD, 24 and 25 November 2018, New Delhi
21. Kaundal A, Kachhawa G, Kulshreshtha V, Kriplani A, Perumal V, Medicolegal awareness among reproductive age women attending obstetrics and gynaecology OPD, Annual Conference of AOGD, 24 and 25 November 2018, New Delhi
22. Keerthana R, Dadhwal V, Sharma A, Deka D, Sad Fetus Syndrome in triplets: A case report, 40th Annual Conference of AOGD, 24 November 2018, New Delhi

23. Kumar A, Mishra JPN, Sehgal R, Kumar S, Effect of Preksha Meditation on Hypothyroidism, Global Conference on RH with Focus on Occupational, Environmental and Lifestyle Factors, 23 February 2019, New Delhi
24. Lall M, Dar L, Gupta RM, Namdeo D, Kumar P, Brijwal M, Choudhary A, Mathur S, Bhatla N, Detection, Genotyping of Human Papillomavirus (HPV) in Cervicovaginal Secretions of Human Immunodeficiency Virus (HIV) positive Indian women and correlation with clinicopathological findings, 32nd International Papillomavirus Conference (IPVC 2018) in conjunction with AOGIN 2018, 2-6 October 2018, Sydney, Australia
25. Mahey R, Agrawal A, Kachhawa G, Khadgawat R, Vanamail P, Kriplani A, Comparison of different insulin sensitizers (Metformin Plus Myoinositol vs Metformin Alone) in terms of clinical pregnancy rate in Infertile PCOS Women, GESICON 2018, 15-17 June 2018, Pune, **Second best oral paper award**
26. Mahey R, Agrawal A, Kachhawa G, Khadgawat R, Vanamail P, Kriplani A, To compare the effect of metformin plus myoinositol vs Metformin alone in terms of clinical pregnancy rate in Infertile PCOS Women, ESHRE 2018, 1-4 July 2018, Spain
27. Mahey R, Gupta M, Agrawal A, Yadav R, Dutt A, Malhotra N, Bhatla N, Comparison of BMI, Insulin resistance and Serum AMH levels among different PCOS phenotypes—A cross sectional study, Annual Conference of Indian Society of Assisted Reproduction, 1-3 March 2019, Mumbai
28. Mahey R, Gupta M, Chithira V, Malhotra N, Fertility preservation in female cancer patients presenting at a tertiary care centre: A retrospective study, Annual Conference of Fertility Preservation Society of India, 21-23 September 2018, New Delhi
29. Malhotra N, Sharma KA, Sarkar P, Aggressive Angiomyxoma of vaginal vault: A case report, NZYF, 1 February 2019, Noida
30. Mariz FC, Basu P, Bhatla N, Anantharaman D, Pillai MR, Sankaranarayanan R, Waterboer T, Michael P, Martin M, Noemi B, Sehr P, Lehtinen M, A head-to-head comparison shows differences in the cross-neutralizing antibodies induced by bivalent and quadrivalent human papillomavirus vaccines, 1st German Cancer Research Congress, 4 and 5 February 2019, Heidelberg, Germany
31. Meena J, Kumar S, Shekhar B, Singhal S, Roy KK, Singh N, A rare presentation of Ovarian dermoid, 40th Annual Conference of AOGD, 25 November 2018, New Delhi
32. Natarajan J, Kumar L, Malik PS, Khurana S, Kumar S, Bhatla N, ASGO international workshop on Gynaecological Oncology 2018, 24 and 25 August 2018, Ajou University, Suwon, South Korea
33. Natarajan J, Kumar L, Malik PS, Khurana S, Kumar S, Bhatla N, Retrospective analysis of patients of adult granulosa cell tumour of ovary—A single institutional study, ASGO 5th International Workshop on Gynecologic Oncology, 24 and 25 August 2018, Suwon, Korea
34. Natarajan J, Vashist S, Mathur S, Tanwar P, Kumar S, Kriplani A, Singhal S, Meena J, Shemer EW, Ramanujam N, Bhatla N, A crossover randomised study of portable transvaginal colposcope and hand-held colposcope for evaluation of Cervical Intraepithelial Neoplasia, XXII FIGO World Congress of Gynecology and Obstetrics, 14-19 October 2018, Rio de Janeiro, Brazil, **Awarded FIGO Chien-Tien-Hsu Fellowship 2018 and Poster Presentation**
35. Patidar RK, Kriplani A, Kachhawa G, Kulshrestha V, Kumari R, Mahey R, Manchanda S, Bhatla N, Sharma JB, A prospective randomized control study to compare the efficacy of ulipristal acetate versus GnRH agonist in women with symptomatic uterine myomas and post treatment follow up, 1st Annual AIIMS Research Day, 26 March 2019, New Delhi
36. Peyyala S, Mahey R, Vashist S, Wig N, Mathur S, Tanwar P, Kumari R, Bhatla N, A comparative study of prevalence of Human Papillomavirus infection (HPV) and precancerous lesions of Cervix and Vulva in HIV positive women and HIV negative women, 1st Annual AIIMS Research Day, 26 March 2019, New Delhi, **Certificate of Commendation**
37. Preeti, Deka D, Dadhwal V, Sharma AK, Deedwania P, Bachani S, Bajaj R, Video Presentation on amniocentesis, YUVA FOGSI Dehradun April 2018 Video Presentation, 28 April 2018, Dehradun
38. Rajan S, Sharma KA, Anticoagulation in pregnancy and postpartum: Newer options, NZYF, 1 February 2019, Noida
39. Ramot R, Kachhawa G, Kulshrestha V, Jyotsna VP, Aggarwal R, Sreenivas V, Kandasamy D, Mohan A, Khadgawat R, Bone mass in Asian Indian New Born Subjects—A hospital based study, 19th Congress of PENSA 2018, 13-16 June 2018, Seoul, Korea
40. Seema S, Sharma KA, Bharti J, To improve the compliance for duration of hand washing among obstetricians performing emergency LSCS in maternity operation room from current 42.5 seconds to 120 seconds, over a period of 2 months, 40th Annual Conference of AOGD, 25 November 2018, New Delhi
41. Seema S, Sunesh K, Jyoti M, Aarthi J, Mathur S, LG ESS masquerading as recto vaginal endometriosis, AGOICON, 17 November 2018, Gwalior

42. Seema S, Sunesh K, Sheela RG, Jyoti M, Anshu Y, Bhawani S, Sandeep M, Peritoneal metastasis in a case of adenocarcinoma of cervix: A rare case report, 40th Annual Conference of AOGD, 25 November 2018, New Delhi
43. Sehgal R, Kandpal S, Kumar S, Is there an association between ABO Blood Group and fertility, Global Conference on RH with Focus on Occupational, Environmental and Lifestyle Factors, 23 February 2019, New Delhi
44. Sehgal R, Kriplani A, Vanamail P, Comparative twelve-month study of CuT380Ag in three different sizes with CuT380A intrauterine devices in a tertiary hospital, 62nd All India Congress of Obstetrics and Gynaecology, 10 January 2019, Bengaluru
45. Sharma AK, Dadhwal V, Arthi, Methylenetetrahydrofolate reductase (MTHFR) gene in unexplained Recurrent Pregnancy Loss (RPL): A case report, NZYF, 1 February 2019, Noida
46. Sharma AK, Dadhwal V, Deka D, Intrauterine fetal interventions, NZYF, 28 April 2018, Dehradun
47. Sharma AK, Swami S, Dadhwal V, Deka D, Perumal V, A prospective study of aortic isthmus doppler changes in appropriately grown and small for gestational age fetuses and association with perinatal outcome, 40th Annual Conference of AOGD, 24 and 25 November 2018, New Delhi, **SN Ganguly award for best paper in Miscellaneous**
48. Sharma JB, A comparative study of pregnant women with extra-pulmonary tuberculosis compared with healthy pregnant women, FIGO 2018—RIO DE JANEIRO- XXII WORLD CONGRESS OF GYNECOLOGY AND OBSTETRICS, 14-19 October 2018, Rio-de-Janero, Brazil
49. Sharma JB, Medical management of Endometriosis, 27th International Scientific Conference of Obstetrical and Gynaecological Society of Bangladesh (OGSB), 1 and 2 February 2019, Dhaka, Bangladesh
50. Shekhar B, Kumar S, Mathur S, Kumar L, Sharma DN, Roy KK, Singh N, Singhal S, Meena J, Prevalence and prognostic significance of HER2/neu expression in carcinoma endometrium, FIGO 2018 conference, 14-19 October 2018, Rio de Janeiro, Brazil
51. Singh A, Kachhawa G, Malik N, Mahey R, Kulshreshta V, Kumari R, Bhatla N, Kriplani A, To analyse maternal and fetal outcome in pregnancy with chronic kidney disease, Annual Conference of AOGD, 24 and 25 November 2018, New Delhi
52. Singh A, Kachhawa G, Malik N, Mahey R, Kulshreshta V, Kumari R, Bhatla N, Kriplani A, Risk factors for induced preterm delivery in pregnant women with chronic kidney disease: A retrospective analysis, North Zone YUVA FOGSI 2019, 1-3 February 2019, Noida, **3rd prize for the best oral paper**
53. Singh N, Davis A, Kumar S, Vanamail P, Effect of administration of intravenous intralipid on implantation rate in women with implantation failure after IVF/ICSI: A randomized controlled trial, 34th Annual Meeting of the European Society of Human Reproduction and Embryology (ESHRE) European Society of Human Reproduction, 1-4 July 2018, Barcelona, Spain
54. Singh N, Davis A, Kumar S, Vanamail P, Intravenous intralipid on implantation rate in women with implantation failure after IVF/ICSI, XXII FIGO Congress, 14-19 October 2018, Rio di Generio, Brazil
55. Singh N, Girish B, Meena J, Ultrasound-guided Intra-sac instillation of Methotrexate in Interstitial Ectopic Pregnancy, XXII FIGO Congress, 14-19 October 2018, Rio di Generio, Brazil
56. Singhal S, Sharma A, Bharti J, Meena J, Amrita, Kumar S, Kriplani A, Establishing hand hygiene practice amongst obstetricians before conducting emergency LSCS, 40th Annual Conference of AOGD, 25 November 2018, Delhi
57. Surabhi S, Mahey R, Vashist S, Mathur S, Tanwar P, Kachhawa G, Kulshrestha V, Kumari R, Bhatla N, A study of the acceptability and feasibility of opportunistic cervical cancer screening in pregnancy by conventional Pap Smear and HPV DNA Testing, 1st Annual AIIMS Research Day, 26 March 2019, New Delhi
58. Vanamail P, Meta-analysis on maternal deaths and assessing significant factors for heterogeneity between states of India during 2016, 36th Annual Conference of Indian Society for Medical Statistics (ISMCON-2018), 1-3 November 2018, NIMHANS, Bengaluru
59. Vatsla D, Sharma AK, Chawla J, Rana A, Meena S, Fetus with supraventricular tachycardia-transplacental management: A case report, NZYF, 1 February 2019, Noida
60. Yadav R, Kulshreshta V, Kachhawa G, Malla S, Gamanagatti S, Bhatla N, Management of AUB—A refractory to medical management by two sessions of uterine artery embolization, Annual Conference of AOGD, 24 and 25 November 2018, New Delhi

RESEARCH

Funded projects

Ongoing

1. Prevalence of Vitamin B12 Deficiency among Indian Women with Polycystic Ovary Syndrome (PCOS) and The Impact of Vitamin B12 Supplementation on the efficacy of Conventional drugs in the Management of Women with PCOS, Vatsla Dadhwal, DBT, 3 years, 2015-2018, Rs 49.75 lakhs

2. Enhanced, tailored antenatal care to reduce anaemia in pregnancy—The Comprehensive Anaemia Programme and Personalized Therapies (CAPPT) project, Vatsla Dadhwal, DBT, 3 years, 2018-2021, Rs 117 lakhs
3. Effects of non-ionizing Electromagnetic Field (EMF) on Human Health, JB Sharma, ICMR, 5 years, 2009-Till date, Rs 47 lakhs
4. To study the efficacy and safety of Diosmin (900 mg) given along with Traneximic acid (500 mg) and Mefenamic acid (250 mg) in reducing menstrual blood loss in patients of Abnormal Uterine bleeding, JB Sharma, Wallter Bushnel Pvt. Ltd, 3 years, 2016-Till date, Rs 17 lakhs
5. Evaluation of Gene Xpert as compared to conventional methods in diagnosis of genital TB among infertile women, JB Sharma, Ministry of Health and Family Welfare, 3 years, 2016-Till date, Rs 28 lakhs
6. To evaluate combination of biochemical endothelial markers and arterial stiffness in prediction of preeclampsia, Garima Kachhawa, ICMR, 3 years, 2018-2021, Rs 76 lakhs
7. Role of Endocrine Disrupting Chemicals (EDCs) in Maternal and Child Health, Garima Kachhawa, ICMR, 3 years, 2018-2021, Rs 35 lakhs
8. To evaluate the ROS levels in semen samples and effect of FERTISURE-M on ROS levels and IVF outcome in infertile men undergoing in vitro fertilization—A randomized double-blind placebo-controlled study, Reeta Mahey, AIIMS, 2 years, 2017-2019, Rs 9.4 lakhs
9. To study the prevalence of FSH receptor gene polymorphisms in infertile and fertile Indian women and evaluate response to ovarian stimulation in the infertile subset undergoing IVF/ICSI, Reeta Mahey, SERB, 3 years, 2018-2021, Rs 35 lakhs
10. Assessment of disease severity in patients with epithelial ovarian cancer by EMT related protein expression and micro RNA 200 a,b,c, Seema Singhal, AIIMS, 2 years, 2016-2018, Rs 4 lakhs
11. Effectiveness and safety of 2 vs 3 doses of HPV vaccine in preventing cervical cancer: An Indian Multi-centre randomized trial, Neerja Bhatla, WHO-IARC, 10 years, 2009-2019, Rs 1.93 crores
12. The expression of Human Epididymis protein 4 (HE4) in ovarian carcinoma and correlation with prognosis, Neerja Bhatla, ICMR, 2 years, 2017-2019, Rs 3.19 lakhs
13. A side-by-side comparison of a transvaginal colposcope to standard of care visual inspection in a 100-patient pilot study on women undergoing cervical cancer screening, Neerja Bhatla, Duke University, 2 years, 2017-2019, Rs 10.53 lakhs
14. Rapid point of Care Detection of HPV-Associated Malignancies, Neerja Bhatla, Arizona University, NCI, USA, 2 years, 2017-2019, Rs 56.59 lakhs
15. A Phase-II/III, Partially Double-blind, Randomized, Active-controlled, Multicentric Study to Assess the Immunogenicity and Safety of SIIPL's qHPV Vaccine Administered Intramuscularly in Healthy Volunteers According to a Two-dose Schedule to Cohort 1 (Girls and Boys Aged 9-14 years) and a Three-dose Schedule to Cohort 2 (Women and Men Aged 15-26 years) as Compared to Merck's HPV6 November 16/18 vaccine (Gardasil®), Neerja Bhatla, Serum Institute of India Pvt Ltd, Pune, 5 years, 2018-2023, Rs 9.69 lakhs
16. Implementation of WHO ANC Model using web based application in primary, secondary and tertiary health care levels by trained health care providers, semi-skilled healthcare providers and community health workers, K Aparna Sharma, DST, 2 years, 2018-2020, Rs 19.75 lakhs
17. A prospective study to develop a preeclampsia prediction model for the Indian population based on contingent utilisation of historical factors and biophysical and biochemical parameters, K Aparna Sharma, AIIMS, 2 years, 2018-2020, Rs 3.5 lakhs
18. Prevalence of cytological lesion and HPV type in vulval lesion on visual inspection and colposcopy, Rajesh Kumari, AIIMS, 2 years, 2016-2018, Rs 4 lakhs

Completed

1. Placental growth factor as a predictive and prognostic marker for development of pre-eclampsia in high risk patients, Jyoti Meena, AIIMS, 2 years, 2016-2018, Rs 4 lakhs
2. Evaluation of quantitative detection of HR-HPV oncogene over-expression as an emerging novel biomarker for cervical cancer screening, Neerja Bhatla, Cure Health Diagnostics, 4 years, 2014-2019, Rs 35 lakhs

Departmental projects

Ongoing

1. A comparative pilot study of autologous rectus fascia pubovaginal sling and transobturator vaginal tape procedure in women with stress urinary incontinence

2. A comparative pilot study of TOT vs rectus fascia pubovaginal sling surgery in patients with urodynamically proven SUI
3. A comparative study of solifenacin and tolterodene in the treatment of over active bladder syndrome
4. A crossover randomized study of portable transvaginal colposcope and hand-held colposcope for evaluation of Cervical Intraepithelial Neoplasia
5. A pilot study comparing 5 mm telescope and 2.9 mm telescope in chronic pelvic pain
6. A prospective randomized control trial to compare the efficacy of darifenacin versus mirabegron for treatment of overactive bladder
7. A prospective study of fetal cardiac profiling in appropriately grown, small for gestational age and growth restricted fetuses and its association with perinatal outcome
8. Comparison of quality of antenatal care delivered based on a web based application compared to the standard care protocol: A pilot study
9. Comparison of cervical shear wave elastography, bishop score, and transvaginal cervical length measurement for prediction of successful labor induction: A pilot study
10. Comparison of letrozole plus Gonadotropins versus Gonadotropins alone for controlled ovarian stimulation in PCOS women undergoing IVF-ICSI cycles—A randomized controlled trial
11. Comparison of myoinositol plus metformin versus Myoinositol alone in PCOS women undergoing ovulation induction and IUI cycles—A randomized controlled trial
12. Comparison of skin closure technique in caesarean
13. Comparison of various modalities to diagnose occult stress urinary incontinence in pelvic organ prolapse
14. Correlation of fetal soft tissue thickness measured Sonographically with neonatal body composition
15. Correlation of first trimester metabolic parameters and maternal body fat indices with development of gestational diabetes mellitus in Asian Indian women—A comparative study
16. Evaluation of efficacy and feasibility of implementation of Enhanced Recovery After Surgery (ERAS) protocol in women undergoing gynaecological surgery
17. Evaluation of placental elastography and placental vascularisation index in fetal growth restricted pregnancy: A case control study
18. Female sexual dysfunction in women with urinary incontinence
19. Placental growth factor, uterine artery Doppler and 3D power Doppler of placenta for prediction of pre-eclampsia in high risk
20. Prediction of adverse perinatal outcome by cerebroplacental ratio in term pregnancy
21. Prevalence and prognostic significance of Herxner in Ca Endometrium
22. Prevalence of mental health problems (Anxiety, Depression and Stress Reaction) in mothers of preterm infants admitted to NICU: A cross sectional study
23. Prospective randomized comparative study using ‘THUNDERBEAT TECHNOLOGY; HARMONIC ACE’ and ‘LIGASURE DEVICE’ During Total Laparoscopic Hysterectomy for the Treatment of Benign Diseases of the Uterus—A pilot study
24. Psychosocial stress and lipid profile as predictors of adverse pregnancy outcomes
25. Role of Gene Xpert in diagnosis of female genital tuberculosis as compared to other conventional diagnostic techniques
26. Role of Myo-inositol In the treatment of gestational diabetes mellitus compared to medical nutrition therapy alone in Asian Indian Women: A pilot study
27. To compare letrozole plus gonadotrophins versus gonadotrophins alone for controlled ovarian stimulation among PCOS women undergoing undergoing IVF-ICSI cycles—A randomized trial
28. To evaluate exhaled air carbon monoxide level in pregnancy and correlate with maternal and fetal outcome: A pilot study
29. To evaluate the efficacy of Myoinositol in treatment of gestaional Diabetes Mellitus in Asian Indian Women: A pilot study
30. To evaluate the role of low dose aspirin in prevention of pre eclampsia in women who screen positive for pregnancy induced hypertension: A randomized controlled trial
31. To study the prevalence of FSH receptor gene polymorphisms in infertile and fertile Indian women and evaluate response to ovarian stimulation in the infertile subset undergoing IVF/ICSI
32. To study the role of 3D endometrial volume and 2D endometrial thickness in IVF patients

33. To study the role of Myo-Inositol-D-Chiro-Inositol combination versus Combined oral contraceptives on clinico-hormonal and metabolic parameters in Young Asian-Indian Girls with Polycystic Ovary Syndrome

Completed

1. A comparative study of burchcolposuspension and transobturator vaginal tape procedure in women with stress urinary incontinence
2. A comparative study of prevalence of human papillomavirus infection and precancerous lesions of vulva and cervix in HIV positive and HIV negative women
3. A comparative study of the treatment of gestational diabetes mellitus by metformin vs insulin: A randomized control trial
4. A study of the acceptability and feasibility of opportunistic cervical cancer screening in pregnancy by conventional pap smear and HPV DNA testing
5. Assessment of lower segment cesarean scar by transvaginal ultrasound and MRI
6. Assessment of tubal patency with selective chromo perturbation at office hysteroscopy compared with modified mini laparoscopy in infertile women
7. Comparison of the efficacy of 2.5 MG versus 5 MG Ulipristal Acetate in the treatment of Symptomatic Uterine Fibroids
8. Evaluation of Enterleukin-6 and VEGF levels in Ascitic Fluid of patients with Epithelial Ovarian Cancer
9. Evaluation of HE-4 and CA-125 in women with endometrial carcinoma
10. Expression of biomarkers in endometrial hyperplasia and carcinoma
11. Interventional study on the effect of antitubercular treatment on endometrium, Fallopian Tubes and ovaries in Genital Tuberculosis
12. Prospective randomized comparative study of hysteroscopic myomectomy using unipolar system and bipolar system
13. Role of MRI in evaluation and quantification of vault prolapse in women with previous hysterectomy
14. Role of MRI in evaluation of vault prolapse and its relationships with POPQ classification and operative finding
15. Role of transdermal testosterone gel pretreatment in poor responders on IVF outcome—A prospective randomised control trial with active control
16. Study of association between insulin sensitivity and cardio-vascular risk factors in lean versus overweight subjects with polycystic ovarian syndrome
17. To compare efficacy of Tolterodine and Solefanacin in patients with overactive bladder syndrome
18. To compare the efficacy of ulipristal acetate versus GnRH agonist in women with symptomatic uterine myoma and post treatment follow-up: A prospective randomized control study
19. To compare the hormonal and metabolic outcomes in Metformin plus Myoinositol vs Metformin alone and fertility outcome in PCOS women undergoing OVI and IUI cycles
20. To evaluate the efficacy of Cabergoline as compared to GnRH agonist in women with endometriosis: A prospective randomised controlled trial
21. To evaluate the reproductive outcome of IVF ICSI cycles using ejaculated sperm ICSI versus Percutaneous Epididymal Sperm (PESA ICSI) in male factor infertility
22. To evaluate the role of endometrial scratching in the outcome of In Vitro Fertilization Cycles (IVF-ET)
23. Vitamin D level in women with stress urinary incontinence and effect of vitamin D supplementation

Collaborative projects

Ongoing

1. A randomized pilot study to evaluate the efficacy of amniotic membrane as an alternative wound dressing in patients with large posttraumatic raw area at Level 1 Trauma Centre, JPNATC
2. A randomized, open label, assessor-blind, parallel group, multi-centre Phase III study to compare the efficacy and safety of r-hMG and HP-hMG in subjects undergoing controlled ovarian stimulation for ART, Bharat Serum Pharmaceuticals, India
3. Analysis of vaginal microbiome and metabolome in women affected with bacterial vaginosis before and after treatment and their correlation with relapse or recurrence, Dermatology and Venereology
4. Assessment of BRCA and Non-BRCA mutations with multi gene panel testing in patients of ovarian cancer: A cross-sectional observational study, IRCH

5. Association of HIPEC treatment with expression of T regulatory cells (FOXP3) in epithelial ovarian cancer and its clinical significance, Surgical Oncology, IRCH
6. Biomarkers of polycystic ovarian syndrome, Reproductive Biology
7. Comparing the vascularization potential of MSCs and MAPCs in monoculture and coculture systems with human OECs under normoxia and hypoxia, DBT
8. Effectiveness of Intravenous Ferric Carboxy Maltose (FCM) in improving haemoglobin level among postpartum women with moderate to severe anaemia at a Sub District Hospital, Faridabad, Haryana—An interventional study, Community Medicine
9. Effectiveness of intravenous iron sucrose in the treatment of moderate anemia among pregnant women attending sub-district hospital in Haryana, North India, Community Medicine
10. Endometrial neurotrophic factors and nerve fibres in endometriosis associated pain, ICMR
11. Etiological evaluation of Nonimmune Hydrops Fetalis (NIHF), Paediatrics
12. Etiopathology of hyperprolactinemia/Macroprolactinemia, Reproductive Biology
13. Evaluation of Gene Xpert as Compared to Conventional Methods in Diagnosis of Genital TB Among Infertile Women, Ministry of Health and Family Welfare
14. External delivery of Cisplatin using Human Papilloma Virus (HPV 16) based nanocarriers for treatment of cervical cancer, AIIMS-IIT-Delhi Inter Institutional Collaborative Research Grant proposal with Department of Anatomy
15. Genetic determinant of premature ovarian failure, Reproductive Biology
16. HPV vaccination among 9-15 years old girl child under below poverty line in Delhi/NCR: Intervention for primary prevention of cervical, Radiation Oncology, IRCH
17. Hypoxia Adaptation and Pregnancy Outcome Study (HAPS) an investigation of the influence of hypoxia on birth weight, Paediatrics
18. ICD-11 categories on female sexual disorders: Evaluation of validity, reliability and utility of ICD-11 proposed diagnostic guidelines among Indian Women, Psychiatry
19. Magnetic nanoparticles and quantum dots coupled visual confirmation of cervical cancer cells from cytology sample: A cost effective, quick and suitable test for Rural Indian setup, Anatomy
20. Metabolic abnormalities and sleep disorders in PCOS, Medicine
21. Molecular basis of estrogenism in endometriosis, Physiology
22. Molecular characterization of Endometrial Cancer and its correlation with Clinicopathological features, Pathology
23. R2TP complex as a target of human papilloma virus oncoproteins E6 and E7, DST
24. Role of Hydrogen Sulphide as a pharmacological modulator in adverse pregnancy outcomes like pre-eclampsia, Anatomy
25. Role of mesenchymal stem cells in animal models of hypoxia induced brain injury: Implications for translation: HIBI initiative, DBT
26. Safety and efficacy of low dose intrathecal anesthesia for outpatient laparoscopic tubal ligation, Anaesthesiology
27. SOPs to study Very Small Embryonic-Like Stem Cells (VSELs) in various adult tissues, ICMR
28. STAT3 regulation via miRNAs in ovarian cancer stem cells: A therapeutic approach, Reproductive Biology
29. Study of bone mass in Asian Indian Newborn Subjects—A hospital-based study, Endocrine and Metabolism
30. Study of genome-wide transcriptional landscape of ovarian endometriosis, Physiology
31. To develop a strategy for postpartum follow up of woman with history of gestational diabetes mellitus by using the right test and frequency of testing and developing patient centric approach after incorporating their views, Endocrinology and Metabolism

Completed

1. A study on distribution of glucose tolerance among women with history of gestational diabetes mellitus by IADPSG criteria/overt diabetes in pregnancy and their spouses, Endocrinology and Metabolism
2. A study on treatment of genital tuberculosis: A randomized controlled trial of either discontinuation at 6 months or continuation at 9 months after initial response to 6 months RNTCP category I treatment, Central TB Division, MOHFW
3. Cross sectional study on new tumor markers (CEA, CA19.9 CA 15.3) in women with genital tract malignancies, IMRG, AIIMS
4. Cross sectional study on various nutritional markers in women with genital tract malignancies, IMRG, AIIMS

5. Exploring the role of proteomic signature in Saliva: Step towards non-invasive diagnostic tool for ovarian cancer, ICMR
6. Metabolomics approach for identification of differentially regulated metabolites and pathway in Preeclampsia/ Gestational Hypertension and Gestational diabetes patients during pregnancy to assess the risks of pre-term delivery, International Centre for Genetic Engineering and Biotechnology (ICGEB)
7. Role of metabolic imaging in patient's with undiagnosed abdominal pain, Surgery

PUBLICATIONS

Journals: 50

Abstracts: 3

Chapters in Books: 3

Book: 1

PATIENT CARE

Facilities available in the department (including special clinics and/or special laboratory facilities)

Colposcopy	–	735
Cryotherapy	–	26
Thermal Ablation	–	15
LEEP	–	15

Community services/camps

AOGIN-India Cervical Cancer Screening Camps in collaboration with Kalyanmayee and Airport Authority of India

1. Sangam Vihar, New Delhi - 26 May 2018
2. Chawri Bazar, New Delhi - 1 December 2018
3. Sri Niwas Puri, New Delhi - 29 December 2018
4. Kapashera, New Delhi - 13 February 2019

Details of patient care services during 2018-2019

Patients' attendance by type of clinics

Clinics	Number of days/week	New patients	Old patients
General OPD	6	36,691	99,958
High Risk Pregnancy Clinic	3	2,056	10,206
Gynae Endocrine Clinic	3	27	242
Gynaecological Cancer Clinic	2	795	3,617
IVF Clinic	1	4,321	1,147
ANC	3	758	2,912
URO Gynae Clinic	1	151	427
Family Welfare Clinic	6	4,789	4,011

Maternal Health performance

Type of services	No. of pregnant women benefited
TT 1st dose	1,245
TT 2nd dose	1,097
Given IFA tablets	2,308
Detected with hypertension (BP >140/90) and managed	260
Eclampsia cases managed	90
Tested for haemoglobin	2,416
Treated with haemoglobin <11	647
Treated with haemoglobin <7	24
Tested for OGTT	2,416
Treated for GDM	435
Given insulin of the GDM positives	128
Tested using POC test for syphills	2,416

List of minor and major surgeries performed during 2018-2019

Fetal Medicine

Procedure	Total	Procedure	Total
Amniocentesis	160	Intrauterine Transfusion	131
Cordocentesis	38	Ovarian Cyst Aspiration	57
Chorionic Villus Sampling	274	Others	37
Fetal Reduction	17		
Grand Total	714		

Minimally Invasive (Minor Surgeries)

Procedure	Number	Procedure	Number
Adhesiolysis	4	Cannulation	3
Cystoscopy + Vaginoscopy	1	Gonadectomy	1
Diagnostic Hysteroscopy + Cystoscopy	1	Diagnostic Hysteroscopy	1,381
Diagnostic Hysteroscopy + MOCK ET	28	Hysteroscopic Adhesiolysis	24
Hysteroscopic IUCD Removal	3	Hysteroscopic Myomectomy	30
Hysteroscopic Septal Resection	19	Hysteroscopic Polypectomy	41
Laparoscopic Ovarian Abscess Drainage	1	IUCD Removal	4
Laparoscopic Rudimentary Horn Excision	1	Laparoscopic Ovarian Drilling	17
Laparoscopic Salpingectomy/Clipping	78	Laparoscopic Salpingectomy	10
Laparoscopy for Infertility (Operative)	68	Laparoscopy-Diagnostic	733
Myomectomy	1	Mesh Repair	1
Tuboplasty	2	Polypectomy	16
Total	2,468		

Minimally Invasive (Major Surgeries)

Name of Surgery	Number
Laparoscopy + AFC + Peritoneal Bx + Omental Biopsy	1
With Pelvic Lymphadenectomy	22
B/L Laparoscopic Salpingoophorectomy (Risk Reducing)	5
Diagnostic Laparoscopy + Hysteroscopy + Rudimentary Horn Excision	3
Hysteroscopic IUCD Removal	7
Hysteroscopic Polypectomy	24
Hysteroscopic Septal Resection	32
Hysteroscopy Assisted Vaginoscopic Septal Resection	5
Interval Debulking for Carcinoma Ovary	10
Jeffcoat's Vaginoplasty + Vaginal Septal Resection	1
Lap VVF Repair + Cystoscopy	2
Laparoscopic Cystectomy	152
Laparoscopic (R) Hemihysterectomy	1
Laparoscopic Abdominal Cerclage	2
Laparoscopic Adenomyomectomy	7
Laparoscopic Burch Colposuspension	2
Laparoscopic Cervicovaginoplasty	3

Laparoscopic Cervicovaginoplasty/Vaginoplasty	2
Laparoscopic Extrafascial Hysterectomy + BSO + Pelvic/Para-Aortic Lymphadenectomy	1
Laparoscopic Extrafascial Hysterectomy + BSO + B/L Pelvic Lymphadenectomy	6
Laparoscopic Gonadectomy	8
Laparoscopic Myomectomy	74
Laparoscopic Ovariectomy	21
Laparoscopic Radical Hysterectomy (Type-C) + BSO + B/L Pelvic Lymphadenectomy	5
Laparoscopic Rudimentary Horn Excision	7
Laparoscopic Sacrohysteropexy/Sacrocolpopexy	4
Laparoscopic Salpingectomy	19
Laparoscopic Scar Ectopic Excision	1
Laparoscopic Tubal Recannulation	3
Laparoscopic adenyomyomectomy	1
Laparoscopy + Hysteroscopy + CuT Removal	4
Laparoscopy + Radical Hysterectomy + BSO + Pelvic Lymphadenectomy	1
Laparoscopy + Hysteroscopic Adhesiolysis	5
Laparoscopy + PWC + Omental Bx	1
Laparoscopy Assisted Vaginoscopic Septal Resection	6
Laparotomy + Extrafascial Hysterectomy + BSO + Pelvic/Para-Aortic Lymphadenectomy	11
Laparotomy + Radical Hysterectomy + BSO + Pelvic Lymphadenectomy	3
Open Salpingectomy	2
Open Tubal Recanalization	1
Ovarian Surgeries	16
Peripartum Hysterectomy	5
Primary Debulking for Carcinoma Ovary	20
Second Look Surgery	1
Subtotal Hysterectomy	1
TLH±Salpingectomy	82
TLH±U/L or B/L Salpingo-Oophorectomy	66
Total Abdominal Hysterectomy	25
Total Abdominal Hysterectomy + Salpingo-Oophorectomy (U/L or B/L)	9
Total Laparoscopic Hysterectomy	17
Total Laparoscopic Hysterectomy + Salpingectomy	4
Transurethral Resection of Bladder Endometriomalaparoscopy + Hematoma Drainage + Scar Dehiscence Repair	1
U/L Laparoscopic Salpingoophorectomy	7
Total	719

Robotic Surgery

Procedure	Number	Procedure	Number
Hysterectomy	2	Hysterectomy + USO/BSO	1
Total	3		

Open abdominal procedures

Procedure	Number	Procedure	Number
Uro-Gynecological Surgeries	6	Abdominal Sling Surgery	1
Abdominal Cervicovaginoplasty	1	Adenomyomectomy	7
Abdominal Sacrocolpopexy	8	B/L Ovarian Transposition	1
Bursch Colposuspension	1	Caesarean Myomectomy	4
Cystectomy/Ovariectomy U/L or B/L Salpingoophorectomy			28
Exp Laparotomy + LSO + B/L PLND + Infracolic Omentectomy			1
Exp Laparotomy + PWC + Peritoneal Inclusion Cyst Excision			1
Exploratory Laparotomy + Bowel Resection Anastomosis with Bladder Injury Repair			2
Exploratory Laparotomy + TAH + LSO + Bowel Resection Anastomosis + Peritoneal and Abdominal Leiomyoma Excision			1
Extrascapular Hysterectomy + BSO + B/L Lymphadenectomy	55	Laparotomy + Peritoneal Wash Cytology + TO Mass Drainage	1
Fothergill's Repair	2	Laparoscopic Dermoid Cystectomy	7
Hysterotomy	1	Laparoscopic Myomectomy	19
Interval Debulking for Ca Ovary	80	Laparotomy	1
Laparoscopy Followed by Laparotomy with B/L Endometriotic Cystectomy with Cystostomy with Left Haematosalpinx drainage with Left Ureteric Neointegration			1
Laparotomy + B/L Rudimentary Horn Excision + Ovarian Cystectomy + TO Mass Excision			2
Laparotomy + Cerclage	3	Laparotomy for Ectopic	14
Laparotomy + Proceed	1	Minilap Ligation	11
Modified Purandare's Sling with Round Ligament Plication	1	Rectus Fascia Pubovaginal Sling Surgery	1
Myomectomy	74	Open Myomectomy	13
Pelvic Hematoma Drainage	1	Purandare Sling Surgery	1
Radical Hysterectomy	18	Recanalisation	8
Rectus Fascia Sling Surgery	1	Staging Laprotomy for Ca Ovary	72
Staging Laprotomy for Ca Ovary (Fertility Sparing)	6	TAH ± U/L /B/L Salpingoophorectomy	105
TAH + Cystocele Repair + B/L Uterosacral Plication	1	TAH ± Salpingectomy	74
Tubal Recanalisation	1	Vaginoplasty	6
Grand Total	643		

Minor vaginal procedures

Procedure	Number	Procedure	Number
Cystocele Repair	2	TVT-O	8
Labial Mass Excision	1	Vaginal Cerclage	4
McDonalds Cerclage	4	Vaginal Cyst Excision	1
Rectovaginal Fistula Repair	1	Vesicovaginal Fistula Repair	2
Simple Vulvectomy	3	Vulval Hematoma Drainage	1
Vulval Mass Excision	1		
Total	28		

Major vaginal procedures

Procedure	Number	Procedure	Number
Clitoroplasty	1	Complete Perineal Tear Repair	2
Cystoscopy F/B Vaginal Mass Excision	1	Fothergill Operation	1
Hymenoplasty	2	Labial Mass Excision	3
Labioplasty	1	Labial Separation	1
Laparoscopic	1	Malignancy	2
McDonalds Cerclage	8	McIndoe's Vaginoplasty	6
Open Sacrocolpopexy	1	Pubo Vaginal Sling	3
Radical Vulvectomy + B/L Inguino Femoral Lymph Node Dissection	10	Radical Excision of Vulva for Malignant Melanoma	1
Rectovaginal Fistula Repair	2	Sacrospinous Fixation	7
Vaginal Hysterectomy	8	Vaginal Hysterectomy + PFR	100
Vaginal VVF Repair	1	Vaginoplasty	9
Vesicovaginal Fistula Repair (Lap)	1	Vaginoscopy	1
Total	173		

Other Surgeries

Surgery	Number	Surgery	Number
3 Swab Test	6	Amniocentesis	21
Ascitic Fluid Tapping	2	Bartholin Cyst Excision	26
Biopsies (Cervical/Vaginal/Vault/Vulval)	84	Biopsies (Vulval/Cervical/Vault)	16
Cervical Polypectomy	13	Conization	9
Chorionic Villus Sampling	27	CuT Removal and Reinsertion	1
Cordocentesis	6	CPT Repair	11
CS Scar Ectopic Excision	3	Cyst Aspiration	47
Cystocoele Repair	1	Cystoscopy	2
Cystoscopy + Vaginoscopy	1	EA + ECC	43
EA + ECC + Polypectomy	52	EUA + Cervicovaginoplasty	1
Examination Under Anaesthesia	14	Hydrosalphinx Drainage	1
Intrauterine Transfusion	6	Labial Cyst Excision	3
Lap CS Scar Endometrioma Excision	1	Laparoscopy + TO Mass Excision	1
Lap Fimbrioplasty	1	LEEP	14
Malecots Change	4	Manual Removal of Placenta	1
Mesh Removal Laparoscopic	1	Mesh Removal	1
Mirena Insertion	104	MOCT ET (Alone)	1
Mould Change	48	PAP smear	21
Pigtail Change	1	Pleurocentesis	1
Pyometra Drainage	34	Radiofrequency Ablation	2
Resuturing	42	Scar Endometriosis Excision	5
Selective Fetal Reduction	3	Therapeutic D&C	2
Transverse Vaginal Septum Excision and Jeffcots Vaginoplasty	2	Transverse Vaginal Septum Excision	2

VACC ± CuT	20	Wound Debridement	3
Wound Resuturing ± Debridement	10		
Total	721		

Procedures done in Gynae OPD during 2018-2019

Minor

EA and ECC:	1,577	D&C:	26
IUI:	736	Iron therapy:	263
NST:	4,112		
Mirena:	95	VA + Cu T:	72
Colposcopy/Cryo/LEEP:	652	EA + AFB + PCR:	2,701
No. of MTP:	666	PAP smear:	6,235
MOCK ET:	264	Obstetric ultrasound:	10,346
Gynae Ultrasound:	9,481	F-form USG:	3,824

Delivery details

Major (LSCS):	1,314	Minor (Vaginal + Foreceps):	1,102
Total deliveries:	2,416		

ART Centre

Ovum Pick Up (OPU):	547	Fresh Embryo Transfer:	443
Frozen Embryo Transfer (FET):	74	Others (CA, fetal reduction):	49
Intra-Uterine Insemination (IUI):	196		
Total procedures:	1,309		

POST PARTUM PROGRAMME

Achievements of different Family Planning Methods, Post Partum Programme

Methods	Previous year (2017-2018)	Current year (2018-2019)
CuT	1,012	1,262
MPA injection 1st dose	57	118
MPA injection 2nd dose	1	16
MPA injection 3rd dose	1	8
MPA injection 4th and more	Nil	4
Oral pills	698 pkts	446 pkts
CHAYYA	Nil	30
Conventional contraceptives	75,350 pieces	75,500 pieces
Tubectomy	648	676

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Sunesh Kumar was peer reviewer for “European Journal of Obstetric, Gynaecology and Reproductive Medicine”; Member, Interview Board for the post of Medical Officer, Union Public Selection Commission (UPSC), New Delhi; Member, Selection Committee for selection of Faculty in Gynae at PGI, Chandigarh; Member, Selection Committee for the selection of Faculty in Gynae at PGIMER, Rohtak; Member, ICMR Group on Research in Reproductive Medicine; Member, ICMR Research Advisory Committee for Model Rural Health Research Unit (MRHRU), Rajasthan; Member, Bureau of Indian Standard, Ministry of Consumer Affairs, Food and Public Distribution, Government of India; Member, DBT Sub-Group Committee for finalizing the REACH Scheme for Biotechnology based Programme for Women; Member, Technical Specification/Selection Committee at AIIMS, New Delhi; Member, Staff Council Committee at AIIMS, New Delhi; Member, Ethics Committee, AIIMS, New Delhi; Member, Subcommittee on Cancer Cervix, Indian Council of Medical Research, New Delhi; Member, ICMR Committee on Healthcare Quality and Patient Steering Advisory Committee; Member, ICMR Task Force Committee on Implementation of Quality Care in India; Member, Committee to review of Fellowship Programmes at AIIMS, New Delhi.

Professor Neerja Bhatla: Students' won (i) FIGO Chien-Tien-Hsu Fellowship 2018-XXII FIGO World Congress of Gynecology and Obstetrics, Rio de Janeiro, Brazil, Dr Jayashree Natarajan, 2018; (ii) Certificate of Commendation for Poster Presentation, 1st Annual AIIMS Research Day, Dr Shainy Peyyala, 2019; Professor Bhatla was Chairperson, Gynecologic Oncology Committee, FIGO (2015-2018), Council Member, Asian Society of Gynecologic Oncology (2017-2019); Secretary-General, International Federation of Cervical Pathology and Colposcopy (2017-2020); delivered the 1st Dr SK Das Oration on Elimination of Cervical Cancer, New Delhi, 14 August 2018; Member of (i) XXII FIGO World Congress 2018, Brazil, Scientific Track—Gynecological Oncology; (ii) FIGO Regional Congress of Middle East and Africa 2018, U.A.E.; (iii) ASGO 5th International Workshop on Gynecologic Oncology 2018, Korea; (iv) Co-Chairperson, Scientific Committee, International Federation of Cervical Pathology and Colposcopy (IFCPC) India 2020; (v) Scientific Advisory Board (SAB), Indian Council of Medical Research; (vi) Strategic Advisory Group of Experts (SAGE) Working Group on HPV vaccines, WHO; (vii) WHO Working Groups for Cervical Cancer Elimination Initiative; (viii) MCI Board of Governors appointed PG/UG Expert Committee, Medical Council of India; (ix) NTAGI Standing Technical Sub-Committee on the systematic review of HPV disease burden; (x) Technical Expert Committee for NPCDCS under chairmanship of DGHS; (xi) Expert Group Committee for reviewing content of online screening modules/course being developed by NCI under NIH of US and MoHFW; (xii) Expert Group Member for Standard Treatment Workflow (STWs) for various levels of health care, ICMR and MoHFW; (xiii) Technical Expert Group on HPV vaccination, Directorate of Health and Family Welfare, Punjab, Chandigarh; (xiv) HPV Vaccination Programme by State Technical Advisory Group on Immunization (STAGI)—Delhi; (xv) Technical Expert Committee for National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke (NPCDCS) MoHFW.

Professor Vatsla Dadhwal was Member SEC (Reproductive and Urology); Member for AEFI Committee; Chairperson Fetal Medicine and Genetics Subcommittee of AOGD; Assistant Editor Journal of Fetal Medicine; Expert for faculty interview conducting by North DMC Medical College on 7 February 2019; External Examiner for conducting Internal Appraisal Exam for DNB students in Obstetrics and Gynaecology on 7 March 2019 at Artemis Hospital, Gurgaon; Workshop on Strengthening Maternal Nutrition Services in Antenatal Care Health Care Delivery Platforms (PMSMA and ANC at Facility and Community Level) organized by Ministry of Health and Family Welfare and National Centre of Excellence and Advanced Research on Diets on 30 and 31 July 2018 in Vivanta by Taj-Ambassador, New Delhi; Co-Guide for ongoing Thesis (8); Co-Guide for completed thesis: (1); Doordarshan for live programme “Doctor Online” (Live Phone-in) on “Nutrition of Pregnant Women” on 17 September 2018 (Monday) at 5:30 pm to 6:30 pm; Doordarshan for live programme “Health Show” (Live Phone-in) on “Polycystic Ovarian Diseases (PCOD)” on 12 January 2019 (Saturday) at 5:00 pm to 5:30 pm.

Professor JB Sharma was examiner for (i) MRCOG Part 2 OSCE Examination, on November 2018, New Delhi; (ii) MRCOG Part 1 and 2 Examination on 2 and 3 July 2018 at Apollo Hospital, New Delhi; (iii) MS Obst and Gynae Examination on 26 June 2018 at BRD Medical College, Gorakhpur, Uttar Pradesh; Chief-guide for ongoing (5) and completed thesis (4); Co-guide for completed projects (8).

Dr K Aparna Sharma received Gold Medal for paper presentation in the miscellaneous category “A prospective study of aortic isthmus doppler changes in appropriately grown and small for gestational age foetuses and association with perinatal outcome” in the 40th Annual Conference of AOGD, 24 November 2018, New Delhi; FOGSI-IAEC-Sun International Travelling Fellowship, 2018-2019; “Leader of tomorrow Award” at North Zone Yuva FOGSI, 1 February 2019, Noida; Keynote Address in the North Zone Yuva FOGSI on 1 February 2019, NOIDA; Nominated to attend second meeting of the QED network for improvement in maternal child and Newborn Health, 12-15 March, Ethiopia; Executive Committee Member, Society of Fetal Medicine; Joint Secretary, AOGD; Member, Fetal Medicine and Genetics Subcommittee of AOGD; Assistant Editor, Journal of Fetal Medicine; Invited for an extension lecture on “Quality Improvement in Health Care” to JN Medical College, AMU, Aligarh; Created online modules for SET facility and conducted Hands-On Skill based training to undergraduates in Gynaecology rotation postings; Created modules on: Per Vaginal Examination, Cu-T insertion, Episiotomy repair; Part of the core team for Quality Improvement activities in the Institute. As a part of this:

Conducted projects to improving the content of care and experience of care in the labor ward: LR documentation, LR communication, Implementation of surgical safety checklist in the maternity OT, Implementation of surgical safety checklist in the Fetal Medicine OT, Implementation of birth companion; Part of the National Mentoring Group for the implementation of Laqshya Labor Room quality improvement initiative launched by the Government of India; Conducted training for more than 50 medical colleges on the quality improvement methodology for implementation of laqshya in labor rooms throughout the country; Conducted webinars for remote mentoring: Improving the quality of MNCH in the South East Asia Region, 17 May 2018; Webinar for coaching plan in SEARO region: 5 June 2018; Follow-up Webinar for Laqshya Medical College Roll Out; 24 October 2018.

Dr Garima Kachhawa awarded 3rd prize for best paper presentation for “Risk factors for induced preterm delivery in pregnant women with chronic kidney disease: A retrospective analysis”, (Anju Singh, Garima Kachhawa, Nisha Malik, Reeta Mahey, Vidushi Kulshreshta, Rajesh Kumari, Neerja Bhatla, Alka Kriplani) at North Zone Yuva FOGSI on 1-3 February 2019, Noida; Project Secretary, Post Partum Programme from 1 February 2018 for two years; Organized 32nd (16-21 April 2018) and 33rd (4-9 June 2018) WHI Training course in Minimally Invasive Gynaecology 2018, Department of Obstetrics and Gynaecology, AIIMS (Treasurer); 5th National Conference Gynae Endocrinology—GESICON 2018 organised by the Gynae Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS) held on 15-17 June 2018, Pune (Organizing Secretary and Joint Treasurer); ‘Hysteroscopy’ Pre-Congress AOGD Workshop, Organized by Department of Obstetrics and Gynaecology and Association of Obstetricians and Gynaecologists of Delhi on 22 November 2018, AIIMS, New Delhi (Organizing Secretary); Compiled an Evaluation Proforma for assessment of Clinical Skills of Junior Residents; Developed a Skill Enhancement Proforma for Senior Residents to track their learning and to provide individualized training in the department; Research Advisory Committee—External Expert for project review committee: Technical Evaluation Committee for “Congenital malformation and genetics, Maternal Health, Child Health, Low Child Sex Ratio and other Gender and Health problems related to women” areas under Grant-in-Aid (GIA) Scheme of Department of Health Research; Member, Local Coordination/Expert committee for conducting Clinical Research through ICMR-2014 till now.

Dr P Vanamail reviewed 10 manuscripts for IJMR; DC member of a PhD candidate from Biochemistry Department; DC member of a PhD Candidate from Obst and Gynae; Co-Guide for a PhD candidate from Biostatistics; Chaired scientific session on, ‘Statistical Methods for count data/Machine learning techniques’, 36th Annual Conference of Indian Society for Medical Statistics, NIMHANS, Bengaluru (1-3 November 2018); Co-guides for MD/DM candidates: Thesis completed: Six; Ongoing Thesis: Ten.

Dr Vidurshi Kulshrestha was Co-Convenor, Pre-conference Workshop on Abnormal Uterine bleeding 5th National Conference Gynae Endocrinology-GESICON 2018 organised by Gynae Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS), Pune, 15 June 2018; Organizing Secretary—Preconference AOGD Workshop on Hysteroscopy, Organized by Department of Obstetrics and Gynaecology, AIIMS, New Delhi and Association of Obstetricians and Gynaecologists of Delhi, New Delhi, 23 August 2018; Awarded prize for best poster as 1st author on ‘Letrozole for successful medical management of sciatica due to extrapelvic endometriosis’ at 5th National Conference Gynae Endocrinology-GESICON 2018 organised by Gynae Endocrinology Society of India (GESI) and Pune Obstetrics and Gynaecological Society (POGS) held on 15-17 June 2018, Pune; Awarded prize for the best paper as co-author on Risk Factors for Induced Preterm Delivery in Pregnant women with Chronic Kidney Disease: Retrospective Analysis’, North Zone YUVA FOGSI 2019 held on North Zone YUVA FOGSI 2019, Noida; Facilitator/ Faculty for the following: Faculty, Medical Board, AIIMS for new entrants for MBBS, BSc Nursing, Optometry, Medical Technology in radiography courses, (2014 onwards); Facilitator, Gurukul Classes in session on contraception, organized by Sir Ganga Ram Hospital under the aegis of ISOPARB and IMS Delhi Chapter, 30 June 2018, New Delhi; Quality Improvement (QI): Instrumental in Quality Improvement Initiative of the Department; SET facility team member: Drafted skill module for conduct of vaginal delivery for UG teaching which has been tested in Trial-3 on 20-21 December 2018; Facilitator, in LaQshya Orientation workshop cum Training for Medical Colleges using POCQI model for quality improvement methodology, 21-22 January 2019.

Dr Seema Singhal was editor and web editor for AOGIN India 2018-2020; Member FOGSI Gynecologic Oncology Committee; Member Subject Expert Committee Reproductive and Urology of the Drug Controller of India; Member Endometriosis Committee AOGD; Reviewer, Minimally Invasive Surgery, Indian Obstetrics and Gynecology; IHI certified QI faculty; Expert member for drafting Daksh advanced skill module organized by WHO-MOHFW-LSTM; Expert member for drafting LSAS curriculum organized by MOHFW; Expert member for drafting revised Emoc curriculum by MOHFW.

Dr Jyoti Meena drafted skill module for conduct of normal vaginal delivery for UG teaching through eSET facility.

Dr Juhi Bharti was Organising Secretary for International Conference cum Workshop 3rd FERTICON 2019 (First live workshop on surgical sperm retrieval), 2-3 February 2019 at AIIMS, New Delhi; Drafted skill module for pelvic examination and episiotomy repair for UG teaching through eSET facility.

Dr Rohini Sehgal was Chairperson of Advisory Committee for South District under PC and PNDT Act 1994 for three years from 31 October 2016 to 31 October 2019; Member, maternal Death review Committee at District Magistrate level for South District Delhi as FOGSI representative.

9.25. Orthopaedics

Professor and Head

Rajesh Malhotra

Professors

Hira Lal Nag
Ravi Mittal

Shah Alam Khan
Vijay Kumar

Associate Professors

Bhavuk Garg

Mohammed Tahir Ansari

Assistant Professors

Vijay Kumar Digge
Vikrant Manhas

Vivek Shankar
Venkatesan Sampath Kumar

EDUCATION

CMEs/Workshop/Symposia/National and International Conferences

1. 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi
2. **Symposium on Geriatric Trauma Care**, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi
3. **Symposium on Geriatric Physiotherapy and Rehabilitation**, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi
4. **Symposium on Geriatric Nursing**, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi
5. **Symposium on Bone Malignancy in Elderly**, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi
6. **Symposium on Geriatric Foot and Ankle**, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi
7. **Symposium on Geriatric Hand**, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi
8. **Cadaver Courses: Knee, Hip and Trauma**, 6th International Geriatric Orthopaedic Society of India Conference (GOSICON), Fragility Fracture Network (India) and Current Concepts in Arthroplasty (CCA) 2018, 6-9 September 2018 at JL Auditorium, AIIMS, New Delhi
9. **DOACON 2018**, 22-24 November 2018 at AIIMS, New Delhi
10. **Uni Talk Uni-compartmental Knee Arthroplasty: The state of the Art** on 23 March 2019 at JPNATC, New Delhi

Lectures delivered

Rajesh Malhotra

1. Proximal Femoral Allograft in Revision THA, 20th Biennial Congress of Asia Pacific Orthopedic Association Meeting, 10-14 April 2018, Antalya, Turkey
2. Takedown of fused hips, 20th Biennial Congress of Asia Pacific Orthopedic Association Meeting, 10-14 April 2018, Antalya, Turkey

3. Problems with Fragility Fractures about the Hip Joint, 20th Biennial Congress of Asia Pacific Orthopedic Association Meeting, 10-14 April 2018, Antalya, Turkey
4. Tissue donation, banking and transplant, Training of Transplant Coordinator Course, 24-28 April 2018, NOTTO Training Centre, New Delhi
5. Is hand held navigation knee arthroplasty the best way? 6th Emirates International Orthopaedic Congress 2018, 3-5 May 2018, Dubai
6. Femoral head size—Does it matter? 6th Emirates International Orthopaedic Congress 2018, 3-5 May 2018, Dubai
7. How to diagnose infection? 6th Emirates International Orthopaedic Congress 2018, 3-5 May 2018, Dubai
8. Hip arthroplasty in Ankylosis Spodylitis, 6th Emirates International Orthopaedic Congress 2018, 3-5 May 2018, Dubai
9. Clinical Management Treatment-I, Osteoporosis Essentials Course, 6 May 2018, Mumbai
10. Principles of DXA interpretation and reporting, Osteoporosis Essentials Course, 6 May 2018, Mumbai
11. UKA: Are all contraindications suitable? Oxford Knee Course, 8-9 June 2018, Ganga Hospital, Coimbatore
12. Challenge of unfusing the fused hips in ankylosing spondylitis, BIOSCON 2018, 29-30 June 2018, Huddersfield, UK
13. Trauma care: Credible journey through incredible India, BIOSCON 2018, 29-30 June 2018, Huddersfield, UK
14. TKA for valgus deformity, 14th International Conference of Skeletal Deformities Correction of the Egyptian Orthopaedic Association, 4-6 July 2018, Cairo, Egypt
15. THA for deformed hip, 14th International Conference of Skeletal Deformities Correction of the Egyptian Orthopaedic Association, 4-6 July 2018, Cairo, Egypt
16. How to manage a failed plate? MIDCON 2018, 8 July 2018, New Delhi
17. Unstable intertrochanteric replacement: Decision making, MIDCON 2018, 8 July 2018, New Delhi
18. Humeral shaft fracture—When to plate and when to nail? 5th Trauma Conclave AAOS, 22 July 2018, New Delhi
19. Evaluation of painful TKA, MSK Imaging CME, 5 August 2018, Constitutional Club, New Delhi
20. Fracture liaison service—An invaluable tool for secondary fracture prevention, Combined Meeting of the 6th International GOSICON, Fragility Fracture Network (India) and Current Concepts in Arthroplasty 2018, 6-9 September 2018, All India Institute of Medical Sciences, New Delhi
21. Strong bones—Healthy and safe aging, Public Lecture during combined meeting of the 6th International GOSICON, Fragility Fracture Network (India) and Current Concepts in Arthroplasty 2018, 6 September 2018, All India Institute of Medical Sciences, New Delhi
22. Navigation for UKA—Where do we stand? Knee and Hip Arthroplasty—Present and Emerging Trends, 29-30 September 2018, Apollo Hospital, New Delhi
23. Bringing hip and spine surgeons together—Total hip arthroplasty in fused hips with spinopelvic deformities, 46th Annual Meeting of Percival Pott Club, 9 November 2018, London, UK
24. Replacement in post infective arthritis, 63rd Annual Meeting of IOACON 2018, 27 November to 1 December 2018, Coimbatore
25. THA in Protrusio—Technical tips, 63rd Annual Meeting of IOACON 2018, 27 November to 1 December 2018, Coimbatore
26. Fixation strategies for osteoporotic fractures, 63rd Annual Meeting of IOACON 2018, 27 November to 1 December 2018, Coimbatore
27. Subtrochanteric fracture following alendronate, 63rd Annual Meeting of IOACON 2018, 27 November to 1 December 2018, Coimbatore
28. THA in Fused Hip—Change of Paradigm, 7th AIIMS Arthroplasty Update, 16 December 2018, AIIMS, New Delhi
29. Bone cuts in Total Knee Arthroplasty, 43rd Annual Conference of Odisha Orthopedic Association-OOACON, 12 January 2019, Berhampur, Odisha
30. Physician burnout, 43rd Annual Conference of Odisha Orthopedic Association-OOACON, 12 January 2019, Berhampur, Odisha
31. Implant removal in Revision Total Knee Arthroplasty, Partial and Revision Knee Bioskills Workshop, 28-29 January 2019, Chulalongkorn University, Bangkok
32. Why knee replacements fail? Partial and Revision Knee Bioskills Workshop, 28-29 January 2019, Chulalongkorn University, Bangkok

33. Complications of Unicondylar Knee Arthroplasty, Partial and Revision Knee Bioskills Workshop, 28-29 January 2019, Chulalongkorn University, Bangkok
34. Management of bone defects in Revision Total Knee Arthroplasty, Partial and Revision Knee Bioskills Workshop, 28-29 January 2019, Chulalongkorn University, Bangkok
35. Implant choices, Head sizes and bearing material, 43rd Annual Conference of Karnataka Orthopaedics Association KOACON-2019, 1-2 February 2019, Bengaluru
36. Difficult cases in TKA, Case presentation, Ranawat Orthopaedic Conference (ROC) Seventeenth Winter Meeting, 22-23 February 2019, Gurgaon
37. Abductor deficiency, Treatment options, Ranawat Orthopaedic Conference (ROC) Seventeenth Winter Meeting, 22-23 February 2019, Gurgaon
38. Addressing instability and bone loss in Revision THA: Key considerations, Ranawat Orthopaedic Conference (ROC) Seventeenth Winter Meeting, 22-23 February 2019, Gurgaon
39. Surgical technique for Medial UNI, How to approach Lateral UNI? Uni Talk Uni—Compartmental Knee Arthroplasty: The state of the Art, 23 March 2019, JPNATC, New Delhi
40. Tips and tricks to avoid complications, Uni Talk Uni—Compartmental Knee Arthroplasty: The state of the Art, 23 March 2019, JPNATC, New Delhi
41. Osteoporosis in India: A burning target for surgical strike, Discussion on Unmet Needs in Health Care of India, 30 March 2019, NAMS House, New Delhi

HL Nag

1. A case of massive chondrosarcoma of right shaft femur in young patient—management challenge, Silchar Medical College Assam, 21 May 2018, Silchar Medical College, Silchar
2. All-inside ACL reconstruction, Arthroscopy Conclave 2018 KGMC Lucknow, 4-5 August 2018, KGMC, Lucknow
3. All-inside ACL reconstruction, 18th Annual Conference of Central Zone of IOA – CEZCON 2018, 14-16 September 2018, Siliguri
4. RC Tears in elderly and its treatment, GOSICON, FFN, CCA 2018, 6-8 September 2018, AIIMS, New Delhi
5. Health of knee joint in elderly, Symposium by EFORS Gr, 29 September 2018, Safdarjung Development Area, New Delhi
6. ACL Surgery—Past, present and future, 37th Annual Conference of MP Chapter, MPIOACON 2018, 13-14 October 2018, Indore
7. What I learnt in Arthroscopy, DOACON 2018, 22-24 November 2018, AIIMS, New Delhi
8. All inside ACL reconstruction, Sri Laxmi Nayaran Institute of Medical Research, 7 December 2018, Puducherry
9. Treatment of infected nonunion of distal femur, 11th JOACON 2019, 1-3 February 2019, RIMS, Ranchi
10. Proximal—Tibial corrective osteotomy, 11th JOACON 2019, 1-3 February 2019, RIMS, Ranchi
11. Systematic arthroscopic knee examination, 24th Nepal Orthopaedic Annual Conference NOACON 2019, 13-15 February 2019, Biratnagar, Nepal
12. All inside ACL reconstruction, 24th Nepal Orth Annual Conference NOACON 2019, 13-15 February 2019, Biratnagar, Nepal

Ravi Mittal

1. High tibial osteotomy, West Delhi Orthopaedic Association, 22 April 2018, Delhi
2. Meniscus tears, B and B Knee Course, 6-7 July 2018, Dulikhel, Nepal
3. Why I do not do Pivot Shift Test, B and B Knee Course, 6-7 July 2018, Dulikhel, Nepal
4. PCL reconstruction, B and B Knee Course, 6-7 July 2018, Dulikhel, Nepal
5. Shoulder dislocation—1st time and recurrent, DOA MIDCON, 8 July 2018, Delhi
6. Management of PCL injuries, Knee and Shoulder Symposium of Agra Orthopaedic Society, 15 July 2018, Agra
7. Imaging of shoulder instability, DOA musculoskeletal imaging CME, 5 August 2018, Delhi
8. Neglected anterior dislocation shoulder, Annual Conference of Sri Lanka Orthopaedic Society, 25-27 October 2018, Kandy, Sri Lanka
9. Rotator cuff tear, Annual Conference of Sri Lanka Orthopaedic Society, 25-27 October 2018, Kandy, Sri Lanka
10. Isolated PCL injury and EBM, IOACON 2018, 27-29 November 2018, Coimbatore
11. Infection after ACL reconstruction, IOACON 2018, 27-29 November 2018, Coimbatore

12. Steps of PCL reconstruction, MAMC Knee Arthroscopy Cadaver Workshop, 22 December 2018, Delhi
13. Neglected posterior dislocation shoulder, NZOACON, 10 February 2019, Jammu
14. PET scan after ACL reconstruction, 17th International Congress of Egyptian Arthroscopy Association, 19-21 February 2019, Cairo, Egypt
15. Meniscus posterior root tears, 17th International Congress of Egyptian Arthroscopy Association, 19-21 February 2019, Cairo, Egypt

Shah Alam Khan

1. Staged management of bone sarcomas, 32nd Annual Conference of the North Zone of Indian Orthopaedic Association, 8-10 February 2019, Convention Hall, Jammu
2. What not to do in Paediatric Bone Tumors, 15th Paediatric Orthopaedic Society of India Conference, 4-8 January 2019, Mumbai
3. Managing foot and ankle in children with cerebral palsy, 8th Annual Conference of the Saudi Arabian Orthopaedic Association, 8-10 December 2018, Jeddah
4. What not to do bone sarcomas, 8th Annual Conference of the Saudi Arabian Orthopaedic Association, 8-10 December 2018, Jeddah
5. Lessons learnt—First fifteen years of my practice, 39th SICOT World Congress, 10-13 October 2018, Convention Center, Montreal, Canada
6. Evaluating a bony lesion in the elderly, 4th Annual Conference of the Geriatric Orthopaedic Society of India, 6-9 September 2018, AIIMS, New Delhi
7. Radiology in Bone Tumors—What lies in the Shadows? Annual Conference of the Asia Pacific Orthopaedic Association, 10-14 April 2018, Antalya, Turkey
8. Biological reconstruction in Bone Tumors—Is biological logical? Annual Conference of the Asia Pacific Orthopaedic Association, 10-14 April 2018, Antalya, Turkey

Vijay Kumar

1. THR in Dysplastic Hip, First Annual Conference of Global Orthopaedic Forum (GOFCON), 7-8 April 2018, Patna
2. THA in Tuberculosis Hip, 37th Annual Conference of North Zone Orthopaedics Association (NZOACON) 2018, 4-6 May 2018, Shimla
3. NV complications during TKR—Risk factors and prevention, 37th Annual Conference of North Zone Orthopaedics Association (NZOACON) 2018, 4-6 May 2018, Shimla
4. Indo-UK collaborations in Knee Arthroplasty 12th International Congress of International Society for Knowledge for Surgeons on Arthroscopy and Arthroplasty (ISKSA 2018), 18-22 June 2018, Leeds, UK
5. Tuberculosis in Musculoskeletal System, BIOSCON, 29-30 June 2018, Huddersfield, UK
6. Varus knee, Apollo Gleneagles Arthroplasty Course, 20-21 July 2018, Kolkata
7. Patient selection: Pre Op Preparation and Planning, Apollo Gleneagles Arthroplasty Course, 20-21 July 2018, Kolkata
8. Role of imaging in Painful Total Hip Arthroplasty, MSK Imaging CME, 5 August 2018, Delhi
9. Extraction of a primary knee implant as a first stage revision, Hip and Knee Meet, 11-12 August 2018, Lucknow
10. Take down of a fused knee and subsequent knee arthroplasty, Hip and Knee Meet, 11-12 August 2018, Lucknow
11. Intra-articular hip spacer for infection, Hip and Knee Meet, 11-12 August 2018, Lucknow
12. Bone donation, In service Training Programme on 'Deceased Organ and Tissue Donation', 20 August 2018, AIIMS, New Delhi
13. Surgical technique of Oxford University, 3rd Quarterly Meet 2018 of DOA, 23 September 2018, Delhi
14. Introduction and History of Oxford UKR, 3rd Quarterly Meet 2018 of DOA, 23 September 2018, Delhi
15. Complications following Oxford partial knee arthroplasty, Knee and Hip Arthroplasty—Present and Emerging Trends, 29-30 September 2018, Apollo Hospital, New Delhi
16. TKA—Unhappy Knee, Knee and Hip Arthroplasty—Present and Emerging Trends, 29-30 September 2018, Apollo Hospital, New Delhi
17. Managing stiff knee after post TKR, First Knee Arthroplasty Course, 27-28 October 2018, Patna
18. Approach to revision of infected TKR, 35th Annual Conference of Punjab Orthopaedic Association, POACON 2018, 10-11 November 2018, Chandigarh

19. UKR Vs TKR are the indications interchangeable, 35th Annual Conference of Punjab Orthopaedic Association, POACON 2018, 10-11 November 2018, Chandigarh
20. Keeping patients safe in Bilateral TKR, 15th Annual Conference of Indian Arthroplasty Association Meet 2018, 16-18 November 2018, Neemrana, Rajasthan
21. Bone harvesting in Cadaveric Donors, Universal Guidelines for Evaluation and Optimization of Organs in Diseased Donor, 28 November 2018, NOTTO, Safdarjung, New Delhi
22. Total hip replacement in Ankylosed Hip, 70th Annual International Congress of the Egyptian Orthopedic Association, 10-13 December 2018, Cairo, Egypt
23. Graft healing in ACL Reconstruction, 70th Annual International Congress of the Egyptian Orthopedic Association, 10-13 December 2018, Cairo, Egypt
24. Total knee replacement in Stiff and Ankylosed Knee, 70th Annual International Congress of the Egyptian Orthopedic Association, 10-13 December 2018, Cairo, Egypt
25. Neurovascular complications in TKR and its Prevention, 7th AIIMS Arthroplasty Update, 16 December 2018, AIIMS, New Delhi
26. Challenges with UKR in Indian patients, North Zone Orthopaedics Association (NZOACON) 2019, 9-10 February 2019, Jammu
27. Neurovascular complications in TKA and its prevention, 7th AIIMS Arthroplasty Update, 16 February 2019, AIIMS, New Delhi
28. Management of bone defects in TKR, 3rd Masters of Knee and Hip Arthroplasty Conference, 24 February 2019, Kanpur
29. Cruciates in TKR, 3rd Masters of Knee and Hip Arthroplasty Conference, 24 February 2019, Kanpur

Bhavuk Garg

1. Biomechanical peculiarities of L5 vertebra, 2nd International Conference on Clinical and Orthopaedic Biomechanics (ISIC), 13-14 April 2018, New Delhi
2. My experience with spine surgery, Barnes Jewish Hospital, 15 May 2018, St Louis, USA
3. 3D printing in spinal deformities video presentation, ASSI Live Surgery Course, 8-10 June 2018, New Delhi
4. CSF leaks during spine surgery: Management, AO Spine Principles Course, 23-24 June 2018, Sri Lanka
5. Guidelines for research and publications, AO Spine Principles Course, 23-24 June 2018, Sri Lanka
6. Classification for AIS, AO Spine Principles Course, 23-24 June 2018, Sri Lanka
7. Spinal osteotomies, AO Spine Principles Course, 23-24 June 2018, Sri Lanka
8. Role of 3D printing in spinal deformities, 14th Egyptian Orthopedic Association Deformity Congress, 4-6 July 2018, Egypt
9. Spinal osteotomies for spinal deformities, 14th Egyptian Orthopedic Association Deformity Congress, 4-6 July 2018, Egypt
10. Water, water everywhere, CSF leak, MIDCON 2018, 8 July 2018, Delhi
11. How to plan and do Cervical trauma, MIDCON 2018, 8 July 2018, Delhi
12. How to minimize bleeding in spine surgery, ICS 2018, 9-11 August 2018, Amritsar
13. Magnetic rod in EOS: Minimizing invasion, ICS 2018, 9-11 August 2018, Amritsar
14. Regional anaesthetic techniques in outpatient spine surgeries, North American Spine Society Annual Meeting, 25-28 September 2018, Los Angeles, USA
15. Magnetic rods for EOS, DOACON 2018, 22-24 November 2018, AIIMS, New Delhi
16. Boozing the damn bloody affair, DOACON 2018, 22-24 November 2018, AIIMS, New Delhi
17. Surgical anatomy and anterior approaches to cervical spine, North East Spine Society Meeting, 16 December 2018, Dibrugarh
18. Surgical anatomy and posterior approaches to Thoracolumbar spine, North East Spine Society Meeting, 16 December 2018, Dibrugarh
19. Anterior Thoracolumbar surgical approach, North East Spine Society Meeting, 16 December 2018, Dibrugarh
20. Spinal osteotomies, North East Spine Society Meeting, 17 December 2018, Dibrugarh
21. Degenerative scoliosis, ASSICON 2019, 24-27 January 2019, Ahmadabad
22. TB spine masqueraders, NZIOACON 2019, 9-10 February 2019, Jammu

23. Haemorrhage control in spine surgery, NZIOACON 2019, 9-10 February 2019, Jammu
24. Ethics in publication including plagiarism, JCOT Scientific Writing Course, 17 February 2019, Delhi
25. Bone graft options and interbody fusion, AOSpine Advanced Level Specimen Course, 23-24 February 2019, Bengaluru
26. Operative steps of percutaneous screw fixation, AOSpine Advanced Level Specimen Course, 23-24 February 2019, Bengaluru

Mohammed Tahir Ansari

1. Acute DRUJ injuries, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
2. De Quervain Tenosynovitis, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
3. Dupuytren Contracture, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
4. Extensor tendon injury, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
5. Ganglion of wrist, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
6. Phalanx fracture conservative management, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
7. Scaphoid fracture image conservation, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
8. Trigger finger, An Update on Hand and Wrist Workshop, 15 April 2018, Agra
9. Basics of hand fractures, 1st AIIMS Plastic Surgery Update 2018, 3 September 2018, Delhi
10. Tips and tricks for total elbow arthroplasty, GOSICON2018, 8 September 2018, Delhi
11. Chondrocalcinosis and DIP joint Arthritis, GOSICON2018, 8 September 2018, Delhi
12. ECU subsheath injury, DOACON2018, 24 November 2018, Delhi
13. Hand tumours, DOACON2018, 24 November 2018, Delhi
14. Cleft foot, DOACON2018, 22 November 2018, Delhi
15. Ganglion: Current concepts, Advance Wrist and Hand Symposium, 27 January 2019, Delhi
16. Examination of injured hand, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
17. Fracture shaft of humerus with radial nerve palsy, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
18. Fracture ulnar styloid, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
19. Golfer's elbow, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
20. Scaphoid fracture: Current concepts, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
21. Phalanx fracture: Conservative management, IOA Instructional Course Lectures on Hand Surgery, 19 January 2019, Guwahati
22. Tumour in hand: Glomus tumour/GCT/ganglion, IOA Instructional Course Lectures on Hand Surgery, 20 January 2019, Guwahati
23. Ulnar sided wrist pain, IOA Instructional Course Lectures on Hand Surgery, 20 January 2019, Guwahati

Vijay Kumar D

1. Role of TA lengthening in the management of Diabetic Ulcer, CCA-GOSICON-FFN, 7 September 2018, AIIMS, New Delhi
2. Management of retrocalcaneal bursitis and TA reconstruction, CCA-GOSICON-FFN, 7 September 2018, AIIMS, New Delhi
3. Bone donation and bone harvesting, Deceased Organ and Tissue Donation, 10 September 2018, AIIMS, New Delhi

Vikrant Manhas

1. TKR navigation surgical technique, GOSICON-FFN-CCA 2018, 6 September 2018, AIIMS, New Delhi
2. Role of orthotics and prosthetics in common foot and ankle problems, GOSICON-FFN-CCA 2018, 7 September 2018, AIIMS, New Delhi
3. Hammer toe, claw toe, mallet toe—Management, GOSICON-FFN-CCA 2018, 7 September 2018, AIIMS, New Delhi
4. Management of knee osteoarthritis, CME, Sanjeevani Hospital, 19 November 2018, Baran, Rajasthan

5. Biomechanics of hip arthroplasty, 20th MAMC PG Orthopedic in Instructional Course, 12-15 December 2018, MAMC, New Delhi
6. Bone screw—Getting a right every time, DOA Basic Trauma Course, 20 January 2019, New Delhi
7. Bearing surfaces in unicondylar knee arthroplasty, The Unitalk-2019, 12 March 2019, JPNATC, New Delhi

Vivek Shankar

1. Cervical spine: Relevant Anatomy, Hands-on Cadaver Course in Spine Skills, 14-15 August 2018, Delhi
2. Panel discussion “Industry Focus—Healthcare”, Pan IIT Conclave on Artificial Intelligence, 19-20 June 2019, Delhi
3. A broken friend or a hiding foe, DOACON 2018, 22-24 November 2018, Delhi
4. Public lecture: Am I OK? Managing your Health in this industrialized world, IIT, 20 December 2018, Delhi

Venkatesan Sampath Kumar

1. Panelist in Giant Cell Tumour Panel Discussion, CME on “Giant Cell Tumor and Pathological Fractures”, 22 April 2018, New Delhi
2. Panel discussion: Locally aggressive benign bone tumours, Max Ortho Onco Con’ 18, 14 July 2018, New Delhi
3. Panel case discussion: Benign bone tumours, Onco Ortho Con 2018, 4 August 2018, Ahmedabad
4. Introduction to normal Gait and pathological Gait, DOACON 2018, 22 November 2018, New Delhi
5. Surgical technique—Deformity correction in Fibrous Dysplasia, DOACON 2018, 24 November 2018, New Delhi

Oral papers/posters presented:

1. Agarwal G, Verma T, Mishra A, Meena A, Kumar R, Maini L, Garg B, Malhotra R, Evaluation of effects of unloader hip brace on kinematics of hip joint—Poster, MIDCON 2018, 8 July 2018, New Delhi, **Best poster award**
2. Malhotra R, Gautam D, Chawla A, Jain V, Gaba S, Spectrum of Trunion Failure in THA—A comprehensive failure analysis with a novel system of classification—Oral, ROC (Ranawat Orthopaedic Center) Seventeenth Winter Meeting, 21-23 February 2019, Gurgaon, **Best poster award**
3. Swamy A, Digge VK, Malhotra R, A prospective randomized study to compare large—Console Imageless Computer Assisted Navigation vs Accelerometer Based Portable Navigation Technique in TKA—Oral, ROC (Ranawat Orthopaedic Center) Seventeenth Winter Meeting, 21-23 February 2019, Gurgaon, **Best poster award**
4. Khan SA, Bakhshi S, Kumar VS, Functional outcome following no reconstruction in Sacral tumors, 12th Asia Pacific Musculoskeletal Tumor Society-2108 Meeting, 4-7 October 2018
5. Khan SA, Ashish S, Banjara R, Kumar VS, Role of mesh reconstruction in bone tumors, 5th Annual Conference of Indian Musculoskeletal Oncology Society, 10-12 March 2019, Suresh Neotia Centre of Excellence for Leadership
6. Khan SA, Rastogi S, Bakhshi S, Poudel RR, Kumar VS, Functional outcome following no reconstruction in Type II Pelvic resections for Chondrosarcomas, 5th Annual Conference of Indian Musculoskeletal Oncology Society, 10-12 March 2019, Suresh Neotia Centre of Excellence for Leadership
7. Kumar V, Banjara R, Srivastava D, Malhotra R, Results of hip replacement in patients less than 30 years of age (e-poster), 39th SICOT World Orthopaedic Congress, 10-13 October 2018, Montreal, Canada
8. Kumar V, Wahal N, Nayak M, Pandit H, Results of Oxford mobile bearing medial Unicompartmental Knee Replacement in Indian population at a minimum follow up of 5 years patients (e-poster), 39th SICOT World Orthopaedic Congress, 10-13 October 2018, Montreal, Canada
9. Kumar V, Malhotra R, Results of modular stem in revision of failed hemiarthroplasty (Oral Presentation), 39th SICOT World Orthopaedic Congress, 10-13 October 2018, Montreal, Canada
10. Kumar V, Wahal N, Pandit H, Malhotra R, Results of Oxford unicompartmental knee replacement in Indian patients with associated patellofemoral arthritis (Oral Presentation), 39th SICOT World Orthopaedic Congress, 10-13 October 2018, Montreal, Canada
11. Kumar V, Wahal N, Srivastava D, Pandit H, Malhotra R, Results of Oxford mobile bearing medial unicompartmental knee replacement in patients with tibia vara (Oral Presentation), 39th SICOT World Orthopaedic Congress, 10-13 October 2018, Montreal, Canada

12. Batra S, Garg B, et al. To develop computer assisted patient specific pedicle screw guides for spinal deformities with the help of volumetric CT Scan and 3D Reconstruction Models and compare with free hand technique, 19th EFFORT Congress, 30 May-1 June 2018, Barcelona
13. Garg B, Comparative evaluation of 3D printed zigs and free hand technique of pedicle screw insertion in complex spinal deformities, HKOA Annual Meeting, 3-4 November 2018, Hongkong
14. Soni L, Mohan VK, Garg B, et al., Diagnosis of facet joint arthropathy: Feasibility of Ultrasound Guided Lumbar Medial Branch Blocks, ASSICON 2019, 24-27 January 2019, Ahmadabad
15. Garg B, Mehta N, 3D Gait pattern of patients with scoliosis: Does etiology and time of onset matter? ASSICON 2019, 24-27 January 2019, Ahmedabad
16. Agarwal G, Verma T, Mishra A, Meena A, Kumar R, Maini L, Garg B, Malhotra R, Evaluation of effects of unloader hip brace on kinematics of hip joint, MIDCON 2018, 8 July 2018, New Delhi, **Best poster award**
17. Garg B, Mehta N, Effect of sequential multi-axial corrective surgery on sagittal balance in adolescent idiopathic scoliosis, ASSICON 2019, 24-27 January 2019, Ahmedabad
18. Kumar DV, A Prospective Randomized Study to Compare Large-Console Imageless Computer Assisted Navigation Vs Accelerometer Based Portable Navigation Technique in TKA, ROC, February 2019, New Delhi
19. Shankar V, Arthroscopic elbow synovectomy in rheumatoid arthritis: Is it effective? A long-term follow-up, Asia Pacific Orthopaedic Association 2018, 10-14 April 2018, Antalya, Turkey
20. Shankar V, Yadav CS, Kumar A, Naranje S, Khan SA, Routine use of anticoagulant chemoprophylaxis in joint replacement arthroplasty—Double or single edged deadly weapon? TIME TO WAKE UP! 39th SICOT Orthopaedics World Congress, 10-13 October 2018, Montreal, Canada

RESEARCH

Funded projects

Ongoing

1. Phase IV, Open-Label, Multi-center Study to Evaluate the Safety of Apixaban in Indian Subjects Undergoing Elective Total Knee Replacement or Total Hip Replacement Surgery, Rajesh Malhotra, Bristol-Myers Squibb India Pvt. Ltd, 4 years, 2015-2019, Rs 3.30 lakhs
2. A prospective randomized study to compare the systemic emboli in computer assisted navigation vs conventional surgical technique of knee replacement, Rajesh Malhotra, ICMR, 3 years, 2018-2021, Rs 49 lakhs
3. Study of Osteogenic Humoral Factors on Fracture Healing in Patients with Head Injury: Decoding the Mystery, Vijay Kumar Digge, DST, 3 years, 2018-2021, Rs 50 lakhs
4. Treatment response evaluation in extra spinal musculoskeletal tuberculosis using molecular imaging (PET-CT), Shah Alam Khan, ICMR, 2 years, 2017-2019, Rs 33 lakhs
5. Surveillance in Paediatric Bone Sarcomas, Shah Alam Khan, JivDaya Foundation, USA, 3 years, 2016-2019, USD 15,000
6. Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome, Rajesh Malhotra and Vijay Kumar, DST-UKIERI, 3 years, 2017-2020, Rs 90 lakhs
7. Evaluation of Safety and Efficacy of Etodolac Injection in Patients with Post-Operative Orthopedic Pain, Vijay Kumar, IPCA, 1 year, 2018-2019, Rs 3 lakhs
8. Comparative evaluation of genetic and cytokines profile in age matched Indian subjects with and without knee Osteoarthritis, Bhavuk Garg, ICMR, 3 years, 2017-2020, Rs 140 lakhs
9. A Prospective, Active-controlled, Randomized, Double blind, Multicentre, Phase III Study to Compare the Safety and Efficacy of Biosimilar Denosumab of Enzene Biosciences Limited versus Innovator Denosumab in the Treatment of Postmenopausal Osteoporosis, Bhavuk Garg, Alkem Laboratories Ltd., 2 years, 2018-2020, Rs 8 lakhs
10. Epigenetic insight looking at possible differential miRNA expression among osteoporotic elderly and young patients with hip fractures, Bhavuk Garg, AO Trauma Asia Pacific, 3 years, 2018-2021, Rs 1.7 lakhs
11. Bone health assessment in transgender population; A pilot study, Bhavuk Garg, ICMR, 3 years, 2017-2020, Rs 72 lakhs
12. Evaluation of Immune Checkpoints in tumour micro-environment of Osteosarcomas, Venkatesan Sampath Kumar, AIIMS, 2 years, 2018-2020, Rs 5 lakhs

Completed

1. A multi-centre, prospective, uncontrolled Post Market Clinical Follow-up Study (PMCFS) to monitor the survival and performance of the Delta Motion Cup System in subjects requiring a total hip replacement, Rajesh Malhotra, Johnson & Johnson Medical India, 5 years, 2013-2018, Rs 15.50 lakhs
2. Prospective, Multi-centre Outcomes Study of Persona Knee System in Total Knee Arthroplasty, Rajesh Malhotra, Zimmer India Pvt. Ltd, 3 years, 2015-2018, Rs 23.5 lakhs
3. Comparison of Yearly Zolendronic Acid versus Weekly Alendronate in Preference, Convenience, Compliance, Persistence and Bone Turnover Markers in Indian Postmenopausal Osteoporotic Women, Rajesh Malhotra, ICMR, 3 years, 2015-2018, Rs 40 lakhs
4. To develop computer assisted patient specific osteotomy and drill guides for spinal deformities with the help of volumetric CT scan and 3D reconstruction models, Bhavuk Garg, DBT, 4 years, 2015-2019, Rs 50 lakhs
5. Comparison of bone scan changes during and after treatment with Alendronate and Teriparatide for the treatment of osteoporosis, Bhavuk Garg, ICMR, 3 years, 2015-2018, Rs 39.15 lakhs
6. Comparisons of Cytokines, Matrix Metalloproteinase and Bone Markers between Normal, pulmonary, Osteomyelitis and Spine Tuberculosis Subjects, Bhavuk Garg, AIIMS, 2 years, 2016-2018, Rs 9.99 lakhs

Departmental projects

Ongoing

1. A Prospective Randomised Study to Compare Large Console, Image Less Computer Assisted Navigation vs Accelerometer Based Portable Navigation Technique of Total Knee Replacement
2. A prospective randomized clinical trial to compare clinical, fluoroscopic and radiological outcome between medial pivot and lateral pivot knee
3. A Prospective Randomized Study to compare Computer Assisted Navigation vs Free Hand Surgical Technique of Total Hip Replacement
4. Determination of accuracy of implant positioning and limb alignment in medial Unicompartmental knee arthroplasty with computer navigation- an ambispective study
5. Double blind randomised control trial to assess the outcome of pulley release and pulley reconstruction for De Quervain's Tenosynovitis
6. Functional and radiological outcomes following plating for displaced fractures of patella
7. Higher Forgotten Joint Score in Cruciate Retaining vs Posterior Stabilising Total Knee Arthroplasty
8. Implant migration analysis using RSA and clinic-radiological outcome in Indian population undergoing mobile bearing UKR
9. Response evaluation in MSK tuberculosis using PET CT
10. Role of molecular imaging in musculoskeletal tuberculosis
11. Study of p53, Ki 67 labelling index, CXCL12 Chemokine and its receptors CXCR4 and CXCR7 in Ewing Sarcoma

Completed

1. A prospective study comparing PET scan and dynamic MRI in assessment of the graft revascularization and healing in arthroscopic anterior cruciate ligament reconstruction
2. Biomechanical investigation of extracorporeal irradiation therapy in malignant bone tumors
3. Functional impact of congenital hand differences: Initiation and maintenance of the Congenital Upper Limb Differences (CoULD), Registry at All India Institute of Medical Sciences (AIIMS)
4. Quantification of the amount of PCL retained in cruciate retaining TKA and its effect on functional outcome
5. Role of CT guided percutaneous biopsy in suspected case of tuberculosis spine
6. To study histopathological and electron microscopic features of ligamentum flavum in degenerative lumbar canal stenosis in comparison with young adults undergoing discectomy
7. To study the clinical and radiological outcome of posterior and posterolateral decompression and instrumented inter body fusion using locally harvested bone graft in traumatic fracture dislocation of thoracolumbar spine
8. Total hip replacement in patients less than 30 years of age

Collaborative projects

Ongoing

1. Characteristics and clinical outcomes of Musculoskeletal Tuberculosis in patients presenting to Tertiary Care Hospital in India, Infectious diseases
2. Diagnostic ultrasound guided lumbar medial branch block of dorsal ramus in facet joint Arthropathy: Technical feasibility and validation by fluoroscopy, Anaesthesia
3. Effectiveness of bundled intervention in surgical site infections among patients undergoing clean orthopedic surgery with hardware implants: A randomized controlled trial, Microbiology
4. Histology of lumbar intervertebral disc in Disc Degenerative Disease and its correlation with clinical and radiological findings, Laboratory medicine
5. Impact of frailty and geriatric syndromes on outcome of major orthopaedic surgery in older Indian patients, Geriatric medicine
6. Patient specific stress analysis in Congenital Dislocation of the Hip, IIT, Delhi
7. The PARITY trial, McMaster University, Canada
8. The safety and efficacy of transcatheter arterial embolization in moderate osteoarthritis and medial knee pain, Cardiovascular Radiology and Endovascular interventions
9. Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome, IIT, IBIG, DST and Oxford, UK

Completed

1. Biomechanical Investigation of extracorporeal irradiation therapy in Malignant Bone Tumors, IIT, Delhi
2. Quantification of tendon injuries using high frequency ultrasonography in upper limb injuries, Radiology
3. Safety suitability and clinical effectiveness of unicompartmental knee replacement in the Indian population, DST-UKIERI

PUBLICATIONS

Journals: 40

Abstracts: 3

Chapters in Books: 5

Book: 1

PATIENT CARE

Months	Total Patients (OPD + Ward Patients)	Modalities (OPD Patients)	Yoga
April	6,385	15,375	82
May	7,427	18,465	92
June	6,259	14,952	76
July	6,832	15,270	53
August	5,429	15,708	75
September	6,526	15,531	75
October	6,961	11,018	83
November	5,769	14,049	69
December	7,004	12,492	73
January	6,689	15,174	82
February	6,009	13,644	55
March	6,178	13,569	105
Grand Total	77,468	1,75,247	920

- Gait Analysis Laboratory
- Modular State of the Art Orthopaedic Operation Theatres (7 Nos.)
- Genetic Laboratory

- Professor HL Nag: Morning General OPD, twice a week
- Professor HL Nag: Running “Sports Clinic” in the afternoon, once a week
- Professor HL Nag: Attending the injured athletes at Medical Centre, JL Nehru Stadium, New Delhi, in the afternoon, once a week
- Installation of state of the art modular Ortho OT Complex
- O arm facility
- Mohammed Tahir Ansari: I am part of the development of hand surgery at the institute. I run a hand clinic as specialty clinic on every Wednesday. This gives an unique opportunity to develop a specialised field at AIIMS
- Mohammed Tahir Ansari: I am part of the team who have started to give specialised care to brachial plexus injury patients. I am also part of the team running a separate brachial plexus clinic in JPNATC, AIIMS
- Dr Vijay Kumar D: Apart from regular outpatient and inpatient care, I am part of Special Clinic (Fragility Fracture Clinic) with Prof Rajesh Malhotra
- Dr Vikrant Manhas: Free consultation camp for patients with degenerative knee problems at Baran, Rajasthan on 20 November 2018
- Dr Vikrant Manhas: Blood donation on Blood Donation Day Celebrated by Department of Orthopedic, New Delhi on 1 January 2019
- Dr Vikrant Manhas: Member of committee constituted by AIIMS for Rashtriya Arogya Nidhi (RAN) to provide financial assistance for poor patients
- Dr Vivek Shankar: Apart from regular outpatient and inpatient care, I am part of Spine Clinic with Dr Bhavuk Garg

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rajesh Malhotra awarded “KT Dholakia Award” for the best paper award in Arthroplasty for Spectrum of Trunion Failure in THA—A Comprehensive Failure Analysis with a novel system of classification Presented at ROC (Ranawat Orthopaedic Center) Seventeenth Winter Meeting on February 22-23, 2019; Awarded “KT Dholakia Award” for the best paper award in a prospective randomized study to compare large—Console Imageless Computer Assisted Navigation vs Accelerometer based Portable Navigation Technique in TKA at ROC (Ranawat Orthopaedic Center) Seventeenth Winter Meeting on 22-23 February 2019; Awarded best poster award for poster entitled: “Evaluation of Effects of Unloader Hip Brace on Kinematics of Hip Joint” presented in “MIDCON 2018” at New Delhi on 8 July 2018; was Member of RajbhashaKaryanvayan Samiti, AIIMS 2018; Steering Committee for AIIMS-IIT Delhi MoU 2019; Board constituted by Ministry of Health and Family Welfare for Consideration of the Proposal to amend Medical Device Rules (MDR), 2017 to include provision for compensation in case of Injury or death due to any medical device found malfunctioning/found unsafe / not in compliance with the conditions of the License; Core Group constituted by Ministry of Health and Family Welfare for developing World Class Trauma and Emergency Services in India; was Advisor Expert Member Editorial Board: Annals of National Academy of Medical Sciences (India) 2018-2021; was Editor of Journal of Clinical Orthopaedics and Trauma; First time in India 3D printed implant for Revision Total hip Arthroplasty in 2018; Judge for Hindi Essay Writing during Hindi Week on 10 September 2018 at Board Room, AIIMS, New Delhi; Invited as Chief Guest for iSAFE Mega Event organized by Indian Road Safety Campaign (IRSC) and Ministry of Road Transport and Highways on 30 October 2018 at DTU, New Delhi; Assessor for start of DNB in Orthopedic Surgery Department at Apollo Hospital, Navi Mumbai, conducted by National Board of Examination (NBE) on 9-10 December 2018; President, Indian Orthopaedic Association (2019-2020); Chief Guest for OOACON 2019; inaugurated the conference on 12 January 2019; Co-Chairman of the Technical Expert Committee on Biomedical Engineering and Bio-design (Devices, Diagnostics and Implants) under DBT.

Professor Hira Lal Nag delivered Dr BB Ohri Oration on “ACL Surgery past, present and future” at Indore; was expert member of Human Rights Committee; Member of EHS Advisory Committee; Live surgical demonstration of “ACL Reconstruction” at Jaipur and Lucknow; Cadaveric Surgical Demonstration of “Arthroscopic Bankart Repair”, ESIC Medical College, Faridabad; Honorary consultant for Sports Authority of India (SAI); Appointed Member, Hospital Management Board; Nominated Member, Technical Specification Selection Committee of Surgical Items; External Examiner for MS Examination at Silchar, Siliguri, and JIPMER, Puducherry; Vice President, Orthopaedic Research Society, AIIMS; Member, Store Purchase Committee, AIIMS; Specific Events: External Expert for Interview Board for Selection of Faculty, Department of Orthopaedics, IGIMS, Patna; Unit In-charge of Orthopaedics Unit-II and Acting Head Department of Orthopaedics from time to time; Faculty In-charge, Orthopaedics OT; External Expert, Standing Selection Committee, for Selection of Faculty, Department of Orthopaedics, AIIMS, Bhopal, AIIMS, Raipur, AIIMS, Rishikesh, and AIIMS, Gorakhpur; External expert, interview board for selection of Professor and Associate Professor, ESIC Medical College, Faridabad, Haryana; Member,

Selection Board, for Selection of Senior Residents, AIIMS, New Delhi; External expert, purchase Committee Meeting, AIIMS, Rishikesh; Expert member, Indian Standard Beuro for Orthopaedic Implants; Team member, visiting University College London; External expert, Board of Studies Meeting, AIIMS, Rishikesh; Member, Committee for special audit of SIC Safdarjung; Expert, Lok Shabha TV, for short bite “World Osteoporosis Day” and “On bone and joint care”; Expert, Doordarshan TV, for World Disability Day and for Emergency Patient Transport System; Member, UG Expert Committee, MCI; Member, Interview Board, for selection of Sports Medicine fellow, Department of Orthopaedics, AIIMS; Chairman, Enquiry Committee Meeting, RML Hospital, New Delhi.

Professor Vijay Kumar elected as Joint Secretary, North Zone Orthopaedic Association; Organized a “Walk for Elderly” during Combined Meeting of 6th International Geriatric Orthopaedic Society of India Conference, Fragility Fracture Network (India) and Current Concept in Arthroplasty 2018 at AIIMS, New Delhi on 7 September 2018; Visit to Leeds University under DST UKIERI Project entitled “Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome” (D-468) from 23 June to 2 July 2018.

Dr Bhavuk Garg received DOA best publication award 2018 under 40 years of age; Worldwide Achiever Healthcare personality of the year: Orthopaedic Surgeon Award 2018; Member, SRS CME Committee; Became AOSpine international faculty; IASA visiting fellowship, Washington University, ST Louis, 10-18 May 2018; IOA-HKOA ambassador to Hong-Kong 2018; Member Executive Committee, Association of Spine Surgeons of India; Member Executive Committee, Delhi Orthopedic Association; Member Executive Committee, North Zone chapter of IOA.

Dr Mohammed Tahir Ansari was European Diploma in Hand Surgery.

Dr Vijay Kumar Digge received KT Dholakia Best Paper Award <40 years category at Ranawat Orthopaedic Conference held at New Delhi in February 2019; Fellowship in Sports Medicine and Arthroscopy (October 2018-April 2019) at Singapore General Hospital (SGH), Singapore; Received SICOT Fellowship Award in Navigated Knee Arthroplasty (SICOT); Did BCLS Course in January at Singapore; National Faculty for CCA-GOSICON-FFN India combined meeting held in New Delhi from 6-9 September 2018; Convener of ANKLE and FOOT SESSION and National Faculty at the CCA-GOSICON-FFN India combined meeting held in New Delhi from 7 September 2018; Chaired a session on Navigated Arthroplasty at CCA-GOSICON meet held at AIIMS, DELHI from 6-9 September 2018, Pune Knee Course (PKC) held at Pune in April 2018; Indian Foot and Ankle Association Annual Conference (IFASCON) held at Vadodara in August 2018; Indian Arthroscopy Association Annual Conference (IASCON) held at Calicut in October 2018; Attended as a delegate Ranwat Orthopaedic Conference (ROC) held at Delhi in February 2019; Attended Advanced Shoulder Arthroscopy and Arthroplasty held at Singapore in April.

Dr Vikrant Manhas was convener of session “Geriatric foot and ankle Symposium” in GOSICON-FFN- CCA 2018 6-7 September 2018 at AIIMS, New Delhi; Navigated total knee arthroplasty Cadaveric Workshop in GOSICON-FFN-CCA 2018 6-7 September 2018 at AIIMS, New Delhi; Workshop on lag screw exercise, external fixator and DHS in DOA Basic Trauma Course, 20 January 2019 at New Delhi.

Dr Vivek Shankar was Co-Organising Secretary, DOACON 2018, 22-24 November 2019, New Delhi; Visiting Specialist (Orthopaedics) in IIT, New Delhi.

Dr Venkatesan Sampath Kumar visited Ganga Hospital, Coimbatore on “APOA-Ganga Hospital Travelling Trauma Fellowship” between 17 and 24 June 2018.

VISITING SCIENTIST

1. Dr Anant Mahapatra from Ireland on 10 May 2018
2. Dr Debkant Jena from Canada on 30 July 2018
3. Dr Robert Harvey from UK on 19 September 2018
4. Dr Amit Jhala, Chirayu Hospital, Ahmadabad, 18 June 2018
5. Dr Debkant Jena, USA, 30 July 2018

9.26. Otorhinolaryngology

Professor and Head

Suresh Chandra Sharma

Professors

Alok Thakar

Rakesh Kumar

Associate Professors

Kapil Sikka

Chirom Amit Singh

Assistant Professors

Rajeev Kumar

Prem Sagar

David Victor Kumar Irugu

Arvind Kairo

Shuchita Singh Pachaury

Hitesh Verma

HIGHLIGHTS

The department continued its activities to impart quality education to its own students and also to delegates and observers. The department conducted 11 major and minor workshops in the year. The department hosted the International Workshop on Head and Neck Surgery which included cadaveric demonstration dissection and Live surgery demonstration for delegates. The department also conducted Cadaveric and live Laryngology, Facial Plastic Surgery, Ear Surgery, Cochlear Implant and TOUSS workshops. The department has started scarless Robotic Thyroid Surgery Programme using da Vinci robotic system.

EDUCATION

The formal lecture schedule for the MBBS students are held in the 6th and 8th semesters and consist of 1 hour lectures. The undergraduate students are posted in the ENT department (OPD and Ward) for a total period of 2 months on rotation basis. Here they learn the basic ENT examination, become familiarized with diagnosing the common ENT diseases and learning the elementary management, including communication skills. The clinical training consists of

1. Two classes on introduction to the clinical aspects of ENT including proper Ear, Nose and throat examination
2. Bed side teaching and case discussion on common ENT conditions like CSOM, Deviated Nasal septum, Nasal polyps, Cancer larynx, etc.
3. Orientation to commonly used ENT instruments and X-rays in ENT practice
4. Exposure to commonly done OPD procedures like nasal packing, ear packing, cautery, etc.
5. Exposure to selective operative procedures like tracheostomy, tonsillectomy, septoplasty, Nasal polypectomy etc.
6. Preventive otology and head and neck cancer

At the end of the Otorhinolaryngology posting. The student are be able to:

1. Examine and diagnosis common ear, nose, and throat problems
2. Suggest common investigative procedures and their interpretation to diagnose and manage the patient
3. Treat the common ENT and Head and Neck problems at primary care centre, while treating the patient
4. Train to perform various minor surgical procedures like ear syringing nasal packing and biopsy procedure
5. Have awareness of preventive otology and head and neck cancer for public guidance

For postgraduates, major goals are patient care, teaching, research ability, and teamwork. PG students have to do presentation of seminar/paper, research writing, acquire clinical decision making ability and management expertise. Postgraduate students perform major and minor surgical procedures under supervision of a faculty member/a senior resident. They are trained to perform major and minor operations independently. During training, posted in orientation programme including exposure to Audiology Section and Vestibular Laboratory, Learn bedside history taking in ward, OT exposures, casualty, ICU requirement and their visit to related disciplines such as Neurosurgery/Anaesthesia. Care of indoor (Medical; preoperative and postoperative) patients. Attends operation theatre and emergency operations. Assists ward rounds and visit other wards with senior colleagues to attend call/consultations from other department. Participates in the teaching sessions in ward for bedside clinical aspect, in specialty clinics in afternoon in seminar/journal club and do emergency duty as per Roster of the department. Postgraduate students also have to do thesis under guidance of faculty.

The department also runs the superspecialty course of MCh Head and Neck Surgery and fellowship in Skull Base surgery. The MCh residents have been allocated duties in the respective specialties in OPD, OT and also attend academic activities jointly with departments of radiation oncology, medical oncology, pathology, neurosurgery etc. MCh residents and Skull Base Fellows also are promoted to participate in research projects jointly with faculty members. They present Seminars and journal clubs by rotation.

The department also organizes workshops and conferences for benefits of national and international delegates from time to time on various recent topics of interest. The department also welcomes delegates for observership from India and abroad and hosts them to observe departmental activities, specialty clinics, seminars and operative procedures.

Long Term Training

1. Lt. Col. Dr Abha Kumari, ENT Specialist, Military Hospital, Gwalior, 1 year, 25 April 2017 to 24 April 2018

Short Term Training

1. Dr Ravinder Singh Minhas, Professor, Department of ENT, IGMC, Shimla, 25 March 2019 to 8 April 2019
2. Dr Ramesh Azad, Professor and Head, Department of ENT, IGMC, Shimla, 11 February 2019 to 21 February 2019

Elective training

- Mr. Joshua Gold, University of Sydney, Australia, 10 December 2018 to 6 January 2019
- Mr. Tarun Yadav, Medical University, Pleven, Bulgaria, 23 July 2018 to 16 August 2018
- Mr. Mukul Kadyan, Medical University, Pleven, Bulgaria, 23 July 2018 to 16 August 2018
- Ms. Swikriti Sharma, Medical University, Pleven, Bulgaria, 2 July 2018 to 16 July 2018
 - **Internship postings** - Department of Emergency Medicine, Paediatrics, Medicine and Physiology
 - **Internship posting** of students of Bachelor's in Audiology and Speech Language Pathology (BASLP), AYJNISHD, Regional Centre, Noida

Department had observers and rotation postings from Department of Medicine, Paediatrics and Physiology

CMEs/Workshops/Symposia/National and International Conferences

1. First international Head and neck Cadaveric dissection course and 7th AIIMS course at ACSST Facility, 26-30 March 2019, AIIMS, New Delhi
2. 8th Hands on Temporal Bone Dissection Course, 22-24 March 2019, AIIMS, New Delhi
3. AIIMS Laryngology Update 2019, 10-12 March 2019, AIIMS, New Delhi
4. 4th AIIMS Facial Plastics and Rhinoplasty workshop, 21-24 February 2019, AIIMS, New Delhi
5. Ved and Prakash Monga Temporal Bone Dissection competition for Association of Otolaryngologists of India, Delhi branch, 16 February 2019, AIIMS, New Delhi
6. 6th AIIMS Cadaveric Head and Neck course, 16-17 November 2018, ACSST Trauma Centre, Delhi
7. Second TOUSS Workshop, 16-17 August 2018, AIIMS, Delhi
8. Monthly meeting of association of Otolaryngologists of India, Delhi State Branch on 20 July 2018, AIIMS, Delhi
9. 5th Cadaveric Head and Neck Dissection Course at Cadaveric Training and Research Facility, 17-18 July 2018, AIIMS, Delhi
10. Structured Cochlear implantation Course for Surgeons 26-27 April 2018, AIIMS, Delhi
11. First AIIMS Cadaveric workshop on voice at ACSST, Trauma Center, 20 April 2018, AIIMS, Delhi

Lectures delivered

Alok Thakar

1. Case Discussion—Papillary Thyroid Carcinoma, 12th AIIMS Surgical Week, International Conference, 19-22 April 2018, New Delhi
2. Remote Access Thyroidectomy is a passing fad-cannot become standard of care, 12th AIIMS Surgical Week, International Conference, 19-22 April 2018, New Delhi
3. Thyroplasty-Surgical Techniques, Laryngology Cadaveric Dissection Course, JPN Trauma Centre, AIIMS, 20 April 2018, New Delhi
4. Tracheal Resection and Anastomosis-Surgical Techniques, Airway Reconstruction Cadaveric Dissection Course, JPN Trauma Centre, AIIMS, 21 April 2018, New Delhi

5. Round Table - Moderator - Difficult situations and recent advances in Cochlear Implantation, AIIMS Structured Cochlear Implant Course for Surgeons, 26-27 April 2018, AIIMS, New Delhi
6. Post Chemo-RT Salvage Laryngectomy—Panelist, Panel Discussion, Update in Oncology-2018-Controversies in Head-Neck Cancers, 28-29 April 2018, New Delhi
7. Laser Micro-Laryngoscopic Surgery—Video Presentation, Update in Oncology-2018- Controversies in Head-Neck Cancers, 28-29 April 2018, New Delhi
8. Controversies in Early Cancers of Larynx and Hypopharynx - Moderator, Panel Discussion, Update in Oncology-2018-Controversies in Head-Neck Cancers, 28-29 April 2018, New Delhi
9. Moderator- Panel Discussion-Tobacco usage and Interventions targeting Individual Behavioral Change, 1st Conference on Environmental and Occupational Determinants of Cancer: Interventions for Primary Prevention, 27-28 May 2018, New Delhi
10. Panelist—PNS and Skull Base Cancers, Cancon Head and Neck 2018, 23-24 June 2018, Bangalore
11. Oncological and Functional Outcomes following Transoral Laser Surgery for Advanced Laryngeal Cancer, Cancon Head and Neck 2018, 23-24 June 2018, Bangalore
12. Laser Microlaryngeal Surgery, Cancon Head and Neck 2018, 23-24 June 2018, Bangalore
13. Indocyanine Green loaded Cytokeratin Targeted Nanoparticle System for Sentinel Node Mapping, Workshop for Translational Research Advancement, Department of Biotechnology, 4-6 July 2018, AIIMS, New Delhi
14. Robotic Thyroidectomy, AOI Delhi Branch Meeting, 20 July 2018, New Delhi
15. Glomus Jugulare—The case for surgery, AOI Delhi Branch Meeting, 20 July 2018, New Delhi
16. Panelist—Best of ASCO Abstracts in Head-Neck Cancers, Best of ASCO 2018 Annual Meeting, 28-29 July 2018, New Delhi
17. Disorders of the Facial Nerve, Otolaryngology West Club, 4 August 2018, New Delhi
18. Panelist—Key Publications in Head-Neck Cancer Care for the Elderly, 1st Annual Review on Head and Neck Cancers, 11-12 August 2018, Mumbai, Maharashtra
19. Trans Oral Oncosurgery—Laser, Robot and TOUSS—What Technology when? 2nd AIIMS Course on Tran Oral Ultrasonic Surgery (TOUSS), 16-17 August 2018, AIIMS, New Delhi
20. Moderator-Management of Cancer Larynx, Association of Oncologists of North East India, 8-9 September 2018, Guwahati
21. Minimally invasive Head-Neck Oncosurgery Cancer Symposium, Association of Oncologists of North East India, 8-9 September 2018, Guwahati
22. Proptosis-Panel Discussion—Panelist, CME on Rhinology, Otolaryngology and Head and Neck Surgery, North East Branch of AOI, 20 September 2018, Guwahati, Assam
23. CSF Rhinorrhea, CME on Rhinology, Otolaryngology and Head and Neck Surgery, North East Branch of AOI, 20 September 2018, Guwahati, Assam
24. Endoscopic Skull Base Surgery, CME on Rhinology, Otolaryngology and Head and Neck Surgery, North East Branch of AOI, 20 September 2018, Guwahati, Assam
25. Extended supraglottic laryngectomy—Pre conference CME TORS and TOUSS in Head- Neck Cancer, Foundation for Head Neck Oncology Annual Conference (FHNO), 24-27 October 2018, Kolkata
26. TOUSS in Oropharyngeal Cancers, Foundation for Head Neck Oncology Annual Conference (FHNO), 24-27 October 2018, Kolkata
27. Glomus Jugulare—The case of surgery, Skull Base Surgery Society of India, 1-3 November 2018, Ludhiana, Punjab
28. Speech Rehabilitation in the Laryngectomy, AIIMS Head Neck Cadaveric Dissection Course, 5 December 2018, New Delhi
29. TLM in supraglottic and Hypopharyngeal cancer in the context of TORS and TOUSS, 5th Tata Memorial Centre— Laser Course in Head and Neck Oncology with Narrow Band Imaging, 14-15 December 2018, Mumbai
30. TLM for Intermediate and Advanced Laryngeal Cancers, 5th Tata Memorial Centre- Laser Course in Head and Neck Oncology with Narrow Band Imaging, 14-15 December 2018, Mumbai
31. Organ Preservation Surgeries in Cancer Larynx, International Conference on cancer of Larynx and Hypopharynx, 20-22 December 2018, New Delhi
32. Panelist—Choosing therapy for Treatment Naïve early laryngeal cancer, International Conference on cancer of Larynx and Hypopharynx, 20-22 December 2018, New Delhi

33. Moderator—Chemoradiation in Cancer Larynx—When and when not, International Conference on cancer of Larynx and Hypopharynx, 20-22 December 2018, New Delhi
34. Lifelong care in laryngeal cancer-case based discussion on issues of speech and swallowing rehabilitation, International Conference on cancer of Larynx and Hypopharynx, 20-22 December 2018, New Delhi
35. Robotic Thyroidectomy, 14th Asia-Oceania ORL-HNS 2019 congress and 71st Annual Conference of the Association of Otolaryngology of India, 9-13 January 2019, Hyderabad
36. Subglottic stenosis—Moderator, Panel Discussion, 15th Annual Conference of the Association of Phonosurgeon of India, Phonocon 2019, 1-3 February 2019, Kolkata
37. Tracheal Resection and Anastomosis, 15th Annual Conference of the Association of Phonosurgeon of India, Phonocon 2019, 1-3 February 2019, Kolkata
38. Bilateral Abductor Cord Paralysis, 15th Annual Conference of the Association of Phonosurgeon of India, Phonocon 2019, 1-3 February 2019, Kolkata
39. Robotic Thyroidectomy, 14th Asia Pacific Conference of Otolaryngology and Head- Neck Surgery, 9-13 January 2019, Hyderabad
40. Robotic Thyroidectomy, CME on current trends in Papillary carcinoma of thyroid, 10 February 2019, AIIMS, Rishikesh
41. Management of Papillary cancer thyroid—Panelist, CME on current trends in Papillary carcinoma of thyroid, 10 February 2019, AIIMS, Rishikesh
42. Endoscopic/Robotic Thyroidectomy—Panelist, International Society of Oncoplastic Endocrine Surgery and 3rd Conference of Indian Society of Thyroid Surgery, 15-17 February 2019, Lucknow
43. Keynote Lecture-Maximizing, Armed Forces Medical College, CORALS 2019, 22-23 February 2019, Pune
44. Delhi AOI Oration—A candle loses nothing by lighting another, 42nd Annual Meeting of the Delhi Association of Otolaryngologists of India (DeAOI), 2 March 2019, Delhi
45. New perspectives to vocal cord palsy, Association of Otolaryngologists of India, 3 March 2019, Coimbatore
46. EXITing from CHAOS, Association of Otolaryngologists of India, 3 March 2019, Coimbatore
47. Partial Laryngectomy, AIIMS Laryngology Update, 10-12 March 2019, Delhi
48. Maxillectomy—Surgical Technique, AIIMS International Head-Neck Cadaveric Dissection Course, 26-30 March 2019, JPN Trauma Centre, New Delhi
49. Remote Access Thyroidectomy is a passing fad—Cannot become standard of care— Debate Against the motion, Endosurgery AIIMS/13th AIIMS Surgical Week, 29-31 March 2019, New Delhi
50. Dilemmas in Treatment of Medullary Thyroid Cancer, 3rd Conference of the Asia-Pacific society of Thyroid Surgeons, 7-9 December 2018, Kaohsiung, Taiwan
51. Panelist—Questions in Otology, ENT Master Class UK, 16-17 November 2018, Colombo, Sri Lanka
52. Robotic surgery in Otolaryngology and Head-Neck Surgery, ENT Master Class UK- 2018, 16-17 November 2018, Colombo, Sri Lanka

Rakesh Kumar

1. Cadaveric demonstration of
 - a) Pinnaplasty-Mustarde's Suture technique,
 - b) "facial liposuction and Fat transfer
 - c) technique of rib cartilage harvesting and nasal dorsal augmentation
 - d) bi-lobe flap planning and using for facial defects, 6th National Facial Plastic Surgery Course, 27-28 August 2018, Bengaluru
2. Live demonstration of Rib cartilage harvesting, 6th International Rhinoplasty and Facial Plastic Surgery Workshop, 1-2 September 2018, Hyderabad
3. Talk on Otoplasty, 6th International Rhinoplasty and Facial Plastic Surgery Workshop 1-2 September 2018, Hyderabad
4. Live demonstration of open septorhinoplasty, 31st Annual conference of All India Rhinology Society, 5-6 October 2018, AIIMS, Bhubaneswar
5. Panelist on Rhinoplasty, 31st Annual conference of All India Rhinology Society, 5-6 October 2018, AIIMS, Bhubaneswar
6. Live demonstration of open a) septorhinoplasty for an acquired crooked nasal deformity and obstruction
 - a) second case was of cleft lip Rhinoplasty c) nasolabial flap repair, 2nd Annual Live Surgery cum Soft Cadaveric Dissection Course on Rhinoplasty, 12-13 October 2018, AIIMS, Jodhpur

7. Cadaveric demonstration of Rhinoplasty and nasolabial flap, 2nd Annual Live Surgery cum Soft Cadaveric Dissection Course on Rhinoplasty, 12-13 October 2018, AIIMS, Jodhpur
8. Keynote talk on cochlear implant-outcome, 38th Annual Conference of the Neuro- Otological and Equilibriometric (NES) Society of India, 29-31 March 2019, Bengaluru
9. Live surgical demonstration of Rhinoplasties, dimple creation, pinna plasty, 4th AIIMS Facial Plastics and Rhinoplasty Workshop, 21-24 February 2019, AIIMS, New Delhi
10. Rhinoplasty-outcomes, 42nd Annual Conference of Delhi AOI, 2-3 March 2019, LHMC, New Delhi

Kapil Sikka

1. Live cadaveric demonstration: PMMC Flap, First International Head and Neck Cadaveric dissection course and 7th AIIMS course, 26-30 March 2019, ACSST Facility, AIIMS, New Delhi
2. Live surgical demonstration: Total laryngectomy and neck dissection, First International Head and neck Cadaveric dissection course and 7th AIIMS course, 26-30 March 2019, ACSST Facility, AIIMS, New Delhi
3. Instructional course on Trans Nasal Esophagoscopy, AIIMS Laryngology Update 2019, 10-12 March 2019, AIIMS, New Delhi
4. Moderator, surgical sessions, AIIMS Laryngology Update 2019, 10-12 March 2019, AIIMS, New Delhi
5. Presented a debate against surgical management of traumatic facial nerve injury, 42nd Conference of Association of Otolaryngologists of India, Delhi Branch, 2-3 March 2019, LHMC, New Delhi
6. Panelist in panel discussion on facial reanimation, 4th AIIMS Facial Plastics and Rhinoplasty Workshop, 21-24 February 2019, AIIMS, New Delhi
7. Vestibular Paroxysmia, Vertigo update and workshop at, 2-3 February 2019, Fatehabad, Haryana
8. Robotic Thyroidectomy, Clinical Combined Round, 29 January 2019, AIIMS, New Delhi
9. Panelist, Management of Hypopharyngeal Cancer: Case based discussion, International conference on Cancer of Larynx and Hypopharynx, 21-22 December 2018, University Chicago Center, New Delhi
10. Auditing results of cochlear implantation, 16th Annual Conference of Cochlear Implant Group of India, 29 November-1 December, Daman, India
11. Ear Cancer, 27th Annual National Conference of Indian Society of Otolaryngology, 16-18 November 2018, Mysuru, India
12. Moderated a panel on “Complications in ear surgery”, 27th Annual National Conference of Indian Society of Otolaryngology, 16-18 November 2018, Mysuru, India
13. Radiology of infections—Pyogenic and Fungal in Round Table on Radiology, 11th International Symposium on recent Advances in Rhinosinusitis and Nasal Polyposis, 9-11 November 2018, NIMHANS Convention center, Bengaluru
14. Candidacy for Cochlear Implants, Otolaryngology Update, 24-25 October 2018, JNU, Aligarh
15. Invasive Fungal Sinusitis, 31st Annual Meeting of All India Rhinology Society (Rhinocon 2018), 4-7 October 2018, AIIMS, Bhubaneswar
16. Panelist: Challenges in allergic fungal rhinosinusitis with case scenarios: Challenges and updates in management, 31st Annual Meeting of All India Rhinology Society (Rhinocon 2018), 4-7 October 2018, AIIMS, Bhubaneswar
17. Endoscopic Anatomy of Nose and Paranasal Sinuses, Neurocon 2018, 14-16 September 2018, Paras Hospital, Gurgaon
18. Hearing Devices, AIIMS-IITD Open House session for collaborations, 29 August 2018, AIIMS, New Delhi
19. Narrow Band Imaging: Theory and Practice, 2nd TOUSS Workshop, 16-17 August 2018, AIIMS, New Delhi
20. Case discussion: Skull Base Paraganglioma: A case for surgery, Monthly meeting of association of Otolaryngologists of India, Delhi State Branch, 20 July 2018, AIIMS, New Delhi
21. Course coordinator demonstrated comprehensive neck dissection on cadaver, 5th Cadaveric Head and Neck Dissection Course, 17-18 July 2018, ACSST, AIIMS, New Delhi
22. Invasive Fungal Rhinosinusitis—Challenges and Solutions, 3rd Live Surgical Workshop on Endoscopic Sinus Surgery, 20 May 2018, Shroff’s Eye Hospital, New Delhi
23. Panelist, Case based panel discussion on controversies in management of oral cancers, Updates in Oncology—Controversies in Head and Neck Cancers, 28-29 April 2018, New Delhi
24. Potential red flags: Where to take extra care? Structured Cochlear Implantation Course for Surgeons, 26-27 April 2018, AIIMS, New Delhi
25. AIIMS Audit and results—What to expect? Structured Cochlear Implantation Course for Surgeons, 26-27 April 2018, AIIMS, New Delhi
26. Guide, Temporal Bone dissection and follow up nuggets, Structured Cochlear implantation Course for Surgeons, 26-27 April 2018, AIIMS, New Delhi

27. Unilateral Vocal Fold Immobility, First AIIMS Cadaveric workshop on Voice, 20 April 2018, AIIMS, New Delhi
28. Moderated a Panel on “Recent Strategies in Cochlear Implant”, 41st annual conference of Association of Otolaryngologists of India, 6-8 April 2018, Thimphu, Bhutan
29. Panelist, panel discussion on controversies in management of parotid tumors, 41st Annual Conference of Association of Otolaryngologists of India, 6-8 April 2018, Thimphu, Bhutan

Chirom Amit Singh

1. Bilateral vocal cord palsy, 1st Airway Cadaveric workshop, 21 April 2018, ACSST, All India Institute of Medical Sciences, New Delhi
2. Panelist, Symposium on controversies in management of oral cancers, Update in oncology -X- 2018 Controversies in Head and Neck cancer, 28-29 April 2018, Sir Ganga Ram Hospital, New Delhi
3. Basic surgical technique Laryngectomy, 5th Head and Neck cadaveric dissection workshop, 17-18 July 2018, ACSST, All India Institute of Medical Sciences, New Delhi, India
4. Cadaveric demonstration of laryngectomy, 5th Head and Neck cadaveric dissection workshop, 17-18 July 2018, ACSST, All India Institute of Medical Sciences, New Delhi, India
5. Panelist, Transoral surgical alternatives in head neck cancer, TOUSS in Head-Neck cancer, 16-17 August 2018, AIIMS, New Delhi
6. Basic surgical technique Laryngectomy, 5th Head and Neck cadaveric dissection workshop, 4-5 December 2018, ACSST, All India Institute of Medical Sciences, New Delhi, India
7. Cadaveric demonstration of laryngectomy, 5th Head and Neck cadaveric dissection workshop, 4-5 December 2018, ACSST, All India Institute of Medical Sciences, New Delhi, India
8. Oral cavity malignancy—Surgical aspects and reconstruction, 1st Annual Otolaryngology Update—Head and Neck Oncology, 14 December 2018, GIMS, Greater Noida, UP
9. Moderator, Static and dynamic rehabilitation of paralysed face, 4th AIIMS Facial Plastics and Rhinoplasty Workshop, 21-24 February 2019, AIIMS, New Delhi
10. Cadaveric demonstration of facial masseteric nerve anastomosis, 4th AIIMS Facial Plastics and Rhinoplasty workshop, 21-24 February 2019, AIIMS, New Delhi
11. Panelist, Decision making in early and advanced laryngeal cancer, 42nd Annual conference of Delhi AOI, 2-3 March 2019, LHMC, New Delhi
12. Cadaveric demonstration of mandibulotomy, International Head and Neck Dissection Course, 26-30 March 2019, ACSST, All India Institute of Medical Sciences, New Delhi
13. Cadaveric demonstration of mandibulectomy: Marginal and segmental, International Head and Neck Dissection Course, 26-30 March 2019, ACSST, All India Institute of Medical Sciences, New Delhi, India
14. Introduction to free flap—Basics of microvascular anastomosis, International Head and Neck Dissection Course, 26-30 March 2019, ACSST, All India Institute of Medical Sciences, New Delhi
15. Facial nerve in parotidectomy: Reanimation and reconstruction, International Head and Neck Dissection Course, 26-30 March 2019, ACSST, All India Institute of Medical Sciences, New Delhi
16. Surgical management of skull base malignancies, Workshop on contouring in Head and Neck Cancer Radiotherapy, 31 March 2019, Medanta, Gurgaon, Haryana

Rajeev Kumar

1. Moderated panel on “Controversies in management of parotid neoplasms”, 41st Annual Conference of AOI, Delhi State Branch 2018, 6-7 April 2018, Thimphu, Bhutan
2. Decision making in Laryngotracheal stenosis, 1st Voice and Airway Cadaveric Workshop, 20-21 April 2018, ACSST, JNPATC, AIIMS, New Delhi
3. Panelist for panel on “Trans Oral Surgical Alternatives in Head-Neck Cancer”, 2nd Live surgical workshop “TOUSS in head and neck cancers”, 16-17 August 2018, AIIMS, New Delhi
4. Transfacial approaches to PNS tumours, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
5. Moderated panel on topic Sinonasal malignancies—Where we can go wrong, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
6. Physiology of larynx and assessment of Aspiration, International Conference on Cancer of Larynx and Hypopharynx, 20-22 December 2018, UCMS and GTB Hospital, New Delhi
7. Panelist on panel for “Static and dynamic rehabilitation of paralysed face”, 4 Facial Plastics and Rhinoplasty Workshop 2019, 21-23 February 2019, AIIMS, New Delhi

8. Cross-fire: Cold steel tonsillectomy vs Coblation adenoidectomy, 42nd Annual Conference of Delhi AOI, 2-3 March 2019, LHMC, New Delhi
9. Panelist on panel for “Laryngeal Cancer—How to treat them best”, AIIMS Laryngology Update 2019, 10-12 March 2019, AIIMS, New Delhi
10. Demonstration through video “surgical steps of total maxillectomy”, International Head and Neck Dissection Course, 26-30 March 2018, AIIMS, New Delhi
11. Demonstration through video “surgical steps of Pectoralis Major myocutaneous flap and Deltopectoral flap”, International Head and Neck Dissection Course, 26-30 March 2018, AIIMS, New Delhi
12. Local flaps in Head and Neck closures, International Head and Neck Dissection Course, 26-30 March 2018, AIIMS, New Delhi

Prem Sagar

1. Management of Intractable Meniere’s Disease, Annual conference of AOI, Delhi Branch, 6-7 April 2018, Thimphu, Bhutan
2. Panel on Rhinoplasty, RHINOCON 2018, 4-7 October 2018, AIIMS, BBSR
3. Panel on Vertigo, 42nd Annual Conference by AOI, Delhi branch, 2-3 March 2019, Lady Hardinge Medical College, New Delhi
4. Practical aspects on evaluation and management of olfactory disorders, RHINOCON 2018, 4-7 October 2018, AIIMS, BBSR
5. Airway assessment, 1st Airway Cadaveric Workshop 2018, 21 April 2018, ACSST at JNPA Trauma Centre, New Delhi
6. Is the patient ready? Check list revision and consent, Structured Cochlear Implantation Course for Surgeons, 2018, 26-27 April 2018, AIIMS, New Delhi
7. Differentiated Thyroid Cancer: Tips in difficult diagnostic and therapeutic situations, 5th AIIMS Head Neck Cadaveric Dissection Course, 17-18 July 2018, AIIMS Cadaveric Surgical Skills Training at JNPA Trauma Centre, New Delhi
8. Face forward: A frontal sinus tumour of extreme rarity, Delhi AOI Monthly Clinical Meet, 20 July 2018, AIIMS, New Delhi
9. Differentiated Thyroid Cancer: Tips in difficult diagnostic and therapeutic, 6th AIIMS Head Neck Cadaveric Dissection Course, 4-5 December 2018, AIIMS Cadaveric Surgical Skills Training at JNPA Trauma Centre, New Delhi
10. Aesthetic Facial Analysis: Practical Aspect, Facial Plastics and Rhinoplasty Workshop, 2019, 21-24 February 2019, AIIMS, New Delhi
11. Instructional course in—Injection Laryngoplasty Animal Model, AIIMS Laryngology Update 2019, 10-12 March, AIIMS, New Delhi
12. Case based discussion on thyroid cancer, 1st International Head and Neck Dissection Course, 26-30 March 2019, AIIMS Cadaveric Surgical Skills Training at JNPA Trauma Centre, New Delhi
13. Obstructive endobronchial tumours; is pneumonectomy always necessary? Combined Clinical Round, 3 April 2018, AIIMS, New Delhi
14. Sinonasal mucormycosis: The deadly demon, Clinical Grand Round, 7 August 2018, AIIMS, New Delhi

David Victor Kumar Irugu

1. Surgical approach to Jugular foramen in Jugular tumors-FISCH type-A technical aspects, 4th AOI State Conference, Telangana, 14-16 September 2018, Siddipet, Telangana
2. Live Surgical Demonstration of Reverse Stapidotomy, 4th AOI State conference, 14-16 September 2018, Siddipet, Telangana
3. Basic Fundamentals and Principles of Temporal Bone Dissection, 1st Temporal Bone Dissection workshop, Lady Hardinge Medical College, 2-3 November 2018, New Delhi
4. Video demonstrations of various surgical techniques in Temporal bone, 1st Temporal Bone Dissection workshop, Lady Hardinge Medical College, 2-3 November 2018, New Delhi
5. Modifications of Maxillectomy: Partial vs Total, 1st International Cadaveric Head and Neck Dissection Course CTRF Facility Trauma Center, AIIMS, 26-30 March 2019, New Delhi
6. Contemporary Indications of CI Surgery, 1st Structured Cochlear Implantation Course to Surgeons, AIIMS, 26-28 April 2018, New Delhi

Hitesh Verma

1. Anoop Raj Resident Quiz Master, Delhi AOI, 1 April 2018, Delhi
2. Endoscopic choanal atresia repair, Explore ENT, 6-8 April 2018, Fatehabad Road, Agra
3. Pretest, 5th Cadaveric Head and Neck Dissection Course, 17-18 July 2018, CTRF Facility Trauma Center, AIIMS, New Delhi
4. When to do what: Neck dissection, 5th Cadaveric Head and Neck dissection Course, 17-18 July 2018, CTRF Facility Trauma Center, AIIMS, New Delhi
5. Robotic thyroidectomy, Delhi AOI Monthly Meet, 20 July 2018, Conference Hall, AIIMS, New Delhi
6. Thyroidectomy: Tertiary care center experience, PAOICON, 8-9 September 2018, Bhatinda
7. Serum galactomannan: Can consider as marker of invasion, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
8. Nasal dermoid: Tips and tricks, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
9. Lateral rhinotomy assisted endoscopic Lothrop, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
10. Panel discussion—Sphenoid revisit, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
11. Normal radiology and decision making in FESS, ISRNP, 9-11 November 2018, NIMHANS Convention Center, Bangalore
12. Moderator of invited talks, Haryana AOI, 24-25 November 2018, MM Medical College, Mullana
13. COMPLICATION in thyroid surgery, Haryana AOI, 24-25 November 2018, MM Medical College, Mullana
14. When to do what: Neck dissection, 6th Cadaveric Head and Neck Dissection Course, 4-5 December 2018, CTRF Facility Trauma Center AIIMS, New Delhi
15. Pretest, 6th Cadaveric Head and Neck Dissection Course, 4-5 December 2018, CTRF Facility Trauma Center, AIIMS, New Delhi
16. Panelist—Case presentation angiofibroma, ENT Update, 8-9 December, MAMC, New Delhi
17. Anatomy of larynx and hypopharynx, International Conference on Cancer of Larynx and Hypopharynx, 20-22 December, UCMS, New Delhi
18. Quiz master, AIIMS Facial Plastic Conference., 21-23 February 2019, AIIMS, New Delhi
19. Prognostic factor in RRP, Delhi AOI, 2-3 March 2019, LHMC, New Delhi
20. Recent management in RRP, Delhi AOI, 2-3 March 2019, LHMC, New Delhi
21. When to do what: Neck dissection, 1st international Cadaveric Head and Neck Dissection Course, 26-30 March, CTRF Facility Trauma Center AIIMS, New Delhi
22. Surgical Anatomy for OSA, IASSACON, 29-31 March 2019, PGIMER, Chandigarh
23. Chairperson—How to improve the outcome in OSA surgeries, IASSACON, 29-31 March 2019, PGIMER, Chandigarh

Shuchita Singh Pachaury

1. Stroboscopic evaluation of larynx—Its principle and uses, 1st Voice Cadaveric Workshop, 20 April 2018, ACSST, JPNATC, New Delhi
2. How a Cochlear implant works, 1st structured cochlear implantation course for surgeons 2018, 26-27 April 2018, Seminar Room, AIIMS, New Delhi
3. Thyroidectomy, 5th Head and Neck Cadaveric Dissection Workshop 2018, 17-18 July 2018, ACSST, JPNATC, New Delhi
4. Thyroidectomy, 6th Head and Neck Cadaveric Dissection Workshop 2018, 4-5 December 2018, ACSST, JPNATC, New Delhi
5. Panelist—Multi-disciplinary approach to Allergic March, INDO-US Symposium on Allergy and Asthma, 15-16 December 2018, Convergence Block, AIIMS, New Delhi
6. Management of Laryngotracheal Stenosis, International Conference on Cancer of Larynx and Hypopharynx, conducted by University of Chicago and University, College of Medical Sciences and GTB Hospital, 20-22 December 2018, University of Chicago, Centre in Delhi, New Delhi
7. Swallowing and FEES, Delhi AOICON 2019, 2-3 March 2019, Hall A, Swarna Jayanti Auditorium, LHMC, New Delhi
8. FEES and Swallowing rehabilitation, AIIMS Laryngology Update 2019, 10 March 2019, Surgical Skill Lab, AIIMS, New Delhi

9. Laryngeal EMG, AIIMS Laryngology Update 2019, 10 March 2019, Surgical Skill Lab, AIIMS, New Delhi
10. Stroboscopic evaluation of larynx, AIIMS Laryngology Update 2019, 10 March 2019, Surgical Skill Lab, AIIMS, New Delhi
11. Radiological anatomy of temporal bone, Advanced Temporal Bone Dissection Course, 22 March 2019, Surgical Skill Lab, AIIMS, New Delhi
12. Assessment of swallowing and speech in head neck cancer, International Head Neck Dissection Course 2019, 26-30 March 2019, ACSST, JPNATC, New Delhi

Arvind Kumar Kairo

1. Bilateral vocal cord palsy, 1st Voice Cadaveric workshop, 20 April 2018, ACSST, JPNATC, New Delhi
2. Mechanism of Laryngotracheal stenosis, 1st Airway Cadaveric workshop, 21 April 2018, ACSST, JPNATC, New Delhi
3. Nasolabial Flap, Monthly clinical meet of Delhi Brach AOI, 2015, 12 October 2018, Conference Hall, AIIMS, Jodhpur
4. Pinnaplasty: Basic principles and techniques, 4th AIIMS Facial Plastics and Rhinoplasty Cadaveric Workshop, 23 February 2019, Conference Hall, AIIMS, New Delhi
5. Thyroplasty techniques, AIIMS Laryngology Update 2019, 10 March 2019, Surgical Skill lab, AIIMS, New Delhi
6. Panelist—Management of benign laryngeal lesions, Delhi AOICON 2019, 2 March 2019, Hall A, Swarna Jayanti Auditorium, LHMC, New Delhi
7. Temporal bone HRCT: How to read, Advanced Temporal Bone Dissection Course, 22 March 2019, Surgical Skill Lab, AIIMS, New Delhi
8. Surgical anatomy of temporal bone, Advanced Temporal Bone Dissection Course, 22 March 2019, Surgical Skill Lab, AIIMS, New Delhi
9. Type 1 Thyroplasty techniques demonstration, International Head Neck Dissection Course 2019, 26-30 March 2019, ACSST, New Delhi
10. Techniques of Neck Dissection, 6th Head Neck Cadaver Dissection Course 2018, 4-5 December 2018, ACSST, New Delhi

Oral papers/posters presented

1. Kairo A, Singh A, Sarwar S, Quadri JA, Kumar R, Shariff A, Sharma SC, Ultrastructural localization of bacterial pockets in disintegrating tympanic membrane of middle ear Cholesteatoma, The International Conference on Microscopy, 18-20 July, Bhubaneswar, Odisha
2. Kairo AK, Combine approach glottoplasty, Laryngology and Voice Summit, 21-23 September 2018, Goa, India
3. Kairo AK, Psoriasis—A key to solve enigma of cholesteatoma pathophysiology, ISOCON 2018, 16-18 November 2018, Mysore, Karnataka
4. Kajal SK, Kairo A, Quadri JA, Noise pollution: Hearing loss and non-auditory effects, International Conference on Health and Air Pollution- Effects and Managements, 7-8 September 2018, India International Centre, Delhi
5. Kumar R, Comparing the outcomes in patients of CSOM undergoing CWD mastoidectomy with/without canal wall reconstruction or cavity obliteration, ISOCON 2018, 16-18 November 2018, Mysore, Karnataka
6. Kumar R, Endoscopic excision of JNA—A case series, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
7. Kumar R, Evaluating the positivity of lymphovascular emboli and perineural invasion as prognostic factors in T4a gingivobuccal complex squamous cell carcinoma, 41st Annual conference of Delhi AOI State Branch, April 2018, Bhutan
8. Kumar R, Survival and Negative Risk Factors Analysis in Post—Total Laryngectomy Patients: A 5 Year Institutional Review, FHNO 2018, 25-28 October 2018, Kolkata
9. Sagar P, Budhiraja S, Kumar R, Short-term postoperative outcome of elective mastoid surgery in Paediatric vs Adult patients, 27th Annual Conference of Indian Society of Otology (ISOCON 2018), 16-18 November 2018, Mysore, Karnataka
10. Sagar P, Facial nerve decompression by closed tympanoplasty approach, 27 Annual Conference of Indian Society of Otology (ISOCON 2018), 16-18 November 2018, Mysore, Karnataka
11. Sagar P, Mehmi N, Kumar R, Sharma SC, Thakar A, Kumar R, Sinonasal mucormycosis: 5 year institutional experience, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar
12. Sagar P, Video on “closed tympanoplasty facial nerve decompression”, 41st Annual Conference of AOI, Delhi Branch, April 2018, Bhutan
13. Sikka K, Thakar A, Thakur K, Open Partial Laryngectomy in radiorecurrent laryngeal cancers, FHNO and IFNOS 2018, 25-28 October 2018, Kolkata

14. Singh CA, Chandran CA, Bhinyaram J, at Outcome and Quality of Life after fibula osseocutaneous flap free reconstruction in post tumour ablation mandibular defect, FHNO and IFNOS 2018, 25-28 October 2018, Kolkata
15. Sonu, Das B, Kairo AK, Prevalence and Antimicrobial Susceptibility of Non-typeable Haemophilus influenzae (NTHi) in North India, Delhi Critical Care Symposium, 18-19 August 2018, ISCCM, Nehru Place, Delhi
16. Verma H, Prognostic factor in RRP, Delhi AOI, 2-3 March 2019, Lady Harding Medical Collage, Delhi, **Best paper award**
17. Verma H, Serum galactomannan: Can consider as marker of invasion, RHINOCON 2018, 4-7 October 2018, AIIMS, Bhubaneswar, **Best paper award**

RESEARCH

Funded projects

Ongoing

1. BRCC3 Expression as a prognostic marker in Oropharyngeal Carcinoma Patients and its effect on radiotherapy resistance, Arvind Kumar Kairo, AIIMS, 2 years, 2018-2020, Rs 9.05 lakhs
2. Clinical and biochemical evaluation for depression in patients with recently diagnosed head and neck cancer, Prem Sagar, AIIMS, 2 years, 2016-2018, Rs 8 lakhs
3. Effects of non-ionizing electromagnetic field on human health: Effects on auditory and vestibular system, Rakesh Kumar, ICMR, 3.5 years (extended), Rs 90 lakhs
4. Evaluation of genetic profile of olfactory neuroblastoma, Rajeev Kumar, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
5. Evaluation of level of Vascular Endothelial Growth Factor—In cases of Recurrent Respiratory Papillomatosis, Hitesh Verma, AIIMS, 2 years, 2016-2018, Rs 4.7 lakhs
6. Evaluation of unknown head and neck primaries metastatic to cervical lymph nodes, Chirom Amit Singh, AIIMS, 2 years, 2018-2020, Rs 4.95 lakhs
7. Prevalence and Etiology of hearing impairment—National Task Force Project (Coordinating Centre), Alok Thakar, ICMR, 4 years, 2015-2019, Rs 97 lakhs
8. Salivary micro-RNA: Their utility as bio-marker during molecular changes in tobacco users vs tobacco non-users, Shuchita Singh, AIIMS, 2 years, 2016-2018, Rs 9.8 lakhs
9. Sound4All: Re-engineering High-end Audiometric Devices for Robust and Affordable Audiological Testing, Kapil Sikka, Indo German Science and Technology Center (IGSTC), 3 years, 2016-2019, Rs 36.8 lakhs
10. Study of Human Papilloma Virus (HPV) Association in Sinonasal Tumors, Kapil Sikka, AIIMS, 2 years, 2018-2020, Rs 20 lakhs
11. Study of Inner Ear Protein Otolin-1, vitamin D and Ionized Calcium in circulation as a biomarker in non-Meniere's Disease vertigo patients, David Victor Kumar Irugu, AIIMS, 2 years, 2018-2020, Rs 8.66 lakhs
12. The Clinicopathological evaluation of Cholesteatoma aggressiveness, Kapil Sikka, AIIMS, 2 years, 2018-2020, Rs 6.5 lakhs
13. To elucidate the functional relevance of Sin3B mRNA alternate splicing in pathogenesis of Oral Squamous Cell Carcinoma (OSCC), SC Sharma, Science and Engineering Research Board (SERB), 2 years, 2017-2019, Rs 3.55 lakhs

Completed

1. Studies on P13K/AKT signaling and anti-tumour effects of its targeted disruption in oral cancer, SC Sharma, DST, 3.5 years, 2014-2018, Rs 54.22 lakhs
2. Development of Indocyanine-Green loaded cytokeratin targeted calcium phosphate nanoparticulate system for sentinel lymph node mapping in head and neck cancer, Alok Thakar, DBT, 3 years, 2015-2018, Rs 38 lakhs
3. Study and Morpho-metric analysis of temporal bone by Micro dissection, David Victor Kumar, AIIMS, 1 year, 2017-2018, Rs 1.85 lakhs
4. A pilot comparative study on expressional level difference of 'psoriasin' between different squamous ear diseases in patients undergoing mastoid surgeries, Arvind Kumar Kairo, AIIMS, 1 year, 2016-2017, Rs 5 lakhs

Departmental projects

Ongoing

1. A pilot study on the causal relationship of gastroesophageal reflux and obstructive adenoid or adenotonsillar hypertrophy in paediatric population
2. A prospective study to explore patterns of nicotine dependence in newly diagnosed cases of head and neck squamous cell carcinoma and evaluate its association with perioperative complications

3. Allogenic tissue engineered tracheal transplantation in wistar rats—preclinical study
4. Assessment of clinical profile in patients of Menieres Disease and Vestibular Migraine
5. Assessment of depth of invasion in oral cavity squamous cell carcinoma (T1-T3) by clinical palpation and radiology and their correlation to histopathological depth of invasion
6. Assessment of host immunological tumour response by histochemistry in cancer oral cavity and its impact on prognosis—Retrospective cohort study
7. Clinico radiological correlation of severity of disease with vitamin D and immune markers in cases of allergic rhinitis and nasal polyposis
8. Effect of short term endotracheal intubation on laryngeal function
9. EMG findings in dysphonia due to laryngopharyngeal reflex disease and correlation with treatment outcome: An observational study
10. Evaluation of various clinical and immunological parameters in predicting the outcomes of sinonasal and skull base invasive fungal diseases: A descriptive study
11. Exploration of first echelon lymph node drainage of squamous cell carcinoma of tonsil with reference to lateral retropharyngeal lymph node of rouviere
12. Outcome in patients undergoing surgical correction of microtia
13. Prospective pilot study to evaluate the incidence of lymph node metastasis in olfactory neuroblastoma
14. Role of 68 gapsmahbed cc scan in patients with juvenile nasal angiofibroma S
15. SDH-X mutation in head and neck paragangliomas: A clinicopathological study
16. Study of microvascular density and tumour associated macrophages in oral squamous cell carcinoma
17. To correlate functional near infrared spectroscopy measurement of auditory cortex activation with auditory verbal outcome in prelingual profound sensorineural hearing loss patients after cochlear implantation
18. To evaluate the role of transnasal esophageal endoscopy for detection of synchronous esophageal neoplasm in head and neck cancer patients

Completed

1. Comparison between the canal wall down mastoidectomy with obliteration and without obliteration
2. Comparison of effect of embolisation on resection on Juvenile nasopharyngeal angiofibroma
3. Detection and quantification of circulating tumor cells in peripheral blood of patients with oral cavity squamous cell carcinoma
4. EGFR evaluation in cholesteatoma sac in different types of pneumatisation of temporal bones
5. Immunohistochemical and surgical outcomes of oral submucous fibrosis
6. Prospective evaluation of unknown head and neck primaries metastatic to cervical lymph nodes
7. Study of pediatric tracheostomy and its effect on patients and care givers

Collaborative projects

Ongoing

1. A longitudinal Survey to assess Patient Satisfaction for Nurse Initiated Follow Up Tele-Consultation among patients discharged from a selected tertiary care hospital, Nursing
2. An OMR sheet based feed-back survey on in-patient satisfaction regarding various hospital services in a selected tertiary care hospital, College of Nursing
3. Cleft Lip and Palate anomaly in India: Clinical profile Risk factors and current status of treatment: A hospital based study, Centre for Dental Education and Research
4. Developing suctioning machine for cleaning tracheostomy tubes, IIT Delhi
5. Interdisciplinary variations in the spectrum of oral mucosal lesions, Dermatology
6. Phenotypic and genotypic characterization of non-typeable *Haemophilus influenzae* (NTHi) from North India, Microbiology
7. Pilot study on comparison of efficacy and usability of indigenous handheld suction assembly for pediatric tracheostomised patients with the existing suction devices, Paediatrics
8. Serum Zinc levels in Indian population with chronic idiopathic tinnitus, Pharmacology
9. Studies on P13K/AKT signaling and anti-tumour effects of its targeted disruption in oral cancer, Biotechnology

PUBLICATIONS

Journals: 38

Chapters in Books: 6

Book: 1

PATIENT CARE

Apart from OPD, Operation theatre and minor OT services, the department runs a rehabilitation unit of audiology and speech pathology and specialty clinics in Audiology and skull base with cochlear implant, rhinology, vertigo, voice and swallowing, and twice a week Head and neck cancer clinic. Department also provides rural services at CRHSP Ballabgarh and Outreach OPD, Jhajjar. The statistics are as follows:

Ward Admissions: D4 Ward: 3,082

Number of patients operated

Main OT: Major cases: 2,541

Minor Cases: 2,044

Minor OT: OPD procedures: 22,236

Number of patient seen in OPD

New patients: 50,304 Old registration -81,467

Total Number of Patients seen in RUAS

New Patients: 3,691 Old Registrations: 3,180

No. of cases in Specialty Clinics

Clinic	New Cases	Old cases	Total
Vertigo	135	169	304
Audiology and Skull Base	113	33	146
Cochlear Implant	216	461	677
Voice	384	226	610
Rhinology	198	49	247
Head and Neck Cancer	1,376	4,522	5,898
Radiology Conference	941	-	941

Community service clinics

Twice weekly clinics in community hospital in Ballabgarh with once a week operating facilities.

Weekly clinics in primary health centre in Gurgaon

Weekly clinics in community hospital in IIT Delhi

The department is providing daily OPD services at Outreach OPD Jhajjar.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Suresh Chandra Sharma was President, AIIMS, Jodhpur; Fellow (Member of University Senate), Panjab University, Chandigarh; Member, Institute Body, Standing Purchase Committee and Standing Estate Committee of PGIMER, Chandigarh; Chairman, HR Sub-committee of PGIMER, Chandigarh; Honorary Advisor (Deafness), under the National Programme for Prevention and Control of Deafness (NPPCD) in the Ministry of Health and Family Welfare, Government of India, New Delhi; Member, Technical Steering Committee, National Programme for Prevention and Control of Deafness (NPPCD) in the Ministry of Health and Family Welfare, Government of India, New Delhi; Member, Authorization Committee under the Transplantation of Human Organs Act, 1994, AIIMS, New Delhi; Subject Expert, Committee for Sleep disorders, cognitive dysfunction and ENT projects under the programme entitled "Possible Impact of EMF Radiation Exposure from Mobile Towers and Handsets on Life and related R&D initiatives", Science and Engineering Research Board, Government of India, Vasant Kunj, New Delhi; Chairman, 'Ear, Nose and Throat Surgery Instruments' Sectional Committee of Bureau of Indian Standards (MHD04); Member, Executive Committee of the Haryana Welfare Society for Persons with Speech and Hearing Impairment, Panchkula; Member, Committee to taking initiative of promoting a culture of excellence in the new AIIMS (constituted by Hon'ble Minister of Health and Family Welfare, GOI); Visiting Professor in Department of ENT, AIIMS, Rishikesh; Chief Guest, Annual Day Function of AIIMS, Jodhpur held on 3 December 2018; Invited Chief Guest, First Convocation of AIIMS, Jodhpur held on 22 January 2019.

Professor Alok Thakar was Chairperson, ICMR Committee for Standard Treatment Workflows in ENT, 2019; Vice-Chairperson, Subcommittee for Medical Devices, Standing National Committee on Medicines; Visiting Professor, Department of Neurosurgery and Neuro-otology, SGGGIMS, Lucknow, 11-16 February 2019; Delhi AOI Oration—A candle loses nothing by lighting another 42nd Annual Meeting of the Delhi Association of Otolaryngologists of India (DelAOI), 2 March 2019; Keynote Lecture—Maximizing Functional Outcomes in Lateral Skull Base Surgery, Armed Forces Medical College, Pune, 22-23 February 2019.

Professor Rakesh Kumar was Honorary President of Neuro-Otological and Equibriometric (NES) Society of India for the year 2018-2019; Visiting Professor, Department of ENT at IGIMS Patna—Helping them with their cochlear implant programme; Visiting Professor, at Department of Otorhinolaryngology at AIIMS, Rishikesh; Member of BIS Committee looking after the Indian standards for ENT instruments; Organising Chairperson of 4th AIIMS Facial Plastics and Rhinoplasty Cadaveric Workshop on 23 February 2019; Keynote Lecture on cochlear implant-outcome at 38th Annual Conference of the Neuro-Otological and Equibriometric (NES) Society of India, 29-31 March 2019, Bengaluru.

Dr Kapil Sikka was Editorial Board Member and Assistant Editor, Indian J of Otolaryngology; Reviewer, Indian J Otolaryngology, Indian J Otolaryngology, Head and Neck Surgery, Indian J Paediatrics, Indian J Cancer; Joint Secretary, Association of Otolaryngologists of India, Delhi State Branch; Hony Treasurer, Otorhinolaryngologic Research Society of AIIMS (ORSA), 2017-; Organising Secretary, International Head and Neck Cadaveric workshop; Mentoring team, Cochlear Implant Programme at JNU Aligarh and DMC Ludhiana; Rural Service: Member of Medical camp to serve rural people deprived of proper medical health facilities at Naudera, District - Pratapgarh, Uttar Pradesh organized by community development committee on 13-14 October 2018; Member, ICMR team for VIP reference on Hearing Impairment in Baradih Village of Jaridih Block, Bokaro District, Jharkhand; Visited the place from 26 June to 29 June 2018 for investigating the problem; Participated in live TV health show on Doordarshan on 22 September 2018 on “ENT Health problems with changing season” and interacted with live callers and addressed health issues; Member Medical Board, AIIMS; Member, editorial team for research directory, AIIMS; Course coordinator Live Cadaveric demonstration: Neck Dissection First international Head and neck Cadaveric dissection course and 7th AIIMS course 26-30 March 2019, ACSST Facility, AIIMS, New Delhi; Guiding Faculty 8th Hands on Temporal Bone Dissection Course, 22-24 March 2019, AIIMS, New Delhi; Course Organiser, Live demonstration, Neck Dissection 6th AIIMS Head and Neck Cadaveric course, November 2018, AIIMS, New Delhi; Chaired a Session on “Skull Base” presented 18th National Meeting of Foundation of Head and Neck Oncology and International Federation of Head and Neck Oncologic Societies, 25-28 October 2018, Kolkata, India; Award poster titled “Open Partial Laryngectomy in Radio-recurrent Laryngeal Cancers,” 18th National Meeting of Foundation of Head and Neck Oncology and International Federation of Head and Neck Oncologic Societies, 25-28 October 2018, Kolkata, India; Judge, free paper session, 3rd National Meeting of Indian Society of Thyroid Surgeons, 24-26 August 2018, TMH, Mumbai; Course organizer and talk on “Devices and companies-makes and Models”, and also guided the delegates on hands on temporal bone dissection and electrode insertion training and also on follow up nuggets; Structured Cochlear Implantation Course for Surgeons, 26-27 April 2018, AIIMS, New Delhi.

Dr David Victor Kumar Irugu was Judge in Poster Presentation, 4th AOI State Conference, Telangana, on 14-16 September 2018, Siddipet, Telangana.

Dr Chirom Amit Singh was Organising Secretary, International Head and Neck Cadaveric workshop; Organised and conducted Microvascular anastomosis workshop (Live rat model) on 12-15 September 2019; Course Co-ordinator for Trans Nasal Esophagoscopy (TNE) in AIIMS Laryngology Update-2019 held on 10-12 March 2019; Organising Chairperson in 4th AIIMS Facial Plastics and Rhinoplasty workshop held on 21-24 February 2019; One of the member of AIIMS team who conducted health camp at SNM Hospital, Ladakh, from 25 to 29 October 2018.

Dr Prem Sagar was winner of Gold Medal for best surgical video (“closed tympanoplasty facial nerve decompression”) in S. P Soni video presentation session on 1 April 2018 in 41st Annual Conference of AOI, Delhi Branch, New Delhi; Winner of Third prize in Junior consultant paper presentation for “Sinonasal mucormycosis: 5 year institutional experience” during RHINOCON 2018, 4-7 October 2018 in AIIMS, BBSR; Winner of Third prize in Video presentation competition for my surgical video on “Facial nerve decompression by closed tympanoplasty approach” in 27th Annual Conference of Indian Society of Otolaryngology (ISOCON 2018), 16-18 November 2018 in Mysore, Karnataka; Member of Expert Group for Standard Treatment Workflows (STWs) for ENT by Ministry of Health and Family Welfare, Government of India; Member of the panel on ENT Surgery Instruments Sectional Committee, MHD 04 by Bureau of Indian Standards; Honorary Editor of Association of Otolaryngologists of India, Delhi Branch, 2018-2019; Executive body member of NES- India, 2019-2020; Reviewer in Indian Paediatrics Journal, official publication of the Indian Academy of Paediatrics (IAP), Springer Nature; Invited ENT Specialist in health programme Aayushman Bhava: Sinusitis aired live on Rajya Sabha TV on 19 January 2019 (11 am-12 pm).

Dr Arvind Kairo received award for pare presentation in ISOCON 2018 for junior consultant paper award; Organized 1st Voice Cadaveric workshop on 20 April 2018 as the Course Secretary; Organized 1st Airway Cadaveric workshop on 21 April 2018 as the Course coordinator; Organized 4th AIIMS Facial Plastics and Rhinoplasty Cadaveric Workshop on 23 February 2019 as Course Secretary; Organized Advanced Temporal Bone Dissection Course on 22 March 2019 as Course Secretary; Organized 1st Thyroplasty hands-on Workshop on animal model on 10 March 2019 the Course coordinator.

Dr Shuchita Singh Pachaury organized 1st Voice Cadaveric workshop on 20 April 2018 as the Course Secretary; Organized 1st Airway Cadaveric workshop on 21 April 2018 as the Course coordinator; Organized AIIMS Laryngology Update 2019 from 10 March to 12 March 2019 as Course Secretary; Workshop co-ordinator for “Workshop on Swallowing rehabilitation and FEES” and “Workshop on EMG and Stroboscopy”.

Dr Hitesh Verma won the best paper award at RHINOCON 2018 and AOI Delhi Branch; Judge resident E poster Haryana AOI, 24-25 November 2018, MM Medical College, Mullana; Chairperson—How to improve the outcome in OSA surgeries IASSACON, 29-31 March 2019, PGIMER, Chandigarh.

9.27. Paediatrics

Professor and Head

Ashok K Deorari (Neonatology)

Professors

	Vinod K Paul (On deputation to NITI Ayog) (Neonatology)	
Arvind Bagga (Nephrology)	Sushil K Kabra (Pulmonology, Intensive Care, Tuberculosis)	Madhulika Kabra (Genetics)
Pankaj Hari (Nephrology)	Sheffali Gulati (Neurology)	Rakesh Lodha (Pulmonology, Intensive Care, Tuberculosis)
Rachna Seth (Oncology)	Vandana Jain (Endocrinology)	Ramesh K Agarwal (Neonatology)

Assistant Professors

Neerja Gupta (Genetics)	Jeeva Sankar (Neonatology)	Aditi Sinha (Nephrology)
Biswaroop Chakrabarty (Neurology)	Kana Ram Jat (Pulmonology, Intensive Care, Tuberculosis)	Jhuma Sankar
Rajni Sharma (Endocrinology)	Anu Sachdeva (Neonatology)	Prashant Kumar Jauhari (Neurology)
Rohan Malik (Gastroenterology)	Jagdish Prasad Meena (Oncology)	Narendra Kumar Bagri (Rheumatology)
Aditya Kumar Gupta (Oncology)		Ankit Verma (Contract) (Neonatology)

Scientists

Madhumita Roy Chowdhary	GP Das (Medical)
Rashmi Shukla (Contract)	Kajal Jain

Other Staff

Anuja Agarwala (Dietician)	Sumita Gupta (Senior Physiotherapist)
Pallavi Mishra (Biochemist)	Sadhna Arora (Technical Officer)
Dhaneshwar Yadav (Medical Social Service Officer)	Neena Mehta

HIGHLIGHTS

The Paediatrics Department started a new DM programme in Paediatrics Medical Oncology. Only department at AIIMS which holds this distinction of running six DM courses, two WHO collaborating centres (WHO Collaborating Centres one in Newborn Training and Research in Newborn Care and another on Training in Clinical and Laboratory Genetics) and two ICMR advanced centres of excellence (Nephrology and Pulmonology) and a Centre for Advanced Research for Childhood Neurodevelopmental Disorders.

Consultation meeting for therapy for Rare Diseases funded by MOH&FW. Division of Genetics Department of Paediatrics on behalf of the Central Technical Committee (CTC) for “Rare Disease-Treatment and Policy” organized meeting to prepare guidelines for management of RD. Guidelines draft was circulated to experts in the country. Final evidence-based guidelines have been submitted to the MOH for approval.

Division of Neonatology got recognised sixth time consecutively as WHO Collaborating Centre (2019-2023) for training and research in Newborn Care by WHO HQ's.

The Division of Neonatology has partnered with PGI, Chandigarh and GMCH, Chandigarh, and Public Health Foundation of India to improve the quality of care of preterm neonates being treated in Special Newborn Care Units (SNCU) in 4 states of the country. The major objective of this activity is to reduce the incidence of Retinopathy of Prematurity (ROP) in preterm neonates by implementing evidence-based practices. The work is funded by Queen Elizabeth Diamond Jubilee Trust, UK.

Child Neurology Division organized Neuropedicon 2018, 18th National Conference of IAP Neurology Chapter of IAP, Emerging trends and Advances in Diagnostics and Therapeutics in Paediatric Neurology from 7-9 September 2018 at The Leela Ambience, Gurugram.

The Asian Journal of Paediatric Nephrology (www.ajpn-online.org), of which Professor Arvind Bagga is the editor and Professor Pankaj Hari and Dr Aditi Sinha are on the Journal Committee, was launched in 2018.

EDUCATION

Department is running six DM courses in Neonatology, Nephrology, Neurology, Genetics, Oncology and Pulmonology and Intensive care with 43 students enrolled. A Vibrant PhD programme is ongoing with five students.

MD Programme: A MD programme involving a total of 37 students is ongoing. There are regular teaching sessions and a system of ongoing internal assessment. New flip class teaching by Faculty once a month has been introduced. We undertook several training workshops including the Neonatal resuscitation for postgraduate students of the department on 21 April 2018 and 29 September 2018 and Ventilation Workshop for the for postgraduate students of the department 28-31 March 2019.

DM Programme: All the divisions have regular structured teaching activities 3-5 times a week. Interdisciplinary and interdepartmental teaching in the form of integrated seminars and case discussions, are encouraged in all disciplines. Regular small workshops and interactive case discussions involving residents and faculty are held. Pulmonology Division uses Telemedicine to connect to other institutions. Neonatology Division organised weekly workshops on common topics such as Kangaroo Mother Care, Total Parenteral Nutrition, understanding equipments, which involve hand on training of residents and nurses. The division organised 24 such workshops in the last year.

MBBS teaching

1. Departmental faculty is involved in bedside teaching of MBBS students during their posting in Paediatrics (OPD and wards) along with lectures, structured tutorials and integrated seminars
2. Department of Paediatrics have contributed for the development of skill modules for Undergraduate Medical students for SET facility
3. Division of Neonatology organised a workshop for seventh semester students on Standard Treatment Protocols for management of Sick neonates using wall charts, simulators, tablets, case studies and another workshop on quality improvement using posters, small group interactions in the seventh and eighth semesters

Endocrinology

Formation of AIIMS Paediatric Endocrinology Consortium (APEC), with the aim of mentoring the development of the specialty at other AIIMS, so that patients with pediatric endocrine disorders receive appropriate care near their homes and teaching-training activities at these institutes are streamlined. We reached out to 6 AIIMS, of which three have become active members (Bhopal, Bhubaneswar and Jodhpur). They are likely to send their faculty for observership to AIIMS, Delhi.

Neonatology

Division of Neonatology developed a multi-model learning resource material on 'Care of preterm neonates' for district health facilities by collaborative effort involving leading institutions and neonatologists in the country. Along with WHO-SEARO, the division developed a module on Point of Care Quality Improvement (POCQI-1,2) which has been incorporated in LaQshya Programme of GOI for improving labor room care practices for mothers and newborn. The module is available online on www.pocqi.org

Nurses Teaching

Online courses for nurses/paediatricians

The online education platform of the Division of Neonatology hosts 'Sick newborn care course for 3 months; Newborn nursing and quality improvement course for 10 weeks. This platform trained doctors and nurses (2018-2019) from different countries in the SEAR in sick newborn care and essential newborn care.

Faculty of department is actively involved in teaching of MSc nursing (Paediatrics).

Inter departmental collaboration: The department provides training for DM students from various departments including: Infectious Diseases (Department of Medicine), Intensive Care (Department of Anesthesiology), Neurology and Cardiac Anesthesiology.

The department conducted special bi-annual symposia on Nutrition and Emergency Care for children for all the residents and faculty.

Short term trainees: A total of 41 short term/long term trainees were trained in various divisions. Details are as follows:

Genetics

1. Mr Mohd Shariq, 19 June 2018 to 18 July 2018 (One month), Cytogenetic Lab, Central University of Punjab, City Campus, Mansa Road, Bathinda
2. Dr Pratibha Yadav, 1-30 November 2018 (One month), Genetic OPD, VMMC and Safdarjung Hospital, New Delhi-110029
3. Dr Meenakshi, 1-30 November 2018 (One month), Genetic OPD, VMMC and Safdarjung Hospital, New Delhi-110029
4. Dr Udaya Kumar DS, SR (DM Hematopathology), 1-10 May 2018 (10 days), Molecular/Cytogenetic/Biochemical, Department of Hematology, AIIMS, New Delhi
5. Dr Dange Prasad Sudhir, SR (DM Hematopathology), 11-21 August 2018 (10 days), Molecular/Cytogenetic/Biochemical, Department of Hematology, AIIMS, New Delhi
6. Dr Debdas Bose, SR (DM Hematopathology), 11-20 September 2018 (10 days), Molecular/Cytogenetic/Biochemical, Department of Hematology, AIIMS, New Delhi
7. Dr Richa Juneja, SR (DM Hematopathology), 1-10 November 2018 (10 days), Molecular/Cytogenetic/Biochemical, Department of Hematology, AIIMS, New Delhi
8. Dr Kundan Kumar, JR (Academic), 1-31 July 2018 (One month), Molecular/Cytogenetic/Biochemical, Department of Laboratory Medicine, AIIMS, New Delhi
9. Dr Shreyam Acharya, JR (Academic), 1-28 February 2019 (One month), Molecular/Cytogenetic/Biochemical, Department of Laboratory Medicine, AIIMS, New Delhi
10. Dr Tanu, 1-30 September 2018, Clinical+ Lab exposure, Division of Neonatology, Department of Paediatrics
11. Dr Srikant, 1-31 October 2018, Clinical+ Lab exposure, Division of Neonatology, Department of Paediatrics
12. Dr Surjeet, 1-31 January 2019, Clinical+ Lab exposure, Division of Neonatology, Department of Paediatrics
13. Dr Shruthi, 1-30 April 2018, Clinical+ Lab exposure, Division of Neurology, Department of Paediatrics
14. Dr Vivek, 1-31 May 2018, Clinical+ Lab exposure, Division of Neurology, Department of Paediatrics
15. Dr Prabhjot, 1-30 September 2018, Clinical+ Lab exposure, Division of Neurology, Department of Paediatrics
16. Dr Badal, 1-31 October 2018, Clinical+ Lab exposure, Division of Neurology, Department of Paediatrics
17. Dr Jaya Jethra, 14 January 2019 to 10 February 2019, Clinical+ Lab exposure, Fetal Medicine, Department of Obstetrics and Gynecology
18. Dr Anubhuti Rana, 4-31 March 2019, Clinical+ Lab exposure, Fetal Medicine, Department of Obstetrics and Gynecology

Neonatology (4)

1. Dr Rupesh Kumar, M.G.R. Medical University, Madurari, India, 1-31 October 2018
2. Dr Nitu Mundhra, K.E.M Hospital, Mumbai, 18-24 October 2018
3. Dr Somalika Pal, M.A.M.C., New Delhi, 1-15 October 2018
4. Dr Lokraj Shah, BP Koirala Institute of Health Sciences, Dharan, Nepal, 15 October 2018 to 15 January 2019

Nephrology (5)

1. Lieutenant Colonel Aditi Sharma, Classified specialist Paediatrics Indian Army Forces (2-year training, from August 2018)
2. Lieutenant Colonel Zaw Min Htwe, Lecturer/ Consultant Paediatrician, Department of Paediatrics, Defense Services Medical Academy, Yangon, Myanmar 6-months, beginning November 2018)
3. Dr Jasintha Sabanadesan, Trainee in Paediatric Nephrology, Sri Lanka, (2-year, beginning in March 2019)
4. Dr Suchitra Sehgal, Assistant Professor of Paediatrics, Dr Ram Manohar Lohia Postgraduate Institute of Medical Education and Research, New Delhi, May-August 2018
5. Dr Swapnil, Assistant Professor of Paediatrics, Dr D Y Patil Medical College and Hospital, March-June 2018

Neurology (3)

1. Ms Astha Sharma, 25 November 2017 to 15 April 2018
2. Dr SK Masiur Rahman (Bangladesh), 12 March 2018 to 31 May 2018
3. Dr Md. Abu Sayed (Bangladesh), 18 February 2019 to 14 April 2019

Paediatric Pulmonology and Intensive Care (17)

1. Dr Probir Kr Sarkar, Short term trainee from Bangladesh, 1 January 2018 to 30 September 2018
2. Dr Satnam Kaur, Trainee from Safdarjung Hospital, 1 February 2018 to 20 July 2018
3. Dr Sheetal Agarwal, short term trainee from RML Hospital, 11 June 2018 to 10 September 2018
4. Dr Sapna Taneja, Short term trainee from ESIC Hospital, February 2019-August 2019
5. Dr Sudha, Short term trainee from RML Hospital, February-May 2019
6. Dr Aruna Herath, Long term trainee, April 2018-March 2019
7. Dr Yogiraj, April 2018 (DM fellow in Infectious Disease)
8. Dr Farhan, April 2018 (DM fellow in Infectious Disease)
9. Dr Parul, May 2018 (DM fellow in Infectious Disease)
10. Dr Rohit, May 2018 (DM fellow in Infectious Disease)
11. Dr Netto George, July 2018 (DM fellow in Infectious Disease)
12. Dr Anivita Aggarwal, July 2018 (DM fellow in Infectious Disease)
13. Dr Chhavi Gupta, August 2018 (DM fellow in Infectious Disease)
14. Dr Soumyadip, September 2018 (Fellow in Infectious Disease)
15. Dr Sameer Abdul Samad, September 2018 (Fellow in Infectious Disease)
16. Dr Sayan Chakraborty, November 2018 (Fellow in Infectious Disease)
17. Dr Neha Rastogi, 20-31 December 2018 (DM fellow in Infectious Disease)

CME, CONFERENCES

A total of 31 CME/conferences/workshops were organized by different divisions.

Endocrinology (1)

1. AIIMS Paediatric Endocrinology CME, 1 July 2018, AIIMS, Delhi

Gastroenterology and Hepatology (2)

1. Organized the 1st AIIMS Paediatric Celiac Disease Symposium and the 8th Celiac Day at JLN auditorium AIIMS on 28 October 2018, Over 150 delegates attended
2. Operationalized data management in the pediatric gastro clinic

Genetics (5)

1. AIIMS-IGIB Joint Hands-on Workshop on Exome Sequence Analysis and Interpretation, 25-26 July 2018, Delhi consultation meeting for therapy for Rare Diseases, 18-19 July 2018, Delhi
2. MPS Awareness Day, 15 May 2019, Delhi
3. Prader Willi Syndrome parent group meeting jointly organised by AIIMS New Delhi and Indian Prader-Willi Association (IPWSA), 12 September, Delhi
4. IEM Day, Division of Genetics Department of Paediatrics in association with “MERD India” a parents group on Inborn errors of metabolism and “IEM Support Charitable Trust”, 15 December, Delhi
5. Turner Syndrome Symposium—An Indo US Educational activity jointly organised by University of Colorado, Sir Ganga Ram Hospital and All India Institute of Medical Science, 27 January 2019, Delhi

Neonatology (9)

1. Formulation of care packages for neonatal disorders for PM-JAY (Ayushman Bharat) scheme, 6-7 May 2018, New Delhi
2. Preterm baby care and quality improvement workshop, 4-5 December 2018, AIIMS, New Delhi
3. Preterm baby care and quality improvement workshop, 11-13 January 2019, AIIMS, New Delhi
4. Standard treatment workflows development meetings, October 2018-March 2019, AIIMS ICMR DHR, New Delhi

5. Workshop for faculty on Quality Healthcare and Patient safety, 4-5 February 2019, Raipur, AIIMS, Chhattisgarh
6. Training on Essential New Born Care and Quality improvement for MNH, 11-17 August 2018, Male', Maldives
7. Odisha State Level Workshop on Facility Based care of Preterm and LBW infants, 26-28 December 2018, SCB Cuttack, Odisha
8. Regional level workshop on Point of Care for Quality Improvement (POCQI) on Newborn health for aspirational districts, 19-20 June 2018, Koraput, Odisha
9. Newborn Ventilation Workshop, 28-29 January 2019, Chittagong, Bangladesh

Neurology (5)

1. In collaboration with the National Trust, Organized 4th National Workshop for Training of Master Trainers in Autism Tools INDT ASD and ISAA, (Ministry of Social Justice and Empowerment incollaboration with AIIMS), 6-8 April 2018, Vigyan Bhavan, New Delhi
2. Organized a Public Health Lecture, delivered a talk and Moderated Panel Discussion on Autism "Autism: Empowering through skill development" in Public Health Lecture, 11 April 2018, Jawaharlal Auditorium, AIIMS, New Delhi
3. Presentation: Demystifying a case of fever: The clinician's conundrum during Delhi IAP meeting, 19 July 2018, Department of Paediatrics, AIIMS, New Delhi

Oncology (5)

1. Public lecture and panel discussion, Childhood cancer awareness, 27 February 2019, AIIMS, New Delhi
2. Patients education programme, Childhood cancer, 10 December 2018, AIIMS, New Delhi
3. Module on Infection control, Infection control, 11 November 2018, AIIMS, New Delhi
4. Patient education programme, Childhood cancer, 14 May 2018, AIIMS, New Delhi
5. North India Paediatric Oncology Forum (NIPOF), Acute Myeloid Leukemias, and other uncommon Paediatric Leukemias (Leukemias of Ambiguous Lineage/MPAL's and JMML), 23 February 2019, AIIMS, New Delhi

Nephrology (2)

1. Panel discussion, public lectures, CMEs; The World Kidney Day with the theme 'Kidney health for everyone, everywhere', 10-16 March 2019, AIIMS, New Delhi, Chacha Nehru Bal Chikitsalaya, New Delhi and AIIMS, Bhopal
2. CME, Core principles in hemodialysis, 9 December 2018, AIIMS, New Delhi

Pulmonology, Intensive Care, Tuberculosis (2)

1. Organ dysfunction in ICU and supportive care, 5-6 May 2018, Conference Hall, AIIMS, New Delhi
2. 3rd Cystic Fibrosis conference and parents education, 6 September 2018, Conference Hall AIIMS, New Delhi

CMEs/Workshops/Symposia/National and International Conferences

Faculty Members Participated in 256 activities in CMEs (National and International)

Vandana Jain (13)

1. Initiation of therapy in Idiopathic Short stature—Diagnosis, therapy and follow-up Growth Hormone Symposium, organized by Growth Hormone Society of India and Indian Society of Paediatric and Adolescent Endocrinology, 29 April 2018, New Delhi
2. Idiopathic short stature: Role of Growth Hormone Growth Hormone Research Society Annual Meet 2018, 9 June 2018, Apollo Hospital, Delhi
3. The silent epidemic: Obesity, Metabolic syndrome, NAFLD, type 2 diabetes in adolescents, AIIMS Paediatric Endocrinology CME, 1 July 2018, AIIMS, Delhi
4. The scope and future of DM Paediatric Endocrinology in India: Moderator of panel discussion, AIIMS Paediatric Endocrinology CME, 1 July 2018, AIIMS, Delhi
5. Consensus guidelines for management of Growth Hormone Deficiency, Meeting for preparation of guidelines for treatment of rare diseases organized by Genetics Unit and MoHFW, 19 July 2019, SET Facility, AIIMS, Delhi
6. Panel discussion: Endocrine issues and their management in Prader Willi Syndrome, Indian Prader Willi support organization meeting, 5 September 2018, AIIMS, New Delhi
7. Metabolic syndrome: Is it all about lifestyle, Pre-conference workshop on Adolescent Endocrinology, Adolescon, 23 November 2018, Maulana Azad Medical College and Lok Nayak Hospital, New Delhi

8. Approach to a short child, Paediatric Endocrinology CME for postgraduates, organized by Lady Harding Medical College, 22 December 2018, Kalawati Saran Children's Hospital, Delhi
9. Clinical diagnosis and problems of Turner Syndrome, Turner Syndrome: Challenges across lifespan, An Indo-US Educational Activity, 27 January 2019, Sir Ganga Ram Hospital, Delhi
10. The epidemic and genesis of childhood obesity, Indo-European Congress workshop on Non Communicable Diseases, 1 February 2019, Dr Ramalingaswami Boardroom, AIIMS, New Delhi
11. Panelist for session on Neonatal endocrinology: Hypocalcemia and hyperglycemia, 56th National Conference of Indian Academy of Paediatrics (PEDICON 2019), 10 February 2019, MMRDA Ground, BKC, Mumbai
12. Diabetic Ketoacidosis, 2nd Practical Pediatric Endocrinology Course, organized by MAMC, Delhi and Growth and Obesity Workforce, Kanpur, 23 February 2019, India Habitat Centre, New Delhi
13. Medical Management of Disorders of Sex Development, 12th Paediatric Surgery Update 2019, organized by MAMC, Delhi, 8 March 2019, Ahalyabai Nursing College LT, MAMC, Delhi

Rajni Sharma (9)

1. Growth Hormone in Growth Hormone Deficiency, Growth Hormone Symposium, organized by Growth Hormone Society of India and Indian Society of Paediatric and Adolescent Endocrinology, 28 April 2018, Aerocity, New Delhi
2. Diabetic ketoacidosis; What's new? AIIMS, AIIMS Paediatric Critical Care CME, 7 May 2018, AIIMS, New Delhi
3. Approach to disorders of sex development, AIIMS Paediatric Endocrine CME, 1 July 2018, AIIMS, New Delhi
4. Panel discussion on Endocrine management of patients with Prader Willi syndrome, Indian Prader Willi support organization at AIIMS, 5 September 2018, AIIMS, New Delhi
5. When to investigate in a child with short stature Paediatric Endocrinology CME, organized by North Delhi Indian Academy of Paediatrics, 9 September 2018, Rohini, New Delhi
6. Panel discussion, on long-term complications of coeliac disease Postgraduate case discussion on endocrine manifestations of coeliac disease, Coeliac Support Organization Conference, 28 October 2018, AIIMS, New Delhi
7. Endocrine Problems in Thalassemia, 8th National Thalassemia Conference, 25 November 2018, Lady Harding Medical College, New Delhi
8. Electrolyte imbalance: Hyponatremia and hypernatremia, Paediatric Endocrinology CME for postgraduates organized by Lady Harding Medical College, 22 December 2019, Kalawati Saran Children's Hospital, New Delhi
9. Panel discussion on Resistant Rickets and bone disorders, Annual Conference of the Indian Academy of Paediatrics (PEDICON), 9 February 2019, Mumbai

Rohan Malik (4)

1. Advances in Paediatric Gastroenterology in the last year, PEDGASTROCON, 26 October 2018, Mumbai
2. Small Bowel evaluation in children: What is optimal, ISGCON, 10 November 2018, Bolgatti, Kochi
3. Cows Milk protein Allergy, PEDICON, 10 February 2019, Mumbai
4. Celiac Disease, IAP South Delhi, 28 February 2019, IAP Monthly Meet, New Delhi

Madhulika Kabra (13)

1. MPS I—Experience from India, 3rd South Asia LSD Symposium, 21 April 2018, New Delhi
2. Genetics and Epigenetics of Neural tube defects, 28th Annual Meeting of the International Federation of Spina Bifida and Hydrocephalus, 10 August 2018, New Delhi
3. Newborn screening, ICMR Course SGPGI, 22 August 2018, Lucknow
4. Approach to Degenerative Brain Diseases, ICMR Course SGPGI, 22 August 2018, Lucknow
5. Neurometabolic disorders: Whats New? Neuro Pedicon, 8 September 2018, Gurgaon
6. Genetics in Paediatric Practice, CME on Genetic disorders and IEM, 21 September 2018, Raipur
7. Mucopolysaccharidosis Type 1, CME on Genetic disorders and IEM, 21 September 2018, Raipur
8. Genetic testing in the present era-applications and challenges, Association of Medical Biochemists of India, 18 November 2018, New Delhi
9. Rare diseases: National initiatives for better diagnosis and management, Bengaluru Technical Summit, 29 November 2018, Bengaluru
10. Genetics in Clinical practice, 13th Scientific meeting on KSCH Doctors Forum, 1 December 2018, New Delhi

11. Gene therapy, PEDICON, 8 January 2019, Mumbai
12. Rare Disorders in Indian context, RD Day MAMC, 28 February 2019, New Delhi
13. Genetic tests for Kidney disorders and interpretation, Indian Society of Nephrology, 31 March 2019, New Delhi

Neerja Gupta (11)

1. Pompe disease—Experience from India, 3rd South Asia LSD Symposium, 21 April 2018, New Delhi
2. Previous child with intellectual disability, Session—Preconception counseling for common problems, CME in Maternal Fetal Medicine, 13 May 2018, New Delhi
3. Lysosomal storage disorders, Single center experience from India, 11th Asian Pacific MPS network, 31 May 2018, South Korea
4. Managing Quality of Data, in birth defect surveillance, Lessons learned, Regional meeting on reducing newborn mortality with a focus on birth defects', 9 August 2018, New Delhi
5. Maintaining quality of data in birth defect surveillance: Lessons learned, Birth Defect Surveillance Technical Advisory Meeting, 19 September 2018, Switzerland
6. Acute metabolic disorders—Case based presentation, 17th ICMR course on Medical Genetics and Genetic counselling, 23 August 2018, SGPGI, Lucknow
7. Skin as a clue to the diagnosis, 17th ICMR course on Medical Genetics and Genetic counselling, 23 August 2018, SGPGI, Lucknow
8. Cytogenetic Microarray, A revolution in Diagnostics, National workshop on Molecular Cytogenetics, 12 November 2018, AIIMS, New Delhi
9. Skeletal dysplasia—Case Scenarios with unique findings, SIAMG, 13 December 2018, CMC Vellore
10. Fatty Acid Oxidation defects, ISIEM, 18 January 2019, Pune
11. Fetal Autopsy, Pre Congress Workshop of NARCHI, 22 February 2019, New Delhi

Rashmi Shukla (2)

1. Prenatal Diagnosis of Genetic Disorders, Department of Human Genetics and Molecular Medicine, Central University of Punjab, 13 April 2018, Bhatinda
2. Classical and Molecular Cytogenetics, In Prenatal Diagnosis in India, All Russian Cytogenetics Conference, 31 August 2018, Moscow, Russia

AK Deorari (20)

1. Global survival strategies for newborn, International Paediatric Association (IPA-2019) Congress, 17-21 March 2019, Panama City, Panama
2. Quality improvement collaborative a reality in India, 56th National Conference of Indian Academy of Paediatrics 9 February 2019, Mumbai
3. Quality Health Care of patient safety, Workshop on Quality Improvement and Patient Safety, 4-5 February 2019 AIIMS, Raipur
4. A. Digital learning in newborn healthy, B. Oxygenation in neonatal ventilation, C. Pulmonary graphics in ventilation Neonatal Conference and Regional Workshop, 27-28 January 2019, Chittagong, Bangladesh
5. Quality health care in Telangana vision for future, State Level Workshop on Quality Improvement, 28-29 December, 2018, Hyderabad
6. Multimodal learning for postgraduate students, B. Optimal oxygen administration small group teaching, State Level Workshop on Facility Based care of Preterm and LBW infants, 26-28 December 2018, Cuttack, Odisha
7. Quality of care, 8th Annual Convention of National Neonatology Forum, 14-16 December 2018, Varanasi
8. Four step approach to quality improvement—POCQI, Orientation for Technical Resource Persons Supporting Implementation of Quality of Care Programme for MNCH, 12-16 November 2018, Nairobi, Kenya
9. Quality improvement—New paradigm in neonatology, South NEOCON, 7 October 2018, Chennai
10. Quality health care in maternal and newborn, Workshop on POCQI, 14 September 2018, Kolkata
11. Training on Essential Newborn Care and QI for MNH in Maldives Male, 11-17 August 2018, Maldives
12. Regional Meeting on Accelerating Reduction of Maternal, Newborn Mortality and Stillbirths: Towards achieving the Sustainable Development Goals, 10-13 July 2018, New Delhi
13. Issue for improvement on basic Newborn care, S.N.C.U. Quality Improvement Cooperation Meeting, 4 July 2018, Naya Raipur, Chhattisgarh

14. Quality improvement for medical colleges lessons learnt, Quality Care Workshop, 25-27 June 2018, Shimla
15. Quality improvement in newborn care, Regional level workshop on Point of Care for Quality Improvement (POCQI) on newborn health, 19-20 June 2018, Koraput, Odisha
16. Quality improvement in newborn care, Chhattisgarh Newborn Action Plan Workshop (C-NAP), 13 June 2018, Raipur, Chhattisgarh
17. Quality improvement in newborn care, Conclave on “Newborn Care”, 3-5 May 2018, Bhubaneswar, Odisha
18. Visit as expert, Expert Advisory Group (EAG) Review Meeting and ENAP Management Team Meeting, 16-20 April 2018, New York, USA
19. Quality is SIMULS a journey workshop not a destination, SIMULUS Workshop, 2 March 2019, AIIMS, New Delhi
20. Neonatal improvement collaboratives—roadmap for India, NeoCore, 30 March 2019, JIPMER, Pondicherry

Ramesh Agarwal (4)

1. Prevention and treatment of MDR sepsis, Sepsis in neonates, 4 May 2018, New Delhi
2. Improving the Quality of Childbirth and Neonatal care in Primary Health Centers in Two Districts in Haryana: A Stepped Wedge Cluster Randomized Trial, Improving the Quality of Childbirth and Neonatal Care, 26-27 April 2018, Uganda
3. Improving the Quality of Childbirth and Neonatal care in Primary Health Centers in Two Districts in Haryana: A Stepped Wedge Cluster Randomized Trial, WHO QI SEAR meeting, 4 October 2018, New Delhi
4. Antimicrobial Stewardship Programme at AIIMS, AMSP workshop, organized by ICMR, 19 November 2018, New Delhi

M Jeeva Sankar (17)

1. Overview of ‘Hypothesis testing’, Principles and Practice of Clinical Research – NIH/DBT/ICMR supported workshop, 16-20 April 2018, Hyderabad
2. Using secondary data in statistical analysis, Principles and Practice of Clinical Research—NIH/DBT/ICMR supported workshop, 16-20 April 2018, Hyderabad
3. Clinical Trial (Parallel/Cross over; Superiority, Equivalence, Non-Inferiority), Workshop on Research Methodology for MD and DM/MCh residents, 2 May 2018, AIIMS, New Delhi
4. Case-control study, Young Clinicians’ Programme, Indian Society of Gastroenterology, 28 August 2018, Hyderabad
5. Understanding of Kaplan Meier curve, Young Clinicians’ Programme, Indian Society of Gastroenterology, 28 August 2018, Hyderabad
6. Normal distribution, Workshop on ‘Basic Biostatistics’, 21-23 September 2018, SGPGI, Lucknow
7. Sample size estimation, Workshop on ‘Basic Biostatistics’, 21-23 September 2018, SGPGI, Lucknow
8. Confidence intervals for proportions, Workshop on ‘Basic Biostatistics’, 21-23 September 2018, SGPGI, Lucknow
9. Comparison of several means (ANOVA), Workshop on ‘Basic Biostatistics’, 21-23 September 2018, SGPGI, Lucknow
10. Other measures of association (odds ratio, relative risk), Workshop on ‘Basic Biostatistics’, 21-23 September 2018, SGPGI, Lucknow
11. Survival data analysis, Workshop on ‘Basic Biostatistics’, 21-23 September 2018, SGPGI, Lucknow
12. Clinical trial (Parallel/Cross over; Superiority, Equivalence, Non-Inferiority), Workshop on Research Methodology for MD and DM/MCh residents, 25 September 2018, AIIMS, New Delhi
13. Nutritional requirements of preterm and SGA, Meeting on ‘Early growth failure and SAM in infancy’ (by Indian Academy of Paediatrics and Society for Applied Studies), 23 October 2018, New Delhi
14. Evidence based intervention for LBW survival and care, NNF Newborn Week Celebration, 22 November 2018, New Delhi
15. Extensive antibiotic use and reservoirs of multidrug resistance, Hot Topics in Neonatology, 3 December 2018, Washington, DC
16. Barriers and enablers of KMC: Review of literature, Expert group consultation on scaling up KMC (by WHO-SEARO), 11 December 2018, New Delhi
17. Overview of National Ethical Guidelines for Biomedical Research involving Children, ‘ICMR National Ethics Guidelines’ Dissemination Programme, 17 February 2018, Bhubaneswar

Anu Sachdeva (7)

1. Oxygen therapy in neonates, Non-invasive ventilation workshop, 7 May 2018, Swami Dayanand Hospital, New Delhi
2. Step 2: Quality Improvement, Quality Improvement, 27 and 28 June 2018, IGMC, Shimla
3. Step 3: Quality improvement, Quality Improvement training for improving healthy survival of preterm infants without ROP at Bhopal, 15-17 July 2018, GMC, Bhopal
4. Intermittent mandatory ventilation: Nuts and bolts, Ventilation workshop at AIIMS, 6 and 7 September 2018, Jodhpur, AIIMS
5. Non-invasive ventilation, 11th National conference of IAP Chapter), 27 September 2018, Pune
6. Simulation under the head of Preside Meeting, 16 November 2018
7. St John's medical college Bangalore, Fluids and electrolytes in Surgical Neonates, Paediatrics Surgery Update, 7-10 March 2019, MAMC and associated Lok Nayak Hospital, New Delhi

Arvind Bagga (8)

1. Randomized controlled trials, Pre-primer workshop on 14 August 2018 and 3rd Primer in Paediatric Nephrology for Asia, 14 August 2018, National University of Singapore, Singapore
2. Hemolytic uremic syndrome, 3rd Primer in Paediatric Nephrology for Asia, 15 August 2018, National University of Singapore, Singapore
3. Refractory rickets, 3rd Primer in Paediatric Nephrology for Asia, 16 August 2018, National University of Singapore, Singapore
4. Neonatal acute kidney injury, 3rd Annual State-of-the Art Reviews in Neonatal-Perinatal Medicine Conference (18-20 October 2018) and visiting Professor at Akron Children's Hospital, Akron, Ohio (21-24 October, 2018), 18-26 October 2018, Cleveland Clinics, Cleveland Akron Children's Hospital, Akron, Ohio
5. Congenital nephrotic syndrome, 3rd Annual State-of-the Art Reviews in Neonatal-Perinatal Medicine Conference (18-20 October 2018) and visiting Professor at Akron Children's Hospital, Akron, Ohio, 18-26 October 2018, Cleveland Clinics, Cleveland Akron Children's Hospital Akron, Ohio
6. Steroid resistant nephrotic syndrome Hemolytic uremic syndrome Renal tubular acidosis, 6th Saudi International Congress of Nephrology and Transplantation, 28-30 November 2018, King Saud University Riyadh, Saudi Arabia
7. Childhood vasculitis, NEPH-IMMUNE 2019, 3rd February 2019, Hotel Shangri-La, New Delhi
8. Acute kidney injury, Paediatric Nephrology update, 16 March 2019, AIIMS, Bhopal, Madhya Pradesh

Pankaj Hari (4)

1. The new pediatric hypertension guidelines: What you need to know and how to implement in your practice, Paediatric Conference of North India, PCNI 2018, 24-25 November 2018, New Delhi
2. Long term outcome of steroid sensitive nephrotic syndrome, 30th Annual Conference of Indian Society of Paediatric Nephrology, ISPNCN, 30 November-2 December 2018, Hyderabad
3. Vesicoureteric reflux: Medical management, Paediatric Nephrology CME, 10 March 2019, Chacha Nehru Bal Chikitsalaya, New Delhi
4. UTI: Common issues in office practice, 2nd Paediatric Nephrology Update for Practicing Paediatricians and Trainees, 16 March 2019, AIIMS, Bhopal

Aditi Sinha (11)

1. Hemolytic uremic syndrome: Uncommon manifestations, diagnosis and management, NEPHKIDS 2018, 29 July 2018, Chennai
2. Acute peritoneal dialysis, Paediatric Dialysis Course, 3 August 2018, New Delhi
3. Extracorporeal therapies, Paediatric Dialysis Course, 4 August 2018, New Delhi
4. Antenatal hydronephrosis, Paediatric Nephrology Update 2018, 30 September 2018, Sir Ganga Ram Hospital, New Delhi
5. Molecular basis of hemolytic uremic syndrome, 3rd Annual Conference of Paediatric Research and Education Society of India, 17 November 2018, St. John's Medical College Hospital, Koramangala, Bengaluru
6. Molecular basis of hemolytic uremic syndrome, 3rd Annual Conference of Paediatric Research and Education Society of India, 17 November 2018, St. John's Medical College Hospital, Koramangala, Bengaluru
7. Basics of peritoneal dialysis, 30th Annual Conference of the Indian Society of Paediatric Nephrology, 30 November 2018, Hyderabad

8. Ethical issues in management of steroid resistant nephrotic syndrome, International Paediatric Nephrology Association Core group meeting to form clinical practice recommendations for Steroid resistant nephrotic syndrome, 13 December 2018, The Irish College, Leuven, Belgium
9. Acute kidney injury in children, Paediatric Nephrology Conference, 13 January 2019, Indore
10. Management of chronic kidney disease, Paediatric Nephrology Conference, 13 January 2019, Indore
11. Antenatal hydronephrosis, CME on Reflux Nephropathy: Removing the misconceptions, 10 March 2019, Chacha Nehru Bal Chikitsalaya, New Delhi

Sheffali Gulati (32)

1. Introduction to Autism; Diagnostic tools Overview; Multidisciplinary management 4th National Workshop for Training of Master Trainers in Autism Tools INDT ASD and ISAA (National Trust, Ministry of Social Justice and Empowerment in collaboration with AIIMS), 6-8 April 2018, Vigyan Bhavan, New Delhi
2. Live phone in programme, 'Helpline' Topic- "Dealing with Autism" AIR, FM Rainbow, 10 April 2018, All India Radio, New Broadcasting House, Parliament Street, New Delhi
3. Organized a Public Health Lecture, delivered a talk and Moderated Panel Discussion on Autism "Autism: Empowering through skill development" Public Health Lecture, 11 April 2018, Jawaharlal Auditorium, AIIMS, New Delhi
4. Overview of the Telehelpline and Teleconsultation Services Launch of National Child Neurology Tele-Helpline and Tele-Consultation Services for Childhood Neurodevelopmental Disorders, An AIIMS-IIFCL Joint Initiative, 12 April 2018, Dr Ramalingaswami Board Room, All India Institute of Medical Sciences, New Delhi
5. Moderated session on Epilepsy Counseling Social and Legal Aspects of Childhood Epilepsy Consensus Group meeting of Association of Child Neurology, 15 April 2018, Max Superspecialty Hospital, New Delhi
6. Panelist for a session on Neurocritical Illness Topic: Refractory Status Epilepticus Paediatric Pulmonology and Intensive Care Course, 5-6 May 2018, Conference Hall, AIIMS, New Delhi
7. Panelist for COMPASS Project launch meeting "Making parents their child's therapist" Sangath, 2 June 2018, India Habitat Centre, Lodhi Road, New Delhi
8. Attended Expert group meeting and delivered a talk on "Sharing experiences: NDD management and Gaps and critical area to address for early intervention and rehabilitation of NDD collaboration with (MoHFW, MoSJE and other Government and non Government Stakeholders) in the management and surveillance of Neuro-Developmental Disorders, Neurodevelopmental disorders, National Centre for Disease Control, 15 June 2018, Dte. GHS, MoHFW, GOI, 22, Sham Nath Marg, Delhi
9. Diverse ketogenic therapies (Classic, Atkins, Modified Atkins, and Low glycemic index treatment), And also co-chaired the second half of the workshop 12th Asian and Oceanian Epilepsy Congress (AOEC), 28 June-1 July 2018, Bali, Indonesia
10. AUTISM: A brief overview and Holistic approach MBCN School for Special Needs, Ponty Chadha Foundation, 10 July 2018, Noida, UP
11. CNS-TB 3rd National Paediatric TB Update-2018 15 July 2018, Auditorium, National Institute of TB and Respiratory Diseases (NITR), near Qutub Minar, Sri Aurbindo Marg, New Delhi
12. Invited as a subject expert for two days consultation meeting for preparing guidelines for therapy of rare diseases under the chairmanship of Dr S Venkatesh, DG, Dte. GHS, Chairperson of DMD and SMA group and made group presentation on the same, Government of India, Ministry of Health and Family Welfare, 18 and 19 July 2018, SET Facility, 2nd Floor, Convergence Block, AIIMS, New Delhi
13. Neuro developmental disorders the Journey, the Dreams and Their Realizations: The Journey thus far (AIIMS Experience) Department of Paediatrics, 7-9 September 2018, Gurugram
14. Neurodevelopmental disorders: The Journey thus far including new diagnostic tools and going e-way, IANCON 2018, 29 September 2018, Raipur, Delhi
15. Emerging paradigms in treatment of childhood epilepsy in the session entitled: Individualized diet therapy— Choosing the right KD therapy for the right patient, KETO 2018, 4-10 October 2018, Jeju, Korea
16. Public lecture and panel discussion on spinal deformities in children as a speaker and panelist, AIIMS, 23 October 2018, Jawaharlal Auditorium, AIIMS, New Delhi
17. Burden of cerebral palsy in India and various presentations, Cadaveric Workshop on MISS and Surgery for Cerebral Palsy/Spasticity ANTC 2018, 28 October 2018, AIIMS Trauma Center, New Delhi
18. Bachomai Mirgi, Lakshanaur Upchaar-Baatchheet, AIR, FM Rainbow, 1 November 2018, Aakashwani Bhawan, New Delhi

19. Workshop on “Mainstreaming children with learning disabilities in education”, as a resource person and conduct a technical session on “Assessment and Certification of students” with learning disabilities through SKYPE, Government of Nagaland, Department of School Education, 2 November 2018, Kohima, Nagaland
20. Participated in New India Sankalp Programme on Adoption for Children’s Day as a Panelist, Delhi Doordarshan, 14 November 2018, Copernicus Marg, Mandi House, New Delhi
21. Cerebral Palsy mimics: An overview in the session entitled: Mimics of Cerebral Palsy, International Child Neurology Association, Child Neurology Group Committee and Association of Child Neurology Advisory, 15-18 November 2018, Mumbai, India
22. Neurodevelopmental Disorders: Development of new tools-Going e way, IACPCON-2018, 24 November 2018, Kolkata, India
23. New tools for screening and diagnosis of Autism Spectrum Disorders, Also conducted a Workshop AIIMS modified INDT for Autism Spectrum Disorders, Attended Global Autism Convention, 10 December 2018, Bengaluru, Karnataka
24. Neurodevelopmental Disorders: Newer diagnostic tools-going e way, IAP, 10 February 2019, Mumbai, India
25. “Consenses Meeting on Craniopagus Twins” and delivered a talk on Craniopagus: Neurological and Neurodevelopmental issues, ICC, 14 February 2019, Board Room, Ramalingaswami Board Room, Director’s Office Complex, AIIMS, New Delhi
26. Multidisciplinary management of Cerebral Palsy, Indian Society for Paediatric Neurosurgery, 16 February 2019, JL Auditorium, AIIMS, New Delhi
27. Interesting cases and discussion, International Workshop on ‘Nerve Muscle Disorders’, Department of Neurology, 17 February 2019, VMMC and Safdarjung Hospital, New Delhi
28. Research presentation on “Role of Dietary Therapy in intractable epilepsy in children: Emerging Paradigms” Research Section, 19 February 2019, Conference Hall, AIIMS, New Delhi
29. Diagnostic tools for ASD (DSM 5 based) and other neurodevelopmental disorders: Going e-way, Panelist in panel discussion entitled: Review of child’s progress through interdisciplinary collaboration, Presentation by electronic media, Behavior Momentum India Foundation, 23 February 2019, Bengaluru, India
30. Development of diagnostic tools for childhood neurodevelopmental disorders, Department of Electrical Engineering, 2 March 2019, Indian Institute of Technology, New Delhi
31. Childhood Epileptic Encephalopathy and panelist in Status Epilepticus, ECON 2019, 8-10 March 2019, Nehru Place, New Delhi
32. Live phone in programme, “Total Health”, Topic- “Autism”, DD News, 31 March 2019, Tower-B, Doordarshan Bhawan, Mandi House, New Delhi

Biswaroop Chakrabarty (8)

1. Sleep related movement disorders, Paediatric sleep and non invasive ventilation: CME, 8 April 2018, BLK Hospital, New Delhi
2. ASD: Etiopathogenesis and role of medical and genetic investigations, Raising awareness on ASD: CME, 28 April 2018, PGI, Rohtak
3. Paediatric sleep; an overview, IAP Meet, 27 July 2018, Gurugram
4. Examination of an unconscious child, Clinical evaluation in Paediatric Neurology, 2 August 2018, LHMC, New Delhi
5. Acute flaccid paralysis, NEUROPEDICON, 9 September 2018, Gurgaon
6. Panelist: Celiac disease: Who to screen and groups at special risk, Celiac Disease CME, 28 October 2018, Jawaharlal Auditorium, AIIMS, New Delhi
7. Chairperson: Approach to a child with hemiparesis, 3rd AOCN master class in Paediatric Neurology for postgraduates, 3 February 2019, Bangla Sahib Road, New Delhi
8. Moderator: Cerebral palsy case presentation, Developmental workshop for postgraduates, 9 February 2019, MAMC, New Delhi

Prashant Jauhari (6)

1. Evidence based management of Autism, Raising awareness on ASD: CME, 29 April 2018, PGI, Rohtak
2. Febrile seizures and fever triggered Epilepsy, Neurological Issues in Clinical Experience (NICE) CME by IAP Gurgaon and Alchemist Hospital, 15 July 2018, Auditorium, Alchemist Hospital, Gurgaon
3. Approach to chronic Ataxia, NEUROPEDICON, 8 September 2018, Gurgaon

4. Evidence based management of Autism, REAACH (Research, education and awareness for Autistic children health) under IAP Noida, 14 October 2018, Sector 55, Noida
5. Chairperson: How to present a case of a child with Neurodegeneration? 3rd AOCN master class in Paediatric Neurology for postgraduates, 3 February 2019, Bangla Sahib Road, New Delhi
6. Moderator: Cerebral palsy case presentation, Developmental workshop for postgraduates, 9 February 2019, MAMC, New Delhi

Rachna Seth (11)

1. E-Learning on Cancer Fundamentals, Indian cancer Society Presentation, 15 March 2019, Khalsa College, New Delhi
2. Childhood cancers, Sanjeevani Baat Sehat Ki, 14 March 2019, Doordarshan, New Delhi
3. Survivorship and Mixed bag Session, BEST OF SIOP 2018, 12 January 2019, Rohini, New Delhi
4. Late Effects of Bone-marrow Transplant, Hematology and Radiation Therapy: Working Together- A collaborative approach in the management of hematological disorders', 15 December 2018, Gurgaon
5. Neutropenia in children How I workup and manage, 22nd Annual Paediatric Hematology-Oncology Conference (PHOCON 2018), 30 November-2 December 2018, Bangalore, India
6. How to administer chemotherapy, Workshop on Paediatric Haematology Oncology Nursing, 29-30 September 2018, SSPHGTI, Noida, Uttar Pradesh
7. Late effects and survivor passport, 4th National Cancer Survivor Conference, 8-9 (9th Half Day) September 2018, Air Force Auditorium, Subroto Park, New Delhi
8. Role of prophylactic antifungals in AML, 5th Midterm CME of Paediatric Hematology and Oncology Chapter of IAP, 1 July 2018, AIIMS, Bhubaneswar
9. Childhood Cancers, "Helpline" live phone in programme, "Helpline" for AIR, 15 May 2018, AIR, FM Rainbow (102.6 MHz), Delhi
10. Retinoblastoma, Doordarshan (DD) (Total Health), 13 May 2018, New Delhi
11. Tumor lysis syndrome and superior mediastinal syndrome: Management issues in the ICU, 7th Module of Paediatric Pulmonology and Intensive Care Course, 6 May 2018, AIIMS, New Delhi

JP Meena (2)

1. Thrombosis in children, Midterm CME of Paediatric Hematology-Oncology, 30 June 18, AIIMS, Bhubaneswar
2. Difficult scenarios in Ewings sarcoma, surgical aspects, axial disease, extraosseous disease, 22nd Annual Conference Paediatric Hematology-Oncology, 30 November 2018-2 December 2018, Bengaluru

Aditya Gupta (6)

1. Case scenarios in Rhabdomyosarcoma, Midterm CME of Paediatric Hematology-Oncology, 30 June-1 July 2018, AIIMS, Bhubaneswar
2. Paraneoplastic Syndromes in Neuroblastoma, 22nd Annual Conference Paediatric Hematology-Oncology, 30 November-2 December 2018, Bengaluru
3. Use of Growth factors in Paediatric Oncology, 22nd Annual Conference Paediatric Hematology-Oncology, 30 November-2 December 2018, Bengaluru
4. Relapsed AML, Meeting on Relapsed Lymphomas/Leukemias, 1 February 2019, New Delhi
5. Best of ASH for Paediatrics, Best of ASH Meeting of Delhi Hematology Group—Year in review 2018, 16 February 2019, New Delhi
6. Update on managing Aplastic anemia and Febrile Neutropenia, Annual CME of KSCH, 24 February 2019, LHMC, New Delhi

SK Kabra (60)

1. Indian Medical Journals: Problems and solutions, In Conference the National Medical Journal of India: 30 years of publishing, In association with COPE and IAMJE, at AIIMS, Panelists, S Nundy, SK Pandya, Sushil Kabra, Sandhya Srinivasan, K Satyanarayana (Moderator), 7-8 April 2018, AIIMS, New Delhi
2. Severe acute asthma exacerbation: Recent advances and emerging concepts, In AIIMS Paediatric and Intensive Care Course Module VII: Organ dysfunction, 5-6 May 2018, AIIMS, New Delhi
3. Management of Community Acquired Pneumonia and Complications, In RESPICON UAE, 11-12 May 2018, Sharjah

4. Childhood Tuberculosis—An Update, In RESPICON UAE, 11-12 May 2018, Sharjah (Hotel Redisson Blu).
5. Panel discussion on Childhood Asthma, RESPICON Emirates, Abudhabi, 11-12 April 2018
6. Dengue Fever in Children, In National Dengue Day, organized by Department of Medicine, All India Institute of Medical Sciences, New Delhi and National Vector Borne Disease Control Programme and Ministry of Health and Family Welfare, Government of India, 16 May 2018, Dr Ramalingaswami Board Room, AIIMS, New Delhi
7. NIV in developing countries: Is it feasible? Seventeenth International Paediatric Pulmonology Conference (CIPP XVII), 21-24 June 2018, Toledo, Spain
8. Management and Prevention of Chronic Suppurative Lung Diseases and Bronchiolitis Obliterans, Seventeenth International Paediatric Pulmonology Conference (CIPP XVII), 21-24 June 2018, Toledo, Spain
9. Cystic fibrosis: When to suspect, how to diagnose and manage, In Sher I Kashmir Institute of Medical Sciences, Srinagar 28 June 2018, organized by SKIMS, Srinagar
10. Childhood TB, In Update on Paediatric Pulmonology, 1 July 2018, Institute of Child Health, Kolkata
11. Childhood Asthma, In Update on Paediatric Pulmonology, 1 July 2018, Institute of Child Health, Kolkata
12. Cystic Fibrosis Childhood TB, In Update on Paediatric Pulmonology, 1 July 2018, Institute of Child Health, Kolkata
13. Changing Paradigm of Understanding of Asthma Physiology and its impact on Management of Asthma- Current Perspective, In 3rd Rajasthan RESPICON, 8 July 2018, Jaipur
14. Challenges in Managing Paediatric tuberculosis, at Resource Center for Tropical and Infectious Diseases (RCTID), 12 July 2018, AIIMS, Bhopal
15. Pulmonary Tuberculosis: Symptoms, Microbiology, Diagnostic Algorithm, In Update on Tuberculosis, 1 July 2018, National Institute of Tuberculosis and Respiratory Diseases, Mehrauli, New Delhi
16. Algorithm for Recurrent Wheezing, in Monthly meeting of IAP Delhi, 19 July 2018, AIIMS, New Delhi
17. Chest radiology: Clinical vignettes based approach, In First Delhi RESPICON, 19 August 2018, Kalawati saran Children Hospital, New Delhi
18. Acute Bronchiolitis, In First Delhi RESPICON, 19 August 2018, Kalawati Saran Children Hospital, New Delhi
19. Bronchiectasis simplified, In CME on Paediatric Infectious Diseases, 22 July 2018, Navi Mumbai
20. Pneumonia, In CME on Paediatric Infectious Diseases, 22 July 2018, Navi Mumbai
21. Radiology in lung infections, in Update on Radiology in Chest Infections, 5-6 August 2017, Board room, AIIMS, New Delhi
22. Paediatric TB—Newer Diagnostic and Treatment Guidelines, In North Zone PEDICON, 6-7 October 2018, Amritsar
23. Key note address: Achieving SDG by improved management and prevention of respiratory infections, In 3rd UP RESPICON, 13-14 October 2018, Lucknow
24. Challenges faced by Paediatrician in Suspected Respiratory Genetic disease, In 3rd UP RESPICON, 13-14 October 2018, Lucknow
25. Imaging of Airways, In Course I: A Crash Course on Radiology in Paediatric Respiratory Medicine, 21st HKSPRA Annual Scientific Meeting, 19-21 October 2018, Hong Kong
26. Imaging in Mediastinum: In Course I: A Crash Course on Radiology in Paediatric Respiratory Medicine, 21st HKSPRA Annual Scientific Meeting, 19-21 October 2018, Hong Kong
27. An update on management of pneumonia, In 21st HKSPRA Annual Scientific Meeting, 19-21 October 2018, Hong Kong
28. Natural History of disease, In PG course in 49 Union World Health Conference, 24 October 2018, Hague
29. Pulmonary TB Diagnostic Algorithm, case based, In PG course in 49 Union World Health Conference, 24 October 2018, Hague
30. Treatment of TB, In PG course in 49 Union World Health Conference, 24 October 2018, Hague.
31. Special conditions, Neonate of a mother with TB, In PG course in 49 Union World Health Conference, 24 October 2018, Hague
32. Dr Visweswara Rao Memorial Oration on Update on TB, In CENTRAL ZONE and TELUGU PEDICON, 3-4 November 2018, Vijaywada
33. Difficult to treat Asthma, In CENTRAL ZONE and TELUGU PEDICON, 3-4 November 2018, Vijaywada
34. Meet the Expert for Childhood Tuberculosis, In CENTRAL ZONE and TELUGU PEDICON, 3-4 November 2018, Vijaywada
35. Expectations of an Editor from reviewers, In peer review of articles for journals, 11 November 2018, Maulana Azad Medical College, New Delhi

36. Pulmonary Tuberculosis-Update, In UPPEDICON, 18 November 2018, Lucknow
37. Systemic and metabolic consequences of SDB in children: Devastating consequences of seemingly innocuous problem in session on Sleep Disordered Breathing, In 30th RESPICON, 23-25 November 2018, Amber Convention Center, Indore
38. Management of CF: Much more than Art of Airway Toilet and Infection control, In 30th RESPICON, 23-25 November 2018, Amber Convention Center, Indore
39. Lead Discussant: Session on Tuberculosis, In 30th RESPICON 2018, 23-25 November 2018, Amber Convention Center, Indore
40. Coffee with masters: One to one discussion with lead faculty on 24 November 2018, In 30th National Conference of IAP Respiratory chapter (RESPICON 2018), 23-25 November 2018, Amber Convention Center, Indore
41. Under five wheezing: Typical wheezer and childhood asthma, In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
42. Diagnosis and access to specimens (including video sessions on Tuberculin Testing, Gastric Aspirate and Induced sputum collection), In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
43. Cystic Fibrosis in India, In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
44. Interactive case discussion: Learning from Paediatric Respiratory Case Library Child with recurrent or persistent pneumonia, In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
45. Video demonstration of indigenously developed Sweat Chloride testing, In Glimpses into Paediatric respirology, Workshop in Napcon, 29 November 2018, Ahmedabad
46. Changing face of mechanism and management of allergies, In INDO-US Symposium on Allergy and Asthma, 15-16 December 2018, AIIMS, New Delhi
47. Epidemiology and Brief history of CF care worldwide and in India, In Workshop on Cystic Fibrosis as part of CF India Project, 5 January 2019, Christian Medical College, Vellore
48. Diagnosis of CF—Suspect, Screen and Sweat (test), In Workshop on Cystic Fibrosis as part of CF India Project, 5 January 2019, Christian Medical College, Vellore
49. CF Parent support group—Experience from AIIMS model In Workshop on Cystic Fibrosis as part of CF India Project, 5 January 2019, Christian Medical College, Vellore
50. Looking forward-Envisioning a bright future for CF care in India, In Workshop on Cystic Fibrosis as part of CF India Project, 5 January 2019, Christian Medical College, Vellore
51. Demystifying cystic fibrosis, In CME on Paediatric Pulmonology, 12-13 January 2019, Jaipur
52. Cystic Fibrosis Meet: Parents, Patients and Paediatricians: What are recent advances, In Cystic Fibrosis Meeting and Respiratory Update, 19-20 January 2019, AIIMS, Jodhpur
53. Acute bronchiolitis, Recent evidence In Cystic Fibrosis Meeting and Respiratory Update, 19-20 January 2019, AIIMS, Jodhpur
54. ChILD: When to suspect In Cystic Fibrosis Meeting and Respiratory Update, 19-20 January 2019, AIIMS, Jodhpur
55. Panel discussion: Paediatric TB, In Cystic Fibrosis Meeting and Respiratory Update, 19-20 January 2019, AIIMS, Jodhpur
56. Innovative approach in diagnosis of rare disorders: Cystic Fibrosis as Prototype oration on seven decade celebration of SMS Medical College, 25 January 2019, Jaipur
57. Cystic Fibrosis, In CME programme entitled “All About Cystic Fibrosis”, 27 January 2019, Institute of Child Health, Kolkata
58. Panel discussion: Radiology in cystic fibrosis, In CME programme entitled “All About Cystic Fibrosis”, 27 January 2019, Institute of Child Health, Kolkata
59. Panel discussion: Interactive case discussion, In CME programme entitled “All About Cystic Fibrosis”, 27 January 2019, Institute of Child Health, Kolkata
60. Epidemiology of childhood TB, In National level, Trainers training on Childhood Tuberculosis, 5 February 2019, Mumbai

Rakesh Lodha (13)

1. Language and style, Workshop on Paper Writing, 5-6 April 2018, New Delhi
2. Results/Tables/Figures, Workshop on Paper Writing, 5-6 April 2018, New Delhi
3. References, Workshop on Paper Writing, 5-6 April 2018, New Delhi

4. Expectations of an editor from a peer reviewer, Workshop: How to peer review, 6 April 2018, New Delhi
5. Authorship, The National Medical Journal of India: 30 years of publishing, 7-8 April 2018, New Delhi
6. Acute Respiratory Distress Syndrome: Refractory Hypoxemia, Organ dysfunction in ICU and supportive care, 5-6 May 2018, New Delhi
7. Renal replacement therapy in the ICU: Recent advances, Organ dysfunction in ICU and supportive care, 5-6 May 2018, New Delhi
8. Panelist: Lids are more than a handful, AIIMS Radiology Course, 5 August 2018, New Delhi
9. Pulmonary Tuberculosis: An Update, UP RESPICON, 14 October 2018, Lucknow
10. Challenges in Practising Paediatric Pulmonology: Respiratory Emergencies, UP RESPICON 2018, 14 October 2018, Lucknow
11. Newer Anti-TB drugs, RESPICON 2018, 25-26 November 2018, Indore
12. High altitude pulmonary edema, RESPICON 2018, 25-26 November 2018, Indore
13. Diagnosis and Mangement of Paediatric sepsis, IAPA 2019, 10 February 2019, New Delhi

Kana Ram Jat (16)

1. Croup, Diphtheria, pertussis, and bronchiectasis, RTIGEM (Respiratory Tract Infection Group Education Module), 8 April 2018, New Delhi
2. Extubation failure: How do we prevent? Does point of care ultrasound help? AIIMS Paediatric Pulmonology and Intensive Care Course: Module VII-Organ dysfunction and support, 5 May 2018, New Delhi
3. Rhythm disturbances and defibrillator, IAP-Advanced Life Support Course, 14 April 2018, New Delhi
4. Learning station-Shock, IAP-Advanced Life Support Course, 15 April 2018, New Delhi
5. Asthma mimickers, long term management of asthma, Asthma Training Module (ATM) 12 August 2018, Chandigarh
6. Under 5 wheezers: Case based diagnostic approach, PRS (Paediatric Respiratory Society) Annual CME, 19 August 2018, New Delhi
7. Diagnosis and Management of pulmonary illness in cystic fibrosis, Cystic Fibrosis parent education meet, 9 September 2018, New Delhi
8. Childhood asthma: How to manage effectively, Indian Academy of Paediatrics (IAP) Meerut branch Meet, 23 October 2018, Meerut, UP
9. Lead discussant of session on Chronic Respiratory diseases, RESPICON 2018, 24 October 2018, Indore, MP
10. Case discussion with experts, RESPICON 2018, 24 October 2018, Indore, MP
11. Rhythm Disturbances and defibrillator, IAP-Advanced Life Support Course, 10 November 2018, New Delhi
12. Learning station-Cardiac arrest, IAP-Advanced Life Support Course, 11 November 2018, New Delhi
13. BLS in infants, Learning station-Respiratory emergency, IAPA – IAP- BASIC LIFE SUPPORT (BLS) AND ADVANCED LIFE SUPPORT (ALS) IN CHILDREN, 8 February 2019, New Delhi
14. Allergic Bronchopulmonary Aspergillosis-evidence based approach, National CME on evidence based Paediatric Pulmonary Diseases, 17 February 2019, Chandigarh
15. Rhythm Disturbances and defibrillator, IAP-Advanced Life Support Course, 9 March 2019, New Delhi
16. Learning station-Respiratory emergencies, IAP-Advanced Life Support Course, 10 November 2019, New Delhi

Jhuma Sankar (6)

1. Septic shock: Beyond first hour resuscitation, NCPCC 2018, 16 November 2018, Coimbatore, India
2. To Give or Not? Assessing Fluid Responsiveness, NCPCC 2018, 17 November 2018, Coimbatore, India
3. Overlooked causes of refractory shock -diastolic dysfunction / right ventricular failure, IPCCI 2018, 21 October 2018, Hyderabad, India
4. Hyperferritinemia in the ICU, AIIMS PPIC Module VI: Organ dysfunction and support, 5 and 6 May 2018, AIIMS, India
5. Panel discussion: Refractory septic shock, AIIMS PPIC Module VI: Organ dysfunction and support, 5 and 6 May 2018, AIIMS, India
6. Panel discussion: Neurocritical illness, AIIMS PPIC Module VI: Organ dysfunction and support, 5 and 6 May 2018, AIIMS, India

Narendra Kumar Bagri (3)

1. Prevention and management of infections in primary immunodeficiency, Current trends in diagnosis and management of primary immunodeficiency, 6 December 2018, Super Speciality Paediatric Hospital and Post Graduate Teaching Institute, Noida
2. Primary Immunodeficiency (chaired the session), National Conference of Paediatric Rheumatology Society of India, 15 December 2018, Jupiter Hospital, Thane
3. Chronic recurrent multifocal osteomyelitis, Delhi Rheumatology Association Meeting, 26 November 2018, Indian Habitat Center, Delhi

Dhaneshwar Yadav MSSO (4)

1. Sensitization on Availing Financial Assistance for Cancer Patients, Childhood Cancer Patient's Educational Programme, 14 May 2018, JI Auditorium, AIIMS, New Delhi
2. Sensitization on Availing Financial Assistance for Cancer Patients, Patients Education Programme Forum: Childhood Cancer, 18 December 2018, AIIMS, New Delhi
3. Spread Awareness in Public about Availing Benefit of Pm-Jay (Ayushman Bharat), Public Lecture And Panel Discussion On Childhood Cancer, 27 February 2019, AIIMS, New Delhi,
4. GI Disorder and Transplant-Medical Social Work Perspective and Challenges, 6th Annual Conference Of All India Association Medical Social Work Professionals, 4 and 5 January 2019, JIPMER, Puducherry

Oral papers/posters presented (119)

A total of 119 oral/poster presentations were made by faculty, residents or research staff

1. Agarwal M, Chaudhary MR, Bakhshi S, et al. Gene copy number alteration profile in Indian children with Acute Lymphoblastic Leukemia, 22nd Annual Paediatric Hematology-Oncology Conference (PHOCON 2018), 30 November-2 December 2018, Bangalore, India
2. Aggarwal B, Kabra M, Gupta N, Kumar A. Clinical, radiological and genotypic, spectrum of nuclear mitochondrialopathies—Experience from tertiary care centre, 5th national conference of ISIEM, 13-15 December 2018, Pune
3. Aggarwal N, Agarwala A, Sahoo D, et al. Identification of Enteral Nutrition (EN) related myths amongst parents and a comparison between nutritional status of tube fed and orally fed pediatric oncology patients, 11th International SIOP PODC workshop on Nutrition in Children with Cancer, 18-19 January 2019, Cancer Institute (W.I.A), Chennai
4. Ahmad A, Muthukrishnan SP, Prakash SK, Tayade P, Chakrabarty B, Gulati S, Sharma R. Decreased power and connectivity in Autism spectrum disorder: An EEG biomarker, Annual Research Day of AIIMS, 26 March 2019, JL Auditorium, AIIMS, New Delhi
5. Akhila S, Sara HZ, Kotaka N, Madhulika K, Richard GA, Rashmi S. *ATM* Haplotypes and Associated Pathogenic Variants in Indian Ataxia Telangiectasia Patients, 44th Annual Meeting of the Indian Society of Human Genetics, 27 January-2 February 2019, NIBMG and Kalyani University, Kolkata
6. Anand S, Agarwala S, Jain V, et al. Neuroblastoma with Opsoclonus-Myoclonus-Ataxia Syndrome (OMAS): Outcomes of Surgical Management Over Twenty Years, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
7. Anand V, Gupta A, Gupta N, Sapra S, Pandey RM, Gulati S, Shukla G, Kabra M. Prevalence of sleep disordered breathing among Indian children with Down syndrome—A cross sectional study, Annual Research Day of AIIMS, 26 March 2019, JL Auditorium, AIIMS, New Delhi
8. Aparna SV, Rashmi HM, Gulati S, Batish VK, Grover S (Best Poster). Comparative analysis of major gut microbiota of autistic and normal siblings in India by absolute PCR and metagenomic approach, Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
9. Arora R, Rahman R, Joe W, et al. Families of Children Newly Diagnosed with Cancer Incur Significant Out-of-Pocket Expenditure for Treatment—Report of a Multi-Site Prospective Longitudinal Study from India (InPOG-ACC-16-01), 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
10. Badal S, Panda PK, Kumar A, Jauhari P, Chakrabarty B, Gulati S. Combined Methylmalonic Acidemia and Homocystinuria, Cobalamin C type: Masquerading as Autoimmune Encephalitis in a 5 year old girl: A rare case report, Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR

11. Badal S, Panda PK, Madaan P, Pal A, Jauhari P, Chakrabarty B, Sondhi V, Dubey R, Gulati S. Clinical profile and outcome of Acute Necrotizing Encephalopathy of Childhood (ANEC): A retrospective case series with review of literature: International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
12. Bagri NK, Gupta P, Sundaram DD. Familial Kawasaki syndrome: Thinking beyond infections, 6th Kawasaki Disease Summit of India, 3-4 November 2018, PGIMER, Chandigarh
13. Bagri NK, Karmakar S, Haldar P, Lodha R, Kabra SK. Predicting Response to Methotrexate in Children with Juvenile Idiopathic Arthritis: Role of Biomarkers, Paediatric Rheumatology European Society Congress and Young Investigator meet, 5-8 September 2018, Centro de Congressos de Lisboa, Lisbon, Portugal
14. Bagri NK, Sundaram DD, Saxena A, Kumar S. The Penance of Missing Clinical Clues of Kawasaki Disease, 6th Kawasaki Disease Summit of India, 3-4 November 2018, PGIMER, Chandigarh
15. Chakrabarti B, Dubey I, Belmonte MK, Gliga T, Lockwood Estrin G, Bhishain R, Dasgupta J, Mukherjee D, Bhavnani S, Johnson, MH, Chandran S, Patel V, Gulati S, Divan G. Abstract 143.107: Screening Tools for autism risk using technology, International Society for Autism Research Annual Meeting, 9-12 May 2018, Rotterdam, Netherlands
16. *Chakrabarty B, Kaur P, Jauhari P, Sondhi V, Dubey R, Panda PK, Gulati S.* Clinico-epidemiological profile of Opsoclonus Myoclonus Ataxia syndrome: Experience of a tertiary care centre from north India, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
17. *Chakrabarty B, Madaan P, Jain P, Badal P, Jauhari P, Kumar A, Jana M, Gupta N, Kabra M, Gulati S.* The spectrum of leukodystrophies in children: Experience at a tertiary care centre from North India, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
18. *Chakrabarty B, Panda PK, Jauhari P, Sondhi V, Dubey R, Gulati S.* Paediatric anti-NMDA receptor encephalitis: Experience of a tertiary care teaching center in North India, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
19. *Chakrabarty B, Sirolia V, Aggarwal M, Jauhari P, Kumar A, Gulati S.* Clinico-epidemiological profile and outcome of pediatric neurotuberculosis: A retrospective cohort study, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
20. Correa ARE, Kabra M, Gupta N. Clinical, Biochemical and Molecular Snapshot of Mucopolidosis II/III at a Tertiary Care Centre, 3rd South Asia and 19th Asia LSD Symposium, 20-22 April 2018, New Delhi
21. Correa ARE, Kabra M, Gupta N. Utility of Chromosomal Microarray in clinical genetics practice- An experience from a tertiary care centre, 4th International Conference on Birth Defects (ICBD 2018), and 5th Annual Conference of the Society of Indian Academy of Medical Genetics, 13-15 December 2018, Vellore
22. Correa ARE, Malik R, Agarwala A, Bagga A, Kabra M, Gupta N. Hepatorenal Tyrosinemia—An initial experience from a tertiary care centre, 5th National Conference of ISIEM-2019, 18-20 January 2019, Pune
23. Dasgupta J, Bhavnani S, Verma D, Mukherjee D, Lockwood Estrin G, Dubey I, Belmonte MK, Bishain R, Gliga T, Johnson M, Chandran S, Patel V, Divan G Gulati S, Chakrabarti B. A Tablet Application for Screening Autism Risk in Community Setting, Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
24. Dasgupta J, Verma D, Bhavnani S, Mukherjee D, Lockwood-Estrin G, Dubey I, Belmonte MK, Bishain R, Gliga T, Johnson M, Chandran S, Patel V, Gulati S, Divan G, Chakrabarti B. START—A tablet application for screening autism risk in community settings, Poster presentation at PHFI research symposium, 29-31 October 2018, Delhi, India
25. Dasgupta J, Verma D, Bhavnani S, Mukherjee D, Lockwood-Estrin G, Dubey I, Belmonte MK, Bishain R, Gliga T, Johnson M, Chandran S, Patel V, Gulati S, Divan G, Chakrabarti B. Abstract for GAC—Global Autism ConScreening Tools for autism risk using technology, Global Autism Convention, 10-12 2018 December, Bangalore, India
26. Dhochak N, Jat KR, Sankar J, Lodha R, Kabra S. Prevalence and predictors of malnutrition in children with cystic fibrosis: Experience from developing world, Respicon, 23-25 November 2018, Indore
27. Dhochak N, Lodha R, Kabra S, et al. Acute gut injury: Prevalence and impact on outcome in critically ill children NCPCC-18, 19-20 October, Coimbatore (2nd prize in oral paper)
28. Dubey I, Brett S, Ruta L, Belmonte MK, Patel V, Divan G, Dasgupta J, Gulati S, Bhavnani S, Mukherjee D, Bhishain, R, Chandran S, Lockwood Estrin G, Gliga T, Johnson MH, Chakrabarti B. Abstract 111.209: Re-evaluating the reduced social motivation theory of autism, International Society for Autism Research Annual Meeting, 9-12 May 2018, Rotterdam, Netherlands
29. Farmania R, Kabra SK, Chakrabarty B Jauhari P, Sapra S, Kumar A, Pandey RM, Gulati S. Neuropsychological and sleep profile of HIV infected children: An observational study, Neuropedicon 2018, The Annual Conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR

30. Farmania R, Lodha R, Chakrabarty B, Jauhari P, Sapra S, Kumar A, Pandey RM, Kabra SK, Gulati S. To determine the prevalence of neurologic syndromes, intellectual disability, abnormal behavior and sleep related problems in HIV infected children cohort (poster presentation), American Academy of Neurology, 70th Annual Meeting, 21-27 April 2018, Los Angeles, CA, USA
31. Faruqui N, Joshi R, Lowe J, et al. Exploring Barriers to Accessing Care for Childhood Cancers in India: A Qualitative Study (InNPOG-ACC-16-03), 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
32. Ganguly S, Seth R, Kumar R, Sharma MC, Meena JP, Gupta A. Characterization of bone marrow involvement in pediatric Hodgkin lymphoma using 18F-FDG PET/CT and its comparison with blind bone marrow biopsy, 22nd Annual Paediatric Hematology-Oncology Conference (PHOCON 2018), 30 November-2 December 2018, Bangalore, India
33. Genetic basis and phenotype of congenital nephrotic syndrome, First Annual AIIMS Research Day, 26 March 2019, AIIMS, New Delhi
34. Grover A, Agarwala A, Sharma R, Jain V. Insights of dietary pattern among children and adolescents with type 1 diabetes in Delhi, International Conference of International Society of Paediatrics and Adolescent Diabetes (ISPAD), 13-14 October 2018, Hyderabad
35. Gulati S, Gupta A, Sharma S, Panda P, Chakrabarty B, Sehgal R, Srivastava A, Gupta YK, Pandey RM. Comparison of blood heavy metal levels in children with Autism Spectrum Disorder aged 3-12 years and typically developing children: A cross sectional study, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
36. Gulati S, Jauhari P, Shruti NM, Panda PK, Mable J, Chakrabarty B, Pandey RM. Telephone based follow-up of children with Epilepsy aged 4 months to 18 years: Comparison of accuracy between a Specialty Nurse and a DM Paediatric Neurology Fellow to identify Critical Clinical Events requiring Face-to-Face evaluation, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
37. Gulati S, Panda P, Madaan P, Jauhari P, Chakrabarty B, Gupta A, Pal A, Badal S, Sondhi V, Gupta N, Kabra M. Spectrum of Genetic Etiologies in children with Autism Spectrum Disorder: A single institution observational study, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
38. Gulati S, Sharma S, Panda PK, Madaan P, Jauhari P, Chakrabarty B. Clinical Spectrum and Management Outcome of Psychogenic Non Epileptic Seizures in Children: A Prospective Observational Study, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
39. Gulati S, Shruthi NM, Konanki R, Singh M, Jossy M, Panda P, Sondhi V, Jauhari P, Chakrabarty B, Pandey RM. Tele-health for health disparities: A clinical and educational model for Epilepsy, (Poster Presentation), 12th Asian and Oceanian Epilepsy Congress (AOEC), 28 June-1 July 2018, Bali, Indonesia
40. Gulati S, Sondhi V, Chakrabarty B, Jauhari P, Dubey R. Autoimmune encephalitis in children: Clinical profile and outcome from a single tertiary care centre in India (poster presentation), American Academy of Neurology, 70th Annual Meeting, 21-27 April 2018, Los Angeles, CA, USA
41. Gulla KM, Jat KR, Lodha R, Kabra SK. Clinical profile and course of children with bronchiolitis obliterans from a tertiary care hospital, Respicon, 23-25 November 2018, Indore
42. Gulla KM, Lodha R, Sankar S, Jat KR, Kabra SK. Dexmedetomidine versus midazolam for sedation in mechanically ventilated children: A randomized controlled trial NCPCC-18, 19-20 October, Coimbatore (2nd prize in oral paper)
43. Gupta A, Meena JP, Seth R. Combination Antifungals as an Effective Means of Salvage in Paediatric Leukemia Patients with Invasive Fungal Infections, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
44. Gupta A, Singh U, Chakrabarty B, Jauhari P, Kumar A, Jana M, Chaturvedi P, Jain V, Pandey RM, Gulati S. Effect of structured weight bearing exercise on bone mineral density in children with Cerebral Palsy—An observational cohort (Best Poster), International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
45. Gupta D, Mahapatra AK, Kale SS, Singhal M, Rath G, Saxena A, Gulati S, Lodha R, Bagga A. Challenges and Complexities of Craniopagus Conjoined Twin Separation Surgery: The First for India, The First by Indian team, Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
46. Gupta N, Gupta D, Gupta A, Sharma S, Saini L, Panda P, Chitnise A, Gulati S. Efficacy of Weighted Compression Vest on Hyperactivity, Inattention and Core Symptoms in children with Autism Spectrum Disorder: An interventional pilot study, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
47. Gupta S, Sankar S, Kabra SK, Lodha R. Predictors of sepsis induced myocardial dysfunction at admission in children with septic shock. WFPICCS-2018, 12-15 October 2018, Singapore
48. Gupta S, Sankar S, Kabra SK, Lodha R. Comparison of outcomes using pediatric acute respiratory distress syndrome (PRADS) definition and the Berlin definition in children WFPICCS-2018, 12-15 October 2018, Singapore

49. Jain V, Kumar A, Jana M, Kalaivani M. Association of single nucleotide polymorphisms in TNFA, PNPLA3, ADIPOQ and APOC3 genes with obesity and non-alcoholic fatty liver disease in north Indian adolescents, 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece
50. Jain V, Kumar B, Devi S, Kurpad A. Growth and body composition of term healthy Indian infants from birth to 2 years of age, 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece
51. Jain V, Upadhyaya B, Agarwala A. Hidden hunger in overweight/obese Indian adolescents, 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece
52. Jain V, Upadhyaya B, Kumar B. Effect of micronutrient intake on serum glucose and insulin in adolescents with overweight/ obesity, International Conference of International Society of Paediatrics and Adolescent Diabetes (ISPAD), 13-14 October 2018, Hyderabad
53. Jauhari P, Kaur P, Gupta A, Chakrabarty B, Gulati S. Diagnostic yield of clinical exome sequencing in non-structural infantile onset epileptic encephalopathy, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
54. Kakali Roy, Sharma R, Jain V. Dreadful consequence of honeymoon phase of type 1 diabetes mellitus: Lead Toxicity International Conference of International Society of Paediatrics and Adolescent Diabetes (ISPAD), 13-14 October 2018, Hyderabad
55. Kaur A, Malik R, Jana M, Das P, Sherwaani P. Autoimmune Pancreatitis presenting as a pancreatic head mass in a 5 year old boy, PEDGASTROCON 2019, 26 October 2019, Mumbai
56. Kaur P, Gupta A, Badal S, Panda PK, Jauhari P, Chakrabarty B, Gulati S. Congenital myasthenic syndrome presenting as Limb Girdle Muscular weakness Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
57. Kaur P, Jauhari P Gupta A, Pal A, Chakrabarty B, Gulati S. The spectrum of genetic diagnosis in early onset epileptic encephalopathies, Annual Research Day of AIIMS, 26 March 2019, JL Auditorium, AIIMS, New Delhi
58. Kaur R, Correa ARE, Jauhari P, Thakur S, Kabra M, Gupta N. Narrow window of diagnosis and management—When Reversible Inborn Errors of Metabolism become irreversible! 5th National Conference of ISIM-2019, 18-20 January 2019, Pune
59. Kaur R, Kabra M, Gupta N. 3M syndrome—Report of novel and pathogenic variants in Indian patients with 3M syndrome, 4th International Conference on Birth Defects (ICBD 2018), and 5th Annual Conference of the Society of Indian Academy of Medical Genetics, 13-15 December 2018, Vellore
60. Khandelwal P, Faruq M, Sinha A, Saxena A, Agarwal SK, Hari P, Bagga A. Hemolytic uremic syndrome, First Annual AIIMS Research Day, 26 March 2019, AIIMS, New Delhi
61. Khandelwal P, Saini H, Singh G, Sinha A, Bagga A, Hari P. Therapy and outcome of C3 glomerulopathy and immune-complex membranoproliferative glomerulonephritis, 51st Annual Meeting of the European Society of Paediatric Nephrology 2018, 4-6 October 2018, Kaya Palazzo Convention Center, Antalya, Turkey
62. Kulkarni S, Sharma A, Verma A, Sachdeva A, Agarwal R, Deorari A, Sankar MJ. Incidence and risk factor of bronchopulmonary dysplasia in preterm neonates of less than 32 weeks gestation, NEOCON, December 2018, Varanasi
63. Kumar A, Faruq M, Werner R, Sharma R, Jain V. Mutational analysis of SRD5A2 and AR genes in Indian children with 46 XY disorders of sex development, 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece
64. Kumar A, Jain V. Mutations in SHOX, GHR and IGFALS Genes Among Indian Children with 'Idiopathic Short Stature' 57th Annual meeting of European Society for Paediatric Endocrinology (ESPE), 27-29 September 2018, Athens, Greece
65. Kumar A, Jat KR, Sankar J, Lodha R, Kabra S. Role of Fiberoptic Bronchoscopy and Bronchoalveolar Lavage in Immunocompromised Children, Respicon, 23-25 November 2018, Indore, (First prize for best poster)
66. Kumar A, Sankar J, Joy OK, et al. Decreasing the Time to Recognition and Administration of First Fluid Bolus in Children with Septic Shock—A Quality Improvement Project SIMULUS -4, 1-3 March 2019, AIIMS, New Delhi, (Second prize oral presentation)
67. Kumar A, Singh M, Sankar J, Kumar UV, Lodha R, Kabra SK. Predictors of Mortality in Children admitted to the Paediatric Intensive Care Unit with Acute Gastroenteritis with Severe Dehydration, WFPICCS-2018, 12-15 October 2018, Singapore
68. Kumar P, Kumar R, Mewar S, et al. Metabolic Biomarkers in Bone Marrow of Childhood Acute Lymphoblastic Leukemia, 25th National Magnetic Resonance Society Meeting, 13-16 February 2019, New Delhi

69. Kumar P, Kumar R, Mewar S, et al. NMR based Metabolomics Study of Blood Plasma of Acute Lymphoblastic Leukemia, 25th National Magnetic Resonance Society Meeting, 13-16 February 2019, New Delhi
70. Kumar V, Kumar R, Mewar S, et al. Bone Marrow metabolomics in Acute Myeloid Leukemia, 25th National Magnetic Resonance Society Meeting, 13-16 February 2019, New Delhi
71. Madaan P, Agarwal D, Gupta D, Kumar A, Jauhari P, Chakrabarty P, Pandey RM, Mishra MC, Paul VK, Gulati S. Clinico epidemiologic profile of Paediatric head injury: Experience of tertiary care hospital from Northern India, Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
72. Madaan P, Chakrabarty B, Jauhari P, Gupta A, Farmania R, Sondhi V, Dubey R, Gulati S. Disorders of Neuromuscular transmission in children: Experience of a tertiary centre from North India, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
73. Madaan P, Chakrabarty B, Jauhari P, Pal A, Sondhi V, Gulati S. Clinical utility of next generation sequencing in pediatric neurology (poster presentation), American Academy of Neurology, 70th Annual Meeting, 21-27 April 2018, Los Angeles, CA, USA
74. Madaan P, Chakrabarty B, Panda PK, Gupta J, Sondhi V, Dubey R, Kumar A, Jana M, Gulati S. Acquired Central Nervous System demyelinating syndromes in children: Experience of a tertiary centre from North India, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
75. Madaan P, Jauhari P, Chakrabarty B, Sondhi V, Sharma S, Gulati S. The clinical and electroencephalographic spectrum of ESES (Encephalopathy with status epilepticus in sleep) in Indian children, (poster presentation), American Academy of Neurology, 70th Annual Meeting, 21-27 April 2018, Los Angeles, CA, USA
76. Madaan P, Panda PK, Badal S, Sondhi V, Dubey R, Jauhari P, Chakrabarty B, Gulati S, Kumar A. Monophasic acquired Central Nervous System demyelinating syndromes in children: Experience of a tertiary centre from North India, Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
77. Mahajan A, Arora R, Dinand V, et al. Initial Report on InPOG-HL-15-01—A Risk-Stratified Response-based Collaborative Protocol for Newly Diagnosed Childhood Hodgkin Lymphoma Patients in India, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
78. Maji P, Malik R. Transjugular liver biopsy in children, ESPGHAN, 9-12 May 2018, Geneva, Switzerland
79. Manokaran RK, Chakrabarty B, Jauhari P, Kumar R, Aggarwala S, Gupta A, Jana M, Pandey RM, Gulati S. Prevalence of smooth muscle dysfunction among children with Duchenne muscular dystrophy, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
80. Manokaran RK, Chakrabarty B, Tripathi M, Pandey RM, Gulati S. Sleep Abnormalities and Polysomnographic Profile Among Children with Drug Resistant Epilepsy, Neuropedicon 2018, The Annual Conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
81. Meena A, Chakrabarty B, Jat KR, Kabra SK, Gulati S. Pulmonary functions in children with dystrophinopathy aged 5-18 years on oral steroid therapy for at least six months, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
82. Meena J, Sinha A, Hari P, Bagga A. Combination therapy with tolvaptan and furosemide for refractory edema in patients with nephrotic syndrome: A prospective interventional study*, 30th Annual Conference of the Indian Society of Paediatric Nephrology, 1 December 2018, Hyderabad
83. Meena J, Sinha A, Hari P, Bagga A. Combination therapy with tolvaptan and furosemide for refractory edema in patients with nephrotic syndrome: A prospective interventional study, First Annual AIIMS Research Day, 26 March 2019, AIIMS, New Delhi
84. Meena JP, Brijwal M, Seth R, et al. Prevalence and Clinical Outcome of Respiratory Viral Infections (RVI) Among Children with Cancer and Febrile Neutropenia, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
85. Meena JP, Gupta AK, Parihar MS, Seth R. Clinical Profile and Treatment Outcome of non Hodgkin Lymphoma in Children: A Report from a Tertiary Care Hospital from Developing Country, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan.
86. Mishra A, Shivasbbu S, Scaria V, et al. Utility of whole exome sequencing in diagnosis of mitochondrial, disorders in pediatric cases, 44rd Annual Meeting of the Indian Society of Human Genetics, 27 January-2 February 2019, NIBMG and Kalyani University, Kolkata
87. Mood S, Kumar K, Sankar J, Lodha R. Functional outcomes in children with severe sepsis NCPCC-18, 19-20 October, Coimbatore (1st prize in oral paper)

88. Mukherjee A, Gowtham LN, Singla M, Velpandian T, Lodha R, Kabra SK. Pharmacokinetics of ethionamide in children in an Indian setting, In 49th World Conference on Lung Health of the International Union Against Tuberculosis and Lung Disease (The Union), 17-24 October 2018, Hague, Netherlands
89. Pal A, Panda PK, Chakrabarty B, Jauhari P, Sondhi V, Farmania R, Kumar A, Jana M, Gulati S. Profile of Neuronal Brain Iron Accumulation in Paediatric population: Experience from a tertiary care centre in North India, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
90. Panda PK, Chakrabarty B, Jauhari P, Agarwal A, Jain V, Pandey RM, Gulati S. Comparison of Efficacy of Daily and Intermittent Low Glycemic Index Therapy Diet among Children with Drug Resistant Epilepsy aged 1-15 years: A Randomized Controlled Non-inferiority Trial, Annual Research Day of AIIMS, 26 March 2019, JL Auditorium, AIIMS, New Delhi
91. Panda PK, Gulati S, Khan S, Sharma S, Madaan P, Bhavya G, Jauhari P, Pandey RM. Health related Quality of Life in Children with Autism Spectrum Disorder aged 3-12 years and correlation with severity of autism and behavioral co-morbidities: A cross-sectional study, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
92. Panda PK, Jauhari P, Chakrabarty B, Sharma MC, Suri V, Sarkar C, Kabra M, Gulati S. Etiological Profile of Hereditary Muscular Weakness in Paediatric Outpatients in Northern India, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
93. Panda PK, Sharma S, Madaan P, Badal S, Sinha R, Gupta J, Yadav S, Suresh K, Jauhari P, Chakrabarty B, Gulati S, Study Clinico psychological profile and response to behavioral intervention of children with psychogenic headache from a tertiary care center in North India: A retrospective cohort, Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
94. Pathak N, Seth R. Silencing of Cyclin Dependent Kinase Interacting Protein (CIP)/Kinase Inhibitory Protein (KIP) Family of Genes by Hypermethylation in Paediatric Patients with Acute Lymphoblastic Leukemia, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
95. Pathania A, Jat KR, Lodha R, Kabra SK. Omalizumab for uncontrolled asthma in children: Initial experience from India, Respicon-18, 23-25 October 2018, Indore
96. Raut S, Sinha A, Hari P, Bagga A. A proof of concept study of 3 days intravenous ceftriaxone followed by switch to oral cefixime for uncomplicated spontaneous bacterial peritonitis in children with nephrotic syndrome, 30th Annual Conference of the Indian Society of Paediatric Nephrology, 1 December 2018, Hyderabad
97. Raut S, Sinha A, Hari P, Bagga A. A proof of concept study of 3 days intravenous ceftriaxone followed by switch to oral cefixime for uncomplicated spontaneous bacterial peritonitis in children with nephrotic syndrome, First Annual AIIMS Research Day, 26 March 2019, AIIMS, New Delhi
98. Raut S, Sinha A, Hari P, Bagga A. Infantile nephropathic cystinosis: Experience at a tertiary care center, 30th Annual Conference of the Indian Society of Paediatric Nephrology, 1 December 2018, Hyderabad
99. Sahoo T, Anand P, Sankar MJ, Thukral A, Verma A, Agarwal A, Deorari A. Predictors of mortality in Extreme Low Birth Weight (ELBW) infants from a tertiary care hospital in India, NEOCON, December 2018, Varanasi
100. Sahoo T, Sachdeva A, Sankar MJ, Gupta SK, Agarwal R, Paul VK, Deorari A. Delayed cord clamping in Rh-isoimmunized neonates: An open-label randomized controlled trial, NEOCON, December 2018, Varanasi, (awarded first prize)
101. Sankar J, Dhochak N, Kumar K, Singh M, Sankar MJ, Lodha R. Comparison of international pediatric sepsis consensus conference versus sepsis-3 definition for children presenting with septic shock to a tertiary care center in India, WFPICCS-2018, 12-15 October 2018, Singapore
102. Seth R, Kapoor G, Arora R, et al. The Indian Childhood Cancer Survivorship Study (C2S Stud): After Treatment Completion Registry of Childhood Cancers, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
103. Seth R, Kapoor G, Arora R, et al. The Indian Childhood Cancer Survivorship Study (C2S Study): After Treatment Completion Registry of Childhood Cancers - Phase – I, An InPOG-LE-16-01 Study, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
104. Seth R, Pathak N, Meena J, Gupta A. The After-Treatment Completion Card (ATCC): Medical Passport for a Child Cancer Survivor, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
105. Seth R, Seth S, Meena J, Gupta A. Outcomes of Children with Leukemia Admitted with Septic Shock and Myocardial Dysfunction: Role of Intravenous, Globulins, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan

106. Sharma A, Sharma R, Jain V. Quality of life and problem areas associated with emotional distress in Indian children with type, 1 diabetes, International Conference of International Society of Paediatrics and Adolescent Diabetes (ISPAD), 13-14 October 2018, Hyderabad
107. *Sharma R, Ahmad A, Sharma S, Panda PK, Gupta A, Samanchi R, Sana S, Jauhari P, Chakrabarty B, Gulati S.* Comparison of Executive Function between children with Autism Spectrum Disorder and Typically Developing Children: A cross-sectional study, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India
108. Sharma S, Panda PK, Khan S, Gupta A, Gulati S. Clinical predictors of response to Applied Behavioral Analysis in children with Autism Spectrum Disorder: A prospective interventional study Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
109. Shruthi NM, Gandhi T, Senthil SK, Jauhari P, Chakrabarty B, Singh U, Pandey RM, Gulati S, Comparing the efficacy of virtual reality therapy with modified constraint induced movement therapy with modified constraint induced movement therapy alone in improving the upper limb functions in children with hemiparetic cerebral palsy children >5-18 years, an open labeled randomized controlled parallel design trial, Annual Research Day of AIIMS, 26 March 2019, JL Auditorium, AIIMS, New Delhi
110. Shruthi NM, Konanki R, Singh M, Saini L, Sondhi V, Jauhari P, Chakrabarty B, Pandey RM, Gulati S. Telephonic follow for chronic childhood neurological disorders: A teach and treat initiative (Platform presentation), American Academy of Neurology, 70th Annual Meeting, 21-27 April 2018, Los Angeles, CA, USA
111. Shruthi NM, Sondhi V, Chakrabarty B, Jauhari P, Patel H, Saini L, Kaushik JS, Dubey R, Gulati S. Comprehensive Neurodevelopmental Care: Initiatives to empower health care professionals and care givers in resource constrained settings (poster presentation), American Academy of Neurology, 70th Annual Meeting, 21-27 April 2018, Los Angeles, CA, USA
112. Sirolia V, Panda PK, Badal S, Shruti NM, Jyoti S, Nikita T, Bhardwaj M Balwinder P, Jauhari P, Chakrabarty P, Gulati S. Epilepsy in children with cerebral palsy: Experience from a tertiary care center in North India, Neuropedicon 2018, The Annual conference of Neurology Chapter of IAP, New Delhi, 7-9 September 2018, Gurugram, NCR
113. Sondhi V, Agarwala A, Chakrabarty B, Jauhari P, Lodha R, Pandey RM, Toteja GS, Paul VK, Gulati S. Dietary Therapy In Epilepsy Treatment (DIET-Trial): A Randomised Non-Inferiority Trial Comparing KD, MAD and LGIT for Drug Resistant Epilepsy (platform presentation and selected as best study in Paediatric Neurology Session), American Academy of Neurology, 70th Annual Meeting, 21-27 April 2018, Los Angeles, CA, USA
114. Sondhi V, Chakrabarty B, Jauhari P, Gupta A, Gulati S. Clinical profile and outcome of children with Lennox Gastaut Syndrome: Retrospective single centre cohort (e poster presentation by 1st Author), American Academy of Neurology, 70th Annual Meeting, 21-27 April 2018, Los Angeles, CA, USA
115. Vishwa CR, Seth R, Sapra S. Neurocognitive Outcomes in Survivors of Childhood Acute Lymphoblastic Leukemia, 50th Congress of International Society of Paediatric Oncology (SIOP 2018), 16-19 November 2018, Kyoto, Japan
116. Yadav R, Nagori A, Mukherjee A, et al. Relationship between daily air pollutants and emergency room visits of children with acute respiratory symptoms in Delhi, India, In 49th World Conference on Lung Health of the International Union Against Tuberculosis and Lung Disease (The Union), 17-24 October 2018, Hague, Netherlands
117. Yadav S, Kabra M, Gupta N. Clinical and mutational spectrum of NPD at a tertiary care center, 3rd South Asia and 19th Asia LSD Symposium, 20-22 April 2018, New Delhi
118. Yadav S, Kabra M, Gupta N. Combination of NPC-SI tool and genomic testing in the diagnosis of NPC- Disease, 5th National Conference of ISIEM-2019, 18-20 January 2019, Pune
119. *Zulfiqar L, Chakrabarty B, Pal A, Jauhari P, Kumar A, Sharma S, Gulati S.* Clinico-radiological and electrographic spectrum of children with Temporal lobe epilepsy: A retrospective cohort study, International Child Neurology Congress (ICNC), 14-16 November 2018, Mumbai, India

RESEARCH

Funded projects

Ongoing

1. Efficacy of a family based comprehensive Yoga Programme for weight reduction among overweight children and adolescents: An RCT, Vandana Jain, Ministry of Ayush, 3 years, 2016-2019, Rs 51.6 lakhs
2. Improving diagnosis and management of inherited rare disorders of sex development in India, Vandana Jain, ICMR, Delhi and BMBF, Germany, 2.5 years, 2017-2019, Rs 47.0 lakhs

3. Optimizing insulin and diet regimes for children with type 1 diabetes in low resource settings, Vandana Jain, Department of Health Research, 2.5 years, 2017-2020, Rs 25.0 lakhs
4. Efficacy of Metformin in reduction of hepatic fat fraction and insulin resistance in overweight adolescents with NAFLD: An RCT, Vandana Jain, ICMR, 3 years, 2018-2021, Rs 59.2 lakhs
5. APW on Quality Assurance and Quality Improvement for Birth Defects surveillance in SEAR, MadhulikaKabra, WHO, 6 months, 2019, Rs 8 lakhs
6. Non-invasive prenatal detection of de novo trisomies (Down's syndrome) from maternal blood samples, MadhulikaKabra, Seq India, 2 years, 2018-2020, Rs 12 lakhs
7. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and still births—A feasibility study for the development of a standard protocol for still birth evaluation, Neerja Gupta, ICMR, 3 years, 2017-2020, Rs 29.6 lakhs
8. Deciphering Idiopathic Intellectual Disability (DIID) through Next Generation Sequencing (DIID-NGS study), Neerja Gupta, DBT, 3 years, 2018-2021, Rs 86.8 lakhs
9. Comprehensive evaluation of underlying molecular mechanisms of severe fetal and neonatal Mendelian developmental defects using whole exome sequencing, Neerja Gupta, DHR, 2 years, 2018-2020, Rs 49.3 lakhs
10. Identifying the Spectrum of Mutations in Indian Ataxia telangiectasia Patients, Rashmi Shukla, Department of Biotechnology, 5 years, 2014-2019, Rs 34.9 lakhs
11. Reducing retinopathy of prematurity by improving the quality of neonatal care in special care neonatal unit, Ashok K Deorari, Public Health Foundation of India, 3 years 5 months, 2015-2019, Rs 1.14 crores
12. Integrate quality improvement training in preterm newborn care package and pre-service education, Ashok Deorari, WHO, 11 months, 2019, Rs 33.6 lakhs
13. Developing guidelines on complementary feeding for preterm babies <34 weeks of gestation, Ramesh Agarwal, ICMR, 1 year, 2018-2019, Rs 9.5 lakhs
14. Facilitation of research on neonatal sepsis and antimicrobial resistance in LMICs: A collaboration with GARDP/ DNDi, Ramesh Agarwal, Drug for Neglected Diseases initiative, Switzerland, One year 11 months, 2018- 2019, Rs 45.8 lakhs
15. NeoAMR Global Neonatal Sepsis Observational Study (NeoOBS): A prospective cohort study of sepsis in hospitalized neonates, Ramesh Agarwal and M Jeeva Sankar, Jointly funded by: Global Antibiotic R&D Partnership (GARDP), Switzerland and ICMR New Delhi, 1 year 6 month, October 2018-March 2020, GARDP = Rs 1.5 lakhs and ICMR = Rs 1.02 lakhs
16. Understanding disease biology and diagnosis of bacterial sepsis in hospitalized neonates: A multi-centre study, Ramesh Agarwal, D.B.T, New Delhi, 4 years, 2015-2019, Rs 1.85 crores
17. Molecular Epidemiology of Multidrug Resistant (MDR) Acinetobacter Infection in Neonates in India (Phase I), M Jeeva Sankar, I.C.M.R., New Delhi, 5 years, 2017-2022, Rs 79.8 lakhs
18. Comparative genomic analysis of Klebsiella spp. isolated from hospitalized neonates and immediate hospital environment, M Jeeva Sankar, AIIMS, New Delhi, 1 year, 2018-2019, Rs 5 lakhs
19. Universalize access and uptake of human milk for babies to improve neonatal outcomes, Kajal Jain, Scientist-II, Centre for Health Research and Innovation (CHRI), India, 1 year, 2018-2019, Rs 18.3 lakhs
20. Does the fetal immune response in case of neonatal early onset sepsis begin in utero? Kajal Jain, Scientist-II, AIIMS, 2 years, 2017-2019, Rs 9.9 lakhs
21. Predicting Response to Methotrexate in Children with Juvenile Idiopathic Arthritis: Role of Biomarkers, NK Bagri, AIIMS, 2 years, 2016-Ongoing, Rs 4 lakhs/annum
22. International study on atypical hemolytic uremic syndrome, Arvind Bagga, CEFIPRA (DST), 3 years, 2016-2019, Rs 12.25 lakhs
23. Paediatric Renal Biology Programme: Research on nephrotic syndrome, Arvind Bagga, DBT, 5 years, 2016-2021, Rs 8 crores
 - a. Randomized, multicentric, open label, parallel group trial to compare the efficacy of 6-months versus 3-months therapy with prednisolone for the first episode of idiopathic nephrotic syndrome in children younger than 4 years, Arvind Bagga, DBT, 5 years, 2016-2021
 - b. Serum and urinary microRNAs as biomarkers of renal histology and response to therapy in children with steroid resistant nephrotic syndrome, Arvind Bagga, DBT, 3 years, 2016-2019
 - c. Autoantibody associated alternative complement pathway dysregulation in nephrotic syndrome secondary to membranoproliferative glomerulonephritis, Pankaj Hari, DBT, 2 years, 2017-2019

24. Proposal for ICMR Advanced Centre for Research in Paediatric Kidney Diseases, Arvind Bagga, ICMR 5 years, 2017-2022, Rs 1.6 crores
 - a. Randomized open labeled controlled trial to compare the efficacy and safety of levamisole versus long term alternate days steroids made daily during infection, in patients with frequently relapsing steroid sensitive nephrotic syndrome, Arvind Bagga, ICMR, 5 years, 2017-2022
 - b. Open label, randomized, controlled trial to compare the efficacy of daily therapy with low dose prednisolone vs. standard therapy on alternate days in patients with frequently relapsing or steroid dependent nephrotic syndrome, Arvind Bagga, ICMR, 5 years, 2017-2022
 - c. Establishing a biorepository and registry for patients with hemolytic uremic syndrome, Professor Arvind Bagga, ICMR, 5 years, 2017-2022
 - d. Whole exome sequencing in patients with non-diarrheal and non-autoimmune form of hemolytic uremic syndrome, Professor Arvind Bagga, ICMR, 5 years, 2017-2022
 - e. Pilot study of genetic variations among Indian children with vesicoureteral reflux, Professor Pankaj Hari, ICMR, 5 years, 2017-2022
 - f. Formulating and disseminating evidence-based guidelines for diagnosis and therapy of childhood renal illnesses, Professor Arvind Bagga, ICMR, 5 years, 2017-2022
25. Anti-complement factor H (FH) associated hemolytic uremic syndrome (HUS) in children: Immunological and genetic basis, and functional characterization of autoantibodies, Aditi Sinha, DST, 3 years, 2017-2020, Rs 68.2 lakhs
26. Multi center randomized double blind placebo controlled trial to evaluate the effects of intra erythrocyte dexamethasone sodium phosphate on neurological symptoms in patients with Ataxia Telangiectasia, Sheffali Gulati, EryDel, S.p.A, Italy, 2 years, 2018-currently ongoing, Rs 72 lakhs
27. A randomized, double blind placebo controlled six month study to evaluate the efficacy, safety and tolerability of Sarizotan in patients with Rett syndrome with respiratory symptoms, Sheffali Gulati, Neuron Pharmaceuticals, Italy, 2 years, 2017-currently ongoing, Rs 42 lakhs
28. A Phase 3, Randomised, Double blind, Placebo-controlled efficacy and safety study of Ataluren in patients with nonsense mutation Duchenne Muscular Dystrophy and Open label extension, Sheffali Gulati, PTC Therapeutics, USA, 2 years, 2019-currently ongoing, Rs 50 lakhs
29. Center of Excellence and Advanced Research on Childhood Neurodevelopmental disorders with its projects in 5 thrust areas, Sheffali Gulati, AIIMS GIA (supported by MOHFW) and IIFCL (as part of its CSR), 5 years, December 2017 currently ongoing, Rs 11.3 crores, (6.3 +5)
30. COMPASS: Communication-focused parent-mediated treatment for Autism Spectrum Disorder in South Asia trial (University of Manchester and Sangath), Sheffali Gulati, MRC, UK, 4 years, 2018-currently ongoing
31. Development and validation of a scalable mobile platform for screening of developmental neuropsychiatric disorders in low-resource settings: START-Screening Tools for, Autism Risk using Technology (MRC Foundation Award Scheme, UK), Sheffali Gulati, MRC, UK, 2 years, 2017-currently ongoing, 5,85,692 plus, 5,04,367 pound sterling
32. Serum matrix metalloproteinase-9: A potential biomarker for predicting calcification and epilepsy in Neurocysticercosis; a longitudinal observational study, Biswaroop Chakrabarty, IRG, 2 years, 2016-continuing, Rs 5 lakhs
33. Serum sICAM5 and MMP9/TIMP1 ratio: Potential predictors of disease activity in children with encephalopathy with electrical status in sleep (ESES) syndrome, Prashant Jauhari, AIIMS, 2 years, 2016-continuing, Rs 3.1 lakhs
34. Chemo to Cure (C to C)" study of cancer survivorship, Rachna Seth, JIV DAYA foundation, 2011 onwards, Rs 1.2 crores
35. Molecular alterations in childhood Acute Lymphoblastic Leukemia (ALL): Role of Cytokine receptor –like F actor-2 (*CRLF2*) rearrangements and Janus Kinase (JAK) mutation, Rachna Seth, ICMR, 4 years, 2015-2019, Rs 3.8 lakhs
36. Integrated molecular biology of biological markers: Role of copy number alterations of genes in Indian Childhood B Lineage Acute Lymphoblastic Leukemia, Nivedita, Rachna Seth, UGC women Scientist Fellowship, 5 years, 2018-2022, Rs 40 lakhs
37. To determine the role of *Ikzf1* gene and various IKAROS isoforms in pathogenesis of B cell acute lymphoblastic leukemia (BALL) in Indian pediatric population, Kakali Purkayastha, Rachna Seth, DBT under BIOCARE grant, 3 years, 2018-2020, Rs 60 lakhs
38. A collaborative, multicenter, national study for newly diagnosed patients with acute lymphoblastic leukemia (IciCle), Rachna Seth, National Cancer Grid and ICMR, 5 years, 2017-2022, Rs 30 lakhs (Funds jointly received for Paediatrics and IRCH (Dr Sameer Bakhshi)

39. Molecular evaluation of gene copy number variations and mutation profile in pediatric Acute Myeloid Leukemia (AML) patients and its association with disease prognosis, Jagdish Prasad Meena, AIIMS, 2 years, 2018-2020, Rs 4.8 lakhs/year
40. Prevalence and clinical outcome of respiratory viral infections among children with cancer and febrile neutropenia, Jagdish Prasad Meena, AIIMS, 1 year, 2017-2018, Rs 5 lakhs
41. Assessing the efficacy of rituximab added to standard chemotherapy versus standard chemotherapy alone in achieving lower minimal residual disease after induction phase of chemotherapy in CD20 positive children with Acute Lymphoblastic Leukemia, Aditya Kumar Gupta, AIIMS, 1 year, 2018-2019, Rs 3.5 lakhs
42. To develop Acute Respiratory Infection Treatment Units (ATUs) and assess their utility in improving healthcare and research in pneumonia related morbidity and mortality in India, SK Kabra, Rakesh Lodha R, INCLIN (Bill Gates Malinda Foundation), Rs 1.97 crores
43. Effect of outdoor air pollution on acute respiratory symptoms in Delhi: A multisite study, SK Kabra, Rakesh Lodha, ICMR, 1 year, 2017-2018, Rs 56.2 lakhs
44. Multiplex point-of-Care test for acute febrile illness (mPOCT), Rakesh Lodha, THSTI, 2 years, 2017-2019, Rs 32 lakhs
45. Dengue infection in India, Rakesh Lodha, NIH, 5 years, 2015-2019, Rs 99 lakhs
46. To study pharmacokinetics of second-line anti-tubercular Drugs in children, Rakesh Lodha, DHR, 2 years, 2017-2019, Rs 24.6 lakhs
47. Longitudinal big-data for prediction and precision in critical care medicine, Rakesh Lodha, DST, 2 years, 2018-2020, Rs 38 lakhs
48. Early Detection of Sepsis in Paediatric Intensive Care Units through Integration of Clinical and Big Data, Rakesh Lodha, Wellcome Trust –DBT, 6 years, 2015-2021, Rs 1.97 crores
49. To study pharmacokinetics of second-line anti-tubercular Drugs in children, Rakesh Lodha, DHR, 2 years, 2017-2019, Rs 24.6 lakhs
50. Efficacy and safety of vitamin D supplementation in asthmatic children who are vitamin D deficient: A randomized controlled trial (ESDAC trial), Kana Ram Jat, ICMR, 2 years, 2017-2019, Rs 34.9 lakhs
51. Detection of genetic mutations profile of Primary Ciliary Dyskinesia and correlation of mutation with clinical phenotype in Indian Children, Kana Ram Jat, DBT, New Delhi, 3 years, 2018-2021, Rs 30.86 lakhs
52. Center for advance research in Paediatric Respiratory Diseases, ICMR, 2018- 2023, SK Kabra, Rakesh Lodha, Kanaram Jat, Jhuma Sankar, Funds Rs 6.2 crores Projects as follows
 - a. Capacity building for management of chronic respiratory disorders in children
 - b. Cystic Fibrosis in India: Prevalence, Mutation Profile and Development of Registry
 - c. Interstitial lung disease in children
 - d. Point of care testing for Primary Ciliary Dyskinesia in Children
 - e. Respiratory Complications of Primary and Acquired Immunodeficiency Disorders in children

Completed

1. Balanced solution versus normal saline in initial fluid resuscitation in septic shock, Jhuma Sankar, DST, 3 years, 2017-2019, Rs 71 lakhs
2. Blood heavy metal levels and quantitative EEG correlates in children with autism, Sheffali Gulati, ICMR, 3.5 years, 2014-2018, Rs 49.04 lakhs
3. Evaluating the efficacy and safety of an innovative and affordable Goat Lung Surfactant for the treatment of respiratory distress syndrome in preterm neonates: A multi-site randomized clinical trial, Ramesh Agarwal, Wellcome Trust, 3 year 5 months, 2015-2019, Rs 1.1 crores
4. Honey versus standard treatment for bed sores in critically ill children, Jhuma Sankar, Paediatric Critical care Research Grant-HARD grant (1 year), Completed in December 2018, Rs 6.5 lakhs
5. Hypoxia adaptation and pregnancy outcome study, Vinod Paul and Vandana Jain, Wellcome Trust, 1.5 years, 2016-2018, Rs 43 lakhs
6. Signs of circulatory impairment in children, Jhuma Sankar, DST (3 years), 2019-2021, Rs 34 lakhs
7. To establish a regional learning platform for capacity building, dissemination and translation of point of care quality improvement approach in South-East-Asia, Ashok K Deorari, WHO, 1 year, January 2018-February 2019, Rs 31.85 lakhs
8. Validation and Indian Adaptation of the adapted ASQ-3 (Ages and Stages Questionnaire) as a developmental screening tool as compared to reference standard tool (DASII—Developmental Assessment Scale for Indian Infants) in at risk Indian children 2-24 months of age, Sheffali Gulati, ICMR, 2 years, 2017-2019, Rs 19.01 lakhs

Departmental projects

Ongoing

1. A cross-sectional observation study to assess the prevalence of renal dysfunction in children with solitary functioning kidney
2. A randomized sham controlled clinical trial of targeted low frequency repetitive Transcranial Magnetic Stimulation (rTMS) in childhood and adolescent focal onset refractory epilepsy
3. Association of IKZF-1 gene alterations and Cytokine Receptor Like Factor 2 (CRLF2) expression with prognostic markers at presentation and response to induction chemotherapy in Indian children with Acute Lymphoblastic Leukemia (ALL)
4. Body composition in preterm newborns at birth and in early infancy by air displacement plethysmography, A longitudinal study
5. Body composition of healthy term neonates at birth by air displacement plethysmography
6. Cardio-oncology: Role of biomarkers and strain imaging echocardiography in preventing cardiotoxicity
7. Cardiovascular outcomes in renal transplant recipients
8. Changes in muscle thickness and muscle echogenicity in critically ill children during their initial 7 days' stay in PICU, An observational study
9. Childhood and Adolescent Sleep Awareness in Caregivers and Health care Professionals, A Community and Hospital Based Survey
10. Clinical and laboratory profile of inflammatory bowel disease in children in India: A multicentric study
11. Clinical and Molecular Characterization of Congenital Limb Defects Using Genomic Approaches
12. Cloning and expression of Chikungunya Virus genes and evaluation of their role in chikungunya pathogenesis in children and adults (PhD Thesis)
13. Comparing therapeutic endpoints of septic shock resuscitation to guide fluid therapy
14. Comparison of Efficacy of Low Glycemic Index Therapy and Modified Atkins Diet among Children with Drug Resistant Epilepsy, A randomized non-inferiority trial
15. Comparison of efficacy of sensory integration therapy as an adjunct to standard care with standard care alone in improving gross motor skills in cerebral palsy children with sensory processing abnormalities, A single blinded randomized parallel design study
16. Comparison of performance of two point-of-care glucose meters in detection of hypoglycemia among at risk neonates
17. Comparison of three different methods of orotracheal tube length estimation in neonates, A postmortem study
18. Cystic kidney disease in infants and children: Clinical spectrum and ultrasound findings
19. Decreasing time to recognition and administration of first fluid bolus and first dose of antibiotics in children with septic shock
20. Developing a counselling package for mother and the families for care of low birth babies between 1800 g to 2499 g
21. Developing a structured remedial intervention programme for Indian school going children having Specific learning disorder with dyslexia, A longitudinal intervention study
22. Development and validation of a questionnaire based tool to identify sleep problems in school going children and adolescents aged 3-18 years against overnight polysomnography (ongoing)
23. Devising a formula for the insertion length of Peripherally Inserted Central Catheter (PICC) in Indian newborns, A prospective observational study
24. Dexmedetomidine vs Midazolam for sedation in critically ill ventilated children
25. Diagnostic accuracy of predictive algorithms in detecting retinopathy of prematurity
26. Diagnostic and treatment gap in Neurodevelopmental Disorders in children aged 1 month to 18 years, An observational study
27. DTI, fMRI and qEEG correlates of cognition and behaviour in children and adolescents with well controlled nonlesional epilepsy, An observational study
28. Effect of visual inspection based abdominal monitoring vs routine prefeed abdominal girth monitoring on time to reach full enteral feeds in preterm neonates (≤ 32 weeks' gestation), A randomized controlled trial
29. Efficacy and safety of intravenous rituximab versus tacrolimus for frequently relapsing nephrotic syndrome

30. Efficacy and safety of olanzapine as an add on therapy in children receiving highly emetogenic chemotherapy, A randomized double blind placebo controlled study
31. Efficacy of Pulse Dexamethasone in addition to standard therapy versus standard therapy alone in children with Juvenile Idiopathic Arthritis, A double blind randomized controlled trial
32. Efficacy of two different chlorhexidine gluconate preparations for skin antisepsis in neonates, A non inferiority randomized controlled trial
33. Efficacy of Vitamin D supplementation for improving glycemic control in Type 1 diabetes, An RCT
34. Epidemiology and outcomes of children with shock (STS project 2019)
35. Etiological evaluation of Nonimmune Hydrops Fetalis (NIHF)
36. Evaluating the efficacy of aquaresis effect of tolvaptan in children with nephrotic syndrome and edema non responsive to iv frusemide therapy
37. Evaluation of metabolic abnormalities in children with nephrolithiasis
38. Evaluation of molecular alterations at 11p15.5 locus in Isolated Hemihyperplasia
39. Evaluation of physiological responses during kangaroo care by fathers and mothers in stable preterm neonates, A cross sectional study
40. Evaluation of repetitive Transcranial Magnetic Stimulation as an adjunct to modified Constraint Induced Movement Therapy in improving Upper Limb Function in Children with Hemiparetic Cerebral Palsy aged 5-18 years, A RCT
41. Evaluation of trisaccharide BM-652 as a potential biomarker in serum of ERT naive patients with MPS I and MPS II aged 6 months-18 years
42. Feasibility and efficacy of sustained low efficiency dialysis in critically ill children with severe acute kidney injury
43. Feasibility, effectiveness and sustainability of the implementation of facility-team-driven approach for improving the quality of care in Special Newborn Care Unit in South India
44. Fentanyl versus ketamine for pain management during laser treatment for retinopathy of prematurity (ROP), An interventional case series study
45. Fortification of EBM with preterm formula vs. human milk fortifier in preterm (28-34 weeks) VLBW Neonates, A randomized non inferiority trial
46. Fortification of expressed breast milk with preterm formula powder vs HMF in preterm very low birthweight neonates, A randomized non inferiority trial
47. Functional characterization of anti-factor H autoantibodies in patients with hemolytic uremic syndrome
48. Functional outcomes in children with septic shock
49. Incidence and determinants of outcome of neutropenic enterocolitis in paediatric cancer patients
50. Incidence and risk factors of preterm brain injury in very low birth weight neonates <1500 g birth weight and/or gestation <32 weeks, A prospective cohort study
51. Intermittent versus continuous monitoring of ScvO₂ in septic shock
52. Ketamine Mouthwash versus Placebo in the Treatment of Severe Oral Mucositis Pain in Children with Cancer, A randomized double-blind Placebo-controlled trial
53. Macronutrient composition of very preterm (<32 weeks) breast milk, A prospective observational study
54. Metabolic syndrome in children with persistent asthma
55. Minimally invasive surfactant administration in preterm neonates, A prospective single arm interventional feasibility study
56. Molecular and Immunological Characterization of Chikungunya Viruses Associated with acute-febrile illness in India
57. Neutropenic Diet vs Standard Indian diet in reducing the incidence of febrile neutropenia following chemotherapy in pediatric oncology patients, A Randomized controlled Trial
58. Norepinephrine plus dobutamine versus epinephrine in septic shock
59. Plasma PCSK9 in children with steroid resistant nephrotic syndrome
60. Polyneuropathy in critically ill mechanically ventilated children
61. Prevalence and risk factors for Gastroesophageal reflux in mechanically ventilated children
62. Prevalence of acute gastrointestinal injury in critically ill children
63. Prevalence of low bone mineral density in HIV infected children
64. Prevalence of microdeletions in NF1 gene and evaluation of phenotypic spectrum of patients with Neurofibromatosis Type 1

65. Prevalence of Non Alcoholic Fatty Liver Disease (NAFLD) in Children with Down Syndrome
66. Pulmonary dysfunction in childhood Hodgkin lymphoma survivors
67. Pulmonary dysfunction in Hodgkin Lymphoma survivors
68. Quality Improvement initiative to promote potentially best practices in the first week of life in preterm neonates <32 weeks gestation: Focus on prevention of Bronchopulmonary Dysplasia
69. Role of Intestinal Fatty Acid binding protein and Citrulline in the diagnosis of Celiac disease and evaluation of Compliance on follow up
70. Sepsis -3 vs Goldstein definition in diagnosis of septic shock
71. Simulation based education vs conventional education in improving practices and knowledge of health care professionals for stabilization of a preterm neonate in delivery room, A randomized trial
72. Spectrum of Neurological Manifestations in Indian Patients with Gaucher Disease, A prospective study
73. Study of hematocrit profile in term and preterm at risk infants during the initial 48 hours of life, A prospective cohort study
74. Telephone based follow-up of children with epilepsy aged 4 months to 18 years: Comparison of accuracy between a specialty nurse and a DM Paediatric Neurology resident to identify critical clinical events requiring face to face evaluation
75. To estimate the prevalence of sensory processing abnormality in children with Cerebral palsy using the sensory profile 2
76. To generate ultrasound muscle-based parameters for evaluation of hypotonia in children aged 1 month to 18 years
77. To study the effect of highly active antiretroviral therapy on B cell sub-populations in HIV infected children
78. To study the prevalence of dosage anomalies at 22q11 locus and Evaluate the phenotypic spectrum of facio-auriculo-ocular spectrum disorders
79. Utility of Nasal Nitric Oxide Measurement in the diagnosis of Allergic Rhinitis in children
80. Utility of USG guided indices for predicting fluid responsiveness in children

Departmental projects

Completed

1. A comparative study to assess the knowledge and practice of mothers of children in the age group of 6 months to 2 years in urban and rural areas regarding complementary feeding with a view to develop a knowledge booklet
2. A proof of concept study of 3 days intravenous ceftriaxone followed by switch to oral cefixime for uncomplicated spontaneous bacterial peritonitis in children with nephrotic syndrome
3. Association of Fluid Overload with Outcomes in Critically Ill Mechanically Ventilated Children
4. Characterization of bone marrow involvement in pediatric Hodgkin lymphoma using 18F-FDG PET-CT and its comparison with blind bone marrow biopsy
5. Comparing the efficacy of virtual reality therapy with modified constraint induced movement therapy versus modified constraint induced movement therapy alone, for children with hemiparetic cerebral palsy aged ≥5-18 years, An open labelled, randomized controlled, parallel design, superiority trial
6. Comparison between efficacy of daily and intermittent low glycaemic index therapy among children with drug resistant epilepsy aged 1-15 years, A randomized controlled non-inferiority trial
7. Comparison of efficacy between suggestion method during video EEG recording by verbal suggestion in isolation and verbal suggestion along with cotton swab or tuning fork for inducing the paroxysmal event in children aged 5-18 years with suspected psychogenic nonepileptic events
8. Comparison of serum 25 Hydroxy vitamin D and trace elements levels between 6 and 18 years old ADHD and typically developing children and adolescents and their correlation with symptom severity and comorbidities: Analytical cross sectional study
9. Correlation of cord blood and breast milk IGF-1 with neonatal adiposity among infants born to mothers with gestational diabetes mellitus at term gestation, A prospective cohort study
10. Defining small-for-gestational-age (SGA) neonates: Comparison of serious adverse neonatal outcomes in SGA classified on AIIMS, NNPD, Fenton, Intergrowth-21st newborn standards and Lubchenco growth charts, A prospective cohort study
11. Developing a tool to identify the early signs of Autism Spectrum Disorder in children 1-18 months of age, An observational study

12. Efficacy of three different skin antiseptic preparations in neonates admitted in NICU, A randomized non inferiority trial
13. Evaluation of Osteopontin as a biomarker and its relationship with phenotypic severity score in Enzyme naive children with Gaucher disease
14. Genetic basis of congenital nephrotic syndrome and correlation with clinical phenotype
15. Health related quality of life of children (aged 3-12 years) with autism spectrum disorder (fulfilling DSM-5 criteria)
16. Inter-observer agreement between primary care physician and paediatric neurologist in classifying epilepsy among children aged one month to 18 years using AIIMS modified INDT EPI Tool according to ILAE 2017 classification
17. Long-term outcomes of patients with anti-complement factor H associated atypical hemolytic uremic syndrome
18. Prevalence of sleep disordered breathing in Asthmatic children
19. Sepsis-3 vs Goldstein definition in diagnosis of septic shock
20. Serum soluble urokinase-type plasminogen activator receptor and urinary CD80 in predicting the course of disease and histology in patients with nephrotic syndrome
21. Surveillance of microbial contamination of mobile phones, reported behaviour and hand hygiene practices of health care personnel related to mobile phone use, A prospective observational study
22. Survey of pain sources, intensity and management strategies in hospitalized children in a tertiary care hospital in India
23. Telephone based follow-up of children with epilepsy aged 4 months to 18 years: Comparison of accuracy between a specialty nurse and a DM Paediatric Neurology resident to identify critical clinical events requiring face to face evaluation
24. To study the Infant Pulmonary Function Tests (IPFT) in children with airway anomalies and to correlate these with bronchoscopy finding
25. Urinary metabolomic profile of healthy term neonates at postnatal age 24-72 hours
26. Validation of END-IT score in children aged 1 month to 14 years with convulsive status epilepticus

Collaborative projects

Ongoing

1. Correlation of fetal soft tissue thickness measured sonographically with neonatal body composition, Obstetrics and Gynecology
2. Enhanced, personalized versus routine antenatal care in the amelioration of anemia in pregnancy in rural LMIC settings- the Comprehensive Anemia Programme and Personalised Therapies (CAPPT) project, Obstetrics and Gynecology
3. Role of F-DOPA PET-CT in pediatric and adult patients with hyperinsulinemic hypoglycemia, Nuclear Medicine
4. ICMR Young Diabetes registry, Endocrinology and Metabolism
5. Immunohistochemistry and Genetic sequencing in children with Progressive Familial Intrahepatic Cholestasis, Pathology
6. Multicentric Indicleft Task Force Project, CDER AIIMS, New Delhi
7. Prenatal screening initiative by dried blood spots: Role for triaging and resource utilization, Maulana Azad Medical College, New Delhi
8. Pattern of CYP3A5 and MDR-1 single nucleotide polymorphism& its impact on individualization of Tacrolimus based immunosuppression in living Renal Allograft recipient, Department of Nephrology, AIIMS, New Delhi
9. A comparative study to evaluate the efficacy of Ibedone in comparison with placebo in Leber's Hereditary optic Neuropathy patients, A pilot study", RP Centre, AIIMS, New Delhi
10. Development of a high throughput genome editing pipeline based on based on an orthologous CRISPER/Cas9 system (FnCas9) and its application in the generation of 3D organoides for disease modelling and correction, IGIB, Stem Cell Facility, AIIMS, New Delhi
11. Understanding disease biology and diagnosis of bacterial sepsis in hospitalized neonates: A multi- centre study, THSTI, Faridabad and NCBS, Bengaluru
12. International study on atypical hemolytic uremic syndrome, Laboratoire d'Immunologie, Hôpital Européen Georges Pompidou, INSERM UMRS 872, Paris, France
13. Paediatric Renal Biology Programme: Research on nephrotic syndrome, Institute of Genomics and Integrative Biology, New Delhi, Translational Health Sciences and Technology Institute, Government of India, Faridabad,

Research and Referral Hospital, New Delhi, St. John's Medical College, Bengaluru, Christian Medical College, Vellore

14. Whole exome sequencing in patients with non-diarrheal and non-autoimmune form of hemolytic uremic syndrome, Institute of Genomics and Integrative Biology, New Delhi
15. Pilot study of genetic variations among Indian children with vesicoureteral reflux, Institute of Genomics and Integrative Biology, New Delhi
16. Anti-complement Factor H (FH) associated Hemolytic Uremic Syndrome (HUS) in children: Immunological and genetic basis, and functional characterization of autoantibodies, Institute of Genomics and Integrative Biology, New Delhi
17. Impact of advanced paternal age and poor lifestyle on sperm epigenome: Possible etiology in Autism Spectrum Disorder, Anatomy
18. The pathways to cure for Autism Spectrum Disorders, Public Health Foundation of India (PHFI)
19. Understanding and improving the nonverbal biomarkers of object perception in autistic subjects, IIT Delhi
20. Imaging of Infantile Brachial Plexopathy, Radiology
21. Cortical sources and connectivity in Autism spectrum disorder: A QEEG study, Physiology
22. A phase 2 double arm randomized trial comparing conventional radiotherapy alone vs hypofractionated radiotherapy with concurrent and adjuvant temozolomide in patients with diffuse intrinsic pontine glioma, Radiotherapy
23. Efficacy, safety and tolerability of Modified Atkins Diet in Adolescents and Adults with Drug Resistance Epilepsy: A Randomized Controlled Trial, Neurology
24. Comparative proteomic profiling of PBMC isolated from FRDA patients and that in presence of different frataxin up-regulating therapeutics, Biochemistry
25. Use of 'My Whole Child; Child Health and Development Interactive System', a web based platform for holistic evaluation and management of Indian children and adolescents upto 18 years of age; a tertiary centre pilot study, Chadis, USA
26. Emotion Recognition and Social Behaviour in children with Autism Spectrum Disorder, A study of Behavioural and Phenotypic Linkage, IIT, Kanpur
27. The pattern of visual impairment in spectrum of hypoxic ischemic encephalopathy, RP Centre for Ophthalmic Sciences
28. A Multi-center, Open labelled Trial to evaluate the sensitivity and specificity of DSM IV TR and DSM 5 in diagnosis of Autism Spectrum Disorder, 5 sites across India
29. "Establishing objective measures for identifying children with Autism Spectrum Disorders using eye-tracking technology in the UK and India (EIRA: Eye-tracking assessment for children with Autism) Birkbeck, University of London
30. Comparison of symptom severity as per AIIMS Modified INDT-ADHD tool with Conner's Parent reported scale in 6-18 years old children and adolescents with ADHD
31. Cortical sources and connectivity in Autism spectrum disorder, A QEEG study
32. PET CT in high grade lymphoma in children, Nuclear medicine
33. Identification and in vitro analysis of novel tyrosine kinase alterations in Indian Ph-like ALL patients, Lab Oncology
34. Molecular biology of cytogenetically normal acute myeloid leukemia, Lab Oncology
35. Identification of novel driving tyrosine kinases in Indian pediatric Ph-like ALL, Lab Oncology
36. Molecular determinants of prednisolone sensitivity in pediatric acute lymphoblastic leukemia, Lab Oncology
37. Molecular biology of immature T-acute lymphoblastic leukemia, Lab Oncology
38. Surveillance of Dental Hygiene In Child Cancer Patients, Center for Dental Education and Research
39. A prospective study to evaluate WT1 gene expression as a biomarker of disease progression in de novo cases of AML, Lab Oncology
40. Immunological characterization of HIV 1 infection in children in India, Biochemistry
41. A study on alternate antimicrobial agents against typhoidal salmonellae, Microbiology
42. Immunopathogenesis of pediatric HIV 1 infection and generation of human monoclonal antibodies against the viral envelop, Biochemistry
43. To characterize humoral and cell mediated immune memory against dengue/ chikungunya viruses in anonymous healthy blood bank donors and to assess whether the cell mediated immune memory strictly co-exists with humoral immune memory against dengue/ chikungunya viruses, ICGEB, New Delhi

44. Generation and characterization of human recombinant single chain variant fragments (scFv) against envelope glycoprotein of subtype-C HIV-1 from pediatric patients, Biochemistry
45. Utility of Contrast Enhanced Ultrasound (CEUS) and whole body MRI in response assessment in Juvenile Idiopathic arthritis, Radiodiagnosis
46. Prognostic and surgical outcomes of cataract surgery in paediatric uveitis, Ophthalmology

Collaborative projects

Completed

1. Child Sexual Abuse: Development of a Multidimensional Scale and Psychological Trauma Intervention, Department of Psychiatry
2. To study the effect of parental origin of X chromosome on clinical features and biochemical profile in patients with Turner syndrome, Department of Endocrinology and Metabolism
3. Multi Centric Collaborative Study of The Clinical Biochemical and Molecular Characterization of Lysosomal Storage Disorders in India: The Research Initiative for Research in Lysosomal Storage Disorders, Multicentric—SGPGI, Lucknow, CDFD, Hyderabad, MAMC, New Delhi, SGRH, New Delhi, FRIGE, Ahmedabad, Kasturba Medical College, Manipal
4. Improving the quality of childbirth and neonatal care in Primary Health Centres in two districts in Haryana, India, Department of Paediatrics, Government Medical College, Chandigarh - 32 and SWACH, Haryana
5. Health related quality of life in children with epilepsy; child and parental perceptions, knowledge and attitudes, College of Nursing, AIIMS, New Delhi
6. Effect of weighted compression Vest on hyperactivity of children aged 6-9 years diagnosed autism by DSM-5, IIT, Delhi
7. Comparative analysis of predominant gut micro flora and their metabolites in autistic versus normal children for probiotic interventions, Department of Dairy Microbiology, National Dairy Research Institute Karnal
8. To study the prevalence of cardiac channelopathies in children aged 5-18 years undergoing treatment for epilepsy, Department of Cardiology, AIIMS, New Delhi
9. Imaging of Infantile Brachial Plexopathy
10. A study to assess the prevalence and knowledge about oral health problems among children undergoing chemotherapy and their caregivers with a view to develop an information booklet at AIIMS, New Delhi, Center for Dental Education and Research College of Nursing
11. A study to evaluate the effect of video based education on knowledge of caregivers of children with acute leukemia regarding prevention of infection during chemotherapy at AIIMS, New Delhi, College of Nursing
12. Real time PCR assay for the diagnosis of invasive fungal infections, Department of Microbiology

PUBLICATIONS

Journals: 144

Abstracts: 22

Chapters in Books: 35

Books: 7

PATIENT CARE

Name of Service	New Cases	Old Cases	Total Attendance
Paediatric General OPD	32,562	68,522	1,01,084
Paediatric Neurology Clinic (PNC)	1,641	2,003	3,644
Paediatric Neuromuscular disease	551	815	1366
Paediatric Gastroenterology Hepatology and Nutrition (PGC)	514	1,169	1,683
Paediatric Well Baby Clinic	671		671
Paediatric High Risk Neonatology Clinic (HRC)	335	1,218	1,553
Paediatric Renal Nephrology Clinic (RMC)	835	1,968	2,803
Paediatric Chest Clinic (PCC)	626	6,500	7,126
Paediatric Tuberculosis Clinic	275	2,003	2,278
Paediatric Rheumatology Clinic (PRC)	400	2,236	2,636
Paediatric Genetics and Birth Defects Clinic	795	889	1,684
Paediatric Genetic Antenatal cases	2,116	150	2,266
Paediatric Oncology Clinic	500	1,087	1,587

Paediatric Cancer Survivors' Clinic	249	732	981
Paediatric Endocrine and Metabolism Clinic (PEC)	228	697	925
Child Development Clinic (CDC)	1,347	818	2,165
Neurocysticercosis Clinic (NCC)	220	702	922
Autism Clinic	581	282	863
Grand Total	44,446	91,791	1,36,237

In addition, Cystic fibrosis and Paediatric HIV services were provided in Paediatric Chest Clinic. Kangaroo Mother Care units run along with follow-up services of normal and at-risk neonates.

Physiotherapy Services were provided to the patients in Neurology Clinic, Myopathy Clinic Genetics Clinics, High risk, Endo, Development Clinic, Paediatric Chest Clinic, Rheumatology Clinic and OPD services.

Total physiotherapy sessions provided during 2018-2019: 2,530

INDOOR SERVICES

- Indoor services include admission facilities in general wards, day care facility, neonatal units (NICUs A and B), Kangaroo Mother Care Unit and Paediatric Intensive Care Facility
- The department operationalized an 8-bedded **High Dependency Unit** in children ward to cater to child patients with life-support and other special needs. A special training programme for the nurses of the HDU was held
- Children requiring short procedures or interventions are admitted for a day in the Day Care Unit situated in the C5 ward

Total indoor admissions

Long admissions in Paediatric wards :	2,055
Admission in day care facility :	15,358
Patient admitted in PICU :	245
Admissions in NICU A + B :	631 + 179 = 810

SPECIALIZED INVESTIGATIONS

ENDOCRINOLOGY

Human growth hormone	838	Serum cortisol	348
Serum insulin	177	VitD	189
ATPo	47	PTH	50
Thyroid function tests	242		

GENETICS

Cytogenetics Laboratory

Peripheral blood and Cord blood cultures	254	Amniotic fluid cultures	100
Chorionic villi cultures	14	QF-PCR	410

Biochemical Genetic Test details:

S.No.	Test	Disorder	No. of Pts.
1	Triple Marker	Antenatal screening	253
2	Dual Marker test	Antenatal screening	469
3	TLC for disorders of amino acid metabolism	Metabolic screening	99
4	HPLC	Amino acid metabolism	46
5	Disorder of Mucopolysaccharidosis (Urine Spot test)		34
6	GAGS		40
7	Homocystein urea test		32
8	Reducing Substances in urine		53
9	DNPH		40
10	FeCl3		32
11	Sulphite Oxidase		11
12	Blood Ammonia		1,761
13	Oligosaccharide		5

Enzyme Assays for Inborn Error of Metabolism:

Total no. Patients for Enzyme Assays: 705

S. No	Enzyme Assay	Disorder	No. of Pts.
1	Arylsulfate A	Met Metachromatic-leukodystrophy	55
2	β – Glucosidase	Gaucher Disease	69
3	MPS-II	Hunter	39
4	Galactose-6-Sulphate Sulphatase	Morquio A (MPS-IVA)	14
5	Gangliosidosis	GM1 Gangliosidosis and Morquio B (MPS-IV B)	33 and 5
6	Arylsulphatase-B	MPS-VI	54
7	β - Glucuronidase	Maroteaux-Lamy Syndrome (MPS VII)	1
8	Biotinidase		85
9	GALT	Galactosemia	56
10	Hexosaminidase A	Tay-Sachs	37
11	Plasma Hex-A	Mucopolipidosis	10
12	Plasma – ASA	Mucopolipidosis	10
13	Chitotriosidase (Plasma)		105
14	β-Galactocerebrosidase (Krabbes)	Krabbes	34
15	Palmiloyl-protein-thioesterase (INCL)	INCL-1	28
16	Tripeptidyl-peptidase-I	NCL-2	6
17	Sphingomyelinase	Neimenn pick disease	59
18	α- Glucosidase	Pompe	23
19	α- Galactosidase	Fabry	7
	α-N-Acetylglucosaminidase	Sanfilippo B (MPS III B)	11
21	Acetyl-CoA: α-Glucosaminide N-Acetyltransferase	Sanfilippo C (MPS III C)	6
22	MPS-I	HURLER	39
	Total CVS PND		30
1	CVS	Non- immune Hydrops	19
2	CVS	ASA	1
3	CVS	GM1	3
4	CVS	MPS-I	1
5	CVS	Gaucher	4

Molecular Test details:**Routine tests carried out:**

- Beta Thalassemia (β Thal) mutation analysis: 142 families
Prenatal diagnosis for β Thal offered to: 55 families
- Spinal Muscular Atrophy (SMA) mutation analysis: 140 cases
Prenatal diagnosis for SMA offered to: 21 families
- Duchene Muscular Dystrophy (DMD) mutation analysis: 480 families
Prenatal diagnosis for DMD offered to: 23 families
- Hemophilia A Linkage analysis: 2 families
Prenatal diagnosis for Hemophilia A offered to: Nil
- Fragile X screening carried out: 373 families
Prenatal diagnosis for Fragile X offered to: Nil
- Cystic fibrosis molecular analysis: 63 cases
Prenatal diagnosis for Cystic fibrosis offered to: 7 families

- | | |
|--|----------|
| 7. Achondroplasia mutation analysis: | 13 cases |
| Prenatal diagnosis for Achondroplasia offered to: | 1 family |
| 8. Non-syndromic hearing loss (Connexin 26) screening: | 5 cases |
| Prenatal diagnosis for Connexin 26 offered to: | Nil |
| 9. Sex Chromatin related abnormalities: | 33 cases |

Tests carried out on Research basis

1. Megalencephalic Leukoencephalopathy (MLC) mutation analysis carried out in - 3 cases
2. Prenatal diagnosis for Tuberous Sclerosis (TSC) offered to - 1 family
3. Caffey disease - 5 cases
4. Diastrophic dysplasia -13 cases
5. Apert syndrome - 6 cases
6. Gaucher syndrome - 3 cases
7. Prenatal diagnosis of Gaucher syndrome - 2
8. Prenatal diagnosis of Glycogen Storage disorder - 1
9. Prenatal diagnosis of Rett syndrome - 1
10. Prenatal diagnosis of Neuronal Ceroid Lipofuscinosis (NCL) - 1
11. Prenatal diagnosis of SEMD JL type (B3GALT6) - 1

Gastroenterology

Diagnostic Gastroscopy	1,170
Endoscopic Variceal ligation and Sclerotherapy	500
Endoscopic Glue injection	12
Endoscopic Hemoclip application	12
Foreign Body removal	20
Percutaneous Endoscopic Gastrostomy tube	5
Colonoscopy (diagnostic and therapeutic)	150
Liver Biopsy	60

Nephrology

Nephrology clinic attendance	6,750
<i>Special tests and procedures</i>	
Kidney transplants in children	7
Hemodialysis	1,476
Acute peritoneal dialysis (including automated peritoneal dialysis)	107
Continuous ambulatory peritoneal dialysis	99
Plasmapheresis sessions	451
Continuous renal replacement therapy	7
Sustained low efficiency dialysis	44
Temporary hemodialysis catheter placement (internal jugular, femoral)	235
Renal biopsies	164
Ambulatory blood pressure monitoring	113
ELISA for antibodies to complement factor H	589
Surface CD46 expression	48

Neonatology

- | | |
|--|-----------------------------|
| 1. Neonatal echocardiography | 129 |
| 2. Ultrasonography (including neurosonogram) | 489 |
| 3. Arterial blood gas analysis | 15 to 20 samples every week |
| 4. Therapeutic hypothermia | 5 |
| 5. Exchange transfusions | 14 |

6. Point of care glucose estimation
 - a. Postnatal ward 10 to 12 per day
 - b. NICU A and B 6 to 8 per day
7. Packed cell volume
 - a. Postnatal ward 3 to 4 per day
 - b. NICU A and B 2 to 3 per day
8. Serum Bilirubin 6 to 8 per day
9. Gram staining and slide examination 2 to 3 per day

Neurology

OPD/Clinic	New	Old
Paediatric Neurology OPD	4,928	11,781
Neurocysticercosis Clinic	96	1,244
Child Development Clinic	721	2,765
Paediatric Neurology Clinic	544	5,163
Autism Clinic	445	2,300
Neuro Muscle Clinic	275	1,696

Laboratory tests/ Evaluations

S. No.	Tests	Number
1.	Electroencephalography Video EEG Ambulatory EEG Total	2,189 1,183 129 3,501
2.	Nerve conduction study Electromyography Sympathetic Skin Response (SSR) Repetitive nerve stimulation study RNST Ambulatory EPS Total	155 96 Nil 22 9 282
3.	Polysomnography	80
4	Psychological and Developmental Tests: VSMS for SQ Development Profile 3 Childhood Behaviour Checklist Malin's Intelligence Scale for Indian Children Weschlers Intelligence Scale for Children House Tree Person Test Developmental scale for Indian Infants DSM V for ASD DSM V for ADHD CONNER's Rating Scale Total assessment for specific leaning disorder: Grade Level Assessment Device NIMHANS battery for learning disability Total Patients Including ward and Emergency Patients	3,000 2,400 5,800 3,000 72 900 900 970 97 68 280 145 9,980 10,460

5	Total psychological interventions Early stimulation therapy Behavioural intervention Psychological and personality assessment using HTP (Functional) Psychological counselling for nocturnal enuresis Psychological counselling for Tic disorder Cognitive behavioural therapy Patients counselled in ward Patients counselled in emergency	840 4,000 680 58 59 980 180 46
6	Disability Certification Patients evaluated for certification	285

Procedures

S. No.	Tests	Number
1.	Muscle biopsy	274
2.	Nerve biopsy	20
3.	Skin biopsy	88
4.	CSF procedures	452
5.	Blood lactate	228
6.	Neostigmine challenge test	6
7.	Fore arm ischemia test	4
8.	Hand held dynamometry	24
9.	ICP Catheter placement	4

Oncology

S. No.	Name of Test	Monthly	Yearly
1	PCT	130	1,600
2	Trop. I	10	120
3	Pro BNP	10	120
4	SGOT/PT	5	60
5	Uric Acid	8	84

S. No.	Name of Procedure	Monthly	Yearly
1	Bone marrow	30-35	360-420
2	CSF/ITM	40-45	480-540
3	Biopsy	20	240

Paediatric Pulmonology

Special lab tests

1. High Speed Video Microscopy	156
2. Sweat chloride estimation	549
3. Paediatric flexible bronchoscopy	312
4. EBUS (Endobronchial ultrasound)	29
5. Spirometry	1,236
6. Infant PFT	649
7. Plethysmography	20
8. Impulse Oscillometry (IOS)	603
9. Fractional excretion of Nitric Oxide (FeNO) and nasal Nitric Oxide (NO)	430
10. Total and specific IgE	203

11. IgE against aspergillus	70
12. IgG Against aspergillus	70
13. IgG against lentil	10
14. IgG against avian antigen	10
15. Exercise testing	39

Rheumatology

IACS (Intra-articular Corticosteroids)	250
--	-----

Financial Assistance Generated for Poor Patients

Mr Dhaneshwar Yadav, MSSO

Rashtriya Arogya Nidhi (RAN)	75%	Rs 2,45,62,073
Delhi Arogya Nidhi (DAN)	0.97%	Rs 3,20,000
Chief Minister Relief Fund (CMRF)	18%	Rs 59,77,500
Hospital Poor Fund (HPF)	0.94%	Rs 3,10,100
Employee Health Scheme (EHS)	4.50%	Rs 14,86,000
Indian Cancer Society (ICS)	1.20%	Rs 4,00,000
Prime Minister Relief Fund (PMRF)	2.58%	Rs 8,50,000
Non Governmental Sources (NGS)	0.58%	Rs 1,93,600
TOTAL		Rs 3,28,49,273

Activities	Number of patients benefited in approximation
Information and guidance given to patients	3,256
Counselling and psychotherapy	1,975
Issuing railway concessions	1,120
Helping in having accommodation	270
Exemption of charges of various investigations	2,400
Mobilization of financial assistance to poor patient	700
Rehabilitation of unknown/Abandoned babies	1
Supervision of social work trainees	5
Miscellaneous needs of poor patient e.g. arranging cremation, deportation of dead bodies to their native places	10

COMMUNITY SERVICES

Oncology

- Organize patient education and awareness programme for child cancer programmes
- Organized public lecture and exhibition on Childhood cancers
- Participated as panelists and speaker for Lok Sabha TV, Doordarshan and All India Radio on the occasion of International Childhood Cancer Day
- Facilitation of financial assistance from government and non government organization to families with a child with cancer
- Preparing modules on E-Learning on Cancer Fundamentals: Initiative by Indian Cancer Society 5 nurses were trained in pediatric oncology at our center

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Endocrinology

Dr Rajni Sharma visited the Department of Paediatrics, University of Lubeck, Lubeck, Germany for a short period, 16-22 July 2018, for collaborative work on the ICMR-BMBF joint collaborative research project on "Improving diagnosis of disorders of sex development (DSD) in India".

Professor Vandana Jain guest edited Symposium on Childhood Obesity, published in Indian Journal of Paediatrics in June 2018; Coordinated the preparation of guidelines for treatment of GH deficiency for the Rare Disease Policy of Ministry of Health and Family Welfare in July 2018; Thesis conducted by her student Dr Meena H was shortlisted among the 6 best thesis for presentation at Dr KC Chaudhuri Oration and Annual Day of Indian Journal of Paediatrics in September 2018.

Neonatology

Professor Ashok K Deorari: Dr Tirumala Rao Oration at Hyderabad, 29 December 2018; Dr Elizabeth Zone Oration, South zone National Neonatology Forum of India at Chennai, 7 October 2018; Expert Advisory Group Member for Survive and Thrive: Transforming care for every small and sick newborn, Key findings, Geneva: World Health Organization; 2018 (WHO/FWC/MCA/18.11); Technical expert for supporting implementation of Quality of Care Programme for MNCH at Nairobi, Kenya, November 2018 for Ten Countries in Africa; Technical expert for developing standards for improving the quality of care for children and young adolescents in health facilities Geneva: World Health Organization; ISBN 978-92-4-156555-4; Technical expert for development of Improving the quality of paediatric care: An operational guide for facility-based audit and review of paediatric mortality, A publication of WHO, 1918 ISBN: 978-92-4-151518-4.

Professor Ramesh Agarwal served as Associate Editor of Seminar Fetal and Neonatal Medicine; Appointed as Member of the Working Group on AMR for World Society for Paediatric Infectious Diseases; Served as Expert of Subject Expert Committee (Vaccine) for CDSCO; Member of the Technical Expert Committee (TEC) on Maternal and Child Health—Developmental and Disease Biology, Department of Biotechnology, Government of India; Expert and Member of the Project Monitoring Committee (PMC) of the BIRAC-DBT-BMGF Grand Challenges India for reviewing the progress of research projects; Member of the Expert Consultation Group on ‘STG Development Manual’ that facilitates development of Standard Treatment Guidelines for the MoHFW, Government of India; Any awards, honours, significant events related to the whole centre/department should be listed first, These may also include awards won by students and trainees.

Dr M Jeeva Sankar was member of the Technical Expert Committee (TEC) on Maternal and Child Health—Developmental and Disease Biology, Department of Biotechnology, Government of India; Expert and Member of the Project Monitoring Committee (PMC) of the BIRAC-DBT-BMGF Grand Challenges India for reviewing the progress of research projects; Member of the ‘First Level Screening Committee’ under Grant-in-aid scheme of Department of Health Research, Ministry of Health and Family Welfare (MoHFW), Government of India for reviewing the research proposals on Child Health; Member of the Guideline Development Group (GDG) of the World Health Organization in Maternal and Perinatal Health; Member of the Centre Core Committee (C3) for the Maternal and Child Health Programme of the Knowledge Integration and Translational (KnIT) Platform, supported by BIRAC, Department of Biotechnology, Government of India; Global and national collaborator to the ‘Global Burden of Diseases, Injuries, and Risk Factors Study (GBD)’—The largest effort to measure epidemiological levels and trends of disease burden worldwide—for Health Metrics and Evaluation (IHME) at the University of Washington; Member of the Expert Consultation Group on ‘STG Development Manual’ that facilitates development of Standard Treatment Guidelines for the MoHFW, Government of India.

Dr Anu Sachdeva was member of the Expert Consultation Group on ‘STG Development Manual’ that facilitates development of Standard Treatment Guidelines for the MoHFW, Government of India; Certified as a level 3-simulation trainer after completing projects under simulation faculty development programme in 2018-2019 at Simulus 4 at AIIMS, New Delhi.

Nephrology

Professor Arvind Bagga was Editor, Asian Journal of Paediatric Nephrology; Editor, Cochrane Kidney and Transplant Group; Editorial Board: Paediatric Nephrology; Indian Journal of Paediatrics; Paediatrics and Child Health; World J Paediatrics; Member, Paediatric Review Group, Indian Council of Medical Research; Expert Kidney Disease Improving Global Outcomes (KDIGO) on ‘Glomerular diseases’; Research Advisory Committee: Department of Biotechnology, Government of India; and All India Institute of Medical Sciences.

Professor Pankaj Hari was member, Editorial Board, Asian Journal of Paediatric Nephrology, Indian Journal of Trauma and Emergency Paediatrics, Journal of Progress in Paediatric Urology, International Journal of Nephrology Urology; Member, Editorial Board, Asian Journal of Paediatric Nephrology; Member, Expert Committee of MCI on DM Paediatric Nephrology.

Dr Aditi Sinha was Joint Secretary, Indian Society of Paediatric Nephrology; Member, Editorial Board, Paediatric Nephrology; Member, Editorial Board, Asian Journal of Paediatric Nephrology; Section Editor for Nephrology, Indian Journal of Paediatrics; Reviewer for Paediatric Nephrology, Indian Paediatrics, Indian Journal of Nephrology, Indian Journal of Paediatrics; Commonwealth Medical Fellowship in Paediatric Dialysis at Royal Manchester Children’s Hospital, United Kingdom, during January-May 2018.

Neurology

Professor Sheffali Gulati received AIIMS Excellence Research Award 2018 by AIIMS, New Delhi for Clinical Research titled “Development of All India Institute of Medical Sciences-Modified International Clinical Epidemiology Network Diagnostic Instrument for Neuromotor Impairments in Children Aged 1 month to 18 years”; Dr IC Verma Excellence in Research Award 2018 by The Dr KC Chaudhuri Trust and Indian Journal of Paediatrics for research in the field of Child

Neurology in India; Operationalization of the Center of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders has been started in Child Neurology Division, Department of Paediatrics, AIIMS, New Delhi; It is Funded by AIIMS Grant in aid (supported by Ministry of Health and Family Welfare) and India Infrastructure Finance Company Limited (IIFCL) As a part of its Corporate Social Responsibility (CSR); This centre of excellence has the following envisioned thrust areas: Development of a National Registry for Childhood Neurodevelopmental Disorders, National Knowledge and Training Center for Childhood Neurodevelopmental disorders, Childhood Neurodevelopmental Disorders: Advanced Diagnostics, Childhood Neurodevelopmental Disorders: Advanced Therapeutics/Rehabilitation, Establishment of Child Neurology Helpline and Teleconsultation services; Organized Neuropedicon 2018, 18th National Conference of IAP Neurology Chapter of IAP, Emerging trends and Advances in Diagnostics and Therapeutics in Paediatric Neurology from 7 to 9 September 2018 at The Leela Ambience, Gurugram, NCR; Chairperson, Board for disability assessment and certification. Department of Paediatrics AIIMS; Serving as Editorial Board Member (4); Reviewer for various International and National journals 52 (including BMJ open, Journal of inherited metabolic disease, American Journal of Medical Genetics, Journal of child Neurology; Examiner and Reviewer of various theses of MD, DCH DM and PhD. Member of many International and National Professional bodies (22); Expert for various committees: Ministry of Health and Family Welfare: Rashtriya BalSwasthyaKaryakram; formulating guidelines for treatment of rare diseases, National trust: Autism; National Coordinator of master trainers in Autism tools; early intervention, Ministry of Social Justice and empowerment: Chairperson of subcommittee on Certification of Developmental Disorders including Autism; Member of National Expert Committees: For developing guidelines for assessment and certification of specified disabilities; Disabilities requiring high support; Identification of posts in government jobs for persons with disabilities, PH reservation in MCI and Combined Medical Services, UNICEF: Global partnership on children with disability- ECD task force, NCERT: Inclusion of children with special needs in mainstream schools, ECCE, Chairperson, Expert Committee meeting on Categorization of Special Needs Children Chairperson of the NOC Expert Committee of CARA (Central Adoption Resource Authority); Expert to renew Medical Examination Report of Children to be adopted by CARA, Member ICMR Task Force: IEM, AFP, children in difficult circumstances, Standard Treatment Workflow-Neurology Group, Stem Cell Research and Therapy, Member of MCI expert group for drafting DM (Paediatric Neurology Curriculum), Teacher qualifications and Expert for Inspections of Medical colleges, UGC expert for evaluating medical universities and selection for fellowships, Scientific Advisory Committee member for Comprehensive Care Centre for various Neurodevelopmental Disorders of Sree Chitra Tirunal Institute of Medical Sciences and Technology, Trivandrum, Scientific Advisory Committee member for Kerala University of Health Sciences, Thrissur.

Dr Biswaroop Chakrabarty was part of the technical expert group for Spinal Muscular Atrophy and Duchenne Muscular Dystrophy for preparing guidelines for management of rare diseases (AIIMS, New Delhi, 18-19 July 2018); Chaired session on 'Approach to a child with hemiparesis' in the 3rd AOCN Master Class in Paediatric Neurology for postgraduates, held on 3 February 2019 at New Delhi; Member of AIIMS Cultural Committee.

Oncology

Professor Rachna Seth: Chair for session on T cell Lymphoma at International CME on Lymphoma focusing on T and Hodgkin Lymphoma, March 2019; Chair for session on Relapsed NHL: Whom can we salvage with what? CME on Relapsed Leukemia/Lymphoma. Can we slay the dragon. February 2019; MD Paediatrics, external examiner, SMS Medical College, Jaipur, June 2018.

Pulmonology, Intensive Care, Tuberculosis

Dr Kana Ram Jat was reviewer for following journals and member of scientific societies; Instructor for Paediatric Advanced Life Support (PALS) and Basic Life Support (BLS); Trainer of Asthma Training Module (ATM), Respiratory Tract Infection-Group Education Module (RTI-GEM), and Paediatric Tuberculosis module; **Significant event:** Participated in Health Camp organized by Samudayik Vikas Samiti at Pratapgarh, Uttar Pradesh on 14 October 2018.

Dr Jhuma Sankar organised SIMULUS 4 (5 day international conference on simulation for capacity building of Institute and AIIMS like Institutes) in February 2019, as organising secretary; Organised basic and advanced life support course at AIIMS, September 2018; Organizing team of "AIIMS Paediatric Pulmonology and Intensive Care Module 2018" in May 2018 as organising secretary.

VISITING SCIENTISTS

1. Professor Ram Menon, Chair, Paediatric Endocrinology Department, CS Mott Children's Hospital, University of Michigan, Ann Arbor, USA, visited the Department on 5 January 2019 and delivered two guest lectures on 'Caveats in pediatric endocrine assays' and 'Idiopathic short stature'
2. Professor Olaf Hiort, Professor of Paediatric Endocrinology at Lubeck University, Lubeck, Germany and European Lead of the Euro-Network for rare Diseases, visited the Division of Paediatric Endocrinology, 10-18 January 2019, and delivered 3 guest lectures on 'Hypophosphatemic rickets', 'Disorders of sex development' and 'Pseudo-hypo-parathyroidism'

3. Dr Ashok Vellodi. He is a Clinical geneticist with special interest in Lysosomal storage disorders; He served as a consultant at the Great Ormond street Children's hospital from 1994 to 2015 and established services for lysosomal storage disorders
4. Dr Stephanie L. Bielas on Assistant Professor of Human Genetics in the Department of Human Genetics at University of Michigan Medical School
5. Dr Mohnish Suri, Senior Consultant at Nottingham Regional Clinical Genetics Service, Nottingham University Hospitals NHS Trust, City Hospital Campus, Nottingham, UK
6. Dr Chitra Prasad, Professor Genetics, Metabolism and Paediatrics, London, Canada
7. Dr Amita Sharma, Division of Paediatric Nephrology, Massachusetts General Hospital for Children, USA, visited the AIIMS on 2 January 2019 and interacted with unit Faculty, DM and MD residents, research fellows and doctoral students.
8. Professor Ben Marais, Paediatric Infectious Diseases at the Children's Hospital at Westmead, Deputy-Director of the Marie Bashir Institute for Infectious Diseases and Biosecurity came and delivered lecture on TB Transmission and how children are affected by global epidemic on 8 May 2018
9. Professor Vitali Sintchenko Director, Centre for Infectious Diseases and Microbiology-Public Health, Westmead Hospital, NSW Health Pathology and Sydney Medical School, The University of Sydney, Sydney, Australia. Delivered talk on Genomics in TB control on 8 May 2018.

9.28. Paediatric Surgery

Professor and Head		
V Bhatnagar (up to 31 December 2018)		Minu Bajpai (from 1 January 2019)
Professors		
Sandeep Agarwala		M Srinivas (on deputation)
Associate Professor		
Shilpa Sharma (JPNATC)		
Assistant Professors		
Vishesh Jain	Anjan Dhua	Prabudh Goel
Devendra Yadav	Ajay Verma (Contract)	Aprajita Mitra (Contract)

HIGHLIGHTS

Trauma and its management is an integral part of paediatric surgery; therefore Department of Paediatric Surgery has made a tremendous improvement in the patient care services at the Jai Prakash Narayan Apex Trauma Center. The department has posted one senior resident and a junior resident, who are physically present in the trauma center during all hours. A paediatric surgery faculty is also present during working hours and is on call afterwards.

The department is poised for expansion with the faculty, space and the staff in the upcoming maternal and child health centre at AIIMS, developing all sub-specialities and caring for children with severe malformations, advanced cancers, trauma and others.

EDUCATION

Undergraduate, postgraduate, paramedical teaching

The department is actively involved in teaching and training of MCh. Paediatric surgery trainees, postgraduate, undergraduate, nursing students, BSc and MSc nursing students.

A new and innovative idea to develop and improve teaching and academics in our department is creation of a google group called "Surgery-paedia". Day to day in clinical practice and during seminar various doubts and queries are generated. The doubts and queries are allotted to residents who read about the query and post the answer in the google group for the benefit of everybody.

Short term training

1. Dr Tank Nilesh Dayalbhai, PGIMER, Chandigarh, 13-26 May 2018

2. Dr Ankita Arora, Università Degli Studi Di Pavia (Italy), 1 August-30 September 2018
3. Dr Abdul Majid Wani, PGIMER, Dr RML Hospital, Delhi, 1-31 December 2018
4. Dr Mohd Shahid Murataza, PGIMER, Dr RML Hospital, New Delhi, 5-17 February 2018
5. Dr Sarita Chowdhury, Banaras Hindu University, 1 March-26 May 2018

CMEs/Workshops/Symposia/National and International Conferences

1. CME on Esophageal Replacement and Delhi State Chapter of IAPS Meeting, 28 July 2018
2. 2018 Indian Society of Paediatric Urology, Asian Society of Paediatric Urology Course, 29-30 December 2018

Lectures delivered

Minu Bajpai

1. Bladder exstrophy epispadias complex; repair and beyond, IAPSCON-2018, 25 October 2018, PGI, Chandigarh
2. Reversal of hypersplenism in EHPVO, IAPSCON-2018, 26 October 2018, PGI, Chandigarh
3. APPT by HBT, IAPSCON-2018, 27 October 2018, PGI, Chandigarh
4. Female Epispadias, IAPSCON-2018, 26 October 2018, PGI, Chandigarh
5. Hepatic perfusion index, IAPSCON-2018, 28 October 2018, PGI, Chandigarh
6. Innovation to solve concrete health problems, Global Sustainable Technology and Innovation, 28 November 2018, Brussels, Belgium
7. Health-Holland Visitors Programme 2018, World of Health Care event—Health care in India session, 26 November 2018, Rotterdam RDM Submarine Wharf, Rotterdam, Netherlands
8. Intensive care monitoring, DMAT Training Programme (Disaster Medical Assistance Team), 28 January 2019, National Hospital Organization Osaka National Hospital, Osaka, Japan
9. Trauma care, Emergency Medicine and Intensive Care, 28 January 2019, Center Hospital of the National Center for Global Health and Medicine, Tokyo, Japan
10. Paediatric surgical training in the era of Laparoscopy, PESICON-2019, 15 February 2019, AIIMS, Jodhpur

Sandeep Agarwala

1. Recurrent Wilms Tumor, Surgical Sub-Committee Meeting of SIOP-RTSG and Symposium, 19-21 April 2018, Wroclaw, Poland
2. Solid tumors in children: Approach to diagnosis and management, Annual meeting of the North-East Chapter (NEIAPS) of Indian Association of Paediatric Surgeons, 5-6 May 2018, Silchar Medical College, Silchar
3. Talk in Meet the Professor, Annual Meeting of the North-East Chapter (NEIAPS) of Indian Association of Paediatric Surgeons, 5-6 May 2018, Silchar Medical College, Silchar
4. Approach to a child with a surgical problem, Paediatric Surgery Day, 18 May 2018, The Base Hospital, Delhi
5. Thoracic tumors in children, The Paediatric Surgical Oncology Course, 19th Annual Congress of the European Association of Paediatric Surgeons and Pre Congress Oncology Course, 20-23 June 2018, Science and Industry Museum, Paris
6. Wilms Tumor: Common errors during surgery, 5th CME of Paediatric Hematology Oncology Chapter of IAP, 30 June-1 July 2018, AIIMS, Bhubaneswar
7. Soft tissue sarcomas: Introduction, management guidelines and surgical Principles, Annual Conference of the Surgical Oncology Chapter (SOS) of Indian Association of Paediatric Surgeons (IAPS), 21-23 September 2018, Goa
8. Gonadal malignant germ cell tumors, 20th Annual Congress of Asia Pacific Association of Paediatric Urologists, 13-15 December 2018, Delhi
9. Evolving Paradigms: Esophageal preservation vs substitutions, IPSU and APSU CME and Meeting of Delhi Chapter of IAPS, 29-30 December 2018, AIIMS, New Delhi
10. Current Protocols of COG for Wilms Tumor, Annual Meeting of the Delhi Chapter of IAPS, 8-9 September 2018, PGIMER, RML, New Delhi
11. Evolving Paradigms: Esophageal preservations vs substitutions, CME, Delhi Chapter of IAPS, 29-30 December 2019, AIIMS, New Delhi
12. Thoracic Tumors, The Paediatric Surgical Oncology Masterclass, 11-12 January 2019, AIIMS, Bhubaneswar

Shilpa Sharma

1. Stem Cell Applications—A Surgeons Perspectives, Symposium on exploring the wonders of stem cell therapy, 2 May 2018, Dr RML Hospital, New Delhi
2. Study designs for Clinical Research, International Congress of the Romanian Society of Paediatric Surgery, 6-9 June 2018, Bucharest, Romania
3. Stem cell applications in Paediatric Surgery and Urology, International Congress of the Romanian Society of Paediatric Surgery, 6-9 June 2018, Bucharest, Romania
4. Surgical tips for Anorectal Malformation (ARM)—How to improve outcome? International Congress of the Romanian Society of Paediatric Surgery, 6-9 June 2018, Bucharest, Romania
5. Sacrococcygeal teratoma, International Congress of the Romanian Society of Paediatric Surgery, 6-9 June 2018, Bucharest, Romania
6. Early Vaginal Replacement in Cloacal Malformation, 25th Paediatric Colorectal Club, 5-7 October 2018, Tokyo, Japan
7. Varied Facets of Rectal Duplications, 25th Paediatric Colorectal Club, 5-7 October 2018, Tokyo, Japan
8. Public Awareness Lecture series on Spina Bifida, Participated as Co-ordinator and Panelists during the Awareness Programme on Spina Bifida jointly with Department of Neurosurgery, 23 October 2018, AIIMS, New Delhi
9. Introduction to the ATLS 10th Edition, ATLS 10th Edition Update, 20 October 2018, Dr RML Hospital, Trauma Centre, New Delhi
10. Abdominal and Pelvic Trauma, ATLS Provider Course (10th Edition), 13 December 2018, Dr RML Hospital, Trauma Centre, New Delhi
11. Surgical Skills Station, ATLS Provider Course (10th Edition), 13 December 2018, Dr RML Hospital, Trauma Centre, New Delhi
12. Separation-Omphalopagus and Thoracoomphalopagus, International Conference on Conjoined Twins, 15 February 2019, Board Room, AIIMS, New Delhi
13. Learning from Autopsy, International Conference on Conjoined Twins, 15 February 2019, Board Room, AIIMS, New Delhi
14. Non Separation Decisions Living as Conjoined twins, International Conference on Conjoined Twins, 15 February 2019, Board Room, AIIMS, New Delhi
15. Consensus on diagnosis and management of Conjoined twins, International Conference on Conjoined Twins, 15 February 2019, Board Room, AIIMS, New Delhi
16. Live Operative workshop is an integral part of any Paediatric Surgical Endoscopic Conference: Debate, PESICON-2019, 16 February 2019, AIIMS, Jodhpur

Vishesh Jain

1. Ureterosigmoidostomy, 2018: ISPU-ASPU Course, 28 December 2018, AIIMS, Delhi

Devendra Kumar Yadav

1. Urethral substitution in urethral stricture, 2018: ISPU-ASPU Course, 28 December 2018, AIIMS, Delhi

Anjan Dhua

1. Fetal surgery, 2018: ISPU-ASPU Course, 28 December 2018, AIIMS, Delhi
2. Augmentation colocolostomy, 2018: ISPU-ASPU Course, 29 December 2018, AIIMS, Delhi
3. Choledochal cyst: Problems, pitfalls and Mx, Paediatric Surgery Update, 9 March 2018, MAMC, Delhi
4. Soft Tissue Sarcomas in children, Paediatric Surgery Update, 10 March 2018, MAMC, Delhi

Oral papers/posters presented

1. Sharma S, Yadav DK, Gupta DK, Paediatric non-Wilms renal tumors, 44th Annual Conference of Indian Association of Paediatric Surgeons, 25-28 October 2018, PGIMER, Chandigarh
2. Agarwala S, Bakhshi S, Dhua A, Jain V, Srinivas M, Biswas A, Thulkar S, Jana M, Kandasamy D, Bishoi AK, Bhatnagar V, Wilms tumor with Vascular thrombus, Surgical sub-committee meeting of SIOP-RTSG and Symposium, 19-21 April 2018, Wroclaw, Poland
3. Agarwala S, Jain V, Dhua A, Bakhshi S, Jana M, Kandasamy D, Srinivas M, Bhatnagar V, Incidence, treatment and outcome of recurrent MGCT: A single Institution Experience, Annual Conference of Asian Association of Paediatric Surgeons, 29 November-3 December 2018, Dubai, UAE

4. Agarwala S, Murli D, Dhua A, Jain V, Sharma K, Bakhshi S, Biswas A, Thulkar S, Jana M, Kandasamy D, Srinivas M, Bhatnagar V, Ewing's sarcoma of ribs: Outcome of surgical management as a part of multimodality treatment, 50th Annual Conference of SIOP, 15-20 November 2018, International Conference Center, Kyoto, Japan
5. Anand S, Agarwala S, Jain V, Dhua A, Bakhshi S, Seth R, Gulati S, Jana M, Kandasamy D, Srinivas M, Bhatnagar V, Neuroblastoma with opsoclonus-myoclonus-ataxia syndrome (OMAS): Outcomes of surgical management over twenty years, 50th Annual Conference of SIOP, 15-20 November 2018, International Conference Center, Kyoto, Japan
6. Anand S, Bajpai M, Goel P, Das P, Systematic Review of Epidermal Inclusion Cyst of the Penis in Children, Annual Conference of APAPU, 14-16 December 2018, Delhi
7. Anand S, Bajpai M, Goel P, Maheshwari P, Posterior urethral valve: Case vignettes, Annual Conference of APAPU, 14-16 December 2018, Delhi
8. Anand S, Dhua A, Jain V, Agarwala S, Bhatnagar V, Early repair of small urethrocutaneous fistula after hypospadias surgery-initial results of a randomized controlled trial, Annual Conference of APAPU, 14-16 December 2018, Delhi
9. Anand S, Dhua AK, Jain V, Agarwala S, Bhatnagar V, An unusual case of a pyloric mass in a child, Annual meeting of Delhi State Chapter of IAPS, 9 September 2018, PGIMER and DR RML Hospital, Delhi
10. Bajpai M, Goel P, Anand R, A novel approach to unfavorable anatomy in long gap esophageal atresia—A new dimension to thoracoscopy, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
11. Bajpai M, Khanna K, Goel P, Choice of therapy in posterior urethral valves—the step ladder management protocol, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
12. Bajpai M, Nandan R, Goel P, Abdomino-Perineal Pull-Through by the 'Hanging Bowel' Technique—Synthesizing a New Paradigm from the Past, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
13. Bajpai M, Nandan R, Goel P, Reversal of hypersplenism sans splenectomy in patients of extrahepatic portal vein obstruction, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
14. Bajpai M, Sharma K, Goel P, Jana M, Baidya D, Single Stage Trans-Vestibular (SSTV) Foleys Assisted Female Epispadias Repair and Bladder Neck tightening, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
15. Davera S, Agarwala S, Metabolic complications of augmentation colocolostomy, IPSU and APSU CME and Meeting of Delhi Chapter of IAPS, 29-30 December 2018, AIIMS, New Delhi
16. Davera S, Bajpai M, Goel P, Abdominal and scrotal phalloplasty—novel surgical techniques for penile reconstruction*, Annual Conference of APAPU, 14-16 December 2018, Delhi
17. Davera S, Dhua AK, Bhatnagar V, Sequelae of Deflux® injection—a report of two cases, Annual meeting of Delhi State Chapter of IAPS, 9 September 2018, PGIMER and DR RML Hospital, Delhi
18. Dhua A, Jain V, Agarwala S, Bhatnagar V, Various techniques for Nephron sparing surgery in bilateral Wilms tumor, Annual Conference of Delhi State Chapter of IAPS, 9 September 2018, PGIMER and DR RML Hospital, Delhi
19. Dhua A, Jain V, Agarwala S, Bhatnagar V, An inguinal hernia with UDT? Suspected Persistent Mullerian Duct syndrome, 20th Annual Congress of APAPU, 14-16 December 2018, Delhi
20. Dhua AK, Goel P, Yadav D, Jain V, Malik R, Bhatnagar V, Kashyap L, Pleurodesis in a child with resistant pleural effusion by thoracoscopic pleural abrasion and innovative low-cost spraying technique of talc, Annual meeting of Paediatric Endoscopic Surgeons of India (PESI), 15 February 2019, AIIMS, Jodhpur
21. Dhua AK, Sharma K, Jain V, Bhatnagar V, Malik R, Prasad G, Delayed laparoscopic repair of hiatal hernia and achalasia cardia presenting as failure to thrive in infants, Annual meeting of Paediatric Endoscopic Surgeons of India (PESI), 15 February 2019, AIIMS, Jodhpur
22. Goel P, Bajpai M, Anand S, Das P, Systematic Review of Epidermal Inclusion Cyst of the Penis in Children, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
23. Goel P, Bajpai M, Baidya D, Jana M, Bal CS, Bajpai Single Port-Single Instrument- Lumboscopy Assisted Pyeloplasty (BLAP), Furthering experience and following the initial cohort *, 20th Annual Congress of APAPU, 14-16 December 2018, Delhi
24. Goel P, Bajpai M, Baidya M, Jana M, Laparoscopic Management of Intra-abdominal Tumors: Feasible or Not, Annual Conference of ASPHO, 2-5 May 2018, David L. Lawrence Convention Center, Pittsburg, USA
25. Goel P, Bajpai M, Jana M, Khanna P, Iso-Peristaltic Gastric Tube—Experience from a Tertiary Care Centre and Long-Term Results, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh

26. Goel P, Bajpai M, Kalaivani M, Narsimhan P, Singh TR, Khanna P, Anand R, Prospective study to evaluate the effect of Vasodilatory Caudal Block in Paediatric patients*, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
27. Goel P, Bajpai M, Kalaivani M, Paediatric Penile Anthropometry Nomogram from India, 1st National Biomedical Research Competition 2018, 15 October 2018, AIIMS, Rishikesh
28. Goel P, Bajpai M, Kalaivani M, Paediatric Penile Anthropometry Nomograms from India, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
29. Goel P, Bajpai M, Kalaivani M, Paediatric Penile Anthropometry Nomogram: Cross-sectional Study based on North Indian population, 20th Annual Congress of APAPU, 14-16 December 2018, Delhi
30. Goel P, Bajpai M, Kandasamy D, An Enigmatic Route to the Contralateral Pelvicalyceal System on Antegrade Pyelogram, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
31. Goel P, Bajpai M, Sharma K, Naranje P, Previously undescribed anomalies of Hepatic Artery and Portal Venous Anatomy in a case of Extra-Hepatic Biliary Atresia and its implications, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
32. Goel P, Bajpai M, Development of Paediatric Sliding Scale Penometer for measurement of Stretched Penile Length, 1st National Biomedical Research Competition 2018, 15 October 2018, AIIMS, Rishikesh
33. Goel P, Veereshwar B, Das N, New Insights into serum Nitric Oxide levels: Role in Management of Extra-Hepatic Portal Hypertension in children, Differentiation of Neonatal Hepatitis from Extra-hepatic Biliary Atresia and Prediction of Liver Damage in neonatal cholestasis, 1st National Biomedical Research Competition 2018, 15 October 2018, AIIMS, Rishikesh
34. Jain V, Agarwala S, Bakhshi S, Srinivas M, Iyer VK, Mathur S, Jana M, Gupta AK, Bajpai M, Bhatnagar V, Outcome of children with Stage IV Wilms tumor treated on AIIMS-WT-99 Protocol, Annual Conference of the Surgical Oncology Chapter (SOS) of Indian Association of Paediatric Surgeons (IAPS), 21-23 September 2018, Goa
35. Jain V, Agarwala S, Murali D, Dhua AK, Mittal D, Bhatnagar V, Kandasami D, Kumar R, Outcome of initial endoscopic management of ureteroceles in single systems and duplex systems, Annual meeting of PESI, 15 February 2019, AIIMS, Jodhpur
36. Jain V, Dhua A, Bakhshi S, Srinivas M, Thulkar S, Jana M, Bishoi A, Bhatnagar V, Agarwala S, Treatment outcomes of Malignant Germ Cell Tumor: A Single centre experience of 22 years, Annual conference of ASPHO, 2-5 May 2018, David L. Lawrence Convention Center, Pittsburg, USA
37. Jain V, Murali D, Dhua AK, Varunkumar M, Chhabra A, Agarwala S, Laparoscopic pyloromyotomy: Varied techniques and early results, Annual meeting of PESI, 15 February 2019, AIIMS, Jodhpur
38. Jain V, Murali D, Dhua A, Malik R, Menon RK, Kothari SS, Chauhan S, Bishoi AK, Agarwala S, Abernathy Syndrome: Varied Presentations, Management and Outcome, 19th Annual Congress of the European Association of Paediatric Surgeons, 20-23 June 2018, Science and Industry Museum, Paris, France
39. Khanna K, Agarwala S, Bajpai M, Srinivas M, Bhatnagar V, Sacrococcygeal teratoma—Long term outcomes in terms of urological and bowel problems, cosmesis and gait, 50th Annual Conference of SIOP, 15-20 November 2018, International Conference Center, Kyoto, Japan
40. Khanna K, Bajpai M, Goel P, Khanna P, Laparoscopy-Assisted Removal of Intra-Abdominal Tumors—The AIIMS Experience, Annual Conference of APAPU, 14-16 December 2018, Delhi
41. Kumari V, Joshi P, Dhua A, Sapra S, Srinivas M, Agarwala S, Bhatnagar V, Developmental status of children operated for esophageal atresia with or without tracheoesophageal fistula along with maternal stress, their quality of life and coping abilities, 19th Annual Congress of the European Association of Paediatric Surgeons, 20-23 June 2018, Science and Industry Museum, Paris, France
42. Mitra A, Bajpai M, Goel P, Santulli's Type Ureteral Diversion: Dual Salvage in a Refluxing System, Annual Conference of APAPU, 14-16 December 2018, Delhi
43. Mitra A, Bajpai M, Goel P, Gupta A, Varshney A, Batra RK, Sharp Foreign Bodies of the Aero-Digestive Tract: Endoscopic removal by the 'Kangaroo' technique, Annual Conference of IAPS, 25-28 October 2018, PGI, Chandigarh
44. Murali D, Agarwala S, Jain V, Dhua A, Bhatnagar V, H-type TEF: Technique of identification of fistula and outcomes of surgery, Annual Conference of Delhi State Chapter of IAPS, 8-9 September 2018, PGIMER and DR RML Hospital, Delhi
45. Murali D, Agarwala S, Jain V, Dhua AK, Bhatnagar V, H type Tracheo-esophageal fistula: Technique of identification of fistula and outcomes of surgery, 44th Annual Conference of IAPS, 25-28 October 2018, PGI, Chandigarh

46. Murali D, Bajpai M, Goel P, Laparoscopic removal of bilateral Phaeochromocytoma: Virtues of approach, Annual Conference of APAPU, 14-16 December 2018, Delhi
47. Murali D, Dhua A, Jain V, Malik R, Agarwala S, Bhatnagar V, Classical and atypical Peutz-Jeghers syndrome—A report of 2 cases, Annual Conference of Delhi State Chapter of IAPS, 8-9 September 2018, PGIMER and DR RML Hospital, Delhi
48. Murali D, Jain V, Arora S, Passah A, Mani K, Yadav DK, Goel P, Gupta DK, Comparison of the serial diuretic renal scans performed with 99mTcL,L-EC and 99mTc-MAG3 in children with Pelviureteric junction obstruction, 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
49. Nagendla MK, Bajpai M, Goel P, Beaded foreign body bronchus—A surgical challenge in removal, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
50. Nagendla MK, Bajpai M, Goel P, Kumar R, Anshul, Hepatic perfusion Index—A novel non radiological method of assessing hepatic blood flow and shunt patency in cases of EHPVO, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
51. Nagendla MK, Dhua A, Jain V, Agarwala S, Bhatnagar V, Non-Wilms renal tumor with an IVC thrombus, Annual Conference of Delhi State Chapter of IAPS, 8-9 September 2018, PGIMER and DR RML Hospital, Delhi
52. Nagendla MK, Sharma S, Singh V, Kakkar A, Bhardwaj B, Yadav DK, Gupta DK, Clinicopathological correlation of Rare Adrenal Tumour, 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
53. Nagendla MK, Singh V, Sharma S, Yadav DK, Gupta DK, Congenital Midline Cervical left (CMCC)—An extremely rare branchial fusion anomaly, 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
54. Nandan R, Bajpai M, Goel P, Dorso-ventral Transfer of Preputial Tube Urethroplasty (DVTPTU)—A fistula-free single-staged universally applicable technique for hypospadias repair, Annual Conference of APAPU, 14-16 December 2018, Delhi
55. Nandan R, Sharma S, Yadav DK, Gupta DK, Complicated case of urethral duplication with dilated posterior urethra and renal failure, 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
56. Pathak M, Goel P, Saxena R, Systematic Review of the Randomized Controlled Trials on hypospadias in children for Quality Assessment based on adherence to the PICOT criteria or CONSORT guidelines, Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
57. Sehgal M, Anand S, Agarwala S, Jain V, Dhua A, Bakhshi S, Seth R, Gulati S, Jana M, Kandasamy D, Srinivas M, Bhatnagar V, Neuroblastoma with Opsoclonus-Myoclonus-Ataxia Syndrome (OMAS): Outcomes of Surgical Management over Twenty Years, Annual Conference of the Surgical Oncology Chapter (SOS) of Indian Association of Paediatric Surgeons (IAPS), 21-23 September 2018, Goa
58. Sharma K, Agarwala S, Jana M, Kandasamy D, Jain V, Dhua A, Bakhshi S, Bhatnagar V, Hepatoblastoma: Role Diffusion Weighted MRI (DW-MR) in detection of satellite lesions not detected with multi-phase CT scans, 50th Annual Conference of SIOP, 15-20 November 2018, International Conference Center, Kyoto, Japan
59. Sharma K, Bajpai M, Goel P, Jana M, Baidya M, Foleys Assisted Female Epispadias Repair and Bladder Neck Tightening by Single Staged Trans-vestibular Approach, Annual Conference of Delhi State Chapter of IAPS, 8-9 September 2018, PGIMER and DR RML Hospital, Delhi
60. Sharma K, Dhua AK, Jain V, Malik R, Bhatnagar V, Prasad G, Laparoscopic Heller's cardiomyotomy in AAA syndrome—Case report of a rare entity, Annual meeting of PESI, 15 February 2019, AIIMS, Jodhpur
61. Sharma S, Bhanot R, Yadav DK, Gupta DK, Long term outcome of Cloacal malformations, 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
62. Sharma S, Gupta DK, Transrectal Approach for Excision of Vaginal germ Cell Tumour with Pedicled Rectal Mucosal Patch for Posterior Wall Vaginoplasty, 25th Paediatric Colorectal Club, 5-7 October 2018, Tokyo, Japan
63. Sharma S, Jyotsna PV, Yadav DK, Srivastava A, Gupta DK, Male Gender Assignment in 46 XX congenital adrenal hyperplasia, 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
64. Sharma S, Yadav DK, Gupta DK, Acquainting Male cloaca: Rare anorectal malformation., 44th Annual Conference of IAPS, 25-28 October 2018, PGIMER, Chandigarh
65. Singh TR, Nagendla MK, Agarwala S, Jain V, Dhua S, Kale SS, Phalak M, Kandasamy D, Bhatnagar V, Currarino syndrome: Diagnostic dilemma and challenges in management, Annual Conference of the Surgical Oncology Chapter (SOS) of Indian Association of Paediatric Surgeons (IAPS), 21-23 September 2018, Goa
66. Varunkumar M, Jain V, Agarwala S, Dhua AK, Singh A, Chhabra A, A case of ileo-cecal duplication cyst in a baby, successfully treated with Laparoscopic-assisted surgery, Annual meeting of PESI, 15 February 2019, AIIMS, Jodhpur

RESEARCH

Funded projects

Ongoing

1. A study of molecular basis of hypospadias with respect to testosterone biosynthetic defects, enzyme mutation and SRY gene studies, M Bajpai, ICMR, 3 years, 2017-2020, Rs 41.5 lakhs
2. The study of clinical profile and etiopathogenesis of Disorders of Sex Development (DSD), A Pilot Study, M Bajpai, ICMR, 3 years, 2017-2020, Rs 70.77 lakhs
3. Centre for Advanced Research on Congenital uropathies and CKD, M Bajpai, ICMR, 5 years, 2018-2023, Rs 173.5 lakhs
4. A study on the histomorphology of detrusor with respect to bladder growth as related to upper and lower urinary tract outcomes, M Bajpai, DBT, 3 years, 2017-2020, Rs 39 lakhs
5. Establishing Guidelines for Fetal Counselling for Surgical Congenital Anomalies, Shilpa Sharma, DBT, 3.5 years, 2014-2017, Rs 5 lakhs
6. Reference range of serum alpha fetoprotein in children below three years of age, Devendra Kumar Yadav, AIIMS, 2 years, 2015-2017, Rs 2.3 lakhs
7. Role of cortical transit time on MAG3 scintigraphy in children with PUJ obstruction, Vishesh Jain, AIIMS, 2 years, 2015-2017, Rs 1.65 lakhs
8. Role of Plasma Renin Activity in predicting renal damage in patients with Neurogenic bladder and its correlation with existing parameters of renal damage, Prabudh Goel, AIIMS, 2 years, 2016-2018, Rs 4.8 lakhs

Completed

1. To study the role of gene environment interaction in the pathogenesis of congenital urological anomalies in children, A pilot study, M Bajpai, ICMR, 1 year 8 months, 2017-2018, Rs 46.41 lakhs

Departmental projects

Ongoing

1. Prospective study of treatment of children with Wilms' tumor on treatment with modified NWTS-5 regimen
2. Prospective study of treatment of children with rhabdomyosarcoma on treatment with IRS-5 regimen
3. Prospective study of treatment of children with hepatoblastoma on treatment with Monotherapy and PLADO regime
4. Prospective study on five drug regimen for the management of clear cell sarcoma of the kidney
5. Evaluation of cardiotoxicity related to administration of adriamycin in children with solid tumors
6. Outcome of treatment with ICE (Ifosphamide, carboplatin and etoposide) salvage regime in children with relapsed/recurrent solid tumors
7. Role of pulmonary metastectomy in paediatric solid tumors
8. Functional bladder outcomes in patients in patients with bladder/prostate rhabdomyosarcomas
9. To study the trends and outcomes in children with button battery ingestion in children
10. Outcomes of non-operative management of unilateral pelvi-ureteric junction Obstruction
11. Prospective study of treatment of children with Wilms' tumor on treatment with modified NWTS-5 regimen
12. Comparing postoperative APRI as a marker of Hepatic fibrosis following Kasai with and without Partial liver resection in biliary atresia
13. Long term outcome of neuroblastoma: Search for prognostic factors in a developing country, An ambispective study
14. Assessment of renal function in children with unilateral non-syndromic Wilms' tumor, An ambispective control study
15. Hypospadias Outcomes Long-Term Database (HOLD), A prospective cohort study
16. Long term outcome of PSARP in Anorectal malformation
17. Retrospective study of the factors that affect the long-term outcome of operated cases of hypospadias
18. A prospective study of the short-term outcomes of operated cases of distal penile hypospadias in terms of immediate and early complications
19. Assessment of long-term postoperative outcomes of anorectal function in patients with Hirschsprung's Disease
20. MR evaluation of intra-hepatic biliary ductular architecture in patients of EHBA after Kasai' portoenterostomy

21. Autologous platelet-rich fibrin patch in hypospadias repair, A randomised control trial
22. Early repair of small urethrocutaneous fistula in children after hypospadias surgery, A randomised controlled trial
23. To compare aspartate aminotransferase to platelet ratio index, supersonic shear wave elastography, and histopathology of the liver in patients of biliary atresia as tools to evaluate hepatic fibrosis
24. Evaluation of Interstitial Cells of Cajal-Like Cells (ICC-LC) and histopathology in congenital pelviureteric junction obstruction and their correlation with intraoperative findings
25. Button Battery ingestion in children
26. Post-operative results of hanging bowel technique of abdomino-perineal pull through
27. Role of Plasma Renin Activity in predicting renal damage in patients with Neurogenic bladder and its correlation with existing parameters of renal damage
28. Normative assessment of paediatric penile length in Indian population
29. Quality Improvement (QI) project to ensure compliance with administration of maintenance intravenous fluids to Paediatric Surgical patients called for day-care procedures in the pre-operative waiting period
30. Assessment of intra-hepatic portal anatomy (left and right portal veins) and anatomical feasibility of Rex shunt surgery on computed tomography portography in paediatric patients with Extra-hepatic Portal Vein Obstruction
31. Quality Improvement (QI) initiative to improve the quality of post-operative discharge instructions to day-care patients operated under Paediatric Surgery in CRHPS, Ballabgarh
32. Comparison of a novel coaxial technique with conventional technique for Percutaneous Nephrostomy in Children under 5 years of age, A feasibility study
33. Validation of sliding scale penometer for measurement of stretched penile length in Paediatric Age-Groups
34. Role of F-Dopa Pet-CT in Paediatric and adult patients with Hyperinsulinemic Hypoglycemia
35. Study to identify the genotype-phenotype correlation in testicular biosynthetic defects and 5-alpha-reductase deficiency with respect to Disorders of Sex Development
36. Study to evaluate the role of serum Procalcitonin in predicting the adverse events in surgical neonates
37. A study on the Prevalence of Polymorphism in nephrogenic genes in congenital uropathies and their influence on renal functional outcomes
38. A study on Differential Expression of Molecular Markers in urine with respect to genetic propensity to congenital uropathies
39. Assessment of Growth Factor receptor expression and micro-vessel density in the ventral paraurethral tissues in hypospadias

Completed

1. Role of initial percutaneous nephrostomy in very poorly functioning pelviureteric junction obstruction
2. Associated Anomalies in patients with Esophageal Atresia with or without Tracheoesophageal Fistula, and its influence on survival
3. Assessment of long-term postoperative outcomes of anorectal function in patients with anorectal malformations, using anorectal manometry
4. Comparison of hepatoduodenostomy and Roux-en-Y hepatojejunostomy following excision of choledochal cyst
5. Long term outcome of esophageal replacement
6. Evaluation of renal function, renal tracts and bladder function in patients with posterior urethral valves and their correlation with age at valve fulguration
7. Do anatomical landmarks in a hypospadiac glans match those with a normal glans?
8. Correlation of hepatic artery resistive index with portal pressure and serum nitric oxide levels in patients with extra hepatic portal vein obstruction
9. Retrospective analysis of presentation and postoperative outcomes in children with Type 2 Abernethy malformation
10. Comparison of high spermatic vessel ligation, low spermatic vessel ligation of rat testis

Collaborative projects

Ongoing

1. Long term outcomes of bladder functions in patients treated for Posterior Urethral Valves, Radiology, Nuclear Medicine

2. To study the long term effects of disease and its treatment in survivors of paediatric solid tumors, Medical Oncology, Reproductive Biology, Obstetrics and Gynecology, Cardiology
3. Study of prognostic factors in thoracic PNET, Medical Oncology, Radiotherapy, Radiodiagnosis
4. Role of MIBG therapy for advanced non-responsive and recurrent neuroblastoma, Nuclear Medicine
5. Role of cortical transit time on MAG3 scintigraphy in children with PUJ obstruction, Nuclear Medicine
6. Reference range of Serum Alpha fetoprotein in Indian children below 3 years of age, Reproductive Biology
7. Intra- and inter-observer variability in the measurements of Cortical Transit Time following MAG-3 Scintigraphy in children with unilateral PUJ obstruction, Nuclear Medicine

Completed

1. Evaluation of clinicopathological characteristics treatment outcome and prognostic factors in soft tissue sarcoma patients, Medical Oncology
2. Application of Diffusion MRI in detection of multifocal hepatoblastoma and role on VEGF in multifocal and metastatic hepatoblastomas, Radiodiagnosis, Pathology
3. Role of Notch and Wnt signaling pathways in Hepatoblastoma, Pathology
4. Retrospective study of patients with mediastinal tumors undergoing surgical resection- experience at AIIMS, New Delhi, Cardio-thoracic and Vascular Surgery
5. Developmental status of children operated for esophageal atresia with or without tracheoesophageal fistula along with maternal stress, their quality of life and coping abilities, College of Nursing
6. Role of Shear wave elastography in diagnosis, prognostication and follow-up of neonatal/infantile cholestatic liver disease, Radiodiagnosis
7. Comparison of high spermatic vessel ligation, low spermatic vessel ligation in rat testis, Anatomy, Reproductive Biology

PUBLICATIONS

Journals: 35 Abstracts: 3 Chapters in Books: 2

PATIENT CARE

Outpatient Department

Paediatric surgery outpatient department is run every day. In addition specialty clinics are also run to provide more focused attention to few conditions.

Various specialty clinics run by the Department and faculty:

Monday:	Hydrocephalus Clinic (Afternoon)
Tuesday:	Antenatal Diagnosis and follow up (Forenoon)
Wednesday:	Paediatric Urology Clinic (Afternoon) Craniosynostosis Clinic (Afternoon)
Thursday:	GI Hepatobiliary (Forenoon) Paediatric Urology, Follow-Up Clinic (Afternoon) IRCH: Paediatric Solid Tumor Clinic (Afternoon) Paediatric Solid Tumor Clinic (Main OPD)
Friday:	Paediatric Thoracic Surgery Clinic (Forenoon) Paediatric Urology Clinic (Afternoon)
Saturday:	Paediatric Urology, Intersex and Hypospadias (Forenoon)

Facilities available

- Intensive care unit for neonatal surgical patients
- High dependency area for Paediatric Surgical patients
- Computer based Urodynamic and uroflowmetry study
- Computer based Anorectal manometry
- Computer based Esophageal manometry

- 24 hours pH monitoring for Gastroesophageal reflux
- Impedence Manometry for Gastroesophageal reflux

Community services

- Weekly outpatient clinic and operative session at CRHSP, Ballabgarh

Attendance in OPD and Speciality clinics

OPD/Clinic	New Cases	Old Cases	Total
General	8,174	16,717	24,891
Hydrocephalus	1	36	37
Paediatric Urology (W/T/F)	311	1,891	2,202
Intersex and Urology (DSD+ PISU)	31	340	371
Tumour	33	568	601
Paediatric tumour (IRCH)	197	2,642	2,839
Craniosynostosis	0	0	0
CRHSP, Ballabgarh	2,207		

Admissions

AB5 ward: 2,481 (1,204 Long admissions and 1,277 short admissions)

AB5/ICU: 117

Surgical Procedures

Main OT

Routine: Major Procedures: 1,105 Minor Procedures: 429
Emergency: Major Procedures: 327 Minor Procedures: 21

OPD Procedures (Total): 2,917 Biopsies in OPD: 71

CRHSP, Ballabgarh: Minor cases: 75 OPD procedures: 159

Special Investigations

Urodynamic study: 206 Uroflowmetry: 451 Anorectal manometry: 31

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Minu Bajpai was Head of the International Cooperation, Domestic and International MoU, AIIMS, New Delhi; Chairman, Cafeteria Management Committee, AIIMS; Chairman, Sub-committee on Outsourcing Cafeteria Services; Moderator-Innovation to solve concrete health problems, Global sustainable technology and innovation, 28 November 2019, Brussels, Belgium; Moderator, Health-Holland Visitors Programme 2018, organized by Ministry of Health, Welfare and Sport, The Netherlands; Moderator, World of Health Care event, Health care in India session, 26 November 2019; Rotterdam RDM Submarine Wharf, Rotterdam, The Netherlands; Chairman- Session on: Paediatric surgical training in the era of Laparoscopy-PESICON-2019, 15 February 2019, AIIMS, Jodhpur; Head of delegation visiting NCKU, Hospital, Taiwan-International cooperation between NCKU, Taiwan and AIIMS, New Delhi; Head of delegation representing AIIMS-National Health care coverage in India, International Cooperation Summit, 9 April 2019, Ministry of Health and Welfare (MOHW), Tainan, Taiwan; Head of delegation representing AIIMS, 10 April 2019, National Cheng Kung University (NCKU), Tainan, Taiwan; Member, Visiting team led by Director, AIIMS: On site visit on intensive care monitoring, DMAT training programme (Disaster Medical Assistance Team) held at: (28 January 2019), Department of Emergency and Critical Care Medicine Nippon Medical School Post-Graduate School of Medicine, Japanese Association for Acute Medicine (JAAM), National Hospital Organization Osaka National Hospital, Osaka, JAPAN; Member, Visiting team led by Director, AIIMS: Trauma care, Emergency Medicine and Intensive Care, 28 January 2019, Center Hospital of the National Center for Global Health and Medicine, Japanese Association of Surgery for Trauma (JAST), Tokyo, Japan.

Professor Sandeep Agarwala was Executive Board Member for the Asian Association of Paediatric Surgeons; Section Editor for the Indian Journal of Paediatrics; Vice Chairman of the Resource Challenged Nations Study Group of SIO-PEL; Chairman 61th Annual Report Committee of AIIMS; Co-Chairman Faculty Coordination Committee for Pulse 2018, AIIMS; Secretary AIIMSONIANS- The Alumni Association of AIIMS; Member of Committee to consider PhD reforms at AIIMS; Chairman of Messes, Shops and Establishments Committee of AIIMS; Member standing committee to regulate media reporting and disclosure of details relating to children; Member, Committee for selection of Shri Mohan Lal Wig Medal for Clinical Research; Course Instructor for Surgical Oncology Course, Conducted by International Society of

Paediatric Surgical Oncology (IPSO), and the European Board of Examination, and European society of paediatric Surgery prior to annual congress of the European society of paediatric Surgery; Course Instructor for Masterclass in Paediatric Surgical Oncology, Conducted by International Society of Paediatric Surgical Oncology (IPSO), and the European Board of Examination, and European society of paediatric Surgery; Appointed Superintendent of Hostels.

Dr Shilpa Sharma (JPNATC) was Executive Body member, World Federation of Association of Paediatric Surgeons, 2017-2019; Executive Council member of the International Society of Hypospadias and DSD, 2018-2020; Secretary of Research Section of Indian Association of Paediatric Surgery, 2018-2020; Editorial board member of Paediatric Surgery International; Member Standing Selection Committee for faculty recruitment of AIIMS, Patna, July 2018; Member Standing Selection Committee for faculty recruitment of AIIMS, Patna, October 2018; Honored by Delhi Public Library (Ministry of Culture Undertaking, Government of India) and Kavyashrijan Mahila Manch for “Significant Achievement in the Field of Medicine” on International Womans Day, 9 March 2019; Nominated as Member, Institute Ethics Committee, Superspecialty Paediatric Hospital and Postgraduate Teaching Institute, Sector 30, Noida, 2018-2019; Nominated as Member, Institute Research Committee, Superspecialty Paediatric Hospital and Postgraduate Teaching Institute, Sector 30, Noida, 2018-2019.

Dr Anjan Dhua was member of Annual Report Committee of AIIMS; Member of Convocation Committee of AIIMS; Awarded FACS (Fellow of the American College of Surgeons).

9.29. Pathology

Professor and Head

Subrat K Panda

Professors

Chitra Sarkar
Ruma Ray
Venkateswaran K Iyer

Manoj K Singh
AK Dinda
Sandeep R Mathur

S Datta Gupta
MC Sharma
Vaishali Suri

Associate Professors

Sudheer Arava
Deepali Jain

Geetika Singh

Asit Ranjan Mridha
Prasenjit Das

Assistant Professors

Rajni Yadav
Saumya Ranjan Mallick

Seema Kaushal
Adarsh Barwad
Aanchal Kakkar

Shipra Aggarwal
Prashant Ramtake

Group A Officers

Himender Singh Tomar

Shankar Ram Arya

HIGHLIGHTS

In research, we have faculty members working on virtual education and skill development, molecular Virology of Hepatitis, intestinal inflammatory diseases, Nano technology, Lung cancers, Lymphomas, Gliomas and their molecular characterization and metabolic syndromes. Functional analysis of microRNAs in Hepatitis E Virus (HEV) is in progress which is in continuation of the previous year's work subsequent to completion of its transcriptome and long non-coding RNA analysis.

We have started giving integrated diagnosis of brain tumors incorporating molecular markers as per WHO 2016 classification.

Lung cancer predictive molecular testing has been started in routine patient care including EGFR mutations. During the last year approximately 400 new patients of lung cancer has been tested for EGFR mutation.

Flow cytometry lab has been established during the last year for diagnosis of lymphoproliferative disorders and hematologic malignancies. FISH karyotyping for refractory diffuse large B cell lymphoma for double hit and triple hit status is started. Epstein Bar virus In situ hybridization is also started for difficult cases of Hodgkin lymphomas.

Tissue microarray facility is used as a diagnostic aid in lymphomas and FISH analysis. Electron Microscopy has been incorporated to the kidney pathology of glomerulonephritis in all cases.

Upgradation of surgical pathology, cytopathology and teaching methodology is in progress. We are developing Virtual Teaching as a tool for teaching UGs, nursing students and field health workers.

EDUCATION

Postgraduate

MD students: 32 PhD students: 3 Senior Residents: 18

Short term training / Long term training

1. Dr Lt Col Dr Samresh Kumar has undergone Long term training for 24 months from 29 August 2016 to 28 August 2018
2. Dr Lt Col Prerna Guleria has undergone Long term training for 24 months from 13 December 2016 to 12 December 2018
3. Dr Amit Kumar Thakur, Dr Bandana Madbhari, Dr Bishwo Prakash Jung Thapa, Dr Gopal Lama, Dr Neera Pathak, Dr Prabin Chandra Tiwari and Dr Shankar Prasad Kafle from BP Koirala Institute of Health Sciences, Dharan, Nepal have completed four weeks exposure training
4. Surgeon Commander (Dr) Natasha is undergoing Long term observership for a period of 24 months starts from 28 December 2018
5. Dr Keya Basu and Dr Moumita Sengupta have completed Short term observership 17 days from 28 February to 16 March 2019
6. Dr Malvika Gaur has undergone Short term observership from 25 March to 11 April 2019
7. Dr Chettan Dass has undergone Short term observership from 1 March to 31 May 2019

CMEs/Workshop/Symposia/National and International Conferences

International CME on Lymphoma, 6 and 7 March 2019 AIIMS, New Delhi

Lectures delivered

SK Panda

1. Hepatitis E Virus (HEV): Molecular virology, 26th Annual Scientific Meeting (INASL), 4 August 2018, New Delhi

Chitra Sarkar

1. Recent advances in Medulloblastomas: Challenges to Neuropathologists, ISNOCON, 6-7 April 2018, AIIMS, New Delhi
2. Role of molecular genetics in Neuro-Oncology, Pathfinder, 15-16 September 2018, Indian Medical Association, **Chennai**
3. Current concepts in Paediatric gliomas Medulloblastomas: An update, International Paediatric CME, 18-20 January 2019, Tata Medical Centre, Kolkata
4. Challenges and Solutions of Molecular Classification in the Indian Context—Medulloblastoma and Other Embryonal Tumors, NPSICON, 14-17 February 2019, PGIMER, Chandigarh
5. Leadership in Healthcare: Does it Demand Uniqueness? Healthcare Leadership Summit, 3 March 2019, IIM, Bangalore

S Datta Gupta

1. Pathology Primer on IBD, IBD Master Class (of AIIMS), 10 June 2018, New Delhi
2. Histopathology of Autoimmune Hepatitis, 7th Dr V Ramalingaswami Oration and Hepatopathology Meeting, 8 August 2018, Institute of Liver and Biliary Sciences, New Delhi
3. Panelist on the Session on Biliary and Autoimmune Diseases, 7th Dr V Ramalingaswami Oration and Hepatopathology Meeting, 8 August 2018, Institute of Liver and Biliary Sciences, New Delhi
4. Histopathology of Acute Hepatitis, 39th Annual Conference: Maharashtra Chapter of Indian Association of Pathologists and Microbiologists (MAPCON 2018), 8 September 2018, Armed Forces Medical College, Pune
5. Panel Discussion on GI Pathology, 39th Annual Conference: Maharashtra Chapter of Indian Association of Pathologists and Microbiologists (MAPCON 2018), 9 September 2018, Armed Forces Medical College, Pune
6. Dysplasia in IBD: Diagnosis and Complications, 6th National IBD Meet, 15 September 2018, New Delhi
7. Faculty in Workshop on Rapid Tissue Diagnosis, Pre-conference Workshop, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 4 October 2018, St Johns Medical College, Bangalore

8. Chronic Gastritis, Pre-conference CME, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 5 October 2018, NIMHANS Convention Centre, Bangalore
9. Inflammatory Bowel Disease, Pre-conference CME, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 5 October 2018, NIMHANS Convention Centre, Bangalore
10. Malabsorption Syndrome, Pre-conference CME, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 5 October 2018, NIMHANS Convention Centre, Bangalore
11. Case Presentation (Presented 5 Cases), Pre-conference CME, 45th Annual Conference of Karnataka Chapter of IAPM (KAPCON 2018), 5 October 2018, NIMHANS Convention Centre, Bangalore
12. Lecture on Liver Biopsy, Postgraduate Training Programme (CALIPATH 2018), 27 October 2018, Government Medical College, Calicut, Kozhikode
13. Slide Seminar on Gastrointestinal Biopsy and Liver Biopsy, Postgraduate Training Programme (CALIPATH 2018), 27 October 2018, Government Medical College, Calicut, Kozhikode
14. Practical Session on Urinalysis, Postgraduate Training Programme (CALIPATH 2018), 27 October 2018, Government Medical College, Calicut, Kozhikode
15. Histopathology Practical Session, Postgraduate Training Programme (CALIPATH 2018), 28 October 2018, Government Medical College, Calicut, Kozhikode
16. Panelist in the Session on Medicolegal issues in routine reporting, Cutting Edge of Pathology-2, 21 December 2018, All India Institute of Medical Sciences, New Delhi
17. Hematoxylin and Eosin Staining, Cutting Edge of Pathology-2, 21 December 2018, All India Institute of Medical Sciences, New Delhi
18. Eminent Indian Pathologists: Dr V Ramalingaswami, 24th ICP-AIPNA (Indian College of Pathologists—Association of Indian Pathologists of North America) Conference, 1 February 2019, All India Institute of Medical Sciences, Bhopal

Manoj K Singh

1. Role of virtual teaching in medical teaching, The DTH/NPTEL—Medicine Workshop, 26 September 2018, IIT, Madras

AK Dinda

1. Critical issues in development of guideline for nanosafety regulation: The role of alternative test strategy, 11th European and Global Summit for Clinical Nanomedicine, Targeted Delivery and Precision Medicine—The Building Blocks to Personalized Medicine, 2-5 September 2018, European Foundation for Clinical Nanomedicine, Basel, Switzerland
2. Application of imaging for exploring Nano-Bio interface, International Conference on Microscopy and XXXIX Annual Meeting of Electron Microscopy Society of India (EMSI), 20 July 2018, Institute of Physics, Bhubaneswar
3. Urinary molecular diagnostics in Kidney diseases, 11th Annual Conference of Indian Society of Renal and Transplant Pathology (ISRTPCON 2018), 18 August 2018, IPGMER, Kolkata
4. Marriage between Nanoscience and Chemistry will Revolutionize Health Care in the 21st Century, Symposia on Translational Research in Biomedical and Agricultural Sciences, 7 July 2018, AIIMS, Delhi
5. Nanointervention for Vaccine Development, 3rd Annual Conference of Indian Society of Nanomedicine (Nanobioteck 2018), 27 October 2018, AIIMS, Delhi
6. Nano-safety Guideline: Indian Scenario, 3rd Annual Conference of Indian Society of Nanomedicine (Nanobioteck 2018), 27 October 2018, AIIMS, Delhi
7. Multimodal approaches of Nanomedicine, Nanomedicine School: Preconference workshop of Nanobioteck 2018, 24 October 2018, AIIMS, Delhi
8. Innovation and Product Development: The Challenges in Nanomedicine, International Conference of Pharmacology and Drug Discovery, 4 October 2018, Maharaja Agrasen University, Solan
9. Nephrotic syndrome in India: Pathobiology and challenges in molecular diagnostics, Symposium on Molecular Pathology and Diagnostics, 15 December 2018, SGPGI, Lucknow
10. Role of regulatory science in development of safe Nanotechnology based product for agriculture, International Conference on Nanobiotechnology for Agriculture 2018 Detection, Conservation and Responsible Use of Natural Resources, 13 December 2018, India Habitat Center, Delhi
11. Application of Nanotechnology in Vaccine Development: The Current Scenario, International Conference on Functional Nanomaterials (ICFNM-2019), 23 February 2019, BHU, Varanasi
12. Disruptive Innovation and Regulatory Science, Workshop on, “Disruptive Translational Research in Nanobiotechnology: Advancing Sustainable Food Systems and Human Health Solutions”, 13 March 2019, India Habitat Center, Delhi

13. Translating Nano Innovations in Health Care: The Regulatory Challenges, A Zeotropy—Chemical Engineering Symposium, 17 March 2019, IIT, Mumbai

Mehar C Sharma

1. Other embryonal tumors of the CNS, Neuropathology CME, 28 April 2018, Dhaka, Bangladesh
2. Muscular dystrophies in the pediatric age group, Neuropathology CME, 28 April 2018, Dhaka, Bangladesh
3. Diagnostic algorithm for muscle diseases in children, Neuroquest, 2018, 18-19 May 2018, Gurugram
4. Update in embryonal tumors of Central nervous system, MAPCON, 7-9 September 2018, AFMC, Pune
5. Embryonal tumors of the CNS, Case presentation, MAPCON, 7-9 September 2018, AFMC, Pune
6. Upregulation of programmed Cell Death Ligand-1 (PDL1) expression in RELA fusion positive ependymoma suggests a role for immunotherapy in these aggressive tumors, International Congress of Neuropathology (ICN 2018), 23-27 September 2018, Tokyo, Japan
7. CNS embryonal tumors, International Congress of Neuropathology (ICN) 2018, 23-27 September 2018, Tokyo, Japan
8. Diffuse midline gliomas, International congress of Neuropathology (ICN) 2018, 23-27 September 2018, Tokyo, Japan
9. Clinicopathology Conference (CPC Neurology), IANCON, 2018, 23-27 September 2018, Deendayal Upadhyay Auditorium, Raipur
10. Neuroendocrine tumors—Interesting case presentation, APCON, 2018, 30 November-2 December 2018, Bareilly, UP
11. WHO classification of pituitary adenomas 2017, First Annual Alumni Meet, 21 December 2018, AIIMS, New Delhi
12. Non-neoplastic lesions of pituitary gland, Annual Conference of the Neuropathology Society of India (NPSICON), 14-17 February 2019, PGIMER, Chandigarh
13. Clinicopathological Conference (CPC Epilepsy), ECON 2019, 9 March 2019, New Delhi
14. Diagnostic approach to CNS tumors according to WHO 2016 classification, 1st Annual AIIMS Patna Pathology Update (APPU 2019), 10 March 2019, AIIMS, Patna
15. Approach to common histiocytic lesions in children, Paediatric Oncology Workshop on Solid Tumors—Module 3, 17 March 2019, AIIMS, New Delhi

Vaishali Suri

1. Utility of FISH in Molecular Neuro-oncology (Workshop), 10th Annual Conference of the Indian Society of Neuro-Oncology, 6-7 April 2018, AIIMS, New Delhi
2. DNA methylation based classification and grading system for meningiomas, 10th Annual Conference of the Indian Society of Neuro-Oncology, 6-7 April 2018, AIIMS, New Delhi
3. WHO 2016 classification of Medulloblastomas, Neuropathology CME, 28-29 April 2018, Bangladesh
4. Updated WHO 2016 classification of Medulloblastomas, Neurocon 2018, 15-16 September 2018, Paras Hospital, Gurugram
5. Recent advances in WHO 2016 classification of Adult and pediatric gliomas, Neurocon 2018, 15-16 September 2018, Paras Hospital, Gurugram
6. Fluorescence in-situ hybridization assay: Utility in FFPE tissue, National Workshop on Molecular Cytogenetics: In House FISH Probe Production, 12-16 November 2018, AIIMS, New Delhi
7. Molecular markers in management of gliomas are necessary, 67th Annual Conference of IAPM, 30 November-2 December 2018, Bareilly
8. Newer approaches to classification of meningiomas, 67th Annual Conference of Neurological Society of India NSICON 2018, 13-16 December 2018, JECC, Jaipur
9. Was invited to deliver a talk on new insights in functional pituitary adenomas, WFNS Neuroendocrinology Symposium, 27 and 28 January 2019, Mumbai
10. WHO classification of gliomas: Clinical utility, DNACON 2019, 2-3 February 2019, Ambedkar International Center, New Delhi
11. Non meningothelial tumours, 4th Annual Conference of Neuropathology Society of India, 15-17 February 2019, PGIMER, Chandigarh
12. FISH techniques (Workshop), 4th Annual Conference of Neuropathology Society of India, 15-17 February 2019, PGIMER, Chandigarh

Sandeep Mathur

1. Update on Breast Cancer Pathology for Practising Breast Surgeons, ABSICON 2018 Conference, 10 November 2018, AIIMS, New Delhi
2. Mucinous Tumours of Ovary in the CME titled as Female Genital Tract: Ovarian Neoplasms, MAPCON-2018, 7 September 2018, AFMC, Pune
3. Cytology and Histology of cervix, AICC-RCOG NZ Comprehensive Colposcopy Course with hands on LEEP Workshop, 8 May 2019, Sant Parmanand Hospital, New Delhi
4. Liquid based Cytology, Vth, Hands-on workshop on Cervical Cancer Screening, 20 February 2018, NICPR, Noida
5. Panel Discussion Uncertainties in Breast Pathology (case based) Expectations of Surgeons and Oncologists from Pathologists and vice-versa in breast cancer cases, 2nd Annual Indian Breast Cancer Conference, 6 October 2018, Jaipur
6. Germ Cell Tumor—Slide seminar session, IAPID 2018, 28 November 2018, Rohilkhand Medical College, Bareilly
7. Approach to serous effusion: Slide seminar, 82nd IAPM Kerala Chapter Conference, 10th National CME in Pathology Minimalist Pathology-2019, 10 February 2019, Amrita Institute of Medical Sciences, Kochi
8. Immunocytochemistry, 82nd IAPM Kerala Chapter Conference, 10th National CME in Pathology Minimalist Pathology-2019, 11 February 2019, Amrita Institute of Medical Sciences, Kochi

Geetika Singh

1. Transmission electron microscopy in renal pathology—A tool de rigueur, EMSI 2018 (Annual conference of Electron Microscopy society of India), 20 July 2018, Bhubaneswar
2. Approach to allograft biopsy in kidney transplant recipients with delayed graft function, ISOTCON 2018 (Annual conference of Indian Society of Transplantation), 5 October 2018, Hyderabad
3. Paraffin immunofluorescence, Cutting edge of Pathology, 22 December 2018, AIIMS, New Delhi
4. Fibrillary glomerulonephritis: An update, 2nd Lupus Nephritis and Glomerulonephritis update, 23 February 2019, PGIMER, Chandigarh

Asit Ranjan Mridha

1. Standardization of processing technique for scanning electron microscopy imaging of isolated giant cells from giant cell tumor, International Conference on Microscopy and XXXIX Annual Meeting of EMSI—EMSI 2018, 18-20 July 2018, Mayfair Convention Centre, Bhubaneswar
2. Langerhans Cell Histiocytosis (LCH) of bone, Indian Association of Pathologists and Microbiologists 67th Annual Conference 2018 (APCON 2018), 29 November-2 December 2018, RMCH, Bareilly
3. Neuroblastoma of bone, Indian Association of Pathologists and Microbiologists, 67th Annual Conference 2018 (APCON 2018), 29 November-2 December 2018, RMCH, Bareilly
4. Pathology of bone tumors (Osteosarcoma and Ewing sarcoma), Paediatric Oncology Symposium, 17 March 2019, AIIMS, New Delhi
5. Pathology of rare soft tissue sarcoma, Paediatric Oncology Symposium, 17 March 2019, AIIMS, New Delhi

Deepali Jain

1. Evaluation of microscopic capsular invasion in Thymoma: Is it clinically important? Delhi Thoracic Oncology Meet, April 2018, Delhi
2. Panelist: Imaging of chest infections, AIIMS Radiology Course, August 2018, Delhi
3. Discussant: Early stage lung cancer, World Conference on Lung Cancer (WCLC), 23-26 September 2018, Metro Toronto Convention Centre, Toronto, Canada
4. Invited panellist and expert early diagnosis of lung cancer and role of tumor mutation burden in immunotherapy of lung cancer, Best of WCLC, October 2018, Delhi
5. Lung molecular cytopathology: EGFR and Beyond, Cytocon, 1-4 November 2018, Institute of Nursing Education, Bambolim, Goa
6. Moderator of Symposium Updates in Molecular Cytopathology, Cytocon, 1-4 November 2018, Institute of Nursing Education, Bambolim, Goa
7. Role of EBUS in diagnosis of extrapulmonary lesions: CME on EBUS/EUS in Cytology, Cytocon, 1-4 November 2018, Institute of Nursing Education, Bambolim, Goa
8. Testing for EGFR, Sun Pharma Science Foundation Annual Conference “New Frontiers in Oncology”, November 2018, Delhi

9. Moderator: Conventional and molecular pathology lung cancer, Lung cancer management in Indian context, December 2018, Delhi
10. Conventional and molecular pathology lung cancer: AIIMS Data, Lung cancer management in Indian context, December 2018, Delhi
11. Diagnosis of ILD, Symposium on A-Z of ILD, December 2018, Delhi
12. Recent advances in lung cancer and challenges for pathologists, Cutting edge of pathology, AIIMS Alumni meet, December 2018, Delhi
13. Do more with less: Optimizing diagnostic and molecular testing in small biopsy and cytology specimens of lung cancer, RGCON 2019, 8-10 February 2019, Rohini, Delhi
14. Impact of molecular testing in lung cancer: Pathologist perspective, Oncovision, February 2019, Delhi
15. Optimum sample acquisition and processing in interventional pulmonology: The essentials, Pulmocrit 2019, 2-3 March 2019, Jawahar Auditorium, AIIMS, Delhi
16. A case of primary pulmonary epithelial myoepithelial carcinoma, Demystifying rare neoplasms of lung: Why classification matters, Evening speciality Pulmonary Pathology: United States and Canadian Academy of Pathology (USCAP) 2019, 16-21 March 2019, National Harbour, MD, USA

Sudheer Arava

1. Heart transplantation in India, APCON 2018, 30 November-1 December 2018, RMCH, Bareilly, UP
2. Biopsy: Inflammation and viruses, Cardiovascular research convergence, 14 October 2018, AIIMS, New Delhi
3. Panel discussion: Heart failure, CRC, 13 October 2018, ICGEB, New Delhi
4. Annual conference of DSI, Treasurers report: Presentation, 7-9 December 2018, D.Y Patil Medical College, Navi Mumbai
5. Cytic lesions of the lung, MAPCON, 7-9 September 2018, AFMC, Pune
6. Vascular lesions of the skin, MAPCON, 7-9 September 2018, AFMC, Pune
7. Cardiac anomalies in conjoint twins, International conference on conjoined twins, 14-15 February 2019, AIIMS, New Delhi
8. Approach to myocarditis, ISHR, 15-17 February 2019, Jaipur
9. Chair person, Pulmocrit AIIMS 2019, 2-3 March 2019, AIIMS, New Delhi
10. Chairperson and judge for poster session, CME: Paediatric pathology: Current trends and perspective, 16 March 2019, SSPH and PGTI, Noida

Prasenjit Das

1. Invited faculty at CME on GVHD, Topic: 'Liver in GVHD', CME on GVHD, 8 April 2018, Fortis, Gurgaon
2. Invited talk on 'use of immunohistochemistry in liver diseases', Dr V Ramaligaswami Oration and Clinico-pathological Conference, 8 August 2018, ILBS, New Delhi
3. Invited talk on 'When pathologists can be sure of diagnosis of inflammatory bowel disease', National IBD Meet' 2018, New Delhi by Crohn's Colitis Foundation-India, 15 September 2018, New Delhi
4. Invited Faculty 'IHC in Liver Diseases', International Symposium on Surgical Oncology, 13 November 2018, ISGO, Jaipur
5. Invited Faculty at Prof Gaya Prasad Memorial Symposium in APCON 2018, topic 'An algorithmic approach to liver biopsy from patients with CLD', Association of Pathologists and Microbiologists National Annual Conference, 30 December 2018, APCON, Bareilly, UP
6. Invited Faculty at CME on Esophageal Biopsies in APCON 2018, topic 'Non-infectious Esophagitis', Association of Pathologists and Microbiologists National Annual Conference, 1 December 2018, APCON, Bareilly, UP
7. Research paper presentations at Gastro 2018 organized by the World Gastroenterology Association, Annual Conference of the World Gastroenterology Organization, 7 and 8 December 2018, Bangkok, Thailand
8. Invited Faculty at CME on Paediatric Pathology, Noida Super specialty Hospital; talk on 'Endoscopic GI biopsies in pediatric patients', Paediatric Pathology CME, 16 March 2019, Noida Super Specialty Paediatric Hospital, Noida, UP
9. Invited faculty at CME on Gastrointestinal Pathology, Bharti Vidyapeeth Medical College, Pune, Mid-Year CME on Gastrointestinal pathology of Maharashtra Chapter of IAPM, 23 March 2019, Bharti Vidyapeeth Medical College, Pune
10. Invited Faculty to talk on 'Pathogenesis of Colorectal Carcinoma' in EndoSurg 2019, EndoSurg' 2019, 28 March 2019, AIIMS, Delhi

Rajni Yadav

1. Panelist in Session on “Approach to non-localized insulinoma”, ENDOSURG 2018, 19-22 April 2018, AIIMS, Delhi
2. Moderator of Quiz Session on “Liver Diseases”, Dr V Ramalingaswamy Oration and Hepatopathology Meeting 2018, 8 August 2018, ILBS, Delhi
3. Panelist in Session on “Metabolic Liver Diseases”, Dr V Ramalingaswamy Oration and Hepatopathology Meeting 2018, 8 August 2018, ILBS, Delhi
4. Panelist in Session on “Controversies in rectal cancer imaging”, ISGAR 2018, 29 September 2018, Delhi
5. Speaker on “Liver Biopsy (Non-neoplastic): Case based approach”, PATHCON and LAB EXPO 2018, 15-16 December 2018, Delhi
6. Speaker on “Pathology of Pancreatobiliary Neoplasms: An update”, AIIMS PATH ALUMNI MEET 2018, 21-22 December 2018, AIIMS, Delhi
7. Slide Seminar on “Interesting Liver and GI Lesions”, International CME in Pathology, 1-3 February 2019, Institute of Nursing Education, Goa
8. Interesting Case Presentation, Midterm CME in GI Pathology, 23 March 2019, BVMC, Pune
9. Speaker on “Is it a time for TNM immune classification of colorectal cancer”, ENDOSURG 2019, 28-31 March 2019, AIIMS, Delhi

Saumya Ranjan Mallick

1. Challenging case of PTCL and role of Clonality, International Update on Multiple Myeloma and Workshop on Clonality Assay, 14 September 2018, Tata Medical Center, Kolkata
2. Plasma cell and Plasma cell Rich Lesion, CME on Plasma Cell, 28 October 2018, Amrita Institute of Medical Sciences, Kochi
3. Next Generation sequencing, Cutting Edge of Pathology, 21 December 2018, AIIMS, New Delhi
4. Morphology and Genetics of Paediatric Hodgkin and Non Hodgkin Lymphoma, Paediatric Oncopathology CME, 17 March 2019, AIIMS, New Delhi
5. What's New in Diffuse Large B Cell Lymphoma, International conference on Hematological Malignancies and Cellular Therapy, 17 March 2019, NCC Ground, Delhi Cantt, New Delhi

Seema Kaushal

1. Emerging renal tumor entities, Update on Pathology of Male Genito-Urinary Tract, 14-15 July 2018, Amrita Institute of Medical Sciences, Kochi, Kerala
2. Bladder Tumors-Interesting case presentations, International Conference on “Update in diagnostic pathology: Morphology, Immunohistochemistry and Ancillary techniques”, 4-5 August 2018, SR Medical College and Research Institute, Chennai
3. Renal Tumors Update, Masterclass in Clinical Uro-Onco Pathology, 23-25 November 2018, Kokilaben Hospital and Research Institute, Mumbai
4. Biomarkers for Immunotherapy in bladder cancer, The cutting edge of pathology, 22-23 December 2018, AIIMS, New Delhi

Shipra Agarwal

1. Controversies in management of thyroid cancer (Panel discussion), “12th AIIMS Surgical Week” International Minimal Access Conference, CME cum Live Operative Workshop (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi
2. Molecular and pathological prognostic markers in papillary carcinoma of thyroid, CME on Current Trends in Papillary Carcinoma of Thyroid, 10 February 2019, AIIMS, Rishikesh
3. Molecular markers in Thyroid Cytology, The Cutting Edge of Pathology-2, 21-22 December 2018, AIIMS, New Delhi
4. Multi-Disciplinary Endocrine Tumor Board (Panel discussion), 16th Biennial Congress of Asian Association of Endocrine Surgeons, 9 March 2018, New Delhi
5. Update in Thyroid molecular cytopathology, 48th Annual Conference Indian Academy of Cytologists (CYTOCON 2018), 1-4 November 2018, Institute of Nursing Education, Bambolim, Goa

Prashant Ramtane

1. Pathology tissue processing and IHC, Paediatric Oncology Workshop on Solid Tumors, 17 March 2019, AIIMS, New Delhi

2. Case presentation Classical Hodgkin's lymphoma transformation to DLBCL, International CME on Lymphoma, 6 March 2019, AIIMS, New Delhi

Adarsh W Barwad

1. Interesting case presentation of Kaposiform Hemangioendothelioma, 12th Asia Pacific Musculo Skeletal Tumor Society Conference, 4 October 2018, Jaipur
2. Decoding diagnosis in STS, 12th Asia Pacific Musculo Skeletal Tumor Society Conference Conference, 6 October 2018, Jaipur
3. Challenging cases—How to solve the diagnostic conundrum in Musculoskeletal Pathology, 5th Annual National Conference of Indian Musculoskeletal Oncology Society (IMSOS) 2019, 9 March 2019, CII-Suresh Neotia Centre of Excellence for Leadership, Salt Lake, Kolkata

Aanchal Kakkar

1. Recently Described Entities in the Sinonasal Tract, The Cutting Edge of Pathology-2: Recent Advances for Pathologists, 22 December 2018, AIIMS, New Delhi
2. Artificial intelligence; Will the pathologist become redundant? The Cutting Edge of Pathology-2: Recent Advances for Pathologists, 22 December 2018, AIIMS, New Delhi
3. Image guided FNAC of Paediatric Lesions, Paediatric Pathology: Current trends and Perspective at Super Specialty Paediatric Hospital and PG Teaching Institute, 16 March 2019, Noida
4. Diagnostic Pathology of Malignant Round Cell Tumors, Paediatric Oncology Workshop on Solid Tumors, 17 March 2019, AIIMS, New Delhi

Oral papers/posters presented

1. Ambalavanan N, Suri V, Sharma MC, Pituitary adenoma with neuronal metaplasia—Report of 7 cases', NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
2. Anju GS, Sharma MC, ***3rd place—Oral paper**, NF2 hemizygous deletions and merlin loss in spinal ependymomas are not related to mTOR or Hippo pathway activation, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
3. Balachander S, Yadav R, Longchar M, Jain S, Primary well differentiated neuroendocrine tumor of urinary bladder: A rare entity, DAPCON 2019, 17 March 2019, MAMC, Delhi
4. Baloda V, Vallonthaiel AG, Yadav R, Singh L, Kilambi R, Vishnubathla S, Pal S, Shalimar, Acharya SK, Datta Gupta S, Das P, Histological differences between non-cirrhotic portal fibrosis and extra-hepatic portal vein obstruction, 26th Annual Conference of the Indian National Association for the Study of the Liver (INASL) 2018, 2-5 August 2018, New Delhi
5. Batool S, Singh G, Kumari K, Barwad A, Bagchi S, Agarwal SK, Dinda AK, Glomerular capillary endothelial injury in Cellular rejection: An ultrastructural study, ISRTPCON2018 (Annual conference of Indian Society of Renal and Transplant Pathology), 17-19 August 2018, Kolkata
6. Battu S, Kumar A, Suri V, Clinicopathological and molecular characteristics of pediatric meningiomas Neuropathology, NPSICON 2019, 15-17 February 2019, PGIMER, Chandigarh
7. Bhardwaj N, Kaur K, Kakkar A, Sakthivel P, Singh CA, Jain D, Mathur SR, Iyer VK, Spectrum of cytomorphological features of extranodal NK/T-cell lymphoma, nasal type, VIIth Annual Conference of Delhi Chapter of Indian Academy of Cytologists, 15 September 2018, PGIMER, Dr RML Hospital, New Delhi
8. Bhardwaj N, Yadav R, Venkatesh, Khan SA, Melanotic neuroectodermal tumor of infancy presenting as a lytic lesion in femur: A rare tumor at rare site (4th Prize), CME on Paediatric Pathology: Current Trends and Perspective, 16 March 2019, SSPH and PGTI, Noida
9. Bhardwaj N, Yadav R, Venkatesh, Rastogi S, Adamantinoma-like Ewing Sarcoma: A diagnostic dilemma at an unusual site, DAPCON 2019, 17 March 2019, Auditorium, MAMC, Delhi
10. Das P, Dutta R, Iqbal A, Datta Gupta S, Makharia GK, IgA/anti-tTG co-localization is an effective technique in identification of Celiac Associated Liver Diseases, Gastro 2018, WGO (World Gastroenterology Organization) Conference, 5-8 December 2018, Bangkok, Thailand
11. Das P, Gahlot GPS, Badola V, Singh A, Sreenivas V, Datta Gupta S, Makharia GK, Local immune effector and regulatory T Cells in adult patients with treatment naive Celiac disease, 58th Annual Conference of Indian Society of Gastroenterology (ISGCON 2017), 14-17 December 2017, Mayfair Convention Centre, Bhubaneswar
12. Das P, Gahlot GPS, Rawat R, Verma AK, Khanna G, Singh A, George A, Sreenivas V, Ahuja V, Datta Gupta S, Makharia GK, Morphometric analysis of duodenal biopsies from adult patients with Celiac disease, Gastro 2018, WGO (World Gastroenterology Organization) Conference, 5-8 December 2018, Bangkok, Thailand

13. Das P, Gahlot GPS, Rawat R, Verma AK, Khanna G, Roy M, Singh A, George A, Singh A, Nalwa A, Ramteke P, Sreenivas V, Ahuja V, Datta Gupta S, Makharia GK, Light microscopic and computer-assisted image analysis based classifications for assessment of intestinal mucosal biopsies in adults, 58th Annual Conference of Indian Society of Gastroenterology (ISGCON 2017), 14-17 December 2017, Mayfair Convention Centre, Bhubaneswar
14. Das P, Mohamed S, Sarangi J, Pal S, Datta Gupta S, Analysis of Gene transcripts in Human Aberrant Crypt foci in comparison to the normal colonic mucosa and colorectal carcinoma, Gastro 2018, WGO (World Gastroenterology Organization) Conference, 5-8 December 2018, Bangkok, Thailand
15. Das P, Sarangi J, Mohamed S, Ghosh S, Pal S, Datta Gupta S, Study of Methylation status of selected Tumor Suppressor Genes in Human Colonic Aberrant Crypt foci, Gastro 2018, WGO (World Gastroenterology Organization) Conference, 5-8 December 2018, Bangkok, Thailand
16. Dutta R, Barwad AW, Dhamija E, Kumar VS, Rastogi S, Mridha AR, Kaposiform Hemangioendothelioma Of Leg Masquerading As Chronic Osteomyelitis, 34th Annual Conference of Delhi Chapter IAPM (DAPCON 2019), 17 March 2019, MAMC, New Delhi
17. **GS Anju, Kaushal S, Mathur SR, Sardana R, Nayak B best poster award **Clear cell Adenocarcinoma (Mullerian type) of urinary bladder masquerading as uterine primary: A diagnostic dilemma, DC-IAPM, 17 March 2019, MAMC, New Delhi
18. Guleria P, Madan K, Malik PS, Jain D, Morphologic challenges of lung cancer in pleural effusion, Delhi Chapter Indian Academy of Cytologists, 15 September 2018, Delhi
19. Gupta B, Nakra T, Ramteke P, Yadav R, Shalimar, Gamangati S, Madhusudan KS, Dash NR, Das P, Primary hepatic PECOMA mimicking Hepatocellular carcinoma: An extremely rare experience, International Liver Symposium 2018, 6-8 April 2018, Medanta Hospital, Gurgaon
20. Hemlata, Kaushal S, Dinda AK, Seth A, Singh G, Sahoo RK, Subtyping of primary muscle invasive bladder carcinoma into basal and luminal subtypes based on immunohistochemical markers and its correlation with clinicopathological profile, DC-IAPM, 17 March 2019, MAMC, New Delhi
21. Jahnvi M, Kakkar A, Kumar R, Jain D, Mathur SR, Iyer VK, Laryngeal metastases from breast carcinoma diagnosed on Fine needle aspiration cytology, VIIth Annual Conference of Delhi Chapter of Indian Academy of Cytologists, 15 September 2018, PGIMER, Dr RML Hospital, New Delhi
22. Jain D, Antony VM, Kakkar A, Thakar A, Deo S, Bishop J, P16 immunoexpression in sinonasal adenoid cystic carcinomas, USCAP 2019, 16-21 March 2019, MD, USA
23. Jain D, Kakkar A, Guleria P, Kumar S, Immunohistochemical Assessment of BRCA1 Associated Protein-1 (BAP1) in Pulmonary Mucoepidermoid Carcinomas, World Conference on Lung Cancer (WCLC), 23-26 September 2018, Metro Toronto Convention Centre, Toronto, Canada
24. Jain D, Guleria P, Husain N, Shukla S, Kumar S, Parshad R, PD-L1 Immuno-Expression Assay in Thymomas: A Study from India, World Conference on Lung Cancer (WCLC), 23-26 September 2018, Metro Toronto Convention Centre, Toronto, Canada
25. Jain D, Guleria P, Parshad R, Malik P, Kumar S, Histotyping of Indian Thymomas: A Comprehensive Clinicopathologic Study, World Conference on Lung Cancer (WCLC), 23-26 September 2018, Metro Toronto Convention Centre, Toronto, Canada
26. Jain D, Guleria P, Parshad R, Marx A, GTF2I Mutation in Thymomas: Indian and German Study, World Conference on Lung Cancer (WCLC), 23-26 September 2018, Metro Toronto Convention Centre, Toronto, Canada
27. Jain D, Sukumar S, Mohan A, Iyer V, Challenges in PD-L1 Immunoexpression in Liquid Based Cytology Samples of Advanced Stage Non-Small Cell Lung Carcinomas, World Conference on Lung Cancer (WCLC), 23-26 September 2018, Metro Toronto Convention Centre, Toronto, Canada
28. Jain S, Kaur K, Kakkar A, Irugu DVK, Pramanik R, Biswas A, Immature teratoma with somatic type malignancy (squamous cell carcinoma) of the head and neck region, '34th Annual conference—Delhi Chapter IAPM', 17 March 2019, MAMC, Delhi
29. Jangra K, Jain D, Mittal S, Agarwal S, Sharma MC, Malakoplakia of lung masquerading as lung cancer, Delhi Chapter Indian Academy of Cytologists, 15 September 2018, Delhi
30. Jangra K, Yadav R, Malik R, Das P, Gupta SD, Bile acid synthetic defect: A rarely clinched diagnosis (3rd Prize), CME on Paediatric Pathology: Current Trends and Perspective, 16 March 2019, SSPH and PGTI, Noida
31. Jasim B, Yadav R, Agarwala S, Iyer VK, Das P, Gupta SD, Evaluation of beta-catenin expression in hepatoblastoma and its impact on survival (1st Prize), CME on Paediatric Pathology: Current Trends and Perspective, 16 March 2019, SSPH and PGTI, Noida
32. Jhanvi S, Kaushal S, Sarangi J, Ramteke P, Sharma MC, Primary Atypical carcinoid of the testis: Report of a rare case, DC-IAPM, 17 March 2019, MAMC, New Delhi

33. Kakkar A, Kaur K, Bollu S, Sharma MC, Thakar A, Sharma A, Assessment of human papilloma virus status and AKT/ mTOR signaling pathway activation in oropharyngeal squamous cell carcinoma: A study from a tertiary care hospital in India, 6th Asian Society of Head and Neck Oncology (ASHNO 2019), 30 March 2019, Seoul, Korea
34. Kakkar A, Kaur K, Zubair A, Suri V, Sharma MC, Sarkar C, Sharma SC, The thin line between Head and Neck pathology and Neuropathology, 4th Annual Conference of Neuropathology Society of India (NPSICON-2019), 16 February 2019, PGIMER, Chandigarh
35. Kakkar A, Kumar M, Jain D, Mathur SR, Iyer VK, Kumar R, Rapid on-site evaluation technique: Diagnostic utility and accuracy in salivary gland aspirates, 41st European Congress of Cytology, 12 June 2018, Madrid, Spain
36. Kardam S, Agarwal S, Sharma MC, Jain D, Kakkar A, Damle NA, Subudhi K, Kumar C, INI 1-deficient carcinoma with oncocytoid adenocarcinoma-like pattern in Thyroid: Rare morphological subtype of a rare tumor in a rare site, DAPCON-2019 (XXXIV annual conference of Delhi chapter IAPM), 17 March 2019, MAMC, New Delhi
37. Kardam S, Kakkar A, Jain D, Sakthivel P, Singh CA, Mathur SR, Iyer VK, Fine Needle Aspiration Cytology features of Cribriform adenocarcinoma of minor salivary gland, a novel entity, VIIth Annual Conference of Delhi Chapter of Indian Academy of Cytologists, 15 September 2018, PGIMER, Dr RML Hospital, New Delhi
38. Kardam S, Kakkar K, Jain D, Barwad A, Agarwal S, Singh CA, Deo SVS, Mathur SR, Iyer VK, Secretory carcinoma (MASC): The great masquerader on fine-needle aspiration cytology, 67th Annual Conference of IAPM APCON 2018, 1 December 2018, Rohilkhand Medical College and Hospital, Bareilly
39. Kardam S, Sharma MC, ***3rd place poster**, Juvenile neuronal ceroidlipofuscinosis—Report of two cases, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
40. Kaur K, Suri V, ***Best proffered paper award**, Molecular classification of medulloblastomas in routine practice: Where to strike a balance, ISNOCON 2018, 6-8 April 2018, AIIMS, New Delhi
41. Kaur K, Suri V, Sarkar C, Status of tumor infiltrating lymphocytes and expression of immune checkpoint protein across infantile and pediatric astrocytomas to elucidate the role of immunotherapy in these tumors, DAPCON-2019, 17 March 2019, MAMC, New Delhi
42. ***Kaur K, Suri V, Sarkar C, Sharma MC, 1st prize for poster presentation**, Spectrum of infantile tumors according to the WHO 2016 classification, NPSICON 2019, 15-17 February 2019, PGIMER, Chandigarh
43. Kaur K, Yadav R, Gunjan D, Garg P, Madhusudan KS, Jain D, Mathur SR, Iyer VK, Role of guided fine needle aspiration cytology in the diagnosis of pancreatic lesions, Delhi IAC Annual Chapter 2018, 15 September 2018, R&R Hospital, Delhi
44. Kaur K, Yadav R, Jangra K, Dash NR, Das P, Gupta SD, Synchronous inflammatory myofibroblastic tumor of liver and pancreatic carcinoma in a young male: A diagnostic dilemma, DAPCON 2019, 17 March 2019, MAMC, Delhi
45. Kaur K, Yadav R, Malik R, Das P, Gupta SD, Study of clinicopathological spectrum of Congenital Hepatic Fibrosis (2nd Prize), CME on Paediatric Pathology: Current Trends and Perspective, 16 March 2019, SSPH and PGTI, Noida
46. ***Khanderkar H, Kaushal S, Hemlata, Mahajan S, Singh G, Sharma MC, Second prize for poster award**, *Aspiration cytology of Intranodal palisaded myofibroblastoma (intranodal hemorrhagic spindle cell tumor with amianthoid fibers): Report of two cases rarely seen on cytology, DC-IAC, 15 September 2018, Army R&R Hospital, New Delhi
47. Khandakar H, Kaushal S, Sarangi J, Nambirajan A, Rastogi S, Sharma MC, Primary tracheal monophasic synovial sarcoma confirmed by SYT-SSX gene rearrangement, DC-IAPM, 17 March 2019, MAMC, New Delhi
48. Kumar RH, Kaushal S, Ramteke P, Ray R, Sharma MC, Clinicopathological study of Adult Wilms tumor: A case series, DC-IAPM, 17 March 2019, MAMC, New Delhi
49. Kumar RH, Ramteke P, Gogia A*, Mallick SR, OWL eyes in a polymorphous background = Hodgkin lymphoma? Time to think again, International CME on Lymphoma, 6 March 2018, AIIMS, New Delhi
50. Kumari K, Singh G, Pradeep I, Seth A, Brijwal M, Das CJ, Damle N, Barwad A, Bhowmik D, Dinda AK, BK Polyoma virus and Urothelial Carcinoma, ISRTPCON2018 (Annual conference of Indian Society of Renal and Transplant Pathology), 17-19 August 2018, Kolkata
51. Kumari K, Suri V, Sharma MC, ***1st prize poster**, CNS Lymphomatoidgranulomatoses: Report of a rare case, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
52. Mahajan S, Suri V, Sharma MC, Analysis of Molecular Association and immune checkpoint regulators in Epithelial Glioblastoma and pleomorphic xanthoastrocytoma: Are these tumor potential candidates for immune checkpoint blockade? NPISCON 2019, 15-17 February 2019, PGIMER, Chandigarh

53. Mathur S, Nambirajan A, Anju GS, Garg A, Bhatia R, Sharma MC, Cytological diagnosis of cerebrotendinousxanthomatosis in two siblings presenting with bilateral ankle swellings and neurological decline, 41st European Congress of Cytology, 10-13 June 2018, Convention Centre, Madrid, Spain
54. Nagavalli S, Yadav R, Shalimar, Madhusudan KS, Rastogi S, Das P, Gupta SD, Hepatic epithelioid hemangioendothelioma: A series of unusual presentations, DAPCON 2019, 17 March 2019, MAMC, Delhi
55. *Nakra T, Guleria P, Madan K, Mathur S, Iyer VK, Jain D, **Best poster prize**, INSM-1 in small cell carcinoma of lung, Delhi Chapter Indian Academy of Cytologists, 15 September 2018, Delhi
56. Nambirajan A, Sharma MC, ***1st place oral paper**, Clinicopathological evaluation of PD-L1 expression and cytotoxic T-lymphocyte infiltrates across molecular subgroups of intracranial ependymomas, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
57. Nambirajan A, Sharma MC, Prognostic stratification of posterior fossa ependymomas, DAPCON-2019, 17 March 2019, MAMC, New Delhi
58. Nambirajan A, Suri V, Sharma MC, A clinicopathological study of desmoplastic infantile gangliogliomas with analysis of BRAF and H3F3A gene alterations, International Congress of Neuropathology (ICN 2018), 23-27 September 2018, Tokyo, Japan
59. Nambirajan A, Suri V, Sharma MC, Large dural based mass with bony remodeling in a 16-year old: An IgG4 related pseudotumor mimicking lymphoplasmacyte-rich meningioma, International Congress of Neuropathology (ICN 2018), 23-27 September 2018, Tokyo, Japan
60. Nambirajan A, Longchar M, Mallick S, Kakkar A, Madan K, Mathur S, Jain D, Role of EBUS-TBNA in Evaluation of Mediastinal Lymphadenopathy and Masses in Patients with Known or Suspected Extra-Pulmonary Malignancies, World Conference on Lung Cancer (WCLC), 23-26 September 2018, Metro Toronto Convention Centre, Toronto, Canada
61. Narwal A, Kaushal S, Kaur K, Ramteke P, Myelomatous Effusions in cytology: A case report of two cases, DC-IAC, 15 September 2018, Army R&R Hospital, New Delhi
62. **Priyadarshini, Mallick SR, Ramteke P, Jain D, **Best poster prize in case reports**, Cytomorphologic clues of ALK positive large B Cell Lymphoma, Delhi Chapter Indian Academy of Cytologists, 15 September 2018, Delhi
63. Priyadarsani S, Kakkar A, Kumar M, Jain D, Mathur SR, Iyer VK, Kumar R, Comparison of categorization salivary gland aspirates using Milan system between Rapid On-Site Evaluation and final cytological and histological diagnosis, 67th Annual Conference of IAPM APCON 2018, 1 December 2018, Rohilkhand Medical College and Hospital, Bareilly
64. Priyadarshani S, Suri V, Sharma MC, CNS manifestations of cardiac myxoma: Report of two rare presentations, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
65. Priyadarshini, Singh G, Kumar H, Barwad A, Sinha A, Bagga A, Agarwal SK, Dinda AK, PLA2R1 and THSD7A in Paediatric Membranous Nephropathy, ISRTPCON2018 (Annual conference of Indian Society of Renal and Transplant Pathology), 17-19 August 2018, Kolkata
66. Priyadarshini, Yadav R, Singh A, Gogia A, Primary pleomorphic mantle cell lymphoma of the stomach, DAPCON 2019, 17 March 2019, MAMC, Delhi
67. Priyadarshni S, Suri V, Sharma MC, ***Best poster award**, Diffuse leptomenigeal glioneuronal tumor, ISNOSON 2018, 6-8 April 2018, AIIMS, New Delhi
68. Rajeshwari M, Sharma MC, Suri V, Sarkar C, ***Best poster award**, Histiocytic sarcoma of the central nervous system—A rare case report, ISNOCON 2018, 6-8 April 2018, AIIMS, New Delhi
69. Roy D, Sarangi J, Kakkar A, Sharma MC, Sharma SC, Metastasis to parotid from ocular medulloepithelioma: A challenging case* Best poster award, '34th Annual Conference—Delhi Chapter IAPM', 17 March 2019, MAMC, Delhi
70. Roy D, Suri V, Sharma MC, EGFR-amplified glioblastoma occurring as a subsequent neoplasm in a child treated with craniospinal irradiation for acute lymphoblastic leukemia, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
71. Sarangi J, Mohamed S, Pal S, Dash NR, Datta Gupta S, Das P, Methylation analysis of tumor suppressor genes in Aberrant crypts foci of human colon, APCON 2018—67th Annual Conference of IAPM and IAP-ID, 28 November-2 December 2018, Rohilkhand Medical College and Hospital (Bareilly International University), Bareilly
72. Sarangi J, Mohamed S, Pal S, Yadav R, Datta Gupta S, Panda SK, Das P, Methylation analysis of tumor suppressor genes in aberrant crypt foci of human colon, APCON 2018, 28 November-2 December 2018, Rohilkhand Medical College and Hospital, Bareilly
73. Sardana R, Kaur KP, Ramteke P, Mallick S, Encounter with lymphoma impersonator, International CME on Lymphoma, 6 March 2018, AIIMS, New Delhi

74. Sardana R, Yadav R, Malik R, Das P, Tufting enteropathy: A rare and often overlooked entity, CME on Paediatric Pathology: Current Trends and Perspective, 16 March 2019, SSPH and PGTI, Noida
75. Shah A, Jain D, Ababneh E, Agaimy A, Hoschar A, Wenig B, Bishop J, SMARCB1-Deficient Adenocarcinoma of the Sinonasal Tract: A Potentially under Recognized form of Sinonasal Adenocarcinoma, USCAP 2019, 16-21 March 2019, MD, USA
76. Sharma A, Sharma MC, Suri V, ***Best poster award**, PD-L1 and its correlates in ST-RELA fusion positive ependymoma, ISNOCON 2018, 6-8 April 2018, AIIMS, New Delhi
77. Sharma N, Das P, Yadav R, Ahuja V, Saraya A, Datta Gupta S, Assessment of genomic diversity of *Helicobacter pylori* strains in gastric biopsies from residents of high altitude areas of Ladakh and lower plains of North India, APCON 2018, 28 November-2 December 2018, Rohilkhand Medical College and Hospital, Bareilly
78. Sharma N, Saraya A, Datta Gupta S, Das P, Yadav R, *H. pylori* genotyping and genomic diversity assessment in gastric biopsies from residents of high altitude (Ladakh) and lower plains of North India, Asian Pacific Digestive Week (APDW), 15-18 November 2018, Coex Convention and Exhibition Center, Seoul, Korea
79. Sharma N, Saraya A, Datta Gupta S, Das P, Yadav R, *H. pylori* genotyping and genomic diversity assessment in gastric biopsies from residents of high altitude (Ladakh) and lower plains of North India, Asian Pacific Digestive Week (APDW) 2018, 15-18 November 2018, Seoul, Korea
80. Shraddanjali S, Suri V, ***1st prize poster presentation**, Primary intracranial malignant ependymoma in an adult: A rare case report, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
81. Singh AN, Jain H, Pal S, Das P, Yadav R, Sahota G, Dash N, Gupta S, Sahni P, Posterior (SMA-first) approach vs. standard pancreatoduodenectomy in patients with periampullary cancer: A randomized trial, 13th World Congress of the International Hepato-Pancreato-Biliary Association, 4-7 September 2018, PALEXPO, Geneva, Switzerland
82. Singh V, Malik P, Sharma P, Phulwara R, Mohan A, Kumar L, Ray R, Jain D, *Epidermal Growth Factor Receptor (EGFR)* mutation testing in Non-Small Cell Lung Cancer (NSCLC): AIIMS Experience Research Day, 16-21 March 2019, AIIMS, New Delhi
83. Sinha K, Sharma MC, Kaushal S, Soneja M, Fatal Familial Hemophagocytic Lymphohistiocytosis with Perforin (PRF1) gene mutation, DC-IAPM, 17 March 2019, MAMC, New Delhi
84. Sriram S, Suri V, Rare case report of Pituitary Adenoma with phaeohyphomycosis, NPSICON 2019, 15-17 February 2019, PGIMER, Chandigarh, 15-17 February 2019, PGIMER, Chandigarh
85. Sukumar S, Jain D, Mallick SR, Mohan A, Mathur S, Iyer VK, Programmed Death Ligand-1 (PDL-1) and Its Association with Regulatory T Cells in Non-small Cell Lung Carcinoma: Use of Cytology Specimens, Cytocon 2018, 1-4 November 2018, Institute of Nursing Education, Bambolim, Goa
86. Sulaiman M, Ramtek P, Goia A*, Mallick S, Lymphomatoidgranulomatosis—Reports of two cases and its unusual site of presentation, International CME on Lymphoma, 6 March 2018, AIIMS, New Delhi
87. Thomas C, Suri V, Sharma MC, Granulomas in resected pituitary masses: A clinicopathological analysis of ten consecutive cases identified over a 7-year duration, NPSICON-2019, 15-17 February 2019, PGIMER, Chandigarh
88. Zubair A, Singh CA, Kakkar A (corresp author), Sharma MC, Sharma SC, Analysis of tumour associated macrophages and microvascular density in oral squamous cell carcinoma: Study from an Indian tertiary care centre* Selected for “Topic Highlight” session, 6th Asian Society of Head and Neck Oncology (ASHNO 2019), 29 March 2019, Seoul, Korea

RESEARCH

Funded projects

Ongoing

1. Screening of miRNA/long non coding RNA as potential prognostic/diagnostic biomarker for Hepatitis E, SK Panda, DBT, 3 years, 2016-2019, Rs 60.14 lakhs
2. JC Bose Fellowship, SK Panda, DST, Up to 2022, 2017-2022 or up to age of 68 years, Rs 95 lakhs
3. A multi-centric study to develop comprehensive molecular genetic panels for glioblastoma personalized therapy, Chitra Sarkar, DBT, 5 years, 2016-2021, Rs 50 lakhs (approximately)
4. JC Bose Research Fellowship, Chitra Sarkar, DST, 4 years, 2016-2020, Rs 15 lakhs per year
5. Unraveling the role of miRNA clusters (C14MC and C19MC) in oligodendrogliomas: Study using genetic and functional approach with clinicopathological correlations, Chitra Sarkar, ICMR, 3 years, 2017-2020, Rs 10 lakhs per year
6. Targeted genomic-epigenomic analysis to develop a novel approach for routine molecular subgrouping and identification of actionable targets in meningioma, Vaishali Suri, DST, 3 years, 2018-2021, Rs 42 lakhs approx.

7. Identification of non-coding RNA panel as novel biomarker for stratification of meningiomas and evaluation of its prognostic therapeutic significant, Vaishali Suri, Multi-Institutional Faculty Interdisciplinary Research Project with IIT Delhi, 2 years, 2018-2020, Rs 10 lakhs
8. Molecular signature of protumorigenic inflammation in the context of the WHO 2016 classification of glioma, Vaishali Suri, AIIMS inter departmental collaborative project, 2 years, 2018-2020, Rs 20 lakhs
9. Unravelling the functional relevance of Snail paralogs in the pathogenesis of pediatric ependymomas, MC Sharma, DST, 2 years, 2018-2020, Rs 45 lakhs
10. Sequencing Target genes aimed at Neuromuscular disorders in India (STAND-INDIA), MC Sharma, ICMR, 3 years, 2018-2021, Rs 50 lakhs
11. To evaluate the role of CMYC, BCL2, BCL6 AND epsteinbarr virus on survival in patients with refractory/relapsed primary diffuse large B cell lymphoma: An ambispective study, Saumyaranjan Mallick, DST, 3 years, 2016-2019, Rs 30 lakhs
12. To evaluate the role of microenvironment clonality assay and 9P24 alteration in diagnosis and prognostication of refractory Hodgkin's Lymphoma, Saumyaranjan Mallick, DST, 3 years, 2017-2020, Rs 35 lakhs
13. To evaluate the molecular subtypes of peripheral T Cell lymphomas, Saumyaranjan Mallick, AIIMS, 2 years, 2019-2021, Rs 10 lakhs
14. Immunophenotypic profile of tumour infiltrating cells of the immune system and expression of PDL1 in triple negative/Her-2 neu positive breast cancer patients and their correlation with response to neoadjuvant chemotherapy, Sandeep R Mathur, DST, 3 years, 2017-2020, Rs 21 lakhs
15. Immunohistochemical characterization of four common viruses in a clinically suspected cases of viral myocarditis, Sudheer, AIIMS, 2 years, 2018-2019, Rs 10 lakhs
16. miRNA as disease modifier in HLA-DQ2/DQ8 matched first-degree relatives of patients with celiac disease, P Das, DST, 3 years, 2018-2021, Rs 45 lakhs
17. Identification of Comparative Genetic and Epigenetic Alterations of Various Proto-Oncogenes and Tumor Suppressor Genes, Implicated in Development of Aberrant Crypt Foci of Proximal Versus Distal Colon, P Das/ Vandana Baloda, DST under Women Scientist Scheme, 3 years, 2017-2020, Rs 27 lakhs
18. Comparison of various diagnostic modalities for identification of refractory celiac disease in a cohort of patients with celiac disease unresponsive to gluten-free diet, P Das, ICMR, 3 years, 2019-2022, Rs 37.7 lakhs
19. Development of Labyrinth based mechanical and fast isolation technique for identifying circulating tumor cells of colorectal carcinomas for metastasis evaluation, Asit Ranjan Mridha, DHR, 3 years, 2019-2022, Rs 30 lakhs
20. Prognostic relevance of TP53 mutation in advanced soft tissue sarcoma, Asit Ranjan Mridha, AIIMS, New Delhi, 2 years, 2018-2020, Rs 5 lakhs
21. Pharmacological effects Vitamin D in diabetic cardiomyopathy via ACE2/Angiotensin (1-7)/Mas receptor axis in experimental diabetic rats (Collaborative research), Asit Ranjan Mridha/Harlokesh Narayan Yadav, AIIMS, 2 years, 2019-2021, Rs 10 lakhs
22. Development of Rotary Ultrasonic Bone Drilling Machine Prototype, PM Pandey (IIT, Delhi)/Asit Ranjan Mridha, SRISTI, Ahmedabad, Gujarat, AES Boys Hostel Campus, 2 years, 2018-2020, Rs 15 lakhs
23. Study of Clinical, Laboratory and Pathological Profile of Paediatric Patients with Persistent Cholestasis, Rajni Yadav, AIIMS, 2 years, 2018-2020, Rs 9.9 lakhs
24. Evaluation of Artificial Intelligence as a Diagnostic Tool for Automated Detection and Grading of Colorectal Cancer, Rajni Yadav, AIIMS-IIT Delhi, 2 years, 2018-2020, Rs 20 lakhs
25. Study of Urinary Exosome as a Predictive biomarker for podocytic injury in childhood idiopathic nephrotic syndrome, Geetika Singh, DBT, 3 years, 2018- 2021, Rs 76.17 lakhs
26. Evaluation of HPV status and its correlation with AKT/ mTOR signaling pathway activation in oral and oropharyngeal squamous cell carcinomas, Aanchal Kakkar, AIIMS, 2 years, 2017-2019, Rs 8.8 lakhs
27. Evaluation of Machine Learning Techniques including Deep Learning for Identification of Malignancy in Tissue Samples, Aanchal Kakkar and Seshan Srirangarajan, AIIMS-IITD collaborative research project, 2 years, 2018-2020, Rs 20 lakhs
28. Utility of newer immunohistochemistry markers in proper characterization of small B- cell non-Hodgkin's lymphomas, Prashant Ramteke, AIIMS, 2 years, 2017-2019, Rs 6.5 lakhs
29. Ras Homolog Member A (RHOA) and Isocitrate Dehydrogenase (IDH2) mutations in Angioimmunoblastic T-cell lymphoma, Saumyaranjan Mallick, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
30. Molecular subtyping of Muscle Invasive Bladder Cancer on the basis of IHC markers, Seema Kaushal, AIIMS, 2 years, 2017-2019, Rs 4.9 lakhs per year

31. Proposal for Creating and Testing Virtual Teaching Modules (MOOCs) in various areas of Healthcare, Manoj Kumar Singh, SWAYAM and SWAYAM PRABHA (Ministry of HRD), 3 years, 2018-2021, Rs 20 lakhs
32. Analysis of circulating DNA for BRAF (T1799A) mutation as a futuristic non-invasive tool for diagnosis of papillary thyroid cancer, Shipra Agarwal, ICMR, 2 years, 2018-2020, Rs 8.12 lakhs
33. Development of novel nanoparticle based Hepatitis B (HBV) vaccine with enhanced antigen presentation and prolonged immunity: Phase I, Preclinical Study, AK Dinda, DBT, 2 years, 2016-2018, Rs 92.60 lakhs
34. A novel Immuno Nano Fluorescence Assay (INFA) system for noninvasive detection of prostate cancer using urine based protein biomarkers, PSA and MSMB, AK Dinda, DST, 3 years, 2018-2021, Rs 70.89 lakhs
35. Development of minimal invasive novel injectable hydrogel and nano-carrier—Hybrid system for localized targeted cancer therapy, AK Dinda, DHR, 3 years, 2018-2021, Rs 75.56 lakhs
36. NIRMAAN 3D—Novel minimally invasive implants for reconstructive surgery using Materials providing mechanical instruction and prepared by 3D printing, AK Dinda, DBT, 4 years, 2018-2022, Rs 64.34 lakhs
37. Detection and comparison of EGFR mutations in matched tumor tissues and sera of patients with pulmonary adenocarcinoma, Deepali Jain, DBT, 3 years, 2016-2019, Rs 25 lakhs
38. A comprehensive analysis of mammalian Target of Rapamycin (mTOR) and Mitogen Activated Protein (MAP) Kinase signaling pathways in non-small cell lung carcinoma, Deepali Jain, Lady Tata Memorial Trust Young Researcher Award, 5 years, 2015-2020, Rs 29 lakhs
39. Correlation of Immunologic Milieu and PD-L1 in Non-Small Cell Lung Carcinoma, Deepali Jain, AIIMS, 2 years, 2018-2020, Rs 8 lakhs
40. Study of HPV association in Sino-nasal epithelial tumors, Deepali Jain, AIIMS, 2 years, 2018-2020, Rs 20 lakhs

Completed

1. Role of viral Protease and host endogenous protease in Hepatitis E Virus (HEV) life cycle, SK Panda, DST, 3 years, 2015-2018, Rs 58.63 lakhs
2. Establishment of rapid and economical methods for molecular subgrouping and risk stratification of medulloblastomas for routine clinical practice in developing countries, Vaishali Suri, AIIMS, 2 years, 2016-2018, Rs 10 lakhs
3. Intestinal stem cells in celiac disease, P Das, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
4. Gene expression analysis of oncogene transcript in aberrant crypt foci, in comparison to the normal colonic mucosa and colorectal carcinoma, from formalin fixed paraffin embedded tissue samples, P Das, DBT, 3 years, 2016-2019, Rs 25 lakhs
5. Analysis of NPHS1, NPHS2, WT1, ACTN4 and INF2 in non syndromic focal segmental glomerulosclerosis, Adarsh Barwad, AIIMS, 2 years, 2016-2018, Rs 10 lakhs
6. The Virtual Skills Laboratory, Dr Manoj K Singh, DEITY, 2 years, 2014-2016 and extended up to 8 October 2018, Rs 262.5 lakhs
7. Cellular and molecular heterogeneity of normal superior and inferior parathyroid glands at different ages, Shipra Agarwal, AIIMS, 2 years, 2017-2019, Rs 9.15 lakhs
8. Development of Cost Effective Nanoparticle based Drug Delivery System of Amphotericin B for treatment against Visceral Leishmaniasis, AK Dinda, DBT, 3 years, 2015-2018, Rs 89.65 lakhs

Departmental projects

Ongoing

1. Analysis of EGFR downstream pathways in NSCLC and elucidating mechanisms for TKI resistance
2. Analysis of immune check point markers in gliomas
3. Analysis of selected transcription factors and receptors in primary hyperparathyroidism
4. Clinicopathological Profile of Diffuse Large B Cell Lymphoma
5. Clinical and Histopathological Analysis of Tonsils in Obstructive Airway Patients
6. Clinicopathological study of infant gliomas
7. Comparison of molecular and immune profile of Epithelioid GBMs and PXA
8. Detection of streptococcal bacterial DNA with polymerase chain reaction in excised valvular tissue of RHD patients
9. Development of low cost functionalized biocompatible polymeric wound dressing
10. Development of targeted nanodrug delivery system for Rheumatoid Arthritis
11. Differential expression of apoptosis related miRNA in diagnosis and Prognosis of Wilms Tumor and Neuroblastoma
12. DNA methylation array for molecular subgrouping of medulloblastomas

13. EMT pathway in meningioma
14. Expression of Her2 neu stain in gall bladder carcinoma and its clinical impact
15. Expression of PD1, PD-L1 and CD8 cell markers in gall bladder carcinoma and their clinical impact
16. EZH2-WNT expression and correlation in tumor invasiveness, stem cell phenotype and progression in pituitary adenomas
17. Fibrillin 1 gene mutation and TGF beta in TAAA of non marfanoid individuals
18. Histological analysis and subcategorization of progressive familial intrahepatic cholestasis
19. Histopathological evaluation of surgically excises rheumatic heart valves
20. IgA nephropathy classification according to MEST scoring using deep learning
21. Molecular characterization of endometrial cancer and its correlation with clinicopathological features
22. Molecular profiling of Epithelioid Glioblastoma
23. Prevalence of Circulating Tumour Cells (CTC) in patients with periampullary carcinoma and its correlation with recurrence-free and overall survival
24. Prevalence of refractory celiac disease: An institutional study
25. Programmed Death Ligand-1 (PDL-1) and Its Association with T Regulatory Cells in Non-small Cell Lung Carcinoma: Use of Cytology Specimens
26. Programmed Death Ligand-1 Expression in Molecular subtypes of Muscle Invasive Bladder Cancer
27. Scalp biopsy: A comparison of vertical and transverse sections in alopecia diagnosis
28. Studies on the effect of Roxithromycin in an experimental model of prostatitis
29. Study of galactose deficient IgA1 in glomerular diseases
30. Study of iron homeostasis in chronic kidney disease
31. Study of p53 immunoexpression and Ki67 LI in patients with advanced soft tissue sarcoma
32. Study of WNT and Sonic hedgehog signaling pathways in olfactory neuroblastoma
33. Subtyping of primary muscle invasive bladder carcinoma into basal and luminal types on the basis of immunohistochemical markers
34. Targeted nanoparticle based drug delivery system for the treatment of Kalazar
35. Targeted sequencing of IDH negative gliomas
36. Utility of a panel of surrogate immunohistochemical and molecular markers to classify human colorectal carcinomas according to the consensus molecular subtypes and clinical correlation
37. Utility of urinary circulating cell free DNA in EGFR mutation testing of pulmonary Adenocarcinoma

Completed

1. A comparative study of efficacy and composition of various cell populations of extracted hair follicle outer root sheath cell suspension prepared using a single enzyme (trypsin) and multiple enzymes (trypsin, collagenase and dispase) for transplantation in vitiligo
2. An immunohistochemical and ultrastructural study of glomerular capillary endothelial injury in cellular rejection
3. Artesunate suppresses inflammation and oxidative stress in rat model of colorectal carcinoma
4. Clinical, radiological and histological differentiation between non-cirrhotic portal fibrosis and extra-hepatic portal venous obstruction
5. Clinicopathological Profile of Primary Double / Triple Expressor Lymphoma
6. Efficacy of neoadjuvant chemotherapy in carcinoma Esophagus—A pilot study comparing Cisplatin 5 FU with Paclitaxel+Carboplatin
7. Expression of Matrix Metalloproteinase-2, Matrix Metalloproteinase-9, Tissue Inhibitor Metalloproteinase-1, Tissue Inhibitor Metalloproteinase-2, Collagen I and IV Expression in Thoracic Aortic Aneurysms
8. Histological prognostic parameters in patients with acute on chronic liver disease, in comparison to non-survivors and non-decompensated cirrhosis
9. Histopathological and electron microscopic changes in ligamentum flavum in patients with degenerative lumbar canal stenosis as compared to young patients with disc herniation
10. Immunohistochemical characterization and HPV association of sinonasal carcinomas
11. Membranous Nephropathy: A study of immunofluorescence, electron microscopy and PLA2R profile with clinical correlation
12. Molecular profiling of IDH negative gliomas

13. Molecular profiling of paediatric oligodendroglioma
14. Nanostring technology for molecular subgrouping of medulloblastomas
15. Role of BRAF V600E and TERT promoter mutations in predicting aggressiveness of papillary thyroid carcinoma
16. Role of Notch and WNT signalling pathway in Hepatoblastoma
17. Stratification of breast cancer in young females by molecular subtypes
18. Study of PlA_R-2 immunohistochemistry on renal biopsy of Membranous Glomerulonephritis
19. Study of chromosome 22q alterations and NF2 signaling pathways in ependymomas

Collaborative projects

Ongoing

1. A pilot study to evaluate the role of 68 GA-PSMA-HBED-CC PET/CT in patients with Anaplastic thyroid carcinoma, Nuclear Medicine
2. A prospective observational study comparing CT scan vs PET CT scan in carcinoma ovary for determining the pre operative disease burden and resectability, Surgical Oncology
3. A prospective study to evaluate the accuracy of axillary staging using ultrasound guided Fine Needle Aspiration Cytology (FNAC) in early breast cancer patients, Surgical Oncology
4. A study on the role of miRNAs modulating signal transduction in Pancreatic Cancer, Gastroenterology and HNU, Biochemistry, Pathology
5. A study to investigate multi-system involvement in patients with celiac disease using in vitro NMR spectroscopy, Nuclear Magnetic Resonance, Gastroenterology and HNU, Pathology
6. Artificial skin (Bio-inspired bi-layer polymeric hybrid scaffold) for burn injuries in trauma care (IMPRINT Project), Center for Biomedical Engineering, IIT, Delhi
7. Assessment of depth of invasion in oral cavity squamous cell carcinoma (T1-T3) by clinical palpation and radiology and their correlation to histopathological depth of invasion, ENT, Pathology, Radiology
8. Assessment of disease severity in patients with epithelial ovarian cancer by EMT related protein expression and micro RNA 200a,b,c, Gynaecology and Obstetrics
9. Assessment of the role of early dynamic PET/CT with 18F-Fluorocholine in differentiation of parathyroid lesions and lymph nodes in patients with primary hyperparathyroidism, Nuclear Medicine
10. Association of various genotypes of M Tuberculosis with clinical, pathological manifestation and disease outcome of Post-Primary Tuberculosis, Laboratory Medicine, Medicine, Pathology and LRS Institute of TB and Respiratory Diseases
11. Autoantibody associated alternative complement pathway dysregulation in nephrotic syndrome secondary to membranoproliferative glomerulonephritis, Paediatric Nephrology, Paediatrics
12. Autologous non cultured dermal cell suspension transplantation in treatment of facial volume loss, Dermatology
13. Biostatistical aspects of prognostic factors including molecular parameters in breast cancer patients: An epidemiological appraisal, BRA-IRCH
14. Biomarker for assessment of villous abnormalities in patients with celiac disease and other enteropathies, Gastroenterology and HNU, Pathology
15. Biomarkers based early diagnosis and understanding of breast cancer metastasis by infrared imaging, Biophysics
16. Brain metastasis in lung cancer, Medical Oncology
17. BRCC3 expression as a prognostic marker in Oropharyngeal squamous cell carcinoma patients and its effects on radiotherapy resistance, Otorhinolaryngology and Head Neck Surgery
18. Characterizing causes of non-motility after colectomy for Hirschprung's Disease, Paediatric Surgery, Pathology
19. Circulating microRNAs as biomarkers for testicular germ cell tumors: A pilot study, Reproductive Biology
20. Clinical Utility of cell-free DNA in intraoperative pleural lavage fluid and plasma for patients with resectable primary pulmonary malignancies—A pilot study, Surgical Oncology
21. Clinical, Radiological and Histopathological involvement of the mandible in oral squamous cell carcinoma, ENT, Radiodiagnosis, Pathology
22. Colon cancer stem cells and their transcriptome analysis, Biochemistry
23. Comparative evaluation of MicroRNA profiling and cytokine profiling analysis in patients with Pulmonary Sarcoidosis and Mediastinal tuberculosis, Pulmonary Medicine
24. Comparison of cold cup versus bipolar biopsy specimens for bladder carcinoma, Urology

25. Comparison of diagnostic yield using graded suction pressures during EBUS TBNA, Pulmonary Medicine and Sleep Disorders
26. Comparison of Histological and Fibroscan scoring of liver fibrosis, Gastroenterology and HNU, Pathology
27. Comparison of standard 12 cores systematic TRUS guided biopsy and MRI-fusion biopsy in the detection of prostate cancer—A prospective randomized study, Urology
28. Concurrent versus sequential neoadjuvant chemoradiotherapy followed by surgery in patients with locally advanced, resectable carcinoma gallbladder: A pilot study, GI Surgery, Medical Oncology, Radiation Oncology, Pathology
29. Correlation of barrel index determined by mri in early cervical cancer with operability, lymph node status and local extension of disease, Gynaecology and Obstetrics
30. Correlation of Metabonomics and Enzyme activity Profile of Intestinal Mucosa in Celiac disease using NMR Spectroscopy and Immunohistochemistry, Nuclear Magnetic Resonance, Gastroenterology and HNU, Pathology
31. CT texture analysis of renal masses for prediction of histopathology, Radiology
32. Detection of altered protein expression in microscopic preneoplastic mucosal lesions of the colon, Pathology, GI Surgery, Surgery
33. Detection of streptococcal bacterial DNA with polymerase chain reaction in excised valvular tissue of RHD patients, Cardiology
34. Development of a new formulation and packaging for reducing adverse effects and injection pain of Mycobacterium vaccine and its clinical trial in recalcitrant anogenital and extra-genital (common) warts, Dermatology
35. Development of non-invasive diagnostic kit for ovarian cancer: A new walk on old path, Biophysics
36. Development of Rotary Ultrasonic Bone Drilling Machine Prototype, Mechanical Engineering, IIT, Delhi
37. Differences in the microvessel density and growth factors between the inner and outer preputial skin in Distal Hypospadias, Paediatric Surgery
38. Evaluation of anti-urolithiatic activity of herbal extracts in animal model, National Innovation Foundation, Ahmedabad
39. Evaluation of genetic profile of olfactory neuroblastomas, Otorhinolaryngology and Head Neck Surgery
40. Evaluation of Renal Cell Carcinoma with C11-Methionine PET/CT and comparison with 18FFlourodeoxyglucosw PET/CT, Nuclear Medicine
41. Evaluation of unknown head and neck primaries metastatic to cervical lymph nodes, Otorhinolaryngology and Head Neck Surgery
42. Exploration of origins of Juvenile Nasal Angiofibroma (JNA) by histological evaluation of fetal development of “Pterygo-palatine fossa-Pterygoid canal complex” and assessment of first branchial arch remnant vidian artery in cases with JNA, ENT, Anatomy Radiodiagnosis, Pathology, Obstetrics and Gynecology
43. Exploring the phenotypic and functional role of $\gamma\delta$ T cell subsets along with Pattern Recognition Receptors (PRRs) in the immunopathogenesis of Pemphigus Vulgaris, Pharmacology
44. Exploring the role of adipose tissue ABCA1 in determining serum HDL cholesterol, Biochemistry
45. Fat gene in gliomas, Biochemistry
46. FBXO4 as a novel Ubiquitin Ligase that targets cyclin D1 in pathogenesis of breast cancer, Biochemistry
47. Finding the correlation of Toll Like Receptors (TLRs) with inflammation in patients with chronic heart failure, Cardiology, Safdarjung Hospital
48. Genetic Study on Sertoli Cell Only Syndrome, Reproductive Biology
49. Histopathology of Celiac disease in symptomatic and asymptomatic cases and family members, Gastroenterology and HNU and Pathology
50. Histopathology of Non-cirrhotic Portal Fibrosis (NCPF) and Extrahepatic Portal Venous Obstruction (EHPVO), Pathology, Gastroenterology and HNU, GI Surgery
51. Human Papillomavirus status in Penile carcinoma in Indian patients: Incidence, type distribution and correlation with Clinico-pathological staging, Urology
52. Identification of Glucose related protein 78(GRP78) as a biomarker for tumor behavior in patients of renal cell carcinoma, Urology
53. Identification of unique morphologically identifiable preneoplastic lesions in colon mucosa during colorectal carcinogenesis, Pathology, GI Surgery, Surgery
54. IgA Nephropathy classification according to MEST scoring using deep learning, Pathology AIIMS and NIT, Delhi
55. Impact of Laparoscopic Sleeve Gastrectomy (Bariatric Surgery) on Non Alcoholic Fatty Liver Disease (NAFLD) in morbid obesity, Surgery, Gastroenterology and HNU, Pathology

56. Liver biopsy in Acute and Chronic liver disease, Gastroenterology and HNU, Pathology
57. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and still births—A feasibility study for the development of a standard protocol for still birth evaluation, Paediatrics
58. Molecular and Biochemical Characterization of Hepatic Glycogenesis Type Ia and III, Genetics, Paediatrics, Nuclear Magnetic Resonance and Pathology
59. Molecular and immune profile of midline gliomas, Neurosurgery
60. Molecular and immunological characterization of benign fibrous lesions affecting oral and maxillofacial region, Oral Pathology and Microbiology, CDER
61. Molecular biomarkers in Advanced Carcinoma of Gall Bladder treated with Gemcitabine-Platinum Doublet: Role of RRM1, RRM2, hENT1 and ERCC1, Medical Oncology
62. Molecular expression of tight junctions and disruption of mucosal epithelial cell polarity in progression of Gastric cancer, Laboratory Medicine, Gastrointestinal Surgery, Gastroenterology and HNU, Pathology
63. MR guided biopsy in detection of Prostate Cancer, Nuclear Magnetic Resonance, Urology, Radiodiagnosis IRCH, Pathology
64. Optical characterization of breast cancer, Surgery
65. Pharmacological effects vitamin D in diabetic cardiomyopathy via ACE2/Angiotensin (1-7)/Mas receptor axis in experimental diabetic rats (Collaborative research), Pharmacology
66. Phenotypic and molecular characterization of Th17 and Treg cells in renal cell carcinoma, Biochemistry
67. Predictive biomarkers for response to neoadjuvant chemoradiotherapy in locally advanced rectal cancer, Radiation Oncology, Surgical Oncology, Pathology
68. Production of a crucial therapeutic protein for Trauma and Accident care in Escherichia Coli system (IMPRINT Project), The School of Biological Sciences at IIT Delhi
69. Retrospective analysis of testicular germ cell tumours at IRCH, Medical Oncology
70. Role of circulating tumour cells and CXCR1 expression in patients with metastatic RCC, Urology
71. Role of HRCT in the diagnosis of apparently idiopathic interstitial lung diseases, Radiodiagnosis
72. Role of MRI in evaluation of residual tumor burden following neoadjuvant chemotherapy in patients with breast cancer, Radiodiagnosis
73. Role of Phosphofructokinase-P (PFKP) in Breast cancer, Med Oncology BRA-IRCH
74. Role of shear wave elastography in diagnosis, prognostication and follow up of neonatal/infantile cholestatic liver diseases, Radiology
75. Role of shearwave elastography and multiparametric MRI in the assessment of endometrial pathology, Radiodiagnosis
76. Sculpturing corneal constructs using micropatterned surface and decellularized cornea, Textile Engineering, IIT Delhi, Stem Cell Facility, RP Center
77. Study of Autophagy associated HMGB-1 and its related molecules in Urothelial Carcinoma of Bladder, Biochemistry
78. Study of cardiac markers, gross findings and histopathological Changes in heart in cases of suspected cardiac death, Forensic Medicine
79. Study of Clinical and Histopathological Features of Acute on Chronic Hepatitis, Gastroenterology and HNU, Pathology
80. Study of miRNA in pancreatic duct adenocarcinoma, Gastroenterology
81. Study of miRNA-182 and miRNA-187 as potential biomarkers in prostate cancer patients and its correlation with serum PSA, Gleason score and staging of prostate cancer, Urology
82. Study of p53 immunoexpression and Ki67 LI in patients with advanced soft tissue sarcoma, Physiology, Pathology, Biochemistry and Gynecology
83. Study of PKC signaling in Ovarian Serous Carcinoma, Med Oncology BRA-IRCH
84. Study of predictors of diagnostic yield of various interventional pulmonology procedures for Lung Cancer, Pulmonary Medicine and Sleep Disorders
85. Study of Sesamol in Bleomycin induced pulmonary toxicity in rat, Pharmacology
86. The clinicopathological evaluation of cholesteatoma aggressiveness, Otorhinolaryngology and Head Neck Surgery
87. The ratio of preoperative and postoperative serum bilirubin and alkaline phosphatase as simple markers to predict early outcome Post-Kasai portoenterostomy, Paediatric Surgery, Pathology
88. Thymic tumors and VATS, Laparoscopic Surgery
89. To evaluate whether a predictive microRNA signature from TCGA acts as a biomarker in Indian Colorectal Cancer (CRC) patients, Medical Oncology

90. To study correlation of TIRADS and cytological grading with final histopathology in solitary thyroid nodule, Surgical Disciplines
91. To study the role of Estrogen-Related Receptor Gamma (ERR γ) as a potential biomarker in papillary thyroid cancer, Medical Oncology Lab
92. Understanding the pathophysiology of endometriosis by protein profiling and correlation with stress, Physiology, Obstetrics and Gynecology, Reproductive Biology, Biostatistics, Pathology
93. Use of Cancer Testis Antigen POTE-E in preoperativediagnosis of epithelial ovarian tumors: A pilot study, Gynaecology and Obstetrics
94. Validation of low cost methods for detection of KRAS mutations in colorectal cancer, Pathology

Completed

1. A comparative evaluation of HPV E6/E7 mRNA assay and high risk HPV DNA test for the Diagnosis of High Grade Cervical Intraepithelial Neoplasia, Gynaecology and Obstetrics
2. Biomarker for assessment of Villous Abnormalities in Patients with Celiac Disease and other Enteropathes, Nuclear Magnetic Resonance, Gastroenterology, Pathology
3. Colocalization of IgA&IgG anti-tissue transglutaminase antibodies in tissues of extra-intestinal celiac disease: A pilot study, Pathology, Gastroenterology
4. Comparative evaluation of Metformin and Silymarin in cyclosporine induced Hepato-renal toxicity, Pharmacology
5. Comparison of 4D CT, 4D MRI and Fluorocholine PET in the Localisation of Parathyroid Lesions in Patients with Primary Hyperparathyroidism (HPT), Radiodiagnosis
6. Detection and quantification of circulating tumour cells in Oral Squamous Cell Carcinoma, ENT, Stem Cell Facility, Pathology
7. Detection of Methylation Status of Tumour Suppressor Genes by DNA Methylation Specific PCR Array in Aberrant Crypt Foci, Pathology, GI Surgery, Surgery, Gastroenterology
8. Evaluation of Interstitial Cells of Cajal-Like Cells (ICC-LC) and histopathology in congenital pelviureteric junction obstruction and their correlation with intraoperative findings, Pediatric Surgery
9. Expression and Significance of Notch signaling-associated proteins, Notch 1, Notch 2 and Hes 1 in esophageal squamous cell carcinoma: A retrospective study, Medical Oncology
10. Gene Expression Analysis of Oncogene Transcript in Aberrant Crypt Foci in comparison to the Normal Colonic Mucosa and Colorectal Carcinoma from Formalin Fixed Paraffin Embedded Tissue Samples, Pathology, GI Surgery, Surgery, Gastroenterology
11. H pylori Genotyping and Genomic Diversity Assessment in Gastric Biopsies from Residents of High Altitude (Ladhakh) and Lower Plains of North India, Pathology, Gastroenterology
12. India Millennium Alliance project: A rapidly deployable device for wound care, ExCel Matrix Biological Devices Pvt Ltd, Hyderabad
13. Investigation of the involvement of plasma membrane ATP Binding Cassette Transporter (ABCA1) in adipose tissue mediated insulin resistance, Biochemistry
14. Molecular classification of breast cancer using FDG PET CT, MRI and NMR: A pilot study, Surgery
15. Role of 18F choline PET-CT in the localization of hyperfunctioning parathyroid tissue in patients with primary hyperparathyroidism, Nuclear Medicine
16. Role of dual energy computed tomography in the evaluation of liver fibrosis in patients of chronic liver diseases, Radiology
17. Role of shear wave elastography in diagnosis, prognostication and follow up of neonatal/infantile cholestatic liver diseases, Radiology
18. Role of shearwaveelastography and multiparametric MRI in the assessment of endometrial pathology, Radiodiagnosis
19. Role of sono-elastography in the assessment of uterine pathology, Radiodiagnosis
20. Standardizing Surgico-pathological evaluation of oral squamous cell carcinomas specimens—A prospective study, Surgical Oncology

PUBLICATIONS

Journals: 148

Abstracts: 20

Chapters in books: 10

PATIENT CARE

Laboratory services

Surgical Pathology Laboratory

Specimens processed	55,312	Special stains	37,700
---------------------	--------	----------------	--------

Cytopathology Laboratory

Total specimens	28,060	FNAC (out patient)	10,622
Exfoliatives routine	10,912	Cervical smears (PAP smears)	6,526
Autopsies performed	12	Electron microscopy	1,250

Immunohistochemistry Laboratory

Diagnostic	45,341	Research	1,636
------------	--------	----------	-------

NEUROPATHOLOGY LAB

Total Specimen	2,844	Frozen Section	372
----------------	-------	----------------	-----

Immunohistochemistry

Routine IHC	7,323	Research IHC	2,700
Muscle IHC	1,870	Total Muscle Received	367
Muscle Enzyme-histochemistry	1,170		
Fluorescence in situ hybridization			
Diagnostic	305	Routine	252

EM Facility

Total muscle sample	376	Total nerve sample	44
---------------------	-----	--------------------	----

Tissue Culture Lab

H&E Staining	9,517	Special Stains	4,109
Immunohistochemistry	3,069	Frozen Sections	2,443
Unstained	2,987	Coated slides	25,191
Research Block Cutting	2,497		

Renal pathology services

Immunofluorescence of kidney biopsy	876	Urine sediment analysis	1,943
Electron microscopy of kidney biopsy	846		

Cardiac pathology

Specimens

Routine	460	Research	176
---------	-----	----------	-----

Other works

Immunohistochemistry	48 slides	H&E stain	327 slides
Special stains	107 slides		
Manual processing of post-transplant biopsies - 44 cases			
Cutting of blocks (unstained sections) - 498 slides			

Skin biopsy cutting	262 cases (each 6 slides) = 1572 cases
---------------------	--

Renal biopsy cutting	550 cases (each 10 slides)
----------------------	----------------------------

Frozen cutting	60 cases (each 3 slides)
----------------	--------------------------

Coated slides	2,000 slides
---------------	--------------

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Resident Awards

Madhu Rajeshwari S got the first best poster award for the poster entitled "Primary histiocytic sarcoma of brain—A rare occurrence" Madhu Rajeshwari, MC Sharma, V Suri, Chitra sarkar, at 10th annual conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Priyadarsani S got the third best poster award for the poster entitled ‘Diffuse leptomeningeal glioneuronal tumor’ at the 10th annual conference of Indian Society of Neuro-oncology held at All India Institute of Medical Sciences, New Delhi from 6 to 8 April 2018.

Agrima S got the third best poster award for the poster entitled, “Over-expression of Programmed Cell Death Ligand (PD-L1) suggests negative outcome in RELA fusion ependymomas.” Agrima Sharma; Prit Benny Malgulwar; Manmohan Singh; Vaishali Suri; ChitraSarkar; Mehar Chand Sharma at 10th annual conference of Indian society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Kavneet Kaur got the third best proffered paper award for paper entitled “Molecular classification of medulloblastomas in routine practice: Where to strike a balance?” at 10th annual conference of the Indian society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Aruna Nambirajan won first prize for oral paper presentation—Neoplastic for ‘Clinicopathological evaluation of pd-11 expression and cytotoxic t-lymphocyte infiltrates across molecular subgroups of intracranial ependymomas’ at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Anju GS won third prize for oral paper presentation—Neoplastic for ‘NF2 hemizygous deletions and merlin loss in spinal ependymomas are not related to mTOR or Hippo pathway activation’ at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Shraddanjali Satapati won first prize for poster presentation—Neoplastic/case report for ‘Primary Intracranial Malignant Ectomesenchymoma in an Adult: A Rare Case Report’, at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Kalpna Kumari won first prize for poster presentation for ‘CNS Lymphomatoid granulomatosis: Report of rare case’ at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Shalini Kardam won third prize for poster presentation—Non-neoplastic/case report for ‘Juvenile neuronal ceroid lipofuscinosis—Report of two cases’ at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Kavneet Kaur won first prize for poster presentation—Neoplastic/original study for ‘Spectrum of infantile tumors according to the WHO 2016 classification’ at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Sudha Battu won ‘Dr Sulimal Roy published paper award’ for her paper ‘Battu S, Kumar A, Pathak P, Purkait S, Dhawan L, Sharma MC, Suri A, Singh M, Sarkar C, Suri V. Clinicopathological and molecular characteristics of pediatric meningiomas. *Neuropathology*. 2018;38:22-33’ at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Henakhandekar was awarded second prize for poster award at DC-IAC held at Delhi on 30 September 2017.

Anju GS was awarded best poster award at DC-IAPM held at M.A.M.C, New Delhi on 17 March 2019.

Best poster award won by **Diya Roy**, 34th Annual Conference—Delhi Chapter IAPM’ New Delhi.

Mohammad Jassim received Best Poster Prize (First), CME on Paediatric Pathology: Current Trends and Perspective, SSPH and PGTI, Noida, UP (2019).

Kanwalpreet Kaur received Best Poster Prize (Second), CME on Paediatric Pathology: Current Trends and Perspective, SSPH and PGTI, Noida, UP (2019).

Kirti Jangra received Best Poster Prize (Third), CME on Paediatric Pathology: Current Trends and Perspective, SSPH and PGTI, Noida, UP (2019).

Nishu Bhardwaj received Best Poster Prize (Fourth), CME on Paediatric Pathology: Current Trends and Perspective, SSPH and PGTI, Noida, UP (2019).

Priyadarshini Sbest received Poster Prize in case reports DC-IAC held at Delhi on 30 September 2017.

Tripti Nakrabest received Poster Prize in case reports DC-IAC held at Delhi on 30 September 2017.

Professor Subrat K Panda was Chairman, Medical council CSIR; Advisor BIRAC (DBT).

Professor Chitra Sarkar was appointed as President, AIIMS, Kalyani by Ministry of Health and Family Welfare; Chairperson of the Committee constituted by Ministry of Health and FW to suggest recommendations regarding Bhopal Memorial Hospital and Research Centre (BMHRC); Member, Governing Body of Institute of Medical Sciences, Banaras Hindu University; Member, THSTI Society Committee; Nominated Member of DST-INSPIRE Fellowship Standing Committee; Nominated Member of Expert Evaluation Committee of DST-INSPIRE Fellowship; Organizing Chair of 10th Annual Conference of the Indian Society of Neuro-Oncology (ISNOCON 2018) held at AIIMS, New Delhi from 6 to 8

April 2018; Also organized Pre-conference workshop on Molecular Neuro-Oncology; Chairperson, Women's Grievance Cell, AIIMS; Chairperson, Prevention of Sexual Harassment of Women at AIIMS; Coordinator for Memorandum of Understanding between AIIMS and other Institutions for Collaborative Research; Member of Nano Mission Council (NMC) of Department of Science and Technology, Government of India; Member, Apex Committee for North Eastern Region Biotechnology Programmes of Department of Biotechnology; Vice President of the International Society of Neuropathology; Secretary, Neuropathology Society of India; Selection committee member for Ranbaxy Awards; Member of Sectional Committee (Health Sciences) of INSA; Member, Editorial Board of Journal Neuropathology (published from Japan); Member, Assessment Committee for scientists' promotions of ICMR; Member of the Governing Body and Scientific Advisory Committee of National Brain Research Centre, Manesar; Member of the Scientific Advisory Committee of Institute of Pathology, New Delhi; Co-chairperson of Human Ethics Committee of National Institute of Immunology, New Delhi; Member, Oncology Sub-Committee of NCD-III, ICMR.

Professor S Datta Gupta continues as Dean (Examinations); was nominated as the President of the International Academy of Pathology—Indian Division (IAP-ID); continues as Fellow of the National Academy of Medical Sciences; continues as an Associate Editor of the Indian Journal of Pathology and Microbiology; was nominated as a Member of the Editorial Board of the Annals of National Academy of Medical Sciences; Continues as a Member of the Editorial Board of the Indian Journal of Laboratory Physicians and Indian Journal of Chest Diseases.

Professor Manoj K Singh Chaired session in 8th CODFICON, Annual Conference of Contact and Occupational Dermatitis Forum of India, Amer, Jaipur held on 20 September 2018 in the Department of Pathology, Jaipur; 67th Annual Conference of Indian Association of Pathologists and Microbiologists and IAP-ID held on 28 November-2 December 2018 in the Department of Pathology, Bareilly.

Professor AK Dinda appointed as Visiting Professor AIIMS, Rishikesh.

Professor MC Sharma received AIIMS Excellence Award (3rd place) for best published paper 'C11 orf95-RELA fusions and upregulated NF-KB signaling characterize a subset of aggressive supratentorial ependymomas that express LICAM and nestin' in Institute Day, 2018; Best Poster Award at International Congress of Neuropathology (ICN-2018) held at Tokyo, Japan; AIIMS Oncology Award, 2nd Place Basic Research for best published paper 'Transcriptional co-expression regulatory network analysis for Snail and Slug identified ILIR1, an inflammatory cytokine receptor to be preferentially expressed in ST-EPN-RELA and PF-EPN—A molecular subgroups of intracranial ependymomas, 1st Annual AIIMS Research Day, 26 March 2019.'

Professor Vaishali Suri got ISNO Annual Award for outstanding work in Neurooncology at the 10th annual conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Professor Sandeep R Mathur has been given extended appointed as Secretary of the Delhi Chapter of Indian Academy of Cytologists for 3 years till 2020.

Dr Deepali Jain was invited as a faculty speaker World Conference on Lung Cancer (WCLC) for chairing a session on pathology of lung cancer in September 2018 Toronto, Canada; Chairperson Symposium on Lung Cancer Pulmocrit 2019, March 2019, Delhi.

Dr Seema Kausal was successfully awarded Membership of National Academy of Medical Sciences (MNAMS).

Dr Asit Ranjan Mridha was HRD—Long Terms Fellow in Foreign Institute, 2018; Member of National Academy of Medical Sciences (India), 2018; Consolation Prize in Cytology Poster Presentation (Co-author), 2018.

Dr Prasenjit Das received Professor VR Khanolkar Award for Published paper of the APCON 2018, by the Indian Association of Pathologists and Microbiologists.

Dr Geetika Sigh was awarded Dr NC Nayak Oration for Talented Young Pathologist at the Annual Meeting of the Delhi Chapter of Indian Association of Pathologists and Microbiologists.

Dr Shipra Agarwal received 2018 Travel Grant Award from the International Society of Dermatopathology (ISDP).

Dr Adarsh Barwad completed fellowship of Royal Collage of Pathologist Part I in Autumn 2018.

Dr Prashant Ramteke received Dr Panna Choudhury Memorial Award for best original article published in the Journal of Cytology in year 2018.

VISITING SCIENTIST

Dr Paramjeet Randhawa, University of Pittsburgh Medical College, Pittsburgh, USA.

9.30. Pharmacology

Professor and Head

YK Gupta (superannuated, 28 April 2018)

VL Kumar (from 29 April 2018)

Professors

Kamal Kishore (superannuated, 31
January 2019)

NR Biswas (on deputation)

SK Maulik

DS Arya

Jatinder Katyal

Surender Singh

KH Reeta

Jagriti Bhatia

Assistant Professors

NS Raj

Pooja Gupta

Harlokes Narayan Yadav

Sudhir Chandra Sarangi

Scientists

Sharda S Peshin

Thomas Kaleekal

Amita Srivastava

Madhuri Gupta

Sunder Singh Samuel

Swati Sharma

(from 29 March 2019)

HIGHLIGHTS

The department is running ADR Monitoring Centre (ADR-AMC) under Pharmacovigilance Programme of India (PvPI) and Medical Device Monitoring Centre (MDMC) for Materiovigilance Programme of India (MvPI) by Ministry of Health and Family Welfare, Government of India with Dr Pooja Gupta as the coordinator for both ADR-AMC and MvPI.

EDUCATION

The department is engaged in the teaching programmes of BSc Nursing (Hons), MBBS, MSc (Pharmacology), MD, PhD and DM (Clinical Pharmacology) courses.

CMEs/Workshops/Symposia/National and International Conferences

1. CME on "Pharmacologists in Indian Healthcare system" was organized on 15 April 2018 at AIIMS, New Delhi
2. Guest lecture entitled "Novel approaches to overcome multi-drug resistance in cancer" was delivered by Dr Amit K Tiwari, Assistant Professor and Principal Investigator, Cancer Chemotherapy and Systems Therapeutics, Department of Pharmacology and Experimental Therapeutics, University of Toledo on 25 June 2018, AIIMS, New Delhi
3. The department conducted a training course from 1 October to 22 November 2018 in Clinical Pharmacology for three WHO fellows from North Korea
4. Guest lecture entitled "Non-apoptotic cell death induction to target difficult-to-treat resistant tumors" was delivered by Dr Amit K Tiwari, Assistant Professor and Principal Investigator, Cancer Chemotherapy and Systems Therapeutics, Department of Pharmacology and Experimental Therapeutics, University of Toledo on 5 November 2018, AIIMS, New Delhi
5. Guest lecture entitled "The use of Zebrafish in the study of disease and drug discovery" was delivered by Dr Frederick E Williams, Chair, Department of Pharmacology and Experimental Therapeutics, Director of Zebrafish Research, University of Toledo on 5 November 2018, AIIMS, New Delhi
6. Guest lecture entitled "Overview of structure and function of Clinical development and Medical affairs in Pharmaceutical industry" Dr B Guruprasad, Associate Medical Director, Ophthalmology at Novartis USA on 5 November, AIIMS, New Delhi

Lectures delivered

VL Kumar

1. Pharmacogenomics: An appraisal, Recent Trends in Pharmacology Research, 18 December 2018, AIIMS, New Delhi

2. Current trends in drug development, Recent Advances in Pharmacotherapy, 28 March 2019, SPER, Jamia Hamdard, New Delhi
3. 3D culture system—An emerging tool in drug development, National Workshop on Alternative Methods to Animal Testing, 29 March 2019, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi, Vasundhara Enclave, New Delhi

KH Reeta

1. Pharmacotherapy of cognitive impairment, 1st Annual Conference of Association of Physiologists and Pharmacologists of India, Delhi Chapter, 7-8 September 2018, VMMC, New Delhi

Pooja Gupta

1. Causality assessment of ADRs: Logic and methods, 11th Skill Development Programme on Pharmacovigilance, 14 November 2018, Indian Pharmacopoeia Commission, Ghaziabad
2. Materiovigilance and Haemovigilance, Workshop on Medicine Safety and Pharmacovigilance, 16 January 2019, SGT Medical College, SGT University, Gurugram

Sudhir Sarangi

1. Panel discussion on healthcare system, CME on Pharmacologists in Indian Healthcare System, 15 April 2018, AIIMS, New Delhi
2. Data management in clinical trials, 1st GCP Training Workshop, 19-20 May 2018, PGIMER, Chandigarh
3. Antiepileptic Drugs: Important PK/PD interactions, 15th National EEG workshop and Masterclass for Epilepsy Surgery & Epilepsy Neurobiology, 21-23 November 2018, BHU, K N Udapa Auditorium, Varanasi
4. Focussed Pharmacovigilance, Workshop on “Medicine Safety and Pharmacovigilance”, 16 January 2019, SGT Medical College, SGT University, Gurugram

Amita Srivastava

1. Role of Poison Information Centre in Emergency Department, The ISTOLS Master class and Workshop Hands-on-Practical training on High Fidelity Simulation in Managing Toxicological Emergencies as part of Indian Society of Toxicology Course (ISTOLS), 24-25 June 2018, The Medicity Hospital, Gurugram
2. Determination of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES), 9th International Conference on Legal Medicine Medical Negligence and Litigation in Medical practice and 9th International Conference on current Trends in Forensic Sciences, Forensic Medical and Toxicology (IAMLE2018), 26-28 October 2018 DY Patil Medical College, Hospital and Research Centre, Pune

Oral papers/posters presented

1. Arya DS, Malik S, Suchal K, Bhatia J, Apigenin ameliorates streptozotocin induced diabetic nephropathy in rats by modulation of oxidative stress, apoptosis and inflammation through MAPK pathway, 27th Meeting of the International Society of Hypertension (ISH) (Hypertension Beijing-2018), 20-23 September 2018, Beijing International Convention Centre, Beijing, China
2. Bhargava P, Bhatia J, Arya DS, Cardioprotective role of hesperidin in experimentally induced cardiac hypertrophy in Rats, 27th Meeting of the International Society of Hypertension (ISH) (Hypertension Beijing-2018), 20-23 September 2018, Beijing International Convention Centre, Beijing, China
3. Bhargava P, Bhatia J, Arya DS, Cardioprotective effect of hesperidin in experimentally induced cardiac hypertrophy in Rats, 16th Annual Conference of International Society for Heart Research (ISHR-2019), 15-17 February 2019, Jaipur
4. Bhargava P, Bhatia J, Arya DS, Hesperidin attenuates isoproterenol induced cardiac hypertrophy in rats by PPAR-gamma augmentation, International Society for Atherosclerosis Research (ISARCON-2018), 11-13 October 2018, JIPMER, Puducherry (**Balaji Endowment medal for basic experimental research in Atherosclerosis in International Society for Atherosclerosis Research (ISARCON-2018) held on 13-15 October 2018 at Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry**)
5. Bhatia J, Khan SI, Arya DS, Xanthine oxidase inhibition protects against myocardial injury through modulation of the MAPK/NK- κ B/TNF- α pathway, 18th World Congress of Basic and Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan
6. Bhatia J, Suchal K, Malik S, Arya DS, Kaempferol ameliorates myocardial injury in diabetic rats by suppressing oxidative stress, inflammation and apoptosis, 27th Meeting of the International Society of Hypertension (ISH) (Hypertension Beijing-2018), 20-23 September 2018, Beijing International Convention Centre, Beijing, China

7. Diksha, Malik PS, Mohan A, Gupta P, A pilot study to compare the effect of platinum-based chemotherapy regimens on inflammatory and oxidative stress markers in patients with non-small cell lung cancer, 1st Annual Research Day of AIIMS, 26 March 2019, AIIMS, New Delhi
8. Gupta A, Sharma S, Panda PK, Chakarbarti B, Sehagal R, Srivastava A, Gupta YK, Pandey RM, Gulati S, Blood heavy metals levels in children with autism spectrum disorder aged 3-12 years and typically developing children: A cross sectional study, 15th International Child Neurology Congress (ICNC 2018), 15-18 November 2018, Mumbai
9. Hussain Md, Rashid H, Katyal J, Gupta YK, Effect of antidepressants (sertraline, escitalopram) in combination with anti-epileptic drugs (sodium valproate, levetiracetam) on seizures, cognitive impairment and oxidative stress in rats, 1st Annual Research Day of AIIMS, 26 March 2019, AIIMS, New Delhi
10. Jakhar D, Yadav HN, Dinda AK, Antiobesity activity of liraglutide based oral nano formulation on high-fat diet induced obesity in mice, 1st Annual Research Day of AIIMS, 26 March 2019, AIIMS, New Delhi **(2nd prize on 1st Annual Research Day of AIIMS organized by All India Institute of Medical Sciences, New Delhi on 26 March 2019)**
11. Kalsi AK, Halder A, Srivastava A, Association of cadmium, chromium, manganese and lead with hyperprolactinemia, Global conference on Reproductive health with Focus On Occupational, Environmental and Lifestyle Factors & 29th Annual Meeting of the Indian Society for the Study of Reproduction and Fertility (ISSRF), 22-24 February 2019, AIIMS, New Delhi
12. Kaur N, Sarangi SC, Tripathi M, Need for pharmacoeconomic considerations between conventional and newer AEDs Monotherapy Treatment in PWE, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi
13. Malik S, Suchal K, Arya DS, Apigenin ameliorate streptozotocin induced diabetic nephropathy in Rat, 18th World Congress of Basic & Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan
14. Mutneja E, Malhotra R, Arya DS, Pharmacological and molecular approaches to investigate the effect of DPP-4 inhibitor, saxagliptin, in ischemia-reperfusion model of myocardial infarction in streptozotocin induced diabetic rats, International Society for Atherosclerosis Research (ISARCON-2018), 11-13 October 2018, JIPMER, Puducherry
15. Mutneja E, Verma VK, Arya DS, Cardioprotective effect of morin against oxidative stress and apoptotic damage in experimental model of Isoproterenol induced myocardial necrosis in Rats, 16th Annual Conference of International Society for Heart Research (ISHR-2019), 15-17 February 2019, Jaipur
16. Patel V, Katyal J, Rashid H, Gupta YK, Effect of pentylenetetrazole-induced seizures on serum Brain Derived Neurotrophic Factor (BDNF) levels and cognition in Rats, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi **(1st Prize for e poster at 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association, ECON 2019).**
17. Pattnaik SS, Sarangi SC, Tripathi M, Association of antiepileptic drugs with abnormalities in physical fitness, reproductive status and quality of life in women with epilepsy, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi
18. Pawar B, Dua P, Seth S, Maulik SK, A study to assess the effect of medication adherence tools in heart failure patients (MAT-HF), 16th Annual Conference of International Society for Heart Research (ISHR-2019), 15-17 February 2019, Jaipur
19. Rashid H, Katyal J, Tripathi M, Sood M, Gupta YK, Depression in persons with epilepsy: A comparative study of different screening tools in Indian population, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi
20. Reeta KH, Singh D, Sharma U, Jagannathan NR, Gupta YK, Monomethyl fumarate improves ischemia reperfusion damage and reduces oxidative stress in experimental model of ischemic stroke in Rat, 18th World Congress of Basic and Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan
21. Samuel SS, Carbon Monoxide-Health Effects, International Conference on Health and Air Pollution: Effects and Management, 8 September 2018, India International Centre, New Delhi
22. Sarangi SC, Kumar S, Tripathi M, Ramanujan B, Gupta YK, Risk of seizure recurrence in persons with epilepsy undergoing AED tapering, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association (ECON 2019), 8-10 March 2019, New Delhi **(Best Star Paper Award (2nd prize) for oral presentation at 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association, ECON 2019).**
23. Singh D, Reeta KH, Gupta YK, Monomethyl fumarate mitigates ischemia reperfusion injury by activating Nrf2/HO1 pathway in experimental model of ischemic stroke in Rat, 3rd European Stroke Organization Conference, 16-18 May 2018, The Swedish Exhibition and Congress Centre, Gothenburg, Sweden
24. Singh S, Supplementation with *Terminalia chebula* attenuates the tacrolimus induced nephrotoxicity in experimental models, 18th World Congress of Basic and Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan

25. Verma VK, Arya DS, Morin attenuates myocardial ischemia reperfusion injury in Rats: Role of RISK/SAPK pathways, 16th Annual Conference of International Society for Heart Research (ISHR-2019), 15-17 February 2019, Jaipur
26. Yadav HN, Sharma US, Gupta YK, Singh S, The protective effect of *Tribulus terrestris* and its combination with *Boerhaavia diffusa* and *Terminalia chebula* against cisplatin induced nephrotoxicity in Rats, 18th World Congress of Basic and Clinical Pharmacology, 1-6 July 2018, International Conference Center, Kyoto, Japan

RESEARCH

Funded projects

Ongoing

1. A study to assess the prevalence and effect of concurrent drug therapy mentioned in Indian system of medicine along with modern drug therapy received in patients, SK Maulik, ICMR, 3 years 2 months, 2016-2019, Rs 18.72 lakhs
2. Anti-inflammatory strategy in the treatment of pulmonary artery hypertension: An experimental study, SK Maulik, ICMR, 3 years, 2017-2020, Rs 17.92 lakhs
3. Depression in persons with epilepsy (PWE): Correlation with Serum biomarkers and CYP2C19 polymorphism, a pilot study, Jatinder Katyal, AIIMS, New Delhi, 2 years, 2018-2019, Rs 7.87 lakhs
4. Development of solid lipid nanoparticles for oral delivery of liraglutide, an anti-diabetic drug, HN Yadav, DBT, 2 years, 2018-2020, Rs 14.75 lakhs
5. Effect of antiepileptic drug monotherapy with levetiracetam and valproate on metabolic status in women with epilepsy, SC Sarangi, AIIMS, New Delhi, 2 years, 2018-2020, Rs 5 lakhs
6. Evaluation of Fumaric Acid Esters (FAEs) in experimental model of Stroke in Rats, KH Reeta, DBT, 3.5 years, 2015-2019, Rs 59.54 lakhs
7. Evaluation of safinamide in experimental model of stroke and post stroke seizure behaviour in rats, KH Reeta, DST, 3 years, 2018-2021, Rs 27.61 lakhs
8. Evaluation of the nephroprotective effect of berberine and diadzein in cisplatin induced nephrotoxicity in rats, Jagriti Bhatia, DBT, 4 years, 2015-2019, Rs 24.99 lakhs
9. Formulation and evaluation of lipid-based nanoparticles of epalrestat in experimental diabetic neuropathic pain in Wistar Rats, HN Yadav, AIIMS, 2 years, 2017-2019, Rs 5 lakhs
10. Pharmacodynamic and pharmacokinetic interactions of the Ayurvedic formulation (BGR-34) with glibenclamide in experimental model of diabetes in Rats, SC Sarangi, AIMIL Pharmaceuticals, New Delhi, 3 years, 2018-2021, Rs 21.01 lakhs
11. Pharmacological and molecular approaches to investigate the effect of *Adhatodavastica* in experimental model of bleomycin induced pulmonary fibrosis, Jagriti Bhatia, Central council for research in Unani Medicine, Department of AYUSH, 3 years, 2018-2021, Rs 55.42 lakhs
12. Preliminary pharmacological and safety studies of Homeopathic Drugs, Surender Singh, Central Council for Research in Homeopathy, Department of AYUSH, 2 years, 2017-2019, Rs 27.56 lakhs
13. Role of Brain Derived Neurotrophic Factor (BDNF) as a potential biomarker in seizure related cardiac abnormalities, Jatinder Katyal, DST, 2 years, 2017-2019, Rs 22.03 lakhs
14. Surface engineered Silver (Ag) nanoparticles and Peptide conjugate for angiogenesis based animal wound management, HN Yadav, DBT, 3 years, 2018-2021, Rs 87.36 lakhs
15. Targeted Co-delivery of P53 modulator and anti-cancer drugs to achieve synergistic effect for cancer therapeutics, HN Yadav, DST, 5 years, 2016-2021, Rs 35 lakhs
16. To study the influence of CYP2C19 polymorphism on bortezomib blood concentration and clinical response in myeloma patients, Pooja Gupta, DST, 3 years, 2017-2020, Rs 25.31 lakhs

Completed

1. A prospective observational study to find out correlation of serum Antiepileptic Drug (AED) and biomarkers levels with seizure recurrence in Persons with Epilepsy (PWE) undergoing AED tapering, SC Sarangi, AIIMS, 2 years, 2016-2018, Rs 5 lakhs
2. Evaluation of the frequency of polymorphisms affecting lead and mercury toxicity among children with cerebral palsy, Sunder S Samuel, AIIMS, 2 years, 2017-2019, Rs 4.2 lakhs
3. Nano-berberine for protection against chemotherapy induced cardiotoxicity *in vitro*, Pooja Gupta, AIIMS, 1 year, 2018-2019, Rs 5 lakhs

4. Studies on the efficacy of latex of *Calotropis procera* in experimental models of colitis and colorectal cancer, VL Kumar, AIIMS, 2 years, 2016-2018, Rs 8.24 lakhs
5. To determine the effect of seizures on neurogenesis and cardiac remodelling in lithium pilocarpine model in Rats- role of AT1 receptor blocker losartan and kappa opioid receptor agonist U50488, Jatinder Katyal, AIIMS, 2 years, 2016-2018, Rs 4.95 lakhs

Departmental projects

Ongoing

1. A randomized controlled trial to study the effect of Medication Adherence Tools in Heart Failure patients (MAT-HF)
2. A randomized double-blind cross over study to assess the effect of regular and decaffeinated coffee on psychomotor performance in healthy volunteers during post-lunch period
3. An observational study to compare the effects of newer drugs (ARNI and Ivabradine) with standard heart failure medications in de-compensated heart failure patients (Trends in heart—THF study)
4. Comparative evaluation of metformin and silymarin in cyclosporine induced hepato-renal toxicity
5. Comparison of effect of antidepressants on neurodegeneration in patients with depression
6. Comparison of newer and conventional antiepileptic drugs in focal and generalized seizures in terms of quality of life and cost of treatment
7. Correlation of serum amyloid A1, interleukin 1 beta with response to anti-tubercular therapy in pulmonary and extra-pulmonary tuberculosis: A pilot study
8. CYP2C19 polymorphism in Persons with Epilepsy on Levetiracetam
9. Depression in Persons With Epilepsy (PWE): Correlation of Serum BDNF and Zinc levels
10. Development of nanoparticles based oral formulation of liraglutide and evaluation of its effect in high fat diet induced obesity in mice
11. Effect of antiepileptic drugs on physical activity, reproductive endocrine health and quality of life in women with epilepsy
12. Effect of ascorbic acid supplementation on pulmonary functions in persons of age ≥ 35 years: A randomized controlled pilot study
13. Effect of neoadjuvant chemotherapy on markers of inflammation and oxidative stress in breast cancer patients
14. Evaluation of neuroprotective potential of Andrographolide in ICV-STZ induced cognitive impairment in Rats
15. Evaluation of tideglusib in experimental model of stroke in Rats
16. Formulation of oral liraglutide polymeric nanoparticles and evaluation of its hypoglycemic activity in experimentally induced diabetes mellitus in Wistar Rats
17. Open-label versus double blind placebo treatment for experimentally induced pain in healthy volunteers: A pilot study
18. Pharmacodynamic and pharmacokinetic study of *Terminalia bellerica* and *Glycyrrhiza glabra* in experimental models of arthritis
19. Pharmacological and molecular approaches to investigate selected drug in model of ischemia-reperfusion injury in Streptozotocin Induced Diabetic Rats
20. Pharmacological and molecular characterization of the cardioprotective effect of teriflunomide in experimental models of myocardial infarction and diabetic I/R-injury in Rat Heart
21. Pharmacological and molecular studies on fisetin in experimental models of myocardial infarction in Type 2 Diabetic Rats
22. Pharmacological study on arglabin in experimental model of myocardial ischemia-reperfusion injury in Rats
23. Prescribing pattern in advanced Non-Small Cell Lung Cancer (NSCLC) at IRCH, AIIMS with quality of life and cost analysis
24. Risk of seizure recurrence in persons with epilepsy undergoing AED tapering
25. Studies on abatacept in an experimental model of isoproterenol induced cardiac hypertrophy
26. Studies on the effect of artesunate in experimental model of sepsis
27. Studies on the effect of roxithromycin in an experimental model of prostatitis
28. Studies on the effect of roxithromycin in experimental model of sepsis
29. To evaluate the effect of abatacept on carbon tetrachloride induced hepatotoxicity

30. To study the effect of sesamol in bleomycin induced pulmonary toxicity in Rats
31. VEGF-A as a biomarker for diagnosis and therapeutic monitoring in patients with extra-pulmonary tuberculosis: A pilot study

Completed

1. A pilot study exploring GRP78 as a biomarker of responsiveness to bortezomib based regimen in multiple myeloma patients
2. A pilot study to compare the effect of platinum-based chemotherapy regimens on inflammatory and oxidative stress markers in patients with non-small cell lung cancer
3. An interaction study of *Ocimum sanctum* and levetiracetam in pentylenetetrazol induced kindling model of epilepsy
4. Correlation of pentylenetetrazole induced seizures and cardiac changes: Serum biomarkers and histopathology
5. Effect of *H. pylori* eradication therapy in patients with Non-Alcoholic Fatty Liver Disease (NAFLD) on liver fat: A randomized controlled pilot study
6. Efficacy of methanol extract of latex of *Calotropis procera* in experimental model of colitis
7. Efficacy of methanol extract of latex of *Calotropis procera* in experimental model of colorectal cancer
8. Estimation of monoamine oxidase-A (MAO-A) in blood and its correlation with bona metastasis and castration resistance in prostate cancer patients
9. Evaluation of anti-arthritic and nephroprotective potential of *Trigonella foenum graecum* leaf extract in experimental models
10. Evaluation of the analgesic effect of metformin in experimental models
11. Factors associated with seizure recurrence in persons with epilepsy undergoing anti-epileptic drug tapering: A prospective observational Study
12. Neuropsychiatric morbidity and quality of life among the persons with epilepsy on antiepileptic drug treatment in a tertiary hospital
13. Potential effects of kappa opioid receptor in prevention of epileptogenesis and spontaneous recurrent seizures in experimental model in Rats
14. Safety profile and use pattern of antiepileptic drugs: A cross sectional study
15. Study of Pyrrolidine dithiocarbamate on experimental model of Alzheimer's Disease in Rats

Collaborative projects

Ongoing

1. A randomized controlled pilot trial to compare the efficacy of Rituximab infusion versus intravenous Dexamethasone Pulse therapy in Pemphigus vulgaris and its correlation with phenotypic and functional determinants of B and T cells, Dermatology
2. A study to determine the association of trace elements and heavy metals with lung cancer and their correlation with smoking, Medical Oncology, IRCH, AIIMS
3. Blood heavy metals and quantitative EEG correlates in children with Autism, Paediatrics
4. Comparative evaluation of simvastatin gel and diode laser for pulpotomy in primary molars: Single blind, phase 2 randomized trial, Paediatric Dentistry, CDER
5. Evaluation of the frequency of polymorphism affecting lead and mercury toxicity among children with cerebral palsy (Pb), Paediatrics
6. Pharmacological effects of vitamin D in diabetic cardiomyopathy via ACE-2/Angiotensin (1-7)/Mas receptors axis in experimental diabetic Rats, Pathology

Completed

1. A prospective observational study to find out correlation of serum Antiepileptic Drug (AED) and biomarkers levels with seizure recurrence in Persons With Epilepsy (PWE) undergoing AED tapering, Neurology
2. A prospective study to evaluate the patterns of nicotine withdrawal in newly diagnosed head and neck squamous cell carcinoma patients and its impact on peri-operative outcomes, Otorhinolaryngology and Head-Neck Surgery

PUBLICATIONS

Journals: 24 Abstracts: 4 Chapters in Books: 2

PATIENT CARE

Estimation of metals in biological samples with ICP-AES Spectrophotometer

The department has been involved in the estimation of number of metals such as heavy metals Pb, Cd, Hg, As, and trace metals Cu, Zn, Ni, Al, Cr, Co in biological samples of human and animal model (blood, serum, tissues) and Ayurvedic formulations for collaborative studies by Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) Spectrophotometer (Model JY-2000@2) at PPB levels.

Therapeutic Drug Monitoring Facility

TDM (Therapeutic Drug Monitoring) Facility in the Department of Pharmacology has been engaged in estimating drug levels in patient samples as part of funded projects. High Performance Liquid Chromatography (HPLC) systems are used for qualitative and quantitative estimations of drug levels in patient samples. WinNonlin software available with the department is used to estimate pharmacokinetic parameters.

National Poison Information Centre

The National Poisons Information Centre (NPIC) in the Department of Pharmacology plays a vital role in providing information on management of poisonings. Round the clock service rendered by NPIC is availed by treating physicians, government agencies, NGOs, and general public from all over the country.

Poisoning calls received by National Poisons Information Centre

Item	n	%
Total no. of calls	3,938	
Poisoning Calls	3,793	96.3
Information Calls	145	3.6
Sex		
Male	2,367	62.4
Female	1,426	37.5
Age groups (years)		
0-6	2,055	54.1
>6-12	215	5.6
>12-16	180	4.7
>16-18	81	2.1
>18-30	781	20.5
>30-45	329	8.6
>45	152	4
Categories		
Household Products	1,764	46.5
Industrial Chemicals	217	5.7
Agricultural Pesticides	496	13.0
Drugs	1,041	27.4
Bites and Stings	51	1.3
Plants	72	1.8
Miscellaneous	152	4.0

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor DS Arya received AIIMS Excellence Research Award 2018 Commendation Certificate. Awarded under the category of Basic Research for the publication, 'Apigenin ameliorates streptozotocin-induced diabetic nephropathy in rats via MAPK-NF- κ B-TNF- α and TGF- β 1-MAPK-fibronectin pathways' during the year 2017-2018 on 25 September 2018.

Professor KH Reeta was member, Subject Expert Committee (SEC), Drugs Controller General (India) Office to advise DCGI in matters related to approval of (a) clinical trials, (b) new drugs and (c) new medical devices.

Dr Pooja Gupta was member, causality assessment subcommittee and media and advocacy subcommittee under National AEFI (Adverse Events Following Immunization) Committee, MoH&FW, Government of India; Member, PSUR review committee for vaccines and Subject Expert Committee (SEC) for various therapeutic panels for the Office of the Drugs Controller General (India); Member, Subcommittee for medicines under Standing National Committee on Medicines (SNCM) for revision of National List of Essential Medicines (NLEM) 2015, MoH&FW, Government of India; Participated in the updation of Good Clinical Practice (GCP) guidelines by CDSCO, MoH&FW, Government of India; Member Secretary for

Institute Ethics Subcommittee for monitoring of adverse events in clinical trials at AIIMS, New Delhi; Member, Working committee for Setting Up Clinical Research Unit at AIIMS, New Delhi; Member, Faculty coordination committee for Pulse 2018 and member, AIIMS Institute Day Subcommittee for Cultural Programme.

Dr Harlokesh Narayan Yadav was Chairperson in 3rd International Conferences on Intellectual Property: Prosecution to litigation, Goa College of Pharmacy Goa during 15-16 November 2018; Resource person in 63rd Institute Day Exhibition on Next Generation Health Care on 25-27 September 2018 at AIIMS, New Delhi.

Dr Sudhir Sarangi was Subject Expert for Meeting of expert committee for upgradation of Indian GCP guidelines in line with ICH/WHO GCP guidelines on 2 April 2018, New Delhi; Participated in Refresher Training Course for GLP Inspectors conducted by NGCMA, 16-18 July 2018; was Subject Expert for 1st Meeting of core group and subject review committee for revision of National Formulary of India Pharmacopoeia Commission, MoHFW, Government of India on 23 August 2018 at Ghaziabad.

Dr Sharda S Peshin received IAMLE fellowship in 9th International Conference on Legal Medicine, Medical Negligence and Litigation in Medical Practice and 9th International Conference on current trends in Forensic Sciences, Forensic Medicine and Technology (IAMLE 2018) held on 27 October 2018 at DY Patil Medical College, Hospital and Research Centre, Pune; was Member Expert Panel of the Honorable NGT (National Green Tribunal) Matter for an expert opinion on Site Specific Target Levels/Standard for Remediation of Mercury Contaminated Soil held on 12 September 2018 and 24 September 2018 at Central Pollution Control Board, Delhi.

VISITING SCIENTIST

1. Dr Amol Patil, Assistant Professor, Department of Pharmacology, PGIMER, Chandigarh, visited NPIC on 12 May 2018.

9.31. Physical Medicine and Rehabilitation

Professor and Head		
U Singh		
Professors		
Sanjay Wadhwa	SL Yadav	Gita Handa
Assistant Professors		
Srikumar V	Asem Rangita Chanu	
Supt Physiotherapist	Senior Physiotherapist	Supt Occupational Therapist
Mrs Smita Das	Mr OP Yadav	Mr Raman Kumar Singh
Senior Occupational Therapist	Senior Technical Officer	
Mrs Lily Farhat Parveen	Mr Ajay Babbar	

HIGHLIGHTS

The department organized the 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, Delhi PMRC, on 17-18 November 2018, at Gurugram. The event was attended by eminent faculties from Delhi and rest of India who shared their experiences and enriched the knowledge. The department organized awareness talks and brain storming session on the occasion of World Disability Day (3 December 2018) at AIIMS. An advanced Silicone Prosthesis lab has been commenced at the Prosthetics and Orthotics workshop of the department to provide high quality patient care in the area of cosmetic prosthetics. On a project mode, 3D printing of foot orthosis using foot pressure mapping data has been started.

EDUCATION

Undergraduate teaching: A set of 8 Seminars for the VIII Semester and one for the VI Semester was undertaken by the department. Twelve post-graduate students are doing MD (PMR). Students of Prosthetics and Orthotics from three Government of India institutions, SVNIRTAR (Cuttack), PDUIPH (Delhi) and NILD (Kolkata) visited the P&O workshop as part of their teaching/training program. Postgraduate and fellowship training for Palliative Care and Onco-Anesthesiology, Pediatric Neurology and Pain Fellows was conducted in the department.

CMEs/Workshops/Symposia/National and International Conferences

13th Annual Conference of Indraprastha Association of Rehabilitation Medicine (Delhi PMRC) on 17-18 November 2018, at Gurugram.

Lectures delivered

U Singh

1. Ethics in traumatic brain injury, Annual Mid-Term CME of Indian Association of Physical Medicine and Rehabilitation, 13-15 September 2018, Vellore
2. Panelist: Discussion on interesting cases, 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 17-18 November 2018, Gurugram
3. Panelist/moderator of the panel discussion on the meaningfulness of life after disability, World Disability Day 2018 (Indian Spinal Injuries Center), 3 December 2018, New Delhi

Sanjay Wadhwa

1. Challenges of rehabilitation in India, WHO sponsored 'Multi-stakeholders' Meeting, Rehabilitation 2030 in South-East Asia', 16-17 April 2018, Bengaluru
2. Introduction and background of the guidelines for assessment and certification of specified disabilities, One Day Orientation Programme for MS, Civil Surgeons, CMOs, 26 April 2018, Patna
3. The guidelines for assessment and certification of Locomotor disabilities, One Day Orientation Programme for MS, Civil Surgeons, CMOs, 26 April 2018, Patna
4. The guidelines for assessment and certification of other specified disabilities, One Day Orientation Programme for MS, Civil Surgeons, CMOs, 26 April 2018, Patna
5. Introduction and background of the disability evaluation guidelines, Orientation training workshop on the topic "The Certification of 21 Types of Disabilities as per RPD Act 2016", 7 July 2018, Bhopal
6. The new guidelines for assessment and certification of specified disabilities. Orientation Training Workshop on the topic "The Certification of 21 types of disabilities as per RPD Act 2016", 7 July 2018, Bhopal
7. Motor accidents and disabilities in India, One Day Orientation Programme for Officers at the Oriental Staff Training College (OSTC), 17 July 2018, Mathura Road, Faridabad
8. Disability certification in view of the new Rights of Persons with Disabilities Act 2016, One Day Orientation Programme for Officers at the Oriental Staff Training College (OSTC), 17 July 2018, Mathura Road, Faridabad
9. ICF—Checklist and WHO-DAS 2.0, 3 Days Basic Training Programme on ICF, 26 July 2018, Mohali
10. Practical using ICF Tools (ICF Checklist and WHO-DAS 2.0), 3 Days Basic Training Programme on ICF, 26 July 2018, Mohali
11. Demonstration of practical uses of ICF coding and checklist as well as conduct of visit to the Department of Psychiatry at GMCH, Sec. 32, Chandigarh
12. Disability Evaluation—New Guidelines, National PMR Refresher Course, 22 September 2018, Jaipur
13. Rehabilitation of cancer affected persons, Scientific Symposium on 'Recent Advances in Cancer' during NAMSCON2018, 27 October 2018, Puducherry
14. App based patient referral system related to PMR, MCI Sponsored CME on App Based Patient Referral System, 11 January 2019, Chandigarh
15. Rehabilitation in chronic neurological diseases, Scientific Programme during IAPMRCON2019, 19 January 2019, Mumbai
16. Practice of PM&R in primary care in public health system in India, Panel Discussion during IAPMRCON2019, 20 January 2019, Mumbai
17. Possible psychiatry in PHC for non-communicable diseases, Palliative Care and Elderly Care, Scientific Programme during IAPMRCON 2019, 20 January 2019, Mumbai
18. Keynote address on the introduction and background of the disability evaluation guidelines in India, Workshop on Disability Evaluation and Certification Procedure for Persons with Disability for Implementation of RPwD Act, 2016 in the State of Punjab, 8 February 2019, Faridkot
19. Panelist during the panel discussion on "Streamlining the Procedure for Disability Certification", Workshop on Disability Evaluation and Certification Procedure for Persons with Disability for Implementation of RPwD Act, 2016 in the State of Punjab, 8 February 2019, Faridkot
20. Introduction and background of the disability evaluation guidelines, 3-Days Training Programme on UDID and Disability Matrix, 12-14 February 2019, Guwahati

21. The new guidelines for assessment and certification of specified disabilities, 3-Days Training Programme on UDID and Disability Matrix, 12-14 February 2019, Guwahati
22. Understand the models of disability and social security benefits for PwDs in India, Medical Officers Programme on Occupational and Environmental Health—Training of Trainers, 27 February 2019, Delhi
23. Role of rehabilitation in NCDs and building rehabilitation programme under NPCDCS, 5th PGI-AIIMS International Course on Public Health Approaches to Non-communicable Diseases, 5 March 2019, Chandigarh

SL Yadav

1. Assessment of autonomic dysfunctions in patients with spinal cord injury: A cross sectional study, 12th World Congress of International Society of Physical and Rehabilitation Medicine, 8-12 July 2018, Paris, France
2. Cerebral palsy—Orthotic management, Orthotic Management of Neurological Conditions, 8-9 September 2018, Bhubaneswar
3. Lower limb spasticity: Various indications, muscle involved and optimum dosage of Botulinum toxin type A, NEXUS 2018, 15-16 September 2018, New Delhi
4. Opportunities and networking in PMR, PMR Refresher Course, 21-23 September 2018, Jaipur
5. Mindfulness in physical rehabilitation to help clients with chronic pain, ICM Asia-Pacific 2019, 9-13 February 2019, Auckland, New Zealand
6. Rehabilitation challenges in management of traumatic brain injury in India, 13th World Congress on Brain Injury (IBIA 2019), 13-16 March 2019, Toronto, Canada

Gita Handa

1. Panelist for “Specific design requirements for a spine deformity correction system”, 2nd International Conference on Clinical Spine and Orthopaedic Biomechanics, 14 April 2018, New Delhi

Srikumar V

1. Chronic low back pain: From spine to brain, Pain and Somatosensory Assessment in Humans, 12 April 2018, New Delhi
2. Bio-mechanical considerations of spinal care following vertebral/spinal surgery, 2nd International Conference on Clinical and Orthopedic Biomechanics, 13-15 April 2018, New Delhi
3. Panelist: Specific design requirements for a spine deformity correction system, 2nd International Conference on Clinical and Orthopedic Biomechanics, 13-15 April 2018, New Delhi
4. Panelist: Innovations to improve motor functions in traumatic brain injury, Annual Mid-Term CME of Indian Association of Physical Medicine and Rehabilitation, 13-15 September 2018, Vellore
5. Rehabilitation interventions in oropharyngeal cancer, 47th Annual National Conference of Indian Association of Physical Medicine and Rehabilitation, 17-20 January 2019, Mumbai
6. Chronic fatigue syndrome, 47th Annual National Conference of Indian Association of Physical Medicine and Rehabilitation, 17-20 January 2019, Mumbai

Oral papers/posters presented

1. Benny R, Srikumar V, Singh U, Chanu AR, Raghvendra L, Devasenathipathy K. A randomised controlled trial to compare the effect of single dose platelet rich plasma and corticosteroid injection in patients with carpal tunnel syndrome. Annual Mid-Term CME of Indian Association of Physical Medicine and Rehabilitation, 13-15 September 2018, Vellore (**Third prize**)
2. Choudhary A, Vasudeva A, Yadav SL. Ultrasonographic evidence of the regenerative potential of platelet rich plasma in partial tear of achilles tendon—A case report, 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 17-18 November 2018, Gurugram
3. Haneena P, Yadav SL, Singh U, Nehra A, Srikumar V, Chanu AR. A cross sectional study to evaluate the correlation of gross motor function and hand function with intelligence in children with cerebral palsy, 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 17-18 November 2018, Gurugram
4. Hazra S, Srikumar V, Handa G, Yadav SL, Wadhwa S, Kochhar KP, Deepak KK, Sarkar K, Singh U. fNIRS: A new tool for assessment of central sensitization in fibromyalgia, 12th World Congress of International Society of Physical and Rehabilitation Medicine, 8-12 July 2018, Paris, France
5. Hazra S, Srikumar V, Handa G, Yadav SL, Wadhwa S, Kochhar KP, Deepak KK, Sarkar K, Singh U. Symptom clusters in Fibromyalgia: Correlation with dysautonomia. 12th World Congress of International Society of Physical and Rehabilitation Medicine, 8-12 July 2018, Paris, France

6. Jaiswal A, Salve HR, Halder P, Goswami K, Singh U. Prevalence of knee osteoarthritis and its impact on quality of life among elderly in rural Ballabgarh, Haryana. 13th SEA Regional Scientific Meeting of the International Epidemiological Association and International Conference on Public Health and Sustainable Development, 2-5 October 2018, Bali, Indonesia
7. Mallik KC, Barik M. Environmental and occupational effect on osteoarthritis in shift workers: A comparative study with review of literature, International Conference on Health and Air Pollution: Effects and Management, 7-8 September 2018, New Delhi
8. Nanda S, Arya S, Srikumar V, Bhatia R. Higher nociceptive flexion reflex threshold in chronic low back pain patients. 17th World Congress of International Association for the Study of Pain, 12-16 September 2018, Boston, US
9. Parihar R, Handa G, Srikumar V. A randomized controlled trial to compare effect of corticosteroid injection versus conservative treatment on pain, function and ultrasonographic features of common extensor tendons in patients with lateral epicondylitis, Annual Mid-Term CME of Indian Association of Physical Medicine and Rehabilitation, 13-15 September 2018, Vellore
10. Parihar R, Handa G, Srikumar V. A randomized controlled trial to compare effect of corticosteroid injection versus conservative treatment on pain, function and ultrasonographic features of common extensor tendons in patients with lateral epicondylitis. 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 17-18 November 2018, Gurugram
11. Sahu S, Taraphdar P. Understanding health care seeking behavior for successful community based rehabilitation in a tribal setting in West Bengal. 47th Annual National Conference of Indian Association of Physical Medicine and Rehabilitation, 17-20 January 2019, Mumbai
12. Sahu S, Vasudeva A, Chanu AR, Chandra J, Babbar A. Rehabilitation challenge in congenital lower limb deficiency: A case report. Annual Mid-Term CME of Indian Association of Physical Medicine and Rehabilitation, 13-15 September 2018, Vellore **(Second prize)**
13. Sahu S, Vasudeva A, Handa G, Ultrasound Guided Intercostal Nerve Block in Chronic Musculoskeletal Chest Pain: A Case Report. 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 17-18 November 2018, Gurugram
14. Swarnakar R, Chanu AR, Yadav SL. Rectal prolapse in a young nulliparous woman with traumatic spinal cord injury: A case report. Annual Mid-Term CME of Indian Association of Physical Medicine and Rehabilitation, 13-15 September 2018, Vellore
15. Swarnakar R, Chanu AR, Yadav SL. Rectal prolapse in a young nulliparous woman with traumatic spinal cord injury: A case report. 47th Annual National Conference of Indian Association of Physical Medicine and Rehabilitation, 17-20 January 2019, Mumbai
16. Swarnakar R, Kumar R, Rahman H. Lead (Pb) induced quadriplegia: A case report. 47th Annual National Conference of Indian Association of Physical Medicine and Rehabilitation, 17-20 January 2019, Mumbai
17. Swarnakar R, Wadhwa S, Srikumar V, Goyal V, Sreenivas V. PARK-EASE trial: A randomized controlled trial to study the efficacy of exercises in early stage Parkinson's Disease. Annual Mid-Term CME of Indian Association of Physical Medicine and Rehabilitation, 13-15 September 2018, Vellore
18. Swarnakar R, Wadhwa S, Srikumar V, Goyal V, Sreenivas V. PARK-EASE trial: A randomized controlled trial to study the efficacy of exercises in early stage Parkinson's Disease. 47th Annual National Conference of Indian Association of Physical Medicine and Rehabilitation, 17-20 January 2019, Mumbai **(Bindeshwari Sudershan IAPMR Gold Medal)**
19. Swarnakar R, Wadhwa S, Srikumar V, Goyal V, Sreenivas V. PARK-EASE trial: A randomized controlled trial to study the efficacy of exercises in early stage Parkinson's Disease. 4th Annual Conference of Movement Disorders Society of India, 22-24 February 2019, New Delhi
20. Uppal H, Handa G, Singh U, Wadhwa S, Yadav SL. Anterior support ankle foot orthosis v/s posterior ankle foot orthosis: A pilot study. 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 17-18 November 2018, Gurugram

RESEARCH

Funded projects

Ongoing

1. Development and testing of custom 3D printed foot orthotics using foot images from smartphone for various foot problems, Gita Handa, DBT, 1 year, 2017-19, Rs 12 lakhs
2. Smart dynamic fabric actuator for prolonged standing professionals for management of chronic leg pain, Srikumar V, AIIMS-IIT Delhi Collaborative Research Project, 2 years, 2018-20, Rs 10 lakhs

Departmental projects

Ongoing

1. A randomized control trial to compare effect of ultrasound guided corticosteroid injection versus conservative treatment on pain, function and ultrasonographic features of common extensor tendons in patients with lateral epicondylitis
2. A randomised control trial to compare the effect of single dose platelet rich plasma and corticosteroid injection in patients with carpal tunnel syndrome
3. A randomized control trial to compare effect of platelet rich plasma and dextrose prolotherapy in patients of chronic plantar fasciitis
4. A cross sectional study to evaluate the correlation of gross motor, hand function, caregiver reported quality of life with intelligence in children with cerebral palsy
5. A randomized control trial to compare effectiveness of electrical stimulation of foot and oxybutynin in overactive bladder in persons with spinal cord injury
6. PARK-EASE trial: A randomized controlled trial to study the efficacy of exercises in early stage Parkinson's Disease
7. A cross-sectional study to assess balance impairment and risk of fall in patients with Ankylosing Spondylitis
8. A cross sectional study to observe the prosthetic usage and functional status of upper limb amputees
9. A randomized controlled trial to compare the effect of intra-articular Adalimumab versus intra-articular hyaluronic acid in primary osteoarthritis of the knee
10. A randomized control trial to evaluate the effect of platelet rich plasma in combination with eccentric exercise versus eccentric exercise alone for achilles tendinopathy
11. A cross sectional study to evaluate the burden of care and quality of life in caregivers of persons with traumatic spinal cord injury
12. The International Spinal Cord Society (ISCoS) Database Project

Completed

1. A comparative study of the efficacy of a set of conventional therapeutic exercises versus a set of yoga asanas in non-specific chronic low back pain patients presenting in a tertiary health care centre
2. A randomized controlled trial to compare the effect of Zoledronic acid versus a structured exercise programme in primary osteoporosis
3. Ultrasonographic evaluation of radial neuropathy and its correlation with pain and functional outcome before and after a corticosteroid injection in lateral epicondylitis

Collaborative projects

Ongoing

1. Force myography driven affordable active lower limb prosthesis for resource-limited countries, University of Oregon, IIT Delhi
2. Effect of transcranial magnetic stimulation on pain modulation status in fibromyalgia patients, Department of Physiology, AIIMS, New Delhi
3. Damper control in lower limb prosthesis, Department of Biomedical Engineering, IIT Delhi
4. A study of pain status and motor cortex excitability in chronic low back pain patients: Effect of transcranial magnetic stimulation, Department of Physiology, AIIMS, New Delhi
5. Design, development and validation of ergonomically enhanced surgical instruments, Department of Surgery, AIIMS, New Delhi
6. Electrophysiological analysis of cognitive load during locomotion and balancing and to investigate the improvement in gait and balance in lower limb amputees after using tactile feedback, Department of Biomedical Engineering, AIIMS/IIT Delhi
7. Effect of yoga on pain and corticomotor excitability in chronic low back pain, Department of Physiology, AIIMS, New Delhi
8. Effect of motor imagery on corticomotor excitability and pain status in rheumatoid arthritis, Department of Physiology, AIIMS, New Delhi
9. Evaluation of pulmonary function in ankylosing spondylitis, Department of Physiology, AIIMS, New Delhi

10. Comparing change in disease activity with exercise tolerance in persons with ankylosing spondylitis on adalimumab therapy—An observational pilot study, Department of Rheumatology, AIIMS, New Delhi
11. Randomised control trial to compare the impact of progressive resistive exercise and nutritional interventions in skeletal muscle mass and function in obese patients with sarcopenia, Department of Medicine, AIIMS, New Delhi

PUBLICATIONS

Journals: 8 Abstracts: 3 Chapter in book: 1

PATIENT CARE

New patients

OPD (Physician consultations)	13,900	Prosthetics and Orthotics	3,275
Total New Cases	17,175		

Old patients

OPD (Physician consultation)	25,737	Disability Evaluation Clinic	68
Railway Concession Certificates	195	OPD visits (PT Section)	16,460
OPD visits (OT Section)	16,096	OPD visits (MSW)	4,060
OPD visits (P&O Clinic)	7,137	Minor OT procedures	4,634
Total Old Cases	74,387		
Grand Total	91,562		

Special Clinics of the Department

Ongoing Clinics

1. Musculoskeletal ultrasound guided interventions
2. Custom molded insoles in Foot Clinic
3. Wheelchair prescription and checkout clinic for customized wheelchair delivery as per WHO guidelines
4. Musculo-skeletal laboratory: Computerized evaluation and exercise equipment
5. Foot Lab/Clinic
6. Disability Evaluation Clinic
7. Brace Check Out Clinic: Checking prosthetic and orthotic devices made in our workshop before final delivery to the patients
8. Case Conference: Discussion of long-term rehabilitation patients for goal setting and treatment evaluation
9. Gym Round Clinic: Evaluation of the therapy of the indoor patients admitted under PMR

Community Services

Patient Care: The departmental Faculty and Resident Doctors are periodically involved in Rural Camps in Mathura for the welfare of the persons with disability.

Mass Media: Public Awareness Lectures and TV Health Programmes

Dr Sanjay Wadhwa

1. Total Health Programme on DD News, on 9 December 2018; Topic—Joint Pains
2. Total Health Programme on DD News, on 17 June 2018; Topic—Yoga and disease prevention
3. Awareness Raising on International Day of Persons with Disabilities, on 3 December, 2018 at AIIMS, New Delhi
4. Awareness Raising about Spinal Cord Injuries through Wheelchair Rally, at India Gate, on 2 September, 2018, SCI Day
5. Workshop on Raising Awareness About Injury Prevention from 23 to 25 August 2018 at AIIMS, New Delhi
6. Awareness Raising on Spinal Cord Injuries through a Wheelchair Rally at India Gate on 2 September 2018

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Kanhu Charan Mallik is an active member (Sports secretary) of Residents Doctors Association (RDA). Dr Raktim Swarnakar (Postgraduate student) won first prize in 'Creative Slogan Writing Competition', second prize in 'Creative Essay Writing Competition' and consolation prize in 'Poster Designing Competition' during 'AIIMS Swachhta Pakhwada' (1-15 April 2018). He also won the Bindeshwari Sudershan IAPMR Gold Medal for the best oral paper presentation in the 47th Annual National

Conference of Indian Association of Physical Medicine and Rehabilitation (17-20 January 2019). He also received Travel grant award at the 4th Annual Conference of Movement Disorders Society of India (22-24 February 2019).

Professor U Singh is a member of Academic Committee, National Institute for the Orthopaedically Handicapped, Kolkata and Expert for the Research Degree Committee in MYAS-GNDU, Department of Sports Sciences and Medicine in the subject of Sports Sciences and Medicine. Dr Singh is a part of Journal Editorial Committees of Emeritus Editor, Indian Journal of Physical Medicine and Rehabilitation; Consulting Editor and Reviewer, Journal of Rehabilitation Council of India Locomotor and Associated Disabilities; Reviewer, Annals of Indian Academy of Neurology; Reviewer, Indian Journal of Neuro-Surgery; Reviewer, Journal of Spinal Cord Medicine; Reviewer, Journal of American Academy of Physical Medicine and Rehabilitation; Reviewer, Leprosy Review; Editorial Board Member, Indian Journal of Physiotherapy and Occupations Therapy; Honorary member of the editorial board for the International Journal of BioSciences and Technology (IJBST); Senior Editor: Astrocyte, Multispecialty Journal by National Board of Examinations, New Delhi. Conferences etc. Dr Singh is a Patron of IPARM 13th Annual Conference, Gurgaon, 17-18 November 2018 and Chairman, Scientific Session 2, IAPMRCON 2019, Mumbai, 20 January 2019.

Professor Sanjay Wadhwa was convener, International Standards Organization, Technical Committee 173, Working Group 12 (ISO/TC173/WG12); Chairman, Sectional Committee (MHD09) of Bureau of Indian Standards (BIS); Declared Elected and Installed as the President of the Indian Association of Physical Medicine and Rehabilitation (IAPMR) during Annual GB Meeting at Mumbai on 19 January 2019 for a 2-year term (2019-2021); Vice-President of the National Academy of Medical Sciences (NAMS) for 3-year term from August 2018 onwards; Member of Governing Council of the National Academy of Medical Sciences (NAMS) for 3-year term from August 2018 onwards; Member, Disability Committee, Medical Council of India; Member, Project Review Committee on Disability, ICMR; Member, Project Review Committee on Geriatrics, ICMR; Drafted, compiled and edited the 'MCI Guidelines for Admission of Students with Disabilities to UG and PG Medical Courses', 2019.

Professor SL Yadav was expert at International consensus meeting to prepare treatment Guidelines on Cauda Equina Syndrome in Liverpool, UK on 9 November 2018; Faculty at National Refresher Course at Jaipur from 20 to 22 September 2018; External expert to standing selection committee of JIPMER, Puducherry on 24 September 2018; Delhi University member of Meeting of Committee of Courses of Masters in Prosthetics and Orthotics; Chairperson at 9th International Conference on Legal Medicine at Pune from 27 to 28 October 2018; Chairperson at NEXUS 2018 in the area of Neurology for the benefit of practicing Neurologists, 15-16 September 2018, New Delhi; External Examiner, Work Place based Clinical Assessment for Formative Assessment 2018 for DNB students; External Examiner for MD (PMR), AIIPMR, Mahalaxmi, Mumbai, 24 April 2018; MUHS practical Examiner at AIIPMR, Mumbai on 12 June 2018; Panelist, ICM Asia-Pacific 2019 at Auckland, New Zealand, 9-13 February 2019; Advisor, 13th Annual Conference Delhi PMRCon 2018 at Gurugram on 17-18 November 2018.

Professor Gita Handa was member of Task Force on Bioengineering constituted by Department of Biotechnology, GOI; Expert Committee member for review of Project Proposals at Indian Council of Medical Research; Subject expert for Examinations in PMR conducted by National Board of Examinations; Scientific Committee Chairperson for IPARM Conference 2018 on 17-18 November 2018 at Gurgaon; Member Expert Committee for University Grants Commission; External Examiner for MD Exams for KGMU, Lucknow, India; Inspection Committee Member at AIIMS Patna for starting PG (MD) in PMR; Inspection Committee Member of UGC for Inspection at MMU Mullana.

Dr Srikumar V was reviewer, Indian Journal of Orthopaedics; Second Prize "Essay Writing (other linguistic)" during the Hindi Pakhwada (September 2018), AIIMS, New Delhi; Co-ordinator, Consumer Modules in www.eleranSCI.org, an initiative of International Spinal Cord Society: "Bowel Care"; Reviewer, Consumer Modules in www.eleranSCI.org, an initiative of International Spinal Cord Society: "Bladder Management", "Introduction to Spinal Cord Injury", "Physiotherapy in Spinal Cord Injury", "Skin Care and Pressure Ulcer Management", "Weight and Nutrition Management after Spinal Cord Injury", "Long term ventilation care in SCI", "Medical Complications", "Sexuality and Fertility"; Member, Expert Panel for drafting "White Paper on Injury Prevention" in "Injury Prevention Workshop" under the aegis of Ministry of Health and Family Welfare, GOI, 23-25 August 2018, AIIMS, New Delhi; Member, Sub-groups: "Identification and designing the prevention program for injuries due to RTCs", "Designing strategies for implementation of the prevention program for injuries due to RTCs", "Identifications and designing the prevention program for injuries due to low falls", "Designing strategies for implementation of the prevention program for injuries due to low falls" in "Injury Prevention Workshop" under the aegis of Ministry of Health and Family Welfare, GOI, 23-25 August 2018, AIIMS, New Delhi; Organizing Secretary, 13th Annual Conference of Indraprastha Association of Rehabilitation Medicine, Delhi PMRCon 2018, 17-18 November 2018, Gurugram; Jury member, IAPMR National Quiz Competition at the 47th Annual National Conference of Indian Association of Physical Medicine and Rehabilitation, 17-20 January 2019 at Mumbai; Member Secretary, Accessibility India Campaign (Sugamya Bharat Abhiyan), AIIMS, New Delhi; Nodal officer, Department of PMR, Indents of Machinery and equipment under plan and GeM; Nodal officer, Department of PMR, AIIMS Annual Report; Treasurer, Indian Association of Physical Medicine and Rehabilitation; Joint Secretary, Indraprastha Association of Rehabilitation Medicine.

Dr Asem Rangita Chanu was reviewer, Journal of Medical Society; Content Provider from PMR for AIIMS website; Co-ordinating Faculty of PMR department for the AIIMS Institute Day exhibition from 25 to 27 September 2018; Chief Guide in PG Thesis—A Cross Sectional Study to Observe the Prosthetic Usage and Functional Status of Upper Amputees; Faculty in the Induction programme for newly joined ‘Nursing Officers’ on the topic “Biomechanics for Nurses” on 4 August, 18 August and 1 September 2018.

Visiting Scientist

Dr Darren J Player, Lecturer in Musculoskeletal Bioengineering, Division of Surgery and Interventional Science, Faculty of Medical Sciences, University College London, London, United Kingdom (5 March 2019).

9.32. Physiology

Professor and Head
Kishore Kumar Deepak

Professors

Hrudananda Mallick
Ratna Sharma
Ashok Kumar Jaryal

Debabrata Ghosh
Nalin Mehta
Raj Kumar Yadav

Kanwal Preet Kochhar
Suman Jain
Anjana Talwar

Associate Professors

Asmita Patil

Renu Bhatia

Assistant Professors

Simran Kaur
Nasreen Akhtar
Geetanjali Bade

Prashant Tulsidas Tayade
Ritesh Netam
Suriya Prakash Muthukrishnan (on contract)

Dinu Santha Chandran
Akanksha

HIGHLIGHTS

The Department of Physiology has been involved in undergraduate and post graduate teaching in addition to the doctoral programme. The faculty also undertook to train manpower for undergraduate, postgraduate teaching and research techniques in house by holding workshops and symposia at AIIMS and other institutions. A number of extramural and intramural research projects were taken up by the faculty in various areas such as neurophysiology (including autonomic nervous system), cellular and molecular physiology, nutrition, vascular physiology, reproduction, respiration, sleep, cognition, transcranial magnetic stimulation and Yoga. The research outcomes were presented in various national and international scientific forums and published in indexed journals. On the basis of its original research, the department has provided significant support in patient care by utilizing cutting-edge technologies in autonomic and vascular function assessments, pain management, intraoperative monitoring during corrective surgeries, and yogic intervention. Several awards and honors have been received by faculty members and the students of the department in appreciation of their innovative contributions in research and medical education. The department organized workshop for SAARC Nations from 5-7 December 2018 and shared their expertise with the scientists abroad (Photograph 1). The department also organized a Teleconference on 22 February 2019 featuring live interaction with Dr Christopher Mathias which provided a forum for exploring the advances in the field of Autonomic Neurosciences and knowledge sharing among scientific gathering of India and was a grand success (Photograph 2). Two important International events, International Brain Research Organization (IBRO) Asia Pacific Region School (Photograph 3) and Indo-European workshop on Physiology for lifestyle were also held in the department which were academically highly enriching.

Photograph 1: Workshop on Techniques in Physiological Sciences (TIPS 2018) for SAARC Nations: Inaugural function and release of conference booklet by Guest of Honor Professor Balram Bhargava seen in picture are (L to R): Professor KK Deepak, Chief Guest, Professor Balram Bhargava, Chief Patron, Professor Randeep Guleria, Professor HN Mallick and Dr Renu Bhatia.

Photograph 2: Left: Teleconference update: Live interaction with Professor Christopher Mathias on emergence of Autonomic Neuroscience. This live interaction is our endeavour to provide a forum for exploring the advances in the field of Autonomic Neurosciences and knowledge sharing. (L to R): Professor Vishal Bansal, Professor Christopher Mathias and Professor KK Deepak. **Right:** Participants in teleconference.

Photograph 3: International Brain Research Organization School 2018 for Asia Pacific Region: Inaugural function was presided over by Professor Usha Nayar (Guest of Honor), Professor Randeep Guleria (Chief Guest), Professor KK Deepak (Chairperson), Professor HN Mallick (Organizing Secretary) and Professor S Jain (Organizing Secretary). Delegates and faculty members, Department of Physiology at Inaugural Ceremony of International Brain Research Organization—Asia Pacific Region School.

EDUCATION

1. **Undergraduate teaching:** Lecture 200 hrs and Practical 240 hrs, UG students: Total number of students: 107
2. **Post graduate teaching:** Total number of PG students:
 - a. MSc students: 11
 - b. MD students: 19
 - c. PhD scholars: 32
3. **Nursing and allied courses:** Total number of students: 155

Short Term Training in the Department of Physiology:

- a. Two BSc students from Jamia Milia Islamia from 20 February to 20 May 2018
- b. One BSc student from Maharishi Dayanand University from 1 June to 31 July 2018
- c. One MSc student from TERI school of advanced studies from 20 May to 19 July 2018
- d. One MA student from Ambedkar University for 2 months from 1 June to 31 July 2018
- e. One Faculty from B.J. Medical College, Gujarat for two weeks from 18 June to 1 July 2018
- f. Two BSc students from Maharishi Dayanand University for 2 months from 1 June to 31 July 2018
- g. Two BSc students from Fergusson College, Pune for 2 months from 1 May to 30 June 2018
- h. Two MSc students from Kurukshetra University from 10 June to 31 July 2018
- i. Two Senior Technical Officers from Sri Lanka for 8 days from 11 to 18 March 2018
- j. One BSc Student from Maharishi Dayanand University from 18 June to 31 July 2018
- k. One Faculty from M.G.M. Medical College, Indore for 1 month from 4 to 15 September 2018
- l. One MSc student from Kurukshetra University from 14 June to 30 July 2018
- m. One B.Pharm student from Delhi Institute of Pharmaceutical Science and Research from 25 June to 10 July 2018
- n. Three B.Pharm students from Delhi Institute of Pharmaceutical Science and Research from 25 June to 24 July 2018
- o. One Technical Officer and one Senior Technical Officer from Sri Lanka for 6 days from 3 to 8 September 2018
- p. Two Neurosurgeons from Vietnam for one week from 7 to 14 October 2018
- q. One MSc student from RUHS College of Medical Sciences, Jaipur from 25 October to 16 November 2018
- r. One student from RUHS College of Medical Sciences, Jaipur from 16 to 31 December 2018
- s. Three students from Delhi Institute of Pharmaceutical Science and Research from 15 December 2018 to 14 January 2019
- t. One student from AIIMS, Bhubaneswar for 10 days from 1 to 10 February 2019
- u. One student from Delhi Institute of Pharmaceutical Science and Research from 26 December 2018 to 25 January 2019
- v. One student from DPSRU, Government of Delhi for 9 days from 24 December 2018 to 1 January 2019
- w. Five Faculty members from VMMC and Safdarjung Hospital for 5 months from 1 January to 31 May 2019
- x. One student from Banaras Hindu University from 4 to 9 March 2019
- y. One student from Banaras Hindu University from 25 February to 8 March 2019

CMEs/Workshops/Symposia/National and International Conferences

1. Advanced Sleep Technology Course on Establishing a Sleep Laboratory, 7 April 2018, AIIMS, New Delhi
2. Annual Conference of ISSR: India Sleep 2018, 21-23 September 2018, Panaji
3. APPI Young Investigator Development Workshop on Discovering the mystery of sleep, 21 September 2018, Panaji

4. International Brain Research Organization—Asia Pacific Region School on “Neural Plasticity in health and disease” from 21 October to 4 November 2018 at AIIMS, New Delhi
5. Workshop on Humane Health Care, 16 November 2018, AIIMS, New Delhi
6. Workshop on Autonomic Function Testing in 5th Annual National Conference of Association of Physiologists of India (ASSOPICON 2018), 26 November to 1 December 2018, Gujarat
7. APPI Young Investigator Development Workshop on Obesity APPICON 2018, 27 November to 1 December 2018, Manipal
8. Workshop on Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
9. Workshop on Autonomic Function Testing during 64th Annual Conference of Association of Physiologists and Pharmacologists of India (APPICON 2018), 27 November to 1 December 2018, Manipal
10. Indo-European Workshop Next Generation Physiology for Healthy Lifestyle, 31 January-1 February 2019, AIIMS, New Delhi
11. Workshop on Teleconference update: Live interaction with Professor Christopher Mathias on emergence of Autonomic Neuroscience, 22 February 2019, New Delhi
12. Workshop on Mono and polysynaptic reflexes and evoked potentials in rats, IBRO-APRC School, 22-23 October 2018, New Delhi
13. Workshop on demonstration and hands-on Microdialysis during IBRO-APRC School, 26 October 2018, New Delhi
14. Workshop on Video demonstration and discussion: Non-invasive brain stimulation methods during IBRO-APRC School, 27 October 2018, New Delhi
15. Workshop on Translational models of feeding behaviour, Pain Assessment and Microdialysis during Indo-European workshop on Next Generation Physiology for Healthy Lifestyle held on 31 January and 1 February 2019, New Delhi
16. Workshop on Pain and Somatosensory assessment in humans, 12 April 2018, New Delhi
17. Preconference workshop on Transcranial magnetic stimulation at 1st National Conference of Academy of Physiology, NATCON PHYSIOLOGY, 8-10 February 2018, Nagpur
18. Workshop on recording and analysis of Quantitative EEG in Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
19. Workshop on assessment of various domains of cognitive functions in Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
20. Workshop on pain assessment in humans and animals, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
21. Workshop on transcranial magnetic stimulation, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
22. Workshop on whole night polysomnography, Techniques in Physiological Sciences, 5-7 December 2018, New Delhi
23. Workshop on recording of Bereitschafts potentials, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
24. Workshop on pulmonary function testing by spirometry and impulse oscillometry, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
25. Workshop on methodological basis of expression microarray to functional genomics, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
26. Symposium on Yoga and Medicine, 28 September 2018, Gujarat
27. Workshop on Yoga and Meditation: *Yoganidra* with Dr Bhalendu S Vaishnav (Professor of Medicine, Karamsad) on 26 September 2018, Manipal
28. Workshop on non-invasive Neurophysiology and Neuromodulation approaches—Role of Clinical Physiologists on 28 November 2018, Manipal
29. Workshop on Yoga-meditation, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018, New Delhi
30. First chapter of the ICMR Workshop Series on Physiology Education Techniques 2018: An IUPS initiative, 3-5 November 2018, Jodhpur
31. Second chapter of the ICMR Workshop Series on Physiology Education Techniques 2018: An IUPS initiative, 10-12 November 2018, Shillong

32. Third chapter of the ICMR Workshop Series on Physiology Education Techniques 2018: An IUPS initiative, 15-17 November 2018, Kozhikode
33. Workshop on Pain and Somatosensory Assessment, 12 April 2018, New Delhi
34. Preconference—Workshop on Non-invasive Neurophysiology and Neuromodulation approaches—Role of Clinical Physiologists was held on 28 November 2018, Manipal

Lectures delivered

Kishore Kumar Deepak

1. Life Style Related Diseases in Asia: Underlying Mechanisms, Functions and Behavioural Transitions, 9th Federation of the Asian and Oceanian Physiological Society Congress (FAOPS2019), 28-31 March 2019, Kobe, Japan
2. Effect of Yoga Based Cardiac Rehabilitation on Vascular and endothelial functions in MI patients, International conference on “Role of Meditation for Prevention and Treatment of Cardiovascular Diseases”, 9-10 March 2019, Rishikesh
3. Clinical Physiology, Necessity and Opportunity for Physiologist, NATCON Physiology - 2019, 1st National Conference of Academy of Physiology, 8-10 February 2019, Nagpur
4. Next Generation Physiology: Integration and Innovation, Indo-European Workshop, Next Generation Physiology for Healthy Lifestyle, 30-31 January 2019, New Delhi
5. Lower Body Negative Pressure for Preventing Vascular and Autonomic Dysfunction, Indo-European Workshop, Next Generation Physiology for Healthy Lifestyle, 30-31 January 2019, New Delhi
6. Yogic breathing to improve Autonomic Physiology on earth and in space, 31st Dr AC Duarte Monteiro Oration at Seth GS Medical College and KEM Hospital, 12 December 2018, Mumbai
7. Stress: Its not in your head, but in your nervous system; the stress response and ANS, Physiological Update 2018, 15 November 2018, New Delhi
8. The Pros and Cons of pursuing Clinical Physiology, 64th Annual Conference of Association of Physiologists and Pharmacologists of India (APPICON 2018), 27 November to 1 December 2018, Manipal
9. Autonomic regulation of obesity: How to do research, 64th Annual Conference of Association of Physiologists and Pharmacologists of India (APPICON 2018), 28 November 2018, Manipal
10. Integrative Physiology: Space to Sea, ATPCON2018, ESIC Medical College, 16 September 2018, Hyderabad
11. Physiology and clinical application of Heart Rate Variability, 5th Annual National Conference of Association of Physiologists of India (ASSOPICON 2018), 26-29 September 2018, Karamsad
12. Space Physiology at AIIMS, Joint meeting of ISRO and IISc, Space Technology Cell, at IISc, Bengaluru, 27 October 2018, Bangalore
13. Importance of Medical Education in research set up, Translational Health Science and Technology Institute, 7 August 2018, Faridabad
14. Evolution of PG training of Physiology in India and current perspectives, CME cum Workshop on Reforming Physiology Curriculum: A case study for other Medical Disciplines, 28 July 2018, Rishikesh

Hrudananda Mallick

1. Molecular Basis of sleep, UP-UK APPICON 2018, 13 April 2018, Bareilly
2. Glutamate mechanism in the gut and the brain, 8th International Conference of Asian Society of Toxicology (ASIATOX 2018), 17-20 June 2018, Thailand
3. Electrophysiological Characterisation of Yoga Nidra (Yogic sleep), AFC, ASRS, JSSR Joint Conference, 11-15 July 2018, Sapporo, Japan
4. Physiology of sleep and sleep physiology in Sleep Medicine, Workshop on Physiology of Sleep and Clinical Application of Sleep Laboratory, 29 July 2018, Moinabad
5. Introduction to sleep medicine and physiology of sleep, Workshop on Sleep Medicine, 12 August 2018, Andhra Pradesh
6. Introduction to sleep and sleep disorders, India Sleep 2018, Annual Conference of Indian Society for Sleep Research, 21-23 September 2018, Panaji
7. Investigating human sleep disorders, Annual Conference of Indian Society for Sleep Research, 21-23 September 2018, Panaji
8. Research methods in sleep sciences, India Sleep 2018, Annual Conference of Indian Society for Sleep Research, 21-23 September 2018, Panaji
9. Epidemiology of Sleep: What we know? 4th ICSD Conference on Sleep disorders, 14 October 2018, Lucknow

10. Physiological fate of dietary glutamate, 19th World Congress of Food Science and Technology, 23-27 October 2018, Maharashtra
11. PG Physiology practical at cross roads, APPICON 2018, 27 November to 1 December 2018, Karnataka
12. Setting up of the adult sleep lab, MEDINSPIRE 2019, 13 February 2019, Navi Mumbai

Debabrata Ghosh

1. Foreword on the ICMR Workshop Series, Physiology Education Techniques 2018: IUPS Initiative, 3-5 November 2018, Jodhpur
2. Foreword on the ICMR Workshop Series, Physiology Education Techniques 2018: IUPS Initiative, 10-12 November 2018, Shillong
3. Foreword on the ICMR Workshop Series, Physiology Education Techniques 2018: IUPS Initiative, 15-17 November 2018, Kozhikode

Kanwal Preet Kochhar

1. Tools and Techniques in Cognitive Neuroscience with special reference to neuro-developmental disorders in paediatric population, NEUROPEDICON 2018, 18th National Conference of IAP Neurology Chapter IAP New Delhi, 7-9 September 2018, New Delhi
2. Impact of eating disorders, Diet and Exercise on Reproductive Health, Global Conference on Reproductive medicine, 22-24 February 2019, New Delhi
3. Systems approach to educational process, Basic Course workshop in Medical Education, 6-7 August 2018, Faridabad
4. Quality improvement in medical education, Basic Course workshop in Medical Education, 6-7 August 2018, Faridabad
5. De-stigmatization and academic accommodation in students with mental health problems, 8th International Conference and Workshop on Schizophrenia, 29 August-1 September 2018, Chennai
6. Functional foods, dietary supplements and natural medicines: Catalyzing the road map ahead, 4th National Symposium on Nutraceuticals, 25 June 2018, Bengaluru
7. Functional foods in traditional diets catalyzing the roadmap ahead, 4th National Symposium on Nutraceuticals: Functional Foods, Dietary Supplements and Natural Medicines, 25 July 2018, New Delhi

Ratna Sharma

1. Quantitative EEG: Estimation of cognitive functions, APPICON-DC 2018, Inaugural Conference of Association of Physiologists and Pharmacologists of India-Delhi Chapter), 7-8 September 2018, New Delhi
2. Stress: Cognition, Emotions and Behaviour, Physiology update 2018, Delving into stress response: HTPA-Axis, nutrition and exercise, 15 November 2018, New Delhi
3. Stress management, Nursing Administrator Empowerment Programme, June-July 2018, New Delhi
4. Stress Management and Conflict Management, Senior Nursing Administrator's Empowerment Programme, August-December 2018, New Delhi
5. Stress management for retiring staff, Orientation Programme for Retiring Staff of AIIMS, 23-24 January 2019, New Delhi
6. Electroimaging of psychiatric and neurodegenerative disorder: Diagnostic and prognostic implications, Indo-European workshop: Next generation physiology for healthy lifestyle, 31 January-February 2019, New Delhi

Nalin Mehta

1. Functional Aspects of Multicentric Research, Common Ethics Review of Low Risk Multicentre Research, 10 May 2018, Bangalore
2. National Ethical Guidelines for Biomedical and Health Research involving Human Participants, Two day training programme on Good Clinical Practices, Current Regulatory and Ethical Requirements for conducting Clinical trials/ Research in India including Schedule Y, 5-6 June 2018
3. National Ethical Guidelines for Biomedical Research involving Children, 2 day training programme on Good Clinical Practices, Current Regulatory and Ethical Requirements for conducting Clinical Trials/Research in India including Schedule Y, 5-6 June 2018, Imphal
4. Role and responsibility of investigator, sponsor, rights of the research participants, 2 day workshop on ethics and GCP for members of ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi

5. Interactive session: Reviewing a research study—Full board, Expedited review, waiver of informed consent, exempt from review with case studies, 2 day workshop on Ethics and GCP for members of Ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi
6. Compensation and Payment for Participations, 2 day workshop on ethics and GCP for members of ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi
7. Phases of Clinical Trials Including Vaccine Trials, Devices: Ethical considerations with case studies, 2 day workshop on ethics and GCP for members of ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi
8. Panel discussion: Sharing experiences while streamlining the ethics committees, 2 day workshop on ethics and GCP for members of ethics committees of various tertiary hospitals of the Armed Forces, 20-21 July 2018, New Delhi
9. Igniting Young Minds to Research, I Annual NEIGRIHMS UG CON, 17-19 August 2018, Shillong
10. Informed consent and assent, 3-day training programme on “Health Management Research Ethics for Protection of Human Participants” for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
11. Benefit—Risk assessment, 3-day training programme on “Health Management Research Ethics for Protection of Human Participants” for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
12. Benefit—Risk assessment, 3-day training programme on “Health Management Research Ethics for Protection of Human Participants” for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
13. Ethical Issues in Biomedical Research, 3-day training programme on “Health Management Research Ethics for Protection of Human Participants” for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
14. Panel discussion: Protection of human research participants, 3-day training programme on Health Management Research Ethics for Protection of Human Participants for Ethics Committee members and Faculty of Colleges in Rajasthan, 27-29 September 2018, Jaipur
15. Constructing effective MCQs, Joint Workshop on Designing Multiple Choice Questions (MCQs)—PGIMER and GMC, 2-3 November 2018, Chandigarh
16. Analyzing MCQ items and remedial measures, Joint Workshop on Designing Multiple Choice Questions (MCQs)—PGIMER and GMC, 2-3 November 2018, Chandigarh
17. Overview of Assessment, Preconference CME of 66th Annual Conference of the Anatomical Society of India (NATCON 66), 11 November 2018, Rishikesh
18. Validation of MCQs and item analysis, Preconference CME of 66th Annual Conference of the Anatomical Society of India (NATCON 66), 11 November 2018, Rishikesh
19. Roles and Responsibilities of Ethics Committees, 3rd Capacity Building Workshop for Ethics Committees, 26 November 2018, Rohtak
20. Vulnerable populations, 3rd Capacity Building Workshop for Ethics Committees, 26 November 2018, Rohtak
21. National ethical guidelines for biomedical and health research involving human participants 2017 (ICMR), 124th Programme on ‘Good Clinical Practice, Current regulatory and ethical requirements for conducting clinical trials/research in India’, 4-5 December 2018, Faridabad
22. Informed consent and assent requirements, Workshop on Ethical Guidance for Biomedical Research, 17-18 January 2019, Pune
23. Ethical guidelines for research in other Vulnerable groups, Workshop on Ethical Guidance for Biomedical Research, 17-18 January 2019, Pune
24. Panel discussion: Conflict of Interest, Bio-banking, Data Sharing, International Collaboration, Benefit Sharing and any other related issues, Workshop on Ethical Guidance for Biomedical Research, 17-18 January 2019, Pune

Suman Jain

1. Transcranial magnetic stimulation: A non-invasive strategy to understand neural excitability and plasticity, IBRO Neuroscience School, 8-12 May 2018, Nepal
2. Neuroregeneration by Iron Oxide Nanoparticles and Magnetic Field Stimulation in Rats with Spinal Cord Injury, Nanobioteck - 2018, 24-27 October 2018, Delhi
3. Introduction to monosynaptic, polysynaptic reflexes and evoked potentials in animals, International Brain Research Organization—Asia Pacific Region School, 22 October 2018, Delhi

4. Non-invasive brain stimulation by magnetic fields in animal models, International Brain Research Organization—Asia Pacific Region School, 27 October 2018, Delhi
5. Non-invasive Brain Stimulation by External Magnetic Fields, Preconference workshop on “Non-invasive neurophysiology and neuromodulation approaches: Role of clinical Physiologists” APPICON 2018, 28 November 2018, Manipal
6. Objective assessment of pain in animals and humans, TIPS 2018, 6-7 December 2018, Delhi
7. Therapeutic Potential of Nanoparticles in Parkinson’s Disease, Research Advisory Committee Meeting, 18 December 2018, Ahmedabad
8. Translational models of feeding behaviour, Pain Assessment and Microdialysis, Indo-European Workshop Next Generation Physiology for Healthy Lifestyle, 31 January-1 February 2019, Delhi
9. New therapeutic strategy for Parkinson’s Disease: Transcranial magnetic stimulation and nanotechnology, Recent advances in Parkinson’s Disease, 16 February 2019, Delhi
10. Effect of sound enriched environment on brain development, Towards a sustainable environment, 12 March 2019, Delhi
11. Nanotechnology and magnetic field stimulation for recovery in spinal cord injury, South Asian Biotechnology Conference, 14 March 2019, Delhi

Ashok Kumar Jaryal

1. Dr BB Dixit Oration on Clinical Physiology: An ecosystem for translational research, 42nd Annual Conference of the Research Society of the BJ Medical College and Sasoon General Hospitals, 22 February 2019, Pune
2. Intraoperative Neurophysiology, NATCON Physiology - 2019, National Conference of Academy of Physiology, 9 February 2019, Nagpur
3. Literature review: Online Search, Research Methodology Orientation Programme, 25 May 2018, New Delhi
4. Autonomic Modulation in Heart Failure, Symposium on Basic Science: Heart Failure during the Indian Heart Failure Summit 2018, 21 April 2018, New Delhi
5. Intraoperative Neuromonitoring in Epilepsy Surgery, 15th National EEG Workshop and Master-class for Epilepsy Surgery, 23 November 2018, Varanasi
6. Item analysis, Workshop on Designing Effective MCQs, 2 November 2018, Chandigarh
7. Literature review, CME on Research Methodology, 14 December 2018, New Delhi
8. Intraoperative Neuromonitoring: Principles and practice, CME on Intraoperative Neurophysiology, 15 November 2018, Bhopal
9. Scientific Writing, National Skill Development and Hands-on-Training Programme on Quality Control of Biologicals, 13 September 2018, Noida
10. Somatosensory Evoked Potential, Workshop on Pain and Somatosensory Assessment in Humans, 12 April 2018, New Delhi
11. Neuromonitoring in Spine Surgery: Step-wise management of lost signal, Symposium on “Recent Advances in Spine Surgery in the VI Malaysian Spine Society (MSS) Scientific Congress, 3 August 2018, Kuala Lumpur, Malaysia
12. Neuromonitoring in Spinal Surgery, Pre-congress workshop of the VI Malaysian Spine Society (MSS) Scientific Congress, 2 August 2018, Kuala Lumpur, Malaysia
13. Clinical Physiology as an Emerging Field: How to legitimize and integrate with clinicians, CME on Reforming Physiology Curriculum: A case study for other Medical Disciplines, 28 July 2018, Rishikesh
14. General Principles of IONM, CME on Neurophysiological Intraoperative Monitoring in Neurosurgery and Spine Surgery, 20 July 2018, Ho Chi Minh City, Vietnam
15. How to do IONM in spine surgery, CME on Neurophysiological Intraoperative Monitoring in Neurosurgery and Spine Surgery, 21 July 2018, Ho Chi Minh City, Vietnam
16. Anaesthesia for IONM, CME on Neurophysiological Intraoperative Monitoring in Neurosurgery and Spine Surgery, 21 July 2018, Ho Chi Minh City, Vietnam

Raj Kumar Yadav

1. Evidence-based mind, medicine and meditation, ASSOPICON 2018, 28 September 2018, Karamsad, Anand
2. Meditation: *Yoganidra*, ASSOPICON 2018, 26 September 2018, Karamsad, Anand
3. Research updates on Mind-Body-Medicine, International CME cum Workshop on recent updates in Mind, Body and Medicine, 20 November 2018, Greater Noida

4. Health management for a Judicial Officer/Judge, Training module for newly appointed officers of Delhi Judicial Services, 13 February 2019, New Delhi
5. Wellness in our busy life style and workplace, British Council Alumni Conference, 9 March 2019, New Delhi
6. Role of Yoga-based Intervention in managing Obesity and Inflammation, International Symposium: FAOPS 2019, 28-31 March 2019, Kobe

Anjana Talwar

1. Exhaled breath nitric oxide and sputum evaluation for inflammatory cells, School Course of Severe Asthma, 18 August 2018, Noida
2. Pulmonary function testing by spirometry and impulse oscillometry, TIPS-2018, 6-7 December 2018, New Delhi
3. Next Generation Techniques in Airway Disease, Indo-European Workshop, Next Generation Physiology for Healthy Lifestyle, 31 January-1 February 2019, New Delhi

Asmita Patil

1. Health and hygiene, health and wellness workshop, 17 July 2018, New Delhi
2. Adolescence and puberty, health and wellness workshop, 16 October 2018, New Delhi
3. Application of expression microarray in research, Techniques in Physiological Sciences for SAARC Nations (TIPS - 2018), 6-7 December 2018, New Delhi
4. Fostering empathy in healthcare training, developing psychosocial and interpersonal skills, 16 November 2018, New Delhi
5. Physiology in genomic and post-genomic era, Indo-European Workshop on Next Generation Physiology for Healthy Lifestyle, 31 January 2019, New Delhi
6. Assessment of knowledge-improving essay questions and short answer questions, Basic course workshop in medical and health professionals, 12 March 2019, New Delhi
7. Giving effective feedback-principles, Basic course workshop in medical and health professionals, 13 March 2019, New Delhi
8. Framing objectives-competencies, Basic course workshop in medical and health professionals, 7 August 2018, Faridabad

Renu Bhatia

1. Pain assessment in Humans, Workshop on Techniques in Physiological Sciences for SAARC Nations 2018, 5 December 2018, New Delhi
2. Transcranial magnetic stimulation for Pain management, Workshop on Techniques in Physiological Sciences for SAARC nations 2018, 6 December 2018, New Delhi
3. Physiological perspectives in Chronic Pain relief by repetitive Transcranial Magnetic Stimulation, CME on Physiological perspectives in Chronic Pain Relief, 20 May 2018, New Delhi
4. Subjective and objective assessment of Pain in humans, Workshop on Pain and Somatosensory Assessment in Humans, 12 April 2018, New Delhi
5. TMS—Physiological perspective in pain modulation, 2nd National CME on Neuromodulation: Focus on neuropsychiatry and behavioral neurology, 13 May 2018, New Delhi
6. Role of Transcranial magnetic stimulation in pain management: Chronic low back pain, VII International Conference of Physical Therapy, 22 December 2018, New Delhi
7. Objective Pain assessment, Indo-European Workshop on Next Generation Physiology for Healthy Lifestyle, 31 January-1 February 2019, New Delhi
8. Transcranial magnetic stimulation, 1st National Conference by Academy of Physiology NATCON 2019, 8-10 February 2019, Nagpur

Simran Kaur

1. Introduction to Cognitive Function Tests, Workshop on Techniques in Physiological Sciences for SAARC Nations 2018, 5-7 December 2018, New Delhi
2. Electroimaging of psychiatric and neurodegenerative disorder: Diagnostic and prognostic implications, Introduction, Indo-European workshop: Next generation physiology for healthy lifestyle, 31 January-1 February 2019, New Delhi
3. Introduction to microteaching, Basic course workshop in medical and health professionals, 11 March 2019, New Delhi

4. Assessment of clinical and practical skills, Basic course workshop in medical and health professionals, 13 March 2019, New Delhi

Prashant Tulsidas Tayade

1. Introduction to QEEG, Workshop on Techniques in Physiological Sciences for SAARC Nations 2018, 5-7 December 2018, New Delhi
2. Electroimaging of psychiatric and neurodegenerative disorder: Diagnostic and prognostic implications, Introduction, Indo-European workshop: Next generation physiology for healthy lifestyle, 31 January-1 February 2019, New Delhi
3. QEEG: An approach towards Neurological disorders, IBRO-APRC Associate school on “Neurological and neuromuscular disorders: An insight into its approach and neurodiagnostic techniques”, 10-14 March 2019, Dharan, Nepal

Dinu Santha Chandran

1. Heart rate variability, Methodology and clinical applications, 5th Annual National Conference of Association of Physiologists of India, 26 September 2018, Karamsad
2. Assessment of cardiovascular autonomic functions, IBRO-APRC School, 24 October 2018, New Delhi
3. Introduction to case based learning, Creating a learning environment to fulfill the aims of a competency based curriculum, ICMR Workshop series on Physiology Education Techniques 2018: IUPS initiative, 3-5 November 2018, Jodhpur
4. Introduction to case based learning, Creating a learning environment to fulfill the aims of a competency based curriculum, ICMR Workshop series on Physiology Education Techniques 2018: IUPS initiative, 10-12 November 2018, Shillong
5. Introduction to case based learning, Creating a learning environment to fulfill the aims of a competency based curriculum, ICMR Workshop Series on Physiology Education Techniques 2018: IUPS initiative, 15-18 November 2018, Kozhikode
6. Overview of vascular function assessment, Annual Conference of Association of Physiologists and Pharmacologists of India - 2018, 28 November 2018, Manipal
7. Assessment of Heart rate variability, 4th Techniques in Physiological Sciences (TIPS) workshop for SAARC Nations, 5-7 December 2018, New Delhi

Nasreen Akhtar

1. Plagiarism, How to write a manuscript, 2 May 2018, New Delhi
2. Active learning, Basic course workshop in Medical Education, 7 August 2018, Faridabad
3. Problem Based Learning (Small Group Learning), Basic Course workshop in Medical Education, 7 August 2018, Faridabad
4. Introduction to Polysomnography, International Brain Research Organization—Asia Pacific Region School 2018, 26 October 2018, New Delhi
5. Principles of Polysomnography, Techniques in Physiological Sciences for SAARC Nations, 6 December 2018, New Delhi
6. Principles of Polysomnography. Indo-European workshop: Next generation physiology for healthy lifestyle, 31 January-1 February 2019, New Delhi
7. Principles of Active Learning, Basic Medical Education, 12 March 2019, New Delhi

Akanksha

1. Intraoperative Neurophysiological Monitoring, Indo-European workshop: Next generation physiology for healthy lifestyle, 31 January-1 February 2019, New Delhi
2. Intraoperative Neurophysiology in supratentorial and skull base surgeries, Workshop on “Intraoperative neurophysiological monitoring”, 19 January 2019, Patna
3. Intraoperative neuromonitoring, Asian Australasian Society of Neurological Surgeons (AASNS)—Neurotrauma meeting: Conference and workshop, 18 November 2018, Chandigarh
4. Intraoperative Neurophysiological Monitoring: Motor Evoked Potential and D Wave, 12th Annual Conference of Asia Pacific Cervical Spine Society, Pre-conference workshop, 14 November 2018, New Delhi
5. Intraoperative neurophysiology, Pre-conference workshop, Neuroanaesthesia Update 2018, 2 November 2018, New Delhi

6. How to do IONM in Spine Surgery II: Pedicle Screw, D-wave, Nerve Root? CME programme on Intraoperative Neurophysiological Monitoring (IONM) in Neurosurgery and Spine Surgery, 21 July 2018, Ho Chi Minh City, Vietnam

Ritesh Netam

1. Effect of Yoga based life style intervention on risk factors affecting reproductive health, Global Conference on Reproductive Health, 24 February 2019, New Delhi
2. Intra Operative Neurophysiological Monitoring for spinal fixation and tumor, Medical Education, 2 February 2019, Rishikesh
3. High resolution Manometry, 1st National Conference by Academy of Physiology NATCON 2019, 9 February 2019, Nagpur
4. Intra Operative Neuro-Monitoring, IV International Conference of Basic and Applied Physiology, 23 December 2018, Uttarakand
5. Neurophysiological Monitoring, AIIMS Neuroanaesthesia Update 2018, 2 November 2018, New Delhi
6. Yoga and Medicine, ASSOPICON 2018, 2 September 2018, Gujarat
7. Intra Operative Neuro-Monitoring, International Brain Research Organization School 2018, 23 September 2018, New Delhi

Geetanjali Bade

1. Exhaled breath Nitric Oxide and sputum evaluation for inflammatory cells, School course of severe asthma, 18 August 2018, Noida
2. Pulmonary function testing by spirometry and impulse oscillometry, Techniques in physiological Sciences for SAARC Nations 2018, 6-7 December 2018, New Delhi
3. Next Generation Techniques in Airway Disease, Indo-European Workshop—Next Generation Physiology for Healthy Lifestyle, 31 January-1 February 2019, New Delhi
4. Clinical exercise testing, 1st National Conference by Academy of Physiology NATCON 2019, 8 February 2019, Nagpur

Suriya Prakash Muthukrishnan

1. Source analysis, Techniques in Physiological Sciences for SAARC Nations 2018, 5-7 December 2018, New Delhi
2. Electroimaging of psychiatric and neurodegenerative disorder: Diagnostic and Prognostic implications, Introduction, Indo-European workshop: Next generation physiology for healthy lifestyle, 31 January-1 February 2019, New Delhi
3. Flipped Classroom, ICMR Workshop series on Physiology Education Techniques 2018: IUPS initiative, 3-5 November 2018, Jodhpur
4. Flipped Classroom, ICMR Workshop series on Physiology Education Techniques 2018: IUPS initiative, 10-12 November 2018, Shillong
5. Flipped Classroom, ICMR Workshop series on Physiology Education Techniques 2018: IUPS initiative, 15-17 November 2018, Kozhikode

Oral papers/posters presented

1. Ahmad A, Muthukrishnan SP, Kaur S, Tayade P, Chakrabarty B, Gulati S, Sharma R, Peak alpha frequency of children with ASD is similar to age-matched controls at rest, APPICON 2018, 28 November-1 December 2018, Udupi
2. Akhtar N, Puskar P, Das A, Nath SS, Mallick HN, Effect of endocannabinoid agonist and antagonist injection at the medial septum on sleep-wakefulness in Rats, 9th Congress Asian Sleep Research Society, 11-13 July 2018, Sapporo, Japan
3. Ankit, Samanchi R, Kaur S, Sharma R, Tayade T, Cortical sources of visuospatial complexity in Hindi language: A qEEG study, APPICON2018, 28 November-1 December 2018, Udupi
4. Badhwar S, Chandran DS, Jaryal AK, Narang R, Patel C, Deepak KK, Uncoupling of feedforward control on blood pressure by heart rate in patients with recent myocardial infarction, Experimental Biology (EB) 2018, 21-27 April 2018, San Diego, USA
5. *Batabyal T, Muthukrishnan SP, Sharma R, Tayade P, Kaur S, Cortical diaspora of processing face and words as distractors during emotional interference: A quantitative EEG study, International Academy of Neuroscience 2018, 20 October 2018, Varanasi

6. Batabyal T, Muthukrishnan SP, Sharma R, Tayade P, Kaur S, Role of cortical areas during pre-stimulus time window in presence of emotional faces and words as distractors: A quantitative EEG study, 13th German Neuroscience Society, 20-23 March 2019, Germany
7. Batabyal T, Muthukrishnan SP, Sharma R, Tayade P, Kaur S, Temporal profile of Anterior Cingulate Cortex activity during emotional interference task: A Quantitative EEG Study, Conference of Junior Neuroscientists of Tubingen, 15 September 2018, Germany
8. Batabyal T, Sharma R, Sagar R, Kandasamy D, Kaur S, Slow but steady wins the race? Behavioral manifestation of ADHD during an N back visuospatial working memory task, APPICON 2018, 28 November-1 December 2018, Udupi
9. Chitturi V, Ahuja N, Kaur S, Sharma R, EEG spectral correlates of cognitive interference, APPICON 2018, 28 November-1 December 2018, Udupi
10. Christa SE, Jaryal AK, Yadav RK, Roy A, Chandran DS, Deepak KK, Effects of yoga based cardiac rehabilitation on vascular and endothelial function in patients post myocardial infarction—A randomized controlled trial, Experimental Biology (EB) 2018, 21-27 April 2018, San Diego, USA
11. Deepak KK, Newer Physiologist concern: Image building in society, ASSOPICON 2018, 26-29 September 2018, Karamsad
12. Deepak KK, The Pros and Cons of pursuing clinical Physiology, APPICON 2018, 27 November-1 December 2018, Manipal
13. Eva, Netam R, Talwar A, Mohan A, Yadav RK, Mittal S, Sharma HB, Patel S, Effect of a short-term yoga-based lifestyle intervention on lung function and quality of life in bronchial asthma patients, ERS International Congress, 15-19 September 2018, Paris
14. Jaiswal U, Yadav RK, Kriplani A, Roy KK, Gururao H, Differential analysis of the proteome of ovarian endometriosis, 1st Research Day, AIIMS, 25-26 March 2019, New Delhi
15. Jha S, Yadav RK, Sharma HB, Believe It or Not: Yoga and Yoga-Based Interventions, Euro Physiology 2018, 14-16 September 2018, London, UK
16. Kamra T, Aditya D, Deepak KK, A perspective on autonomic function testing and research in India, APPICON 2018, 27 November-1 December 2018, Manipal
17. Kanishka, Zacharia A, Soni S, Ahuja N, Tayade P, Kaur S, Sood M, Sharma R, Valence influences perception during binocular rivalry in patients with Schizophrenia, APPICON 2018, 28 November 2018-1 December 2018, Udupi
18. Kaur S, Jain S, Effect of complete spinal cord injury on sensory, motor function and cortical electrical activity in adult rats* (Best Poster Presentation), Biozest 2018: Annual Science Day, 6 December 2018, New Delhi
19. Leon C, Akhtar N, Mallick HN, Effect of L-glutamate microinjection in the lateral septum on sleep in rats, 9th meeting of Asian Sleep Research Society, 11-13 July 2018, Sopporo, Japan
20. Leon C, Tayade P, Sagar R, Sharma R, Kaur S, Exploring emotional and cognitive interference conduct in ADHD children, APPICON 2018, 28 November-1 December 2018, Udupi
21. Nanda S, Arya S, Bhatia R, Nociceptive flexion reflex and subjective pain: A report of comparison, 64th Annual National Conference of Association of Physiologists and Pharmacologists of India 2018, 27 November-1 December 2018, Karnataka
22. Nanda S, Arya S, Srikumar V, Bhatia R, Higher nociceptive flexion reflex in chronic low back pain patients, 19th IASP world Congress of Pain 2018, 12-16 September 2018, Boston, USA
23. Nanda S, Arya S, Srikumar V, Bhatia R, Nociceptive flexion reflex in chronic low back pain patients, 1st Research Day, AIIMS, 25-26 March 2019, New Delhi
24. Nanda S, Arya S, Tiwari VK, Srikumar V, Kumar U, Bhatia R, Transcranial Magnetic Stimulation (TMS)—Induced Motor Evoked Potential (MEP) in chronic pain, 3rd International Brain Stimulation 2019, 24-27 February 2019, Vancouver, Canada
25. Pragya P, Yadav RK, Khadgawat R, Pandey RM, Association of vitamin D levels in obesity with metabolic syndrome, 1st Research Day, AIIMS, 25-26 March 2019, New Delhi
26. Prathiban R, Chandran DS, Bhavana P, Jaryal AK, Deepak KK, Estimating regularity and complexity of HRV time-series in Prakriti classified healthy individuals using approximate entropy and sample entropy, APPICON 2018, 27 November-1 December 2018, Manipal
27. Roy A, Gupta YK, Katyal J, Jain S, A chronological study of cognitive function in bilateral streptozotocin-induced rat model of Alzheimer's Disease, 3rd Meeting of Neuroscience Society of Nepal, 12 May 2019, Nepal
28. Saini M, Samanchi R, Ahmed A, Kaur S, Sharma R, Tayade P, Cortical sources of verbal OM chanting: A qEEG study, APPICON 2018, 28 November 2018-1 December 2018, Udupi

29. Samanchi R, Dada T, Kaur S, Mehta N, Sharma R, Lower activity in alpha and gamma bands at anterior cingulate in glaucoma, APPICON 2018, 28 November 2018-1 December 2018, Udupi
30. Samanchi R, Muthukrishnan SP, Dada T, Sihota R, Kaur S, Tayade P, Sidhu T, Sharma R, Altered brain activity of resting brain microstates in early glaucoma: An evidence from high density EEG study, WGC 2019, 27-30 March 2019, Australia
31. *Samanchi R, Muthukrishnan SP, Soni S, Dada T, Sihota R, Kaur S, Tayade P, Sharma R, Cortical Degeneration in Glaucoma as Reflected by Lower Frontal Activity of Resting EEG Microstates, Physiology Update 2018, MAMC, 15 November 2018, New Delhi
32. *Samanchi R, Muthukrishnan SP, Dada T, Sihota R, Kaur S, Tayade P, Sharma R, Lower Gamma Band Power generation in Limbic Cortex and Medial Temporal Lobe: A potential EEG Biomarker for Neurodegeneration in Glaucoma, 1st National Biomedical Research Competition, 15 October 2018, Rishikesh
33. Sampath M, Trivedi A, Bade G, Talwar A, Effect of obesity on respiratory system impedance, 1st Research Day (AIIMS), 25-26 March 2019, New Delhi
34. Sharan E, Netam R, Talwar A, Mohan A, Yadav RK, Mittal S, Sharma HB, Patel S, Effect of a Short-term Yoga-based Lifestyle Intervention on Lung Function and Quality of Life in Bronchial Asthma Patients, European Respiratory Society International Congress 2018, 15-19 September 2018, Paris, France
35. Sharma G, Arya S, Gulati S, Bhatia R, Effect of rTMS on pain status and thermal sensitivity in Myofascial Pain Dysfunction syndrome, 1st Research Day (AIIMS), 25-26 March 2019, New Delhi
36. Sharma P, Yadav RK, Effect of Yoga-based lifestyle intervention on expression of stress, inflammation and ageing genes in obesity, ASSOPICON 2018, 28 September 2018, Anand, Gujarat
37. Sharma P, Yadav RK, Netam R, Khadgawat R, Relative fold changes in mRNA level of genes related to stress, inflammation and ageing in obesity after Yoga-based lifestyle intervention, 1st Research Day, AIIMS, 25-26 March 2019, New Delhi
38. Shivangi, Yadav K, Chandran DS, Jaryal AK, Mallick HN, Deepak KK, Dynamic cerebral autoregulation during Head down tilt, APPICON 2018, 27 November-1 December 2018, Manipal
39. Shrama P, Yadav RK, Netam R, Khadgawat R, Gene Expression of stress, inflammation, and Ageing in obese Indians following Yoga-based intervention, APPICON 2018 (e-poster), 1 December 2018, Manipal
40. Srivastava P, Chandran DS, Jaryal AK, Viveka P, Deepak KK, Study of Vascular and Endothelial Function in Type II Diabetes with Newly Diagnosed, Experimental Biology (EB) 2018, 21-27 April 2018, San Diego, USA
41. Subhashree S, Kamra T, Akhtar N, Mallick HN, Narcolepsy: History of emergence of a clinical syndrome, India Sleep 2018, 21-23 September 2018, Goa, India
42. Syed NS, Yasser R, Waseem R, Khan SN, Deepak KK, "O"- Endurimeter: Innovative instrument designed for the testing muscle endurance in experimental animals, APPICON 2018, 27 November-1 December 2018, Manipal
43. Talwar A, Trivedi A, Sampath M, Bade G, Effect of Gender and Abdominal Obesity on Airway Mechanics, ERS International Congress, 15-19 September 2018, Paris
44. Talwar A, Trivedi A, Akhtar N, Guleria R, Ghosh D, Pranayama Improves Inflammatory Profile in COPD, American Thoracic Society 2018 International Conference, 18-23 May 2018, San Diego, California
45. Tamuli D, Faruq M, Kumaran SS, Jaryal AK, Srivastava AK, Deepak KK, Subcortical brain areas correlate genetic characteristics in spinocerebellar ataxia type 2 patients, International Association of Parkinsonism and Related Disorders, IAPRD 2018, 19-22 August 2018, Lyon, France
46. Tamuli D, Godiyal Kant A, Kaur M, Jaryal AK, Srivastava AK, Deepak KK, Autonomic function based classification of spinocerebellar ataxia type 1 and 2 using machine learning classifiers, APPICON 2018, 27 November-1 December 2018, Manipal
47. Tanwar S, Mattoo B, Jain S, Kumar U, Dada R, Bhatia R, Effect of Repetitive Transcranial Magnetic Stimulation on Chronic Pain and its Modulation in Fibromyalgia Syndrome, 17th World congress on Pain, 12-16 September 2018, Boston, USA
48. Tanwar S, Mattoo B, Kumar U, Bhatia R, Effect of repetitive transcranial magnetic stimulation on Chronic Pain and its Modulation in Fibromyalgia Syndrome, 19th IASP world Congress of Pain 2018, 12-16 September 2018, Boston, USA
49. Tiwari VK, Mattoo B, Uma K, Kumaran SS, Bhatia R, Effect of fMRI-guided neural navigation rTMS on pain status in fibromyalgia, 64th Annual National Conference of Association of Physiologists and Pharmacologists of India 2018, 27 November-1 December 2018, Karnataka
50. Tiwari VK, Nanda S, Chaudhary S, Kumar U, Kumaran SS, Bhatia R, Effect of neural navigation based repetitive Transcranial Magnetic Stimulation on Pain status and Corticomotor excitability in fibromyalgia patients: A randomized control trial, 1st Research Day (AIIMS), 25-26 March 2019, New Delhi

51. Tiwari VK, Nanda S, Kumar U, Bhatia R, Effect of rTMS on corticomotor excitability in fibromyalgia, 38th Annual Scientific Meeting of the Australasian Neuroscience Society 2019, 3-6 December 2018, Brisbane, Australia
52. Tiwari VK, Nanda S, Mattoo B, Kumar U, Bhatia R, Effect of rTMS on pain descriptors and corticomotor fibromyalgia: A randomized controlled trial, 3rd International Brain Stimulation 2019, 24-27 February 2019, Vancouver, Canada
53. Tiwari VK, Sharma HB, Arya S, Sharma R, Kumar U, Kumaran SS, Bhatia R, Effect of fMRI-guided Neural Navigation based rTMS Therapy on cognitive status in Fibromyalgia patients, Delhi Chapter of Annual National Conference of Association of Physiologists and Pharmacologists of India 2018, 7-8 September 2018, New Delhi
54. Vishwakarma LC, Akhtar N, Mallick HN, Effecting sleep deprivation hypothalamus, cortical and body temperature in rats, 9th meeting of Asian Sleep Research Society, 11-13 July 2018, Sopporo, Japan
55. Yadav K, Shivangi, Chandran DS, Akanksha, Jaryal AK, Coshic P, Deepak KK, Change in forearm vascular resistance during non-hypotensive hypovolemia; Role of low pressure baroreceptors, APPICON 2018, 27 November-1 December 2018, Manipal
56. Yadav RK, Sharma P, Netam R, Khadgawat R, Gene Expression of Stress, Inflammation and Ageing in Obese Indians following Yoga-based Intervention, International Conference: Obesity Week 2018, 11-15 November 2018, Nashville, TN, USA
57. Zacharia A, Kaur S, Sharma R, Lower activation of the right parahippocampal gyrus leads to perceptual reversals during binocular rivalry, APPICON 2018, 28 November 2018-1 December 2018, Udipi

RESEARCH

Funded projects

Ongoing

1. Acute effects of slow breathing on cardiovascular variability during head up tilt, head down tilt and lower body negative pressure in naïve healthy subjects and trained yoga practitioners, KK Deepak, AYUSH, 3 years, 2016-2019, Rs 66.75 lakhs
2. Transcriptomic landscaping for endometriosis from Genome-Wide Analysis (GWA) of expression arrays, Debabrata Ghosh, DST, 3 years, 2015-2018, Rs 47.37 lakhs
3. Molecular basis of estrogenism in endometriosis, Debabrata Ghosh, DST, 3 years, 2016-2019, Rs 49.72 lakhs
4. EEG microstates and phase synchrony correlates of cognitive deficits in Parkinson's Disease, Ratna Sharma, ICMR, 3 years, 2016-2019, Rs 17.44 lakhs
5. Efficacy of a Yoga-meditation based lifestyle intervention in patients with obesity and major depressive disorder: A randomized controlled trial, Yadav RK, DST, 3 years, 2018-2021, Rs 79 lakhs
6. Immunophenotyping and functional characterisation of peripheral and in-vitro induced T regulatory cells: Putative role in pathogenesis of COPD, Anjana Talwar, AIIMS, New Delhi, 2 years, 2018-2020, Rs 20 lakhs
7. Study the effects of exposure to diesel, biodiesel and biodiesel blend fuel-engine exhaust on testicular morphology and spermatogenesis in male wistar rats, Asmita Patil, AIIMS-IIT, New Delhi, 2 years, 2018-2020, Rs 10 lakhs
8. Effect of Yoga on Pain status and corticomotor excitability in chronic low back pain patients, Renu Bhatia, DST SATYAM, 3 years, 2017-2020, Rs 22.62 lakhs
9. QEEG based neural correlates and microstates of attention and interference in ADHD: An endophenotypic marker, Simran Kaur, CSRI, DST, 1 year, 2017-2018, Rs 11.96 lakhs
10. Study of cortical sources and brain iron levels during rest and visuospatial working memory in attention deficit hyperactive disorder, Simran Kaur, DHR, 1 year 6 months, 2017-2019, Rs 11.54 lakhs
11. QEEG based neural correlates of perceptual dominance, Simran Kaur, AIIMS, New Delhi, 2 years, 2017-2018, Rs 6.74 lakhs
12. Study of EEG microstates in Om chanting, Prashant Tayade, AIIMS, New Delhi, 1 year, 2018-2019, Rs 4.63 lakhs
13. Continuous Noninvasive Blood Pressure Waveform Measuring Device for Cardiovascular Health, Dinu S Chandran, Biotechnology Industry Research Assistance Council (BIRAC), 1.5 years, 2018-2019, Rs 5.88 lakhs
14. To study the relationship between resting retrograde shear and atherogenic profile in peripheral, central and coronary arteries in patients of myocardial infarction, Dinu S Chandran, ICMR, 3 years, 2018-2020, Rs 10.68 lakhs
15. Development and validation of peripheral arterial applanation tonometer to derive altered shear profile in conduit arteries, Dinu S Chandran, AIIMS, 1 year, 2018-2019, Rs 4.50 lakhs

16. Characterization of thermosensitive neurons of preoptic area, Nasreen Akhtar, AIIMS, 2 years, 2018-2020, Rs 9.97 lakhs
17. Neurohormonal response to mild haemorrhage using the model of blood donation, Akanksha, AIIMS, 2 years, 2018-2020, Rs 4.5 lakhs
18. Comparison of inflammatory and oxidative stress markers in exhaled breath condensates of smoker and biomass smoke exposed COPD, Geetanjali Bade, AIIMS, 2 years, 2017-2019, Rs 8.89 lakhs
19. Effect of hypothalamic inflammation on glucose sensing neurons in Arcuate Nucleus in high fat diet induced obesity rat model, Ritesh Netam, AIIMS, 1 year, 2017-2018, Rs 5 lakhs
20. A novel combinatorial approach for neuroregeneration in an in-vivo spinal cord injured Rat Model: Neurotrophic factors coated iron oxide nanoparticles impregnated in a biocompatible hydrogel system, Suman Jain, DST, 3 years, 2017-2020, Rs 29.83 lakhs

Completed

1. Efficacy of Yoga as an adjunct therapy to modify fatigability and stress in breast cancer patients: A randomized controlled trial, Yadav RK, AIIMS, 2 years, 2016-2018, Rs 5 lakhs
2. Effect of Transcranial Magnetic Stimulation on pain modulation in trigeminal neuralgia patients, Renu Bhatia, AIIMS, New Delhi, 1 year, 2017-2018, Rs 4 lakhs
3. Study of EEG microstates and resting state networks in relaxed wakefulness, Prashant Tayade, AIIMS, 2 years, 2016-2018, Rs 9.9 lakhs
4. To study the relationship between components of renin angiotensin aldosterone system and vascular functions following angiotensin converting enzyme inhibition in type 2 diabetes patients with newly diagnosed hypertension, Dinu S Chandran, AIIMS, 2 years, 2016-2018, Rs 9.2 lakhs
5. Effect of endocannabinoid at the medial septum on sleep wakefulness, Nasreen Akhtar, AIIMS, 1 year, 2016-2018, Rs 4.2 lakhs
6. Cardio-respiratory and hormonal responses to oscillatory lower body negative pressure in healthy subject, Akanksha, AIIMS, 1 year, 2017-2018, Rs 4.6 lakhs

Departmental projects

Ongoing

1. A morphological and functional study on intracerebroventricular streptozotocin induced Rat model of Alzheimer's Disease: Effect of magnetic field stimulation
2. A neoplastic potential of endometrial stromal cells in endometriosis
3. A study of cortical connectivity and EEG sources in Autism spectrum disorder
4. A study of endothelial function and gene expression in healthy individuals, and their correlation with various somatotype classifications
5. A study of offset analgesia in Trigeminal Neuralgia
6. A study of pain status and corticomotor excitability in chronic low back pain patients: Effect of transcranial magnetic stimulation
7. A study of transcriptomic landscape of ovarian endometriosis
8. Acute cardio-autonomic responses to graded head down tilt in long term Sirsasana Yoga practitioners
9. Acute effects of slow breathing on cardiovascular variability during head-up tilt, head down tilt and lower body negative pressure in naïve healthy subjects and trained yoga practitioners (PhD, as co-guide)
10. Brain Computer Interface based on EEG Data of Motor Imagery
11. Comparative study of Yoga and Knee strengthening exercises on Osteoarthritis Knee: A randomized controlled trial
12. Cortical reorganization in complete spinal cord injured Rats: Effect of superparamagnetic nanoparticles and low intensity magnetic field exposure
13. Cortical sources of increasing the visuo-spatial complexity in Hindi language: A QEEG study
14. Default mode network of addictive disorders: A quantitative EEG study
15. Effect of Angiotensin converting Enzyme inhibitor on autonomic vascular and endothelial function in diabetics with newly diagnosed hypertensive
16. Effect of deep hypothermia on nerve conduction in humans
17. Effect of graded lower body positive pressure on dynamic cerebral autoregulation

18. Effect of physiological challenges on regional brain temperature in Rats
19. Effect of short-term Yoga-based lifestyle intervention on stress, airway resistance and inflammation in bronchial asthma patients: A randomized controlled trial
20. Effect of sympatho-inhibitory manoeuvres on resting retrograde shear in brachial artery of middle aged and elderly human subjects
21. Effect of Vitamin D supplementation on pancreatic beta cell functions in obese Indian subjects: A randomized controlled trial
22. Effects of short-term Yoga-based lifestyle intervention on Hypothyroidism: A randomized controlled trial
23. Endometrial telomerase reverse transcriptase protein expression in ovarian endometriosis
24. Evaluation of autonomic function in different types of achalasia patients diagnosed by high resolution manometry
25. Evaluation of autonomic tone, vascular and endothelial function in myocardial on Infraction patients undergoing Yoga based cardiac rehabilitation
26. Genomic expression and protein profile correlates of peripheral blood mononuclear cells in obesity after Yoga-based lifestyle intervention
27. Hemodynamic correlates of retrograde shear augmentation in brachial artery by Lower Body Negative Pressure (LBNP)
28. Molecular basis of cationic anti-microbial peptide action on Human Placental Cytotrophoblast Cells
29. Molecular basis of estrogenism in endometriosis
30. Muscle regeneration in complete Spinal Cord Injury: Effect of Iron Oxide Nanoparticle Implantation along with Magnetic Field exposure in Rats
31. Neural correlates of cognitive performance in Glaucoma: A quantitative EEG study
32. Neural processing of congruency and affective valence during binocular rivalry: A QEEG study
33. Neuromuscular changes in sleep and sleep deprivation
34. Neuroregeneration following implantation of Iron Oxide Nanoparticle along with magnetic field exposure in spinal cord injured Rats
35. Polysomnographic studies of the effect of pranayamas on various physiological functions
36. QEEG based neural correlates and microstates of attention and interference in ADHD: An endophenotypic marker
37. Quantitative EEG correlates of emotion induced changes in cognitive performance in healthy volunteers
38. Quantitative EEG correlates of visuo-spatial working memory in Schizophrenia
39. Role of mediodorsal thalamic nuclei in sleep
40. Role of the lateral septal nuclei in sleep in Rats
41. Study of vascular mechanisms underlying augmentation of brachial artery retrograde shear in response to graded cuff pressure over forearm
42. The effect of motor imagery on pain status and corticomotor excitability in rheumatoid arthritis patients
43. To study flow mediated slowing of pulse wave velocity during reactive hyperemia as a measure of endothelial function
44. To study radial artery low flow mediated constriction in response to shear modulation by graded supra-systolic occlusion
45. To study the mechanism of altered spontaneous baroreflex sensitivity during blood donation
46. To study the role of vascular function and pain sensitivity in post myocardial patients
47. To study the therapeutic effect of superparamagnetic iron oxide nanoparticles implantation and magnetic field stimulation on motor, cognitive in a 6-OHDA rat model of Parkinson's Disease
48. To study the vascular mechanisms contributing to augmentation of brachial artery retrograde shear in response to graded cuff pressure over forearm
49. Understanding the pathophysiology of endometriosis by protein profiling and its correlation with stress

Completed

1. A study of conditioned pain modulation in trigeminal neuralgia patients
2. An in-vitro study of neoplastic potential of endometrial stromal cells in endometriosis
3. Assessment of peripheral arterial compliance during graded lower body negative pressure
4. Comparison of D wave and m-MEP based intraoperative neuromonitoring in spinal cord surgeries

5. Comparison of monopolar and bipolar stimulation for cortical motor mapping in Neurosurgery
6. EEG microstates of perceptual reversals of emotional stimuli in schizophrenia during binocular rivalry
7. Effect of repetitive transcranial magnetic stimulation on pain status, thermal sensitivity and motor activity in myofascial pain dysfunction syndrome
8. Effect of short-term Yoga-based lifestyle intervention on stress, airway resistance and inflammation in bronchial asthma patients: A randomized controlled trial
9. Effect of transcranial magnetic stimulation on pain status modulation in fibromyalgia patients
10. Low Flow Mediated Constriction in brachial and radial arteries and its comparison in dominant and non-dominant arms after correcting for the shear rate
11. Quantitative EEG correlates of 'OM' chanting
12. Role of neuro-navigation based transcranial magnetic stimulation on quantitative sensory testing and corticomotor excitability in chronic migraine patients
13. Study of QEEG Correlates of Visuospatial complexity in Hindi Language
14. The effect of neuronavigation-based rTMS therapy on corticomotor excitability and cognitive functions in fibromyalgia patients
15. To study the baroreflex contribution to Respiratory Sinus Arrhythmia

Collaborative projects

Ongoing

1. A cross sectional study on Autonomic Function and Cortical Pain perception in Fibromyalgia, PMR
2. A cross-sectional study to assess the severity of chronic pruritis and its effect on quality of life using 12 item Pruritis severity scale and 5-D Itch scale, Dermatology
3. A pilot study for development of visual cue-induced craving paradigm for alcohol dependence and its QEEG correlates, Psychiatry
4. A pilot study of the role of Intercessory Prayer in determining the outcome after severe traumatic brain injury, Department of Neurosurgery, RML, New Delhi; Neurosurgery, AIIMS, New Delhi
5. A prospective randomised controlled trial comparing the effects of intraoperative Dexmedetomidine and Lignocaine administration on the incidence of postoperative cognitive decline in the elderly, Neuroanaesthesia
6. A randomized, double-blind, placebo-controlled, split-head trial to study the effects of autologous platelet-rich plasma on hair growth and lesional T-helper and T-regulatory cells expression markers in alopecia areata, Dermatology and Venerology
7. A study for determination of allocentric neural navigation process schematic utilizing dynamic optic array for prospective control, Psychiatry
8. A study of autonomic functions in adolescents with specific learning disorder (Dyslexia) with and without comorbid ADHD, Psychiatry
9. A study of brain activation using functional near infrared spectroscopy and quantitative electroencephalographic spectral analysis in depression, negative and positive schizophrenia, Psychiatry
10. A study of impulse oscillometry in Sarcoidosis, Pulmonary Medicine
11. A study of respiratory impedance, resistance and reactance in Interstitial Lung Disease, Pulmonary Medicine
12. A study of the functional brain activation and electro-physiological spectral analysis in Catatonia, Psychiatry
13. Assessment of autonomic function across frailty status in Indian elderly, Geriatric Medicine
14. Association of lean mass, muscle strength and physical performance with diabetes and metabolic parameters, Medicine
15. Blood heavy metal levels and quantitative EEG correlates in children with Autism, Paediatrics
16. Cardiac autonomic tone and reactivity in patients with alcohol use disorders undergoing treatment of acute withdrawal symptoms, Psychiatry and NDDTC
17. Central serous chorio-retinopathy and meditation: Functional and morphological outcome study, RPC for Ophthalmic Sciences
18. Change in Sleep pattern, perceived stress and coping strategies at the end of first year among First Year medical undergraduate students: A prospective study, Medicine
19. Characterization of dynamic interaction between cardiovascular and respiratory signal during Autonomic Stimulation, Department of Instrumentation and Control Engineering, Dr BR Ambedkar National Institute of Technology, Jalandhar, Punjab

20. Comparative assessment of cognition, default mode networks and analysis of psychosocial behavior and lifestyle, between obese and post-bariatric surgery groups of patients, Surgery
21. Comparison of one session vs four session formats of journal clubs in postgraduate teaching, Department of Physiology, Vardhaman Mahavir Medical College (VMMC) and Safdarjung Hospital, New Delhi
22. Comparison of propofol and ketofol on transcranial motor evoked potentials in patients undergoing thoracolumbar spine surgery, Neuroanaesthesiology and Critical Care
23. Delhi glaucoma epidemiology study, RPC for Ophthalmic Sciences
24. Development of Countermeasure Gravity Loading Bodysuit and its Potential Association with Cardiovascular and Muscular System, Department of Instrumentation and Control Engineering, Dr BR Ambedkar National Institute of Technology, Jalandhar, Punjab
25. DTI, fMRI and qEEG correlates of cognition and behaviour in children and adolescents with well controlled non-lesional epilepsy: An observational study, Paediatric Neurology
26. Effect of repetitive magnetic field stimulation on neurogenesis in streptozotocin induced rat model of Alzheimer's Disease, Biotechnology
27. Effect of Vitamin D on monocrotaline induced pulmonary artery hypertension in Rats, Pharmacology
28. Effect of Yoga based lifestyle intervention on biomarkers of cellular aging in patients with depression, Anatomy
29. Effect of Yoga-based intervention on intraocular pressure, quality of life, inflammatory markers and gene expression profile in glaucoma patients: A randomized controlled trial, RPC for Ophthalmic Sciences
30. Efficacy of a family based comprehensive Yoga programme for weight reduction among overweight children and adolescents, Paediatrics
31. Endothelial dysfunction in young patients with non-alcoholic fatty liver disease, Medicine
32. Evaluation of effect of mindfulness based stress reduction in patients with primary open angle glaucoma, RPC for Ophthalmic Sciences
33. Evaluation of effect of mindfulness based stress reduction on optic disc perfusion using OCT-angiography in glaucoma patients: A randomized controlled trial, RPC for Ophthalmic Sciences
34. Evaluation of pulmonary functions in ankylosing spondylitis, Physical Medicine and Rehabilitation
35. Evaluation of repetitive Transcranial magnetic stimulation as an adjunct to modified constraint induced movement therapy in improving upperlimb function in children with hemiparetic cerebral palsy aged 5-18 years: A randomized controlled trial, Paediatrics
36. Evaluation of the effect of mind fulness based stress reduction in patients with advanced glaucoma, RPC for Ophthalmic Sciences
37. Feasibility of introducing Structured Yoga programme and its effect on Stress and Perceived Well-being on New Medical Under-Graduate Students of AIIMS, New Delhi, Centre for Community Medicine
38. Identification of biomarkers in Parkinson's Disease using NMR, NMR
39. Impact of nutritional and lifestyle modification in subjects with BMI 25-29.9 kg/m² vs 30-34.9 kg/m² and to assess the effect of bariatric surgery in BMI \geq 35 kg/m², Surgical Disciplines
40. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and insulin resistance in adult Indian obese patients, Surgical Disciplines
41. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and
42. Impact of Yoga and Meditation on epigenetic profile in rheumatoid arthritis, Anatomy
43. Interventions for stigma for persons with epilepsy in India, Neurology
44. Investigation of Heart-Brain Interactions during Internally Operative versus Externally Operative Attention Regulatory Mechanisms, Department of Instrumentation and Control Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar, Punjab
45. Isolation and molecular characterization of colorectal cancer stem cells (DBT), Biochemistry
46. Nutritional profile and lifestyle of Indian women (18-40 years) with Infertility, Lady Irwin College, Delhi University
47. Role of cytokine levels in recurrent pregnancy loss and effect of progesterone on cytokine levels, Obstetrics and Gynaecology
48. Role of Regulatory T Cells in COPD, Pulmonary Medicine
49. Role of Yoga based intervention as an adjunct in improving quality of life of glaucoma patients, RPC for Ophthalmic Sciences
50. Sleep quality and associated factors among persons aged Sixty years and above in an urban resettlement colony of South Delhi, Community Medicine

51. Sternocleidomastoid and trapezius muscle activity before and after Twin Block therapy in skeletal Class II growing patients, Centre for Dental Education and Research
52. Study of autonomic function in children and adolescents with specific learning disability, Psychiatry
53. Study of clock genes in rat model of mania-like behavior, Neurology
54. Study of cognitive function in patients with chronic kidney disease and the effect of renal transplantation, Nephrology
55. Study of potential modulator targeting pathways involved in the hyperphosphorylation of tau in Alzheimer Disease, Biophysics
56. To evaluate neck muscles activity after mandibular postural changes in growing Class II high angle patients with Twin Block therapy—An EMG study, Centre for Dental Education and Research
57. To study the changes in Bereitschafts Potentials or Movement Related Cortical Potentials in Fibromyalgia Syndrome, Psychiatry and PMR
58. Transcriptomic basis of COPD, Pulmonary Medicine
59. Unique aspects of idiopathic hypoparathyroidism, Endocrinology and Metabolism

Completed

1. A study of Impulse Oscillometry in Sarcoidosis, Pulmonary Medicine
2. A study of respiratory impedance and heart rate variability in Parkinson's Disease, Neurology
3. An exploratory study with a purpose of finding a relationship between stress and pain perception/ modulation in context of presence or absence of anxiety, Department of Psychology, University of Delhi
4. Central serous chorio-retinopathy and meditation: Functional and morphological outcome study, RPC for Ophthalmic Sciences
5. Comparison of Serum 25 Hydroxy Vitamin D levels and comorbidities, Paediatric Neurology
6. Differential Pre Frontal Cortex (PFC) activation for Attention Deficit Hyperactive Disorder (ADHD) patients and control group in response to emotional stimuli: A Functional Near Infrared Spectroscopy (fNIRS) study, Department of Psychology, University of Delhi
7. Effect of exercise intervention on bone mineral density in Cystic Fibrosis patients aged 6-18 years, Paediatrics
8. Effect of two anaesthetic regimes with dexmedetomidine as adjuvant on transcranial electrical motor evoked potentials during spine surgery: A pilot study, Neuroanesthesia and Critical Care
9. Evaluation of effect of mindfulness-based stress reduction in patients with primary open angle glaucoma, RPC for Ophthalmic Sciences
10. Expression analysis of potential micro RNAs in tuberculosis, Medicine
11. Feasibility of introducing Structured Yoga Programme and its effect on Stress and Perceived Well-being on New Medical Under-Graduate Students of AIIMS, New Delhi, Centre for Community Medicine (CCM)
12. Impact of local endometrial injury on the outcome of IVF cycle with previous failed implantation: Exploring the genome wide transcriptomic basis, Obstetrics and Gynecology
13. Impact of nutritional and lifestyle modification in subjects with BMI 25-29.9 kg/m² vs 30-34.9 kg/m² and to assess the effect of bariatric surgery in BMI \geq 35 kg/m², Surgical Disciplines
14. In-vitro generation of induced T-regulatory cells in COPD, Pulmonary Medicine
15. Isolation and molecular characterization of human bone marrow derived mesenchymal stem cells, Biochemistry
16. Study of Physical activity among undergraduate medical students in AIIMS, New Delhi, Community Medicine
17. To compare the metabolic and hormonal effects of metformin vs metformin plus myoinositol in PCOS women undergoing ovulation induction plus IUI cycles and infertility outcome, Obstetrics and Gynaecology

PUBLICATIONS

Journals: 33

Abstracts: 34

Chapters in books: 1

PATIENT CARE

Autonomic Function Lab and Vascular Function Laboratory provide diagnostic facility for referred patients. The labs provide routine test of autonomic reactivity along with autonomic tone quantification and non-invasive recording of gastric motility (Electrogastrography, EGG). A total number of 649 humans have been tested for autonomic function test this year, which included 626 patients and 23 healthy subjects.

Intraoperative Neurophysiology: Intraoperative Neuro-monitoring support was provided to 439 patients from Departments of Neurosurgery, 6 from CTVS, 86 from Orthopedics and 18 from Trauma Center. A total of 549 surgeries were supported.

Integral Health Clinic: A total of 543 subjects were registered at IHC for short-term Yoga-based intervention, and a total of 2634 subjects (on daily basis) were trained and benefited at IHC during the year 2018-2019. This includes patients of chronic diseases (like diabetes type 2, obesity, cardiovascular diseases, chronic depression, etc) and, referred patients from different departments of AIIMS (R.P.C. for Ophthalmic Sciences, Endocrinology and Metabolism, Pulmonary Medicine, Psychiatry, Orthopedics, etc.)

Cognitive Neurophysiology Laboratory: Body Composition Analysis of 314 patients, Visual Tracking of 41 patients, Infrared neuroimaging, Glaucoma (n = 51), Monitoring of Physiological Variables in Glaucoma and Renal Transplant (n = 54) infrared neuroimaging of 103 patients.

Pain Research and TMS Laboratory: 756 rTMS (Repetitive Transcranial Magnetic Stimulation) sessions given at Motor cortex/Dorsolateral Prefrontal cortex, 360 supervised Yoga sessions with flexibility assessment and 10 motor imagery sessions to chronic pain patients were given. Pain and Somatosensory assessment of 76 chronic pain patients and 32 healthy volunteers were done. EMG recordings of pericranial and cervical muscles done for 20 patients. Corticomotor excitability measurement and evaluation of 78 chronic pain patients and 58 healthy volunteers.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Kishore Kumar Deepak was invited as Co-chairperson to hold a Symposium on ‘Lifestyle related diseases in Asia: Underlying mechanisms, functions and behavioral Transitions’ in 9th FAOPS Congress 2019 held at Kobe Convention Center Japan on 28-31 March 2019; Awarded Dr A C Duarte Monteiro Oration for the year 2018 by Seth G S Medical College and K E M Hospital, Mumbai; Member of an Expert Committee for standardization of curriculum and admission qualifications for various courses in the Universities identified for funding, Ministry of Sports and Youth Affairs, GOI; Member, Board of studies of the Department of Paramedical Sciences, School of Nursing Sciences and Allied Health, Jamia Hamdard, Delhi; Chairman, Committee for management system for Examination Section, AIIMS; Chairman, Negotiation Committee, AIIMS; Member, Store Purchase Committee, AIIMS; Executive Editor, Indian Journal of Physiology and Pharmacology (IJPP); Member, selection “Khelo India”, Ministry of Sports and Youth Affairs, GOI; BP innovation has been included in Compendium 2018 published by DBT, GOI; Chairman, Central Recruitment Committee, AIIMS; Member, Biomedical Device and Technology Development (BDTD) Expert Advisory Group (EAG) DST, GOI.

Professor Hrudananda Mallick was President, Asian Sleep Research Society for 2013-2018; President, Indian Society for Sleep Research 2015-2019; Governing Council Member, World Sleep Society 2017-2021; Finance Secretary, Association of Physiologists and Pharmacologists of India; MOU with Andhra Pradesh Government for setting sleep laboratory and advancing sleep medicine; Associate Editor Frontiers in Neurology/Associate Editor Sleep and Vigilance; Reviewer for international journals; Chaired a plenary talk “Towards mysteries of sleep” by Manashi Yangisawa at Asian Sleep Research Society Conference, July 13, Sapporo, Japan; Expert, selection committee of AIIMS Rishikesh, Bhubaneswar and Jodhpur; Professor Incharge stores, Department of Physiology; CPIO, Hostel; Member, Institute Ethics Committee.

Professor Debabrata Ghosh’s PhD Student, Dr Anupa G received Best Poster Presentation Award for the Paper entitled, “Is endometriosis a ‘benign’ disease?” in “International Conference on Advances in Zoological Research” at Aligarh Muslim University, Aligarh on 9-10 March 2019; Member of Expert Group/Project Review Committee Meeting in the subject of Pharmacology, Traditional Medicine, Medicinal Plants and Physiology in ICMR, New Delhi on 22 March 2019; Chaired the Technical session in the “International Conference on Advances in Zoological Research (ICAZR) and Workshop on Real Time PCR” at Aligarh Muslim University, Aligarh on 9-10 March 2019; Member of the Fellowship Expert Group Meeting in the subject of Pharmacology Traditional Medicine, Medical Plant and Physiology in ICMR, New Delhi on 5-6 March 2019; Convened a joint meeting of the Core Committee and the Local Organizing Committee on 18 May 2018 in Government Medical Kozhikode, Kerala; Convened a joint meeting of the Core Committee on 4 May 2018 at NEGRIHMS, Shillong, Meghalaya.

Professor Kanwal Preet Kochhar was invited as Distinguished Guest in the International Yoga Day celebration on 21 June 2018 at CSIR, Ministry of Science and Technology, Pusa Road, New Delhi to present a plenary talk on scientific validation of research in Yoga and Meditation; Chairperson to hold a Symposium “Lifestyle Related Diseases in Asia: Underlying Mechanisms, Functions and Behavioural Transitions” in 9th FAOPS Congress 2019 that was held at Kobe Convention Center Japan on 28-31 March 2019; Panelist in the session on disability competencies under the role “Communicator” Competencies in the “Disability-inclusive Compassionate Care: Public Engagement and Faculty Sensitization on Disability Competencies” Programme was held on 9 February 2019 at University of Chicago, Centre in Delhi; Joined the Dismantling Dialogues: Stories of Professionalism and Ethics as an Approach to Knowing (SPEAK), was held on 4 October 2018 at The University of Chicago Center in Delhi; Invited as Resource Faculty in Seminar/Meeting scheduled was held on 20 August 2018 at Bureau of Police Research and Development, National Police Mission at Mahipalpur, New Delhi on “Improving Psycho-Social Skills and Coping Mechanisms in Police” on 11 September 2018; Panelist in Ethics of the Doctor-Patient Relationship in as part of Acknowledging the Architects of Healthy India under aegis of “The Economic

Times Doctor's Day Conclave 2018" was held on 30 June 2018, New Delhi; Member of Taskforce of a Multi-Sectoral Taskforce on NCDs' comprising of multi-sectoral CSOs, CSO alliances, United Nations partners and government was held on Friday, 29 June 2018 at PHD Chamber of Commerce and Industry, 4/2, PHD House, August Kranti Marg, New Delhi; Invited by the Public Health Foundation of India (PHFI) for lecture recording for Postgraduate Diploma in Public Health Education Integration of alternative and complementary medicine: Approaches for NCD prevention and management, 13 July 2019.

Professor Nalin Mehta was Member, MCI Board of Governors appointed Expert Group Committee (UG); Member, Selection Committee for Faculty at Guru Nanak Dev University (GNDU), Amritsar, Punjab; Member Research Ethics Board, Regional Institute of Medical Sciences (RIMS), Imphal, Manipur; External Expert Member, Standing Selection Committee for Selection of Faculty (Physiology), AIIMS, Jodhpur; External Member, Board of Studies, for Undergraduate courses, AIIMS, Bhubaneswar.

Professor Suman Jain was selected as member of "Project Review Committee-Basic Sciences" by competent authority, AIIMS, New Delhi; Selected as member of committee constituted for appointment of Nurses officer for temporary post at AIIMS, New Delhi; Selected as an executive member of Indian Academy of Neurosciences; Nominated as Chairperson to conduct Symposium on "Sleep in neuropsychiatric diseases" during 36th Annual Conference of Indian Academy of Neurosciences held at Banaras Hindu University, Varanasi, from 29-31 October 2018; Selected as an External Expert by Vice Chancellor, Bharathiar University for Doctoral Research Committee of PhD student at Defence Institute of Physiology and Allied Sciences, Delhi.

Professor Raj Kumar Yadav was on the Editorial Board of Annals of yoga and physical therapy and International Journal of Clinical and Experimental Physiology (Wolters Kluwer Health); Member, Committee to Formalize Scientific Cadre, AIIMS, New Delhi; Member, AIIMS Students Benevolent Fund Committee for UG students; Member, Oversight Committee, AIIMS Power Grid Vishram Sadan, JPNA Trauma Centre, AIIMS, New Delhi (Since May 2018); Deputy Hostel Superintendent, AIIMS, New Delhi; Finance Secretary, TIPS 2018, Techniques in Physiological Sciences for SAARC Nations, 5-7 December 2018 at AIIMS, New Delhi; General Secretary: FAIIMS: Faculty Association of AIIMS, New Delhi; Secretary, Association of Physiologists and Pharmacologists of India (APPI), *Delhi chapter*; Secretary, Faculty Club, AIIMS, New Delhi; Joint Secretary, Association of Physiologists of India; Chief Election Commissioner, SYS (Society of young scientists) elections, June 2018; Wellness Programme for Post Graduate Trainees: As speaker and resource faculty at Ramalingaswami Board Room, AIIMS, New Delhi, 9 August 2018 and 27 September 2018; Chaired a Plenary Session during Indo-European workshop on next generation Physiology for healthy lifestyle, AIIMS, New Delhi; 31 January-1 February 2019; First AIIMS Research Day: Selected oral presentation by Junior Resident (one of the best top three): To evaluate the effect of meditation on trabecular meshwork gene expression in patients with advanced primary open angle glaucoma (RPC, MD thesis, as co-guide) on 26 March 2019, AIIMS, New Delhi.

Dr Renu Bhatia was Member, International Association for Study of Pain (IASP); Nodal Officer, Department of Physiology for Institutional Annual Report Committee, AIIMS, New Delhi; Member, Women in Brain Stimulation.

Dr Nasreen Akhtar was Member of Institutional Annual Report Committee; Member of Medical Board, Medical Examination at AIIMS, New Delhi.

Social outreach Programmes

Media coverage Dr Raj Kumar Yadav

1. Television, As a medical expert in the live show 'TOTAL HEALTH' discussing on "Prevention of diseases by Yoga" on DD NEWS channel, 1 April 2018, 8.30 to 9.30 am
2. Television, As a medical expert in the live show 'TOTAL HEALTH' discussing on "Importance of Yoga" on DD NEWS channel, 3 June 2018, 8.30 to 9.30 am
3. AIR (All India Radio), Talk on "Yoga and health", 7 June 2018, 2.30 pm
4. Television, As a medical expert in the live 'health show' discussing on "AYUSH system and healthy lifestyle" on DD National Channel, 9 June 2018, 5 to 5.30 pm
5. Television, Rajya Sabha TV, Live Programme, Discussed on obesity as a medical expert, 2 March 2019, 11 am to 12 noon
6. Television, DD NEWS Channel, Live Programme "Total health", discussed on obesity, 17 March 2019, 8.30 to 9.30 am

VISITING SCIENTISTS

1. Guest lecture by Dr Elad Fein, CEO iFEEL, Israel on Heart Rate variability in Department of Physiology on 6 December 2018

2. Guest lecture on “The effect of meditation on Cognition, affect and Brain Oscillations” by Dr Marieke Van Vugt from University of Groningen, Netherlands on 5 July 2018
3. Teleconference update: Live interaction with Professor Christopher Mathias on emergence of Autonomic Neuroscience.
4. Visiting scientists during IBRO-APRC School 2018
 - a. Anthony J Hannan, NHMRC Principal Research Fellow, Florey Institute of Neuroscience and Mental Health, University of Melbourne, Australia
 - b. Arpan Banerjee, Associate Professor, National Brain Research Institute, Manesar, Haryana
 - c. B S Shankaranarayana Rao, Professor, Department of Neurophysiology, National Institute of Mental Health and Neurosciences, Bangalore, India
 - d. Basavaraju Sanganahalli, Associate Research Scientist, Department of Radiology and Biomedical Imaging, YALE University School of Medicine Connecticut, Connecticut, USA
 - e. Daisuke Ono, Assistant Professor, Department of Neuroscience II, Research Institute of Environmental Medicine, Nagoya University, Nagoya, Japan
 - f. Gaurav Jain Senior, Assistant Professor, Department of Pharmaceutics, School of Pharmaceutical Educational and Research, Jamia Hamdard University, New Delhi, India
 - g. Gurcharan Kaur, Professor, Department of Biotechnology, Guru Nanak Dev University, Amritsar, India
 - h. Hisao Nishijo, Professor, Graduate school of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
 - i. J P C Chelliah, Assistant Professor, Neuroscience Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India
 - j. Jumpei Matsumoto, Assistant Professor, System Emotional Science, Graduate school of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama 930-0194, Japan
 - k. Jun Matsubayashi, Assistant Professor, Graduate School of Medicine, Kyoto University, Kyoto, Japan
 - l. Jyotirmoy Banerjee, Assistant Professor, Department of Biophysics, All India Institute of Medical Sciences, New Delhi, India
 - m. Kamalesh K Gulia, Scientist, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram
 - n. Kaviraja Udupa, Additional Professor, Department of Neurophysiology, National Institute of Mental Health and Neurosciences, Bangalore, India
 - o. Manjula Suri, Associate Professor, Department of Physiology and Promotive Health, Institute of Home Economics, University of Delhi, New Delhi
 - p. P K Mandal, Assistant Professor, Department of Biotechnology, Indian Institute of Technology, Roorkee, India
 - q. Phalguni Anand Alladi, Scientist, Department of Neurophysiology, National Institute of Mental Health and Neurosciences, Bangalore, India
 - r. Ratna Sircar, The Graduate Center, City University of New York, New York, USA
 - s. Ronaldo M Ichiyama, Associate Professor, School of Biomedical Sciences, University of Leeds, Leeds, UK
 - t. Sajikuma Sreedharan, Assistant Professor, Neurobiology Programme, Department of Physiology, Centre for life Sciences (Cels), National university of Singapore, Singapore
 - u. Shashi Wadhwa, Professor and Head, Department of Anatomy, North DMC Medical College
 - v. Soumya Iyengar, Professor, National Brain Research Institute Manesar, Haryana
 - w. Sourav Banerjee, Associate Professor, National Brain Research Institute, Manesar, Haryana, India
 - x. Stefania Raimondo, Assistant Professor, Department of Clinical and Biological Sciences, University of Turin, Turin, Italy
 - y. Sumana Chakravarty, Principal Scientist, Indian Institute of chemical technology, Hyderabad, India
 - z. T Laxmi Rao, Professor, Department of Neurophysiology, National Institute of Mental Health and Neurosciences, Bangalore, India
 - aa. Yogendra Kumar Gupta, Principal Advisor, Translational Health Science and Technology Institute, Faridabad, India
 - bb. Yoganarasimha Doreswamy, Additional Professor, National Brain Research Institute, Manesar, Haryana

5. Visiting scientists during Indo European Conference, January 2018
 - a. Professor Luc Penicaud, Head, French Scientific Council, Dijon, France
 - b. Professor Nandu Goswami, Otto Loewi Research Center (for Vascular Biology, Immunology and Inflammation) and HOD, Physiology, Graz, Austria
 - c. Professor Naim Akhtar Khan, Secretary, French Physiological Society, Lyon, France
 - d. Professor Amira Sayed, University of Mentori, Constantine, Algeria
 - e. Professor Madan Thangavelu, University of Cambridge, United Kingdom

9.33. Plastic, Reconstructive and Burns Surgery

Professor and Head

Maneesh Singhal

Assistant Professors

Raja Tiwari
Rajkumar Manas

Shashank Chauhan
Rakesh Dawar

Shamendra Anand Sahu (upto June 2018)

HIGHLIGHTS

The Department of Plastic, Reconstructive and Burns Surgery at AIIMS, New Delhi was established in July 2015. The department now has five faculty members, 15 MCh residents and four non-academic senior residents. The monthly inflow in our out-patient department has steadily increased over the past year. In addition to specialized clinics in Hand and Cleft, we have also started Leprosy Clinic in collaboration with the Department of Dermatology. We have also started the services for the creation of arteriovenous fistulas and reconstruction of oncological defects at the cancer centre. At JPN Trauma Centre, we are providing a full spectrum of reconstructive surgeries, including microvascular surgery and replants for trauma patients, along with a specialized clinic for evaluation of patients with brachial plexus injuries. The department has conducted cadaveric courses and hands-on workshop for plastic surgery flaps as well as a comprehensive CME (AIIMS plastic surgery update) for post-graduate exam preparation. We also run an OPD at Ballabgarh for reaching out to the rural population. There have been multiple presentations by our faculty and residents at various national and international conferences. We also successfully conducted the FNB exit exam for Hand and Microsurgery at our centre. The future endeavours of the department include starting of a state-of-the-art Center for Burn Care and Reconstructive Surgery and a dedicated skin bank, and composite tissue allotransplantation programme for hand and face transplant.

CMEs/Workshops/Symposia/National and International Conferences

Organized by the department

1. Cadaveric Dissection Course for Filler and BOTOX at Aesthetic express, New Delhi
2. 1st AIIMS Plastic Surgery Update 2018 at AIIMS, New Delhi
3. Cadaver Flap Course in September 2018 at JPNATC, New Delhi
4. Cadaver Flap Course in December 2018 at JPNATC, New Delhi

Lectures delivered

Maneesh Singhal

1. Management of lip defects, AIIMS Plastic Surgery Update 2018, 2 September 2018, AIIMS, New Delhi
2. Introduction to lower limb reconstruction, CTRF flap dissection course on lower extremity, 16 September 2018, JPNATC, AIIMS, New Delhi
3. Free Gracilis muscle flap, CTRF flap dissection course on lower extremity, 16 September 2018, JPNATC, AIIMS, New Delhi
4. Pressure sore, CMET: Workshop on wound care and pressure sore prevention, 18 September 2018, AIIMS, New Delhi
5. Role of plastic surgery in separation of Craniopagus twins, APSICON 2018, 23 November 2018, Lucknow
6. Skin flaps in Conjoined twins separation, 1st International Conference on Conjoint Twins (ICC), 15 February 2019, AIIMS, New Delhi

7. Surgical Anatomy of lip and palate in cleft, IOS PG Students Convention 2019, 21 February 2019, ITS Dental College, Greater Noida, UP
8. Principles of Primary Lip and Palate Surgeries, IOS PG Students Convention 2019, 21 February 2019, ITS Dental College, Greater Noida, UP

Raja Tiwari

1. Moderator and co-organizer of Cadaver workshop, ISPNS, 6 April 2018, Delhi
2. Moderator and co-organizer of Cadaver workshop on injectables, EX 2018, 19 April 2018, Delhi
3. Invited Faculty and Chairperson, IOPBS-WCI 2018, 26-28 October 2018, Goa
4. Radical release and reconstruction of severe post burn elbow and knee flexion contractures in young adults: Our experience, ISBI 2018, 30 November 2018 to 4 December 2018, Delhi
5. Scalp Replantation: Tips and tricks, APSI: Delhi Chapter, 12 January 2019, Delhi
6. Management of Acute and Chronic Wounds, CMETi: Workshop on wound care and Pressure sore prevention, 10 April 2018, Delhi
7. Moderator and lecturer on Planning and execution of local flaps, 1st AIIMS PLASTIC SURGERY UPDATE 2018, 3 September 2018, Delhi
8. Co-organizer of Lower Extremity Flap Dissection Course, Lecture on Medial Plantar artery and PAP flaps, ACSST, 16 September 2018, Delhi
9. Basic principles of wound healing, CMET: Workshop on wound care and Pressure sore prevention, 18 September 2018, Delhi
10. Double Micro-vascular Free Flap on a 5 year Old Child in Emergency Setting, Clinical Combined Rounds, 23 October 2018, Delhi
11. Organizer of Extremity Flap Dissection Course, Lecture on Free toe transfer and PAP flaps, ACSST, 14 December 2018, Delhi
12. Role of Plastic surgery in wound healing, CMETi: Workshop on wound care and Pressure sore prevention, 10 January 2019, Delhi
13. Wound classification and assessment, CMETi: Workshop on wound care and pressure sore prevention, 15 March 2019, Delhi

Raj Kumar Manas

1. Unilateral Cleft Lip repair-Millard technique, AIIMS Plastic surgery update 2018, 2 September 2018, AIIMS, New Delhi
2. Free Gracilis muscle flap, CTRF flap dissection course on lower extremity, 16 September 2018, JPNATC, AIIMS, New Delhi
3. Reverse sural artery flap, CTRF flap dissection course on lower extremity, 16 September 2018, JPNATC, AIIMS, New Delhi
4. Challenges in nerve grafting, ISSHCON 2018, 6 October 2018, Coimbatore
5. Dilemma in nerve gap, APSICON 2018, 25 November 2018, Lucknow
6. FDMA Flap, CTRF flap dissection course on upper extremity, 15 December 2018, JPNATC, AIIMS, Delhi
7. Upper extremity reconstruction, Visiting faculty lecture, 12 January 2019, St. James Hospital, Trichur
8. Lower extremity reconstruction, Visiting faculty lecture, 12 January 2019, St. James Hospital, Trichur
9. Nerve repair and reconstruction, Visiting faculty lecture, 12 January 2019, St. James Hospital, Trichur

Rakesh Dawar

1. Wound classification, CMETi: Workshop on wound care and pressure sore prevention, 18 September 2018, AIIMS, New Delhi
2. Wound classification, CMETi: Workshop on wound care and Pressure sore prevention, 10 January 2019, AIIMS, New Delhi

Shashank Chauhan

1. Total scalp avulsion: A two and half years experience at our newly started Plastic Surgery Department, APRASOCON, 12 January 2019, AIIMS, Bhubaneshwar, Odisha
3. Surgical Anatomy of Lip and Palate in Cleft, IOS PG Students Convention 2019, 21 February 2019, ITS Dental College, Greater Noida, UP

4. Principles of Primary Lip and Palate Surgeries, IOS PG Students Convention 2019, 21 February 2019, ITS Dental College, Greater Noida, UP
5. Skin flaps in Conjoined twins separation, 1st International Conference on Conjoint Twins (ICC), 15 February 2019, AIIMS, New Delhi
6. How to decide on reconstruction of tongue and buccal mucosa defects: Introduction to regional and free flaps, International Head and Neck Dissection Course, 28 March 2019, AIIMS Cadaveric Surgical Skills Training (ACSST), Jai Prakash Narayan Apex Trauma Centre (JPNATC), New Delhi
7. Panel Discussion and Consensus Statement on “Setting up a burn unit”—Physical Planning, NABICON 2019, 3 March 2019, Allahabad (Prayagraj), Uttar Pradesh

Oral papers/posters presented

1. Dawar R, Dhingra R, Tiwari R. Vascular labelling for demonstration of vascular anatomy of face and avoiding danger zones after filler injections, Cosmedicon, 14-17 March 2019, Sydney, Australia
2. Tiwari R, Saha S, Singhal M. Next generation plastic surgery, Institute Day, 25 September 2018, AIIMS, New Delhi
3. Manas RK. Dilemma in nerve graft in nerve gap, APSICON 2018, 25 November 2018, KGMU, Lucknow
4. Manas RK. Birth brachial plexus palsy, APSICON 2018, 23 November 2018, KGMU, Lucknow
5. Manas RK. Comprehensive review of post burn Marjolin ulcer, 19th ISBI, 2 December 2018, Delhi
6. Manas RK. Social media and burns prevention, ISBI 2018, 2 December 2018, Delhi
7. Manas RK. Secondary nerve reconstruction, Brachialcon 2019, 31 March 2019, Mahabalipuram
8. Chauhan S, Tiwari R, Gupta D, Sabapathy SR, Venkataramani H, Singhal M. Skin flaps in Conjoined twins separation, 1st International Conference on Conjoint Twins, 14-15 February 2019, AIIMS, New Delhi
9. Chauhan S, Tiwari R, Gupta D, Sabapathy SR, Venkataramani H, Singhal M. Plastic and Reconstructive Surgery Aspects in Craniopagus Separation Surgery: Indian Experience, Presented at the 25th Congress of the Asian Association of Paediatric Surgeons, APS 2018, 29 November-3 December 2018, Dubai, UAE
10. Naalla R, Tiwari R, Chauhan S, Singhal M. Microsurgical Salvage of Lower Extremities Following Gustilo-Anderson Grade IIIb Open Tibial Fractures—An Analysis of Functional Outcome at 14th Congress of the European Federation of Societies for Microsurgery, 5-8 May 2018, Belgrade, Serbia
11. Kashyap N, Singhal M, Chauhan S. Reliability of outcomes with Liposuction Assisted Subcutaneous Mastectomy in Gynecomastia, Presented at the Association of Plastic Surgeons of India Conference, APSICON 2018, 25 November 2018, Lucknow

RESEARCH

Funded projects

Ongoing

1. Situational Analysis of Burns in India, Maneesh Singhal, Ministry of Health and Family Welfare, Government of India, 4 years, 2014–ongoing, Rs 38.5 lakhs
2. Controlled Clinical trial to assess the effectiveness of topical application of C1 herbal oil on superficial external wounds (Phase II), Maneesh Singhal, Ministry of AYUSH, Government of India, 4 years, 2015-ongoing, Rs 38 lakhs
3. Pilot Study on utility of Robotic surgery for Brachial plexus reconstruction, Raja Tiwari, Intramural research grant, 1 year (applied for extension), 2018-ongoing, Rs 4.99 lakhs

Completed

1. Controlled clinical trial to assess the effectiveness of topical application of C1 herbal oil on split thickness skin graft donor, (Phase I), Dr Maneesh Singhal, Ministry of AYUSH, Government of India, 4 years, 2014-2018, Rs 17.22 lakhs
2. Developing First Aid Module for Community, Dr Maneesh Singhal, WHO and Ministry of Health and Family Welfare, Government of India, 6 months, May-November 2018, Rs 6.1 lakhs

Departmental projects

Ongoing

1. A prospective study to evaluate the efficacy of Fluorescent angiography in detection of nipple Areolar perfusion in patients undergoing reduction Mammoplasty
2. Outcomes after breast cancer treatment, An International perspective

3. Epidemiology of hand injuries in single centre JPNATC AIIMS, Retrospective and prospective study
4. Effectiveness of a regular training programme on microsurgery skills in plastic surgery residents
5. Prognostic factors associated with outcome in patients who were treated for spaghetti wrist injuries
6. To study the clinical and electrophysiological outcomes of using Platelet-rich plasma in acute peripheral nerve injury repair
7. Analysis of factors affecting survival of digital replant

Completed

1. Liposuction assisted subcutaneous mastectomy
2. Soft tissue profile of patients with cleft lip and palate in the Indian population
3. Evaluation of the suitability and outcome of Profunda artery perforator flap for different defects

Collaborative research

Ongoing

1. Role of Microdialysis in post-operative assessment of Microvascular free flaps, Anaesthesiology and Critical care
2. Cleft lip and palate anomaly in India: Clinical profile risk factors and current status of treatment: A hospital-based study, Orthodontics, Centre for Dental Education and Research (CDER)

PUBLICATIONS

Journals: 11

PATIENT CARE

Inpatient patient care facilities

- | | |
|--|--------------------------------------|
| • Hyperbaric Oxygen therapy facility | • Craniofacial and cleft surgery |
| • Microvascular facility | • Aesthetic surgery |
| • Hand and congenital anomalies surgery facility | • Head and neck reconstruction |
| | • Trunk and extremity reconstruction |

Clinics

- | | |
|-------------------------|---------------------------|
| • Combined Cleft Clinic | • Brachial Plexus Clinic |
| • Hand Clinic | • Combined Leprosy Clinic |

Community Service/Camps

- Organised a “**Burn Prevention Awareness and primary Aid Programme**” at CHRPC, Ballabgarh in which we delivered Public lecture for burn prevention, firecrackers and other types of burns and first Aid management. About 100 patients and patient’s relatives attended the programme in OPD premises and got benefited for burns prevention awareness
- Plastic Surgery OPD services at CHRPS, Ballabgarh every Tuesday
- Prepared a poster and spread awareness about plastic surgery on Institute Day on 25 September 2018 at AIIMS, New Delhi

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Maneesh Singhal was invited as judge in competitive paper session in 13th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 31 March 2019; Invited as judge in competitive paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018.

Dr Raja Tiwari was invited as Chairperson in free paper session in 13th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 31 March 2019; Invited as Chairperson in free paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018; Invited Chairperson in the reduction mammoplasty session at IOPBS and WCI Symposium on 27 October 2018 in Goa, India.

Dr Rakesh Dawar was invited as judge in competitive paper session in 13th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 31 March 2019; Invited as judge in competitive paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018; Invited Faculty at IOPBS and WCI Symposium on 27 October 2018 in Goa, India; Invited Faculty at Plasticon from 25 to 26 January 2019 at AIIMS, Rishikesh, Uttarakhand, India; Invited

Faculty at 10th Annual Congress of Association of Hair Restoration Surgeons of India (HAIRCON) on 10 February 2019 at Indore, Madhya Pradesh, India.

Dr Raj Kumar Manas was invited as Faculty in ISPNS 2018 meeting held at Sir Ganga Ram Hospital, New Delhi; Invited as Chairperson in free paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018; Invited as Faculty in EX 2018, International conference on Aesthetics and anti-aging in Delhi on 20-22 April 2018; Invited faculty and chaired the session “Professor SP Bajaj General Plastic Surgery” in APSICON 2018, Annual Conference of Plastic Surgeons of India held in Lucknow; Received Best paper Award by PRS Global Open and American Society of Plastic Surgeons for “Best International Collaboration- Honourable Mention Award 2018” for the paper published in PRS Global open, Awarded in American Society of Plastic Surgery Meeting held in Chicago, USA; Professor Aikawa Young Investigator Prize 2018 by International Society of Burn Injuries for the best paper title comprehensive review of Post Burn Marjolin Ulcer in ISBI 2018 “International Society of Burn Injuries” meeting held in New Delhi; Was Awarded the prestigious “Kammath Best Poster award 2017” by Association of Plastic surgeons of India in APSICON 2018 held in Lucknow; Received First Prize for Professor J.L. Gupta e-paper award session for the e-paper our experiences of Birth Brachial Plexus Injuries in APSICON 2018, Annual Conference of Plastic Surgeons of India; Book prize for Best Paper in Individual Free Paper Session on nerve injuries in APSICON 2018; Organised 1st AIIMS Plastic Surgery Update on 1-3 September 2018 as organizing secretary.

Dr Shashank Chauhan was invited as judge in competitive paper session in 13th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 31 March 2019; Invited as judge in competitive paper session in 12th AIIMS Surgical Week (Endosurg 2019) at AIIMS, New Delhi on 20 April 2018; Invited as judge in competitive paper session in APRASACON 2019 at Bhubhaneshwar, Odisha on 12 January 2019.

9.34. Psychiatry

Professor and Head
Rakesh Kumar Chadda

Professors

Pratap Sharan
Nand Kumar

Rajesh Sagar
Mamta Sood

Associate Professors

Sujata Satapathy (Clinical Psychology)

Raman Deep

Assistant Professors

Koushik Sinha Deb
Bichitra Nanda Patra

Rohit Verma
Gagan Hans

Child Psychologist
Renu Sharma

HIGHLIGHTS



Team from Department of Psychiatry along with Professor R Guleria, Director, AIIMS on-site inspection visit to South Sudan



**World Mental Day Programme, JL Auditorium, 10 October 2018
Professor VK Paul, Member, Niti Ayog lighting the lamp**

The Department of Psychiatry in addition to conducting quality training for MD (Psychiatry), PhD (Psychology) and MBBS students is also engaged in training programmes for BSc/MSc nursing students and residents from the Departments of Medicine, Geriatric Medicine, Emergency Medicine, Palliative Medicine, and DM Neurology posted in psychiatry for various durations. The department is currently undertaking a number of key funded research projects in collaboration with international and national agencies like National Institute of Health Research (NIHR UK), World Health Organization (WHO), Department of Science and Technology, India (DST) etc. The department successfully organized a number of key events in the year including National CME on Consultation Liaison Psychiatry (April 2018), Wellness Program for Post Graduate Trainees (August 2018; March 2019), 2nd National CME on Neuromodulation (May 2018), World Mental Health Day Public Lecture and Panel Discussion (October 2018), workshop and certificate course on repetitive Transcranial Magnetic Stimulation (rTMS) (December 2018), workshop on providing feedback to MCI for Undergraduate Curriculum (December 2018). The department has always been a pioneer in providing quality mental health services. It runs daily walk-in and follow-up clinics in addition to weekly specialty clinics for child and adolescent psychiatric disorders, psychosomatic disorders, common mental disorders, severe mental disorders, dual diagnosis disorders and brain stimulation clinic. The department also provides community outreach services 6 days a week at CRHSP, Ballabgarh with services provided to 3,974 new cases and 6,000 follow up cases in 2018-2019. The department provided out-patient consultation services to a total of 15,289 new cases and 62,229 follow up cases in 2018-2019 with in-patient management for 258 patients.

EDUCATION

Undergraduates

Theory lectures:	6th Semester - 20 hours
Clinical teaching/posting:	3rd Semester - 7 hours
	4th-5th Semester - 25 days
	6th-8th Semester - 40 days
Teaching in community at CRHSP, Ballabgarh:	7th Semester - 12 hours (Community Psychiatry)

BSc Nursing

Theory lectures:	First year (Psychology) for 15 hours; Third year (Psychiatry) for 8 hours
Clinical posting:	Third year in Psychiatry ward for 2 months

MSc Nursing

Theory lectures:	First year for 8 hours
Clinical posting:	First year - 8 months in psychiatry ward and one month in psychiatry OPD
	Second year - 3-4 months in psychiatry ward
Thesis work:	Conduct their thesis work in psychiatry OPD and ward

Training of Junior Residents posted from other departments

Junior residents from Departments of Medicine, Geriatric Medicine, Emergency Medicine and Palliative Medicine, and DM trainees in Neurology are posted to department of psychiatry for a period of 2-4 weeks for training in psychiatry

MD (Psychiatry) and PhD Teaching

- Seminar once a week
- Case conference once a week
- Journal discussion once a week
- Thesis protocol and midterm presentation once a week
- Tutorials once a week
- Psychotherapy supervision for postgraduate psychiatry and doctoral level clinical psychology students
- Supervision of Consultation-Liaison training for junior residents in psychiatry

CMEs/Workshops/Symposia/National and International Conferences

- National CME on consultation liaison psychiatry, 9 April 2018, AIIMS, New Delhi
- 2nd National CME on “Neuromodulation: Focus on Neuropsychiatry and Behavioral Neurology”, 13 May 2018, AIIMS, New Delhi
- Wellness Program for Post Graduate Trainees, 9 August 2018 and 9 March 2019, AIIMS, New Delhi
- World Mental Health Day Public Lecture and Panel discussion on “Mental health and young people in a changing world”, 9 October 2018, New Delhi
- Workshop and Certificate Course on repetitive Transcranial Magnetic Stimulation (rTMS), 15 December 2018, AIIMS, New Delhi
- Workshop on Providing Feedback to MCI for Undergraduate Curriculum, 5 December, 2018, AIIMS, New Delhi

CMEs, National and International Conferences

Lectures delivered

Rakesh Kumar Chadda

1. C-L Psychiatry in low resource settings: Meeting the challenge, National CME on Consultation Liaison Psychiatry, 9 April 2018, AIIMS, New Delhi
2. Management of substance use: Public health approach, Mid Term CME of Indian Association of Private Psychiatrists—Delhi Chapter, 24 June 2018, New Delhi
3. Panel discussion on substance use, Panel International Day on Drug Use, 21 June 2018, UNODC ROSA, Chanakya Puri, New Delhi
4. Capacity assessment in criminal cases, PG Development Programme, Indian Psychiatric Society, 30 June 2018, Surajkund
5. Sensitization of mental health issues: An overview of the legal framework, Orientation Programme on Mental Health, 28 July 2018, Delhi Judicial Academy
6. Developing a module for home based psycho-social care in Schizophrenia, International Conference on Schizophrenia, 30 August-1 September 2018, Schizophrenia Research Organization, Chennai
7. Metabolic syndrome: Guideline development and focus on evidence based approach and cultural issues, Annual Conference of the Indian Psychiatric Society, North Zone, 6-7 October 2018, Government Medical College, Chandigarh
8. Principles and possibilities of prevention in psychiatry, Annual Conference of Indian Psychiatric Society, East Zone, 26-28 October 2018, Bodh Gaya
9. Drug addiction and Indian culture: Preventive approaches for drug addiction, 20th Annual Meeting of the International Society of Addiction Medicine, 2-5 November 2018, Busan, South Korea
10. Prescription drug abuse—Challenges, 20th Annual Meeting of the International Society of Addiction Medicine, 2-5 November 2018, Busan, South Korea
11. Substance use disorders: Need for public health initiatives: Venkoba Rao Oration, 25th Annual Conference of the Indian Association for Social Psychiatry, 16-18 November 2018, Post Graduate Institute of Medical Sciences, Rohtak
12. Family and caregiver: The silent yet essential pillars for psychotherapy delivery? 25th Annual Conference of the Indian Association for Social Psychiatry, 16-18 November 2018, Post Graduate Institute of Medical Sciences, Rohtak
13. Treatment-resistant bipolar disorder: Case vignette approach, National Workshop on Treatment Resistance in Psychiatry, 24 November 2018, Kolkata
14. Youth and mental health: Challenges in LAMI countries, Regional Congress of the World Association of Social Psychiatry, 8-9 December 2018, Kochi

15. Home based rehabilitation: Tertiary prevention with least restriction, Annual Conference of the Indian Psychiatric Society, 31 January-3 February 2019, Lucknow
16. New psychoactive substances: Background and overview, Annual Conference of the Indian Psychiatric Society, 31 January-2 February 2019, Lucknow
17. Youth and mental health: Challenges ahead, National Conference on 'Health and Well Being of Children and Adolescents', 14 March 2019, Central University of South Bihar, Gaya
18. Mental health: Concept and policy initiatives, National Seminar on Health Policy Research: Current Scenario, 15 March 2019, University of Delhi, Delhi

Pratap Sharan

1. Available treatments, Public Lecture on Coping with Schizophrenia, 24 May 2018, AIIMS, New Delhi
2. Communication with the non-psychiatrist clinician: Ethical issues in CL psychiatry, The National CME on Consultation-Liaison Psychiatry, 9 April 2018, AIIMS, New Delhi
3. Rights of the persons with mental illness, Indian Psychiatric Society-North Zone Postgraduate Development Program, 30 September 2018, Vivanta By Taj, Faridabad
4. Mental health problems in young people, Public Lecture on Young People and Mental Health in a Changing World, 9 October 2018, AIIMS, New Delhi
5. Current treatment guidelines: Their applicability to the rural and community mental health care in India, Silver Jubilee National Conference of the Indian Association for Social Psychiatry, 16-18 November 2018, Pt. B. D. Sharma University of Health Sciences, Rohtak
6. Psychological aspects, Awareness Workshop on Legal and Psychological Aspects of #MeToo Movement, 19 November 2018, AIIMS, New Delhi
7. Depression: A priority mental health condition, Regional Workshop on Accelerating mhGAP (Mental Health Gap Action Programme), 26-27 November 2018, Jakarta, Indonesia
8. Practical issues on implementing mhGAP, Regional Workshop on Accelerating mhGAP (Mental Health Gap Action Programme), 26-27 November 2018, Jakarta, Indonesia
9. Ethical concerns in health care, Ethics in Psychological Research: National Seminar Under UGC Delhi, 16 March 2019, Psychology Department, Delhi University, Delhi
10. Mental stigma and empowerment, Com' Acumen 2019, 18 January 2019, Jesus and Mary College, New Delhi

Rajesh Sagar

1. Managing the agitated patient, National CME on Consultation Liaison Psychiatry, AIIMS, 9 April 2018, New Delhi
2. Major mental health research and clinical practice challenges in South Asia, South Asia Collaboration on Mental Health, British Council and Bangor University, UK, 11 April 2018, Kathmandu, Nepal
3. Importance of reproductive and sexual health and menstrual hygiene, Panel Discussion and Lecture on Occasion of Inauguration of Pink Toilets, NCPCR at PVR Anupam, 24 April 2018, New Delhi
4. Handling children with mobile/Tab addiction, 1st South Asian Association of Paediatric Dentistry Conference, 6 May 2018, New Delhi
5. Child sexual abuse, Panel discussion, ICANCL Group and AIIMS, 11 May 2018, New Delhi
6. Inaugural address-need for training program, NS DNS ANS Training Programme "Nursing Administrator Empowerment Programme", AIIMS, 14 May 2018, New Delhi
7. Effective communication and counselling, NS DNS ANS Training Programme "Nursing Administrator Empowerment Programme", AIIMS, 17 May 2018, New Delhi
8. Effective communication and counselling, NS DNS ANS Training Programme "Nursing Administrator Empowerment Programme", AIIMS, 7 June 2018, New Delhi
9. Child emotional and psychological abuse, Symposium on Child Abuse and Neglect: Prevention and Response by Paediatricians and Medical Professionals Curriculum Development Expert Group Meeting Indian Child Abuse, Neglect and Child Labour (ICANCL) Group Indian Academy of Paediatrics and UNICEF India, 9 June 2018, New Delhi
10. Effective communication and counselling, NS DNS ANS Training Programme "Nursing Administrator Empowerment Programme", AIIMS, 21 June 2018, New Delhi
11. Mental Healthcare Act-2017, Post Graduate Development Program, 2018, Indian Psychiatric Society-North Zone, 30 June 2018, NCR
12. Mental health, Inaugural Public Lecture and Interaction-for DGHS Office and MoHFW, 5 July 2018, New Delhi
13. Psychological and psychiatric impacts of child sexual abuse, Multi-Disciplinary Discussions on Child Sexual Abuse to Parliamentarians, NCPCR, Speaker Research Initiative, 2 August 2018, New Delhi

14. Psychosocial and mental health assessments and interventions, Symposium on “Child Abuse and Neglect: Prevention and Response by Caregivers, Front Line Workers and Parents” Curriculum Development Expert Group Meeting Indian Child Abuse, Neglect and Child Labour (ICANCL) Group Indian Academy of Paediatrics and UNICEF India, 6 August 2018, New Delhi
15. Behavior addiction-concept and epidemiology, Public Lecture Theme on “Parenting of School Children and Misuse of Social Media”, Indian Association for Social Psychiatry, 18 August 2018, Agra
16. Mental health needs of children and child sexual abuse, Training on Trauma Assessment and Intervention for CSA-by NCPCR, 28 August 2018, Aizwal, Mizoram
17. Trauma risks and vulnerability assessment, Training on Trauma Assessment and Intervention for CSA-by NCPCR, 28 August 2018, Aizwal, Mizoram
18. Impact of CSA, Training on Trauma Assessment and Intervention for CSA-by NCPCR, 28 August 2018, Aizwal, Mizoram
19. Creating safe environment for children in schools, National consultation on creating awareness on violence against children through curriculum, NCPCR, 8 September 2018, Mumbai
20. Role of District Disability Rehabilitation Centre (DDRC) in Mental Health Disabilities, National Conference on District Disability Rehabilitation Centre (DDRC), DePwD, MoSJE, 14 September 2018, New Delhi
21. Determination and treatment decisions for mental illness, ‘Orientation Programme on Mental Health’, Delhi Judicial Academy for Sensitizing Judicial Officers of DHJS, DJS and other stakeholders including Jail Superintendents, Police Officials, 29 September 2018, New Delhi
22. Management of child mental health, Advanced TOT for Medical Professionals on Child Neglect and Abuse: Prevention and Response organized by Indian Child Abuse Neglect Child Labour (ICANCL) Group, IAP and UNICEF, 30 September 2018, New Delhi
23. Psychosocial rehabilitation as per provisions of MHCA 2017, Understanding Rules and Regulations, CME on “Psychosocial Rehabilitation as per Provisions of MHCA 2017: Challenges and Road Ahead”, DPS, IAPP, 1 October 2018, New Delhi
24. Mental health of young people, Symposium and panel discussion on occasion of World Mental Health Day, Safdarjung Hospital and VM Medical College, 4 October 2018, New Delhi
25. Young people and mental health in a changing world, Seminar on occasion of World Mental Health Day, Jamia Milia Islamia, 9 October 2018, New Delhi
26. ISAA assessment and ASD certification, National Workshop on Disability Certification, Indian Psychiatry Society, 21 October 2018, Mumbai
27. Psychology of children-understanding stress, trauma, depression and anxiety, Workshop on child protection and role of media, Jamia Milia Islamia-AJK Mass Communication Research Centre, 27 October 2018, New Delhi
28. Going the Extra-Mile—Government panel on MHCA 2017, POCSO and Disability Act, National Conference: ‘Speak Up’—National Mental Health Movement, M-Power and FICCI, 30 October 2018, New Delhi
29. Prioritizing research questions-child and adolescent mental health, North East England South Asia Mental Health Alliance (NEESAMA) Meeting, Newcastle University, British Council and NTW NHS Trust, 3 November 2018, Kathmandu
30. Identifying persons with mental health issues, ToT Workshop for Community Health Workers, WHO, MoHFW& NIMHANS, 12 November 2018, Bangalore
31. Dealing with concerning behaviors in children and elderly, ToT Workshop for Community Health Workers, WHO, MoHFW & NIMHANS, 12 November 2018, Bangalore
32. Treatment resistant Schizophrenia: Focus on newer agents, National CME of Psychiatrists Association of Nepal (PAN), 15 November 2018, Nepal
33. Brain and behavior, seminar organized by Brain Behavior Research Foundation of India and Gandhi Darshan, Ministry of Culture, Government of India, 17 November 2018, New Delhi
34. Management of adjustment disorders, Training program, Central Council of Homeopathic Research, 27 November 2018, New Delhi
35. Promoting mental health for elderly, Training course on Health Care Management of Elderly, NIHFW, 29 November 2018, New Delhi
36. Counselling and mental health intervention strategies in cases of child sexual abuse, ECHO video conference-web lecture, Indian Child Abuse Neglect Child Labour (ICANCL) Group and IAP, 7 December 2018, New Delhi
37. Psychology effects of gadgets, Faculty Development Programme on Challenges before the Academia in the era of Gadgets, E-communication and Artificial Intelligence, Hansraj College, University of Delhi, 20 December 2018, New Delhi

38. Understanding Personality Disorders, Mental health seminar NGO, You, Me and Mental Health, 15 February 2019, New Delhi
39. Need for national strategy for suicide prevention in India, National Strategy for Suicide Prevention, MoHFW, 15 February 2019, New Delhi
40. Managing examination stress, Facebook Live Streaming, NCPCR for Pariksha Pe Charcha, 28 February 2019, New Delhi
41. Global and National initiatives on mental health, International Course on Public Health Approaches to NCD's at Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, World NCD Federation, 6 March 2019, Chandigarh
42. Overcoming mental stress, Workshop on '360 Degree Enhancement: Best Practices on Managerial and IT Tools for the Non-Teaching Staff', 12 March 2019, Delhi
43. Prevention and management of mental health issues in emergencies, Workshop on Mental Health and Psychosocial Support Following Floods in Kerala, funded by WHO, 26 March 2019, Cochin, Kerala
44. Capacity building for mental health and psychosocial support following disasters in India, Workshop on Mental Health and Psychosocial Support Following Floods in Kerala, 27 March 2019, Cochin, Kerala
45. Does mhealth technology enhance mental-P health service delivery in rural communities? Policy Symposia on SMART Mental Health Programme, George Institute of Global Health-India, 28 March 2019, New Delhi
46. Do anti-stigma programmes improve mental health help seeking among patients/users?-PD, Policy Symposia on SMART Mental Health Programme, George Institute of Global Health India, 28 March 2019, New Delhi
47. Specific learning disorder—A current update from a developing country, 23rd World congress of the International Association for Child and Adolescent Psychiatry and Allied Professions (IACAPAP), 24 July 2018, Prague, Czech Republic
48. Study on gap analysis in mental health care services in Child Care Institutions (CCI) of Delhi state—Overview, Symposium at 71st Annual National Conference of Indian Psychiatry Society (ANCIPS), 1 February 2019, Lucknow
49. Health and education-GCRF research priorities, UKRI International Development Peer Review College—Global Engagement Meeting, 6 February 2019, Cairo, Egypt

Nand Kumar

1. Communication with the non-psychiatrist clinician—Evolving a common language, National CME on Consultation—Liaison Psychiatry, 9 April 2018, New Delhi
2. Management of OCD: Combined approach, Delhi Psychiatric Society: CME 2018, 22 April 2018, New Delhi
3. Children: Behavior, anxiety and focus, Vigyan Prasar DST, Government of India, 25 May 2018, Faridabad
4. Application of rTMS in OCD: AIIMS experience, Academic Conclave on Interventions in Neuropsychiatric Disorder, 9 and 10 June 2018, Mumbai
5. Neuromodulation: Recent updates, National Midterm CME, 11 and 12 August 2018, Orchha
6. rTMS: Nuts and bots, Workshop on Ketamine and Neuromodulation, 1 September 2018, Srinagar
7. Lifestyle diseases and fighting with future, 4th Edition of Healthcare Conclave, organized by Dilli Aajtak, 17 December 2018, New Delhi
8. Effect of high-frequency repetitive Transcranial Magnetic Stimulation (rTMS) in cognitive function and predominantly negative symptoms in person suffering from Schizophrenia in a randomized sham controlled double blind trial, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 31 January-3 February 2019, Lucknow

Mamta Sood

1. Principles of handling psychiatric comorbidities in non-communicable diseases, National CME on Consultation Liaison Psychiatry, 9 April 2018, New Delhi
2. Determination and treatment decisions for mental illness, Orientation programme on Mental Health, 28 July 2018, Delhi
3. How concept of creativity can be used for promotion of mental health and in prevention and management of mental illness, Annual Conference of the Indian Psychiatric Society, North Zone, 6-7 October 2018, Chandigarh
4. Internet use and clinical practice, 25th Annual Conference of the Indian Association for Social Psychiatry, 16-18 November 2018, Rohtak
5. Gender issues and mental health, Regional Congress of the World Association of Social Psychiatry, 8-9 December 2018, Kochi

6. Training programme and curriculum for Medical Officers training in psychiatry, Meeting of officials and experts to establish mental hospital in South Sudan, 4 January 2019, Juba, South Sudan
7. Health seeking behaviour and anthropology: Recording mental illness narratives, Ethnography Workshop for Research Scholars, 11-22 March 2019, Delhi

Sujata Satapathy

1. Professional Stress and Conflict Management, Mental Health at Workplace for DNS and ANS, 14-18 May 2018, New Delhi
2. Child sexual abuse: The mental health and forensic psychological assessment, Two days training programme on “Juvenile Justice Act, 2015, POCSO Act, 2012 and Cyber Crime”, collaboration with National Commission for Protection of Child Rights (NCPCR), 18-19 May 2018, New Delhi
3. Schizophrenia rehabilitation, Public Lecture on Schizophrenia, 24 May 2018, New Delhi
4. Psychological impact of child sexual abuse, Case studies based Multi-Disciplinary Discussion on Child Sexual Abuse for Members of Parliaments and Parliament House, 2 August 2018, New Delhi
5. Mental health, disability and gender-based violence, National Training on ‘Gender-Based Violence and Human Rights for Promoting Women Health under NHM’, 29 October-2 November 2018, New Delhi
6. Barriers to communication, Workshop on Communication Skills for Nursing Personnel, 26 February 2019, New Delhi

Raman Deep

1. How to communicate effectively in consult letters, National CME on Consultation Liaison Psychiatry, 9 April 2018, New Delhi
2. Determination and treatment decisions for mental illness, Orientation Programme on Mental Health for Judicial Officers of DJS, DJHS, and other stakeholders like Jail Superintendents, Police Personnel etc, 5 May 2018, India
3. Say NO to harrasment, Residents’ wellness programme for first year residents’ batches in 2018-2019, 4 May 2018; 9 August 2018; 27 September 2018; 9 March 2019, New Delhi
4. Competence to stand trial, Workshop on Capacity assessment in criminal cases in post graduate development programme 2018, 30 June 2018, Faridabad
5. Rights of mentally ill persons in Mental health care act 2017 and rules 2018, Experts meeting for discussion on ‘mental health care act 2017’ and its implementation in central government institutes in Delhi, 5 October 2018, New Delhi
6. Suicide and violence in young persons, World Mental Health Day Public Lecture and Panel discussion on “Mental health and young people in a changing world”, 9 October 2018, New Delhi

Koushik Sinha Deb

1. Psychopharmacology in consultation liaison setting, National CME on Consultation Liaison Psychiatry, 9 April 2018, Delhi
2. Verbal and non-verbal communication in clinical situations, CMET Training for New Joined Nurses, 17 May 2018, New Delhi
3. Capacity assessment in criminal cases, Postgraduate Development Program, 2018—Indian Psychiatric Society—North Zone, 30 June 2018, Faridabad
4. Panel discussion for sensitizing Judicial Officers, Second Orientation Program on Mental Health—Delhi, Judicial Academy, Dwarka, 12 July 2018, New Delhi
5. Depression, burnout and suicide—Safety nets: Sensitizing residents in preventing Suicide, Wellness Program for Post-Graduate Trainees, 9 August 2018, 27 September 2018, 9 March 2019, New Delhi
6. The Mental Health Care Act, 2017: Overviews and Issues, Meeting on Implementation of Mental Healthcare Act, 2017, 5 October 2018, New Delhi
7. Community preparedness in disasters: How to minimize post disaster psychological sequelae, 25th National Conference of Indian Association for Social Psychiatry (25th NCIASP), 16-18 November 2018, Rohtak, Haryana
8. Somatoform disorders, integration of psychiatry with other subjects, Workshop on Providing Feedback to MCI for Undergraduate Curriculum, 5 December 2018, New Delhi
9. Overview of mental disorders and the importance of early management, Mental Health Public Lecture of the Rajasthan Kalyan Parishad: Mental Tension—Reason, Diagnosis and Preventive Measures, 23 December 2018, Noida
10. Artificial Intelligence in psychiatry, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS 2019), 31 January-3 February 2019, Lucknow
11. Ketamine use in treatment resistant depression, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS 2019), 31 January-3 February 2019, Lucknow

Rohit Verma

1. Childhood psychological trauma and brain/cognitive development, 1st National Conclave on Psychological Trauma, Child Protection and Mental Illness, 27-28 March 2018, New Delhi
2. Common reasons for psychiatric consultation, National CME on Consultation-Liaison Psychiatry, 9 April 2018, New Delhi
3. Functional near infrared spectroscopy: Hands-on training workshop, 2nd National CME on “Neuromodulation: Focus on Neuropsychiatry and Behavioral Neurology”, 13 May 2018, New Delhi
4. Robotic neuronavigation—Beyond cortical mapping, 2nd National CME on “Neuromodulation: Focus on Neuropsychiatry and Behavioral Neurology”, 13 May 2018, New Delhi
5. rTMS: An evolving approach to cater mental well-being, 3rd Global Conference of Biological Psychiatry, 23-26 August 2018, Mumbai
6. Role of tDCS in neuropsychiatric conditions, 33rd Annual Conference of Indian Psychiatric Society Rajasthan Chapter, 20-21 October 2018, Bikaner
7. Neuromodulation: Advances in management of Schizophrenia, Psychiatrist’s Association of Nepal (PAN) National CME, 15-16 November 2018, Chitwan, Nepal
8. Non-invasive neurophysiology and neuromodulation approaches—Role of Clinical psychologists, 64th Annual National Conference of the Association of Physiologists and Pharmacologists of India (APPICON 2018), 27 November-1 December 2018, Manipal, Karnataka
9. TMS: Hands-on training workshop, Workshop and Certificate Course on repetitive Transcranial Magnetic Stimulation (rTMS), 15 December 2018, New Delhi
10. Performing a peer review: Workshop for young mental health professionals, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS 2019), 31 January-3 February 2019, Lucknow

Bichitra Patra

1. Managing the agitated patient in the emergency setting, CME on Consultation Liaison Psychiatry, 9 April, 2018, New Delhi

Gagan Hans

1. Principles of handling psychiatric co-morbidities in non-communicable diseases: Conclusions and public health perspectives, National CME on Consultation-Liaison Psychiatry, 9 April 2018, New Delhi
2. Burnout and work-life balance, Wellness Program for Post Graduate Trainees, 9 August 2018 and 9 March 2019, New Delhi
3. Disaster management at policy level: What we have achieved and what can be done, National Conference of Indian Association of Social Psychiatry, 16-18 November 2018, Rohtak
4. Personality disorders, Psychosexual and gender identity disorders, Miscellaneous, Workshop on Providing Feedback to MCI for Undergraduate Curriculum; 5 December 2018, New Delhi
5. Ketamine use in treatment resistant depression, 71st Annual National Conference of Indian Psychiatric Society, 31 January-3 February 2019, Lucknow

Renu Sharma

1. Multidimensional psychological trauma assessment and intervention for CSA, Training workshop for counsellors, NGO’s workers, School Inspectors, Asha Workers and Child Care Institutions, 24 August 2018, Guwahati
2. Multidimensional psychological trauma assessment and intervention for CSA, Training workshop for Counsellors of Child Care Institutions, 28 August 2018, Aizawal, Mizoram

Oral Papers/Posters presented

1. Sharan P, Current status of child and adolescent mental health burden and resources in India, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
2. Sharan P, Scopes, principles and models of consultation-liaison psychiatry, Conference on “Consultation-Liaison Psychiatry” of IPS-Bihar State Branch, 6 January 2018, Patna
3. Sharma P, Sagar R, Deep R, Vivekandhan S, Familial pattern and association of polymorphisms in the KIAA0319 gene with specific reading disorder in children of north India attending tertiary hospital, World Psychiatric Association (WPA) Thematic Congress, April 2018, 15-18 May 2018, Ohrid, Republic of North Macedonia
4. Bhattacharya D, Bhargava R, Dhawan A, Sagar R, Systematic review of third-wave psychotherapies on adolescents in conflict with low: Recent trends, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic

5. Sagar R, Bhargava R, Patra BN, Sahu A, Specific learning disorder: A current update from a developing country, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
6. Patra BN, Sahu A, Bhargava R, Sagar R, Etiological perspective and co-morbidities with SLD, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
7. Choudhary V, Satapathy S, Sagar R, Development of a multi-dimensional scale to measure impact of trauma on children with sexual abuse (MSCSA): A pilot study, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
8. Choudhary V, Sathpathy S, Sagar R, Psychological trauma indicators in the human figure drawings of sexually abused and non-abused children in India: A comparative study, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
9. Mahapatra A, Choudhary V, Sagar R, Assessment of caregiver needs and its psychosocial correlates in parents of children suffering from neurodevelopmental disorder: An Indian perspective, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
10. Bhargava R, Sagar R, Epidemiology of developmental disorder in India, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
11. Patra BN, Rajhans P, Bhargava R, Sagar R, Physical co-morbidities and birth complications in children and adolescents with psychiatric disorder, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
12. Sahu A, Bhargava R, Mehta M, Sagar R, Development of home-based intervention for specific learning disability, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
13. Patil V, Sahu A, Sagar R, Mental health services for children and adolescents with intellectual disability: A review of literature, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
14. Sagar S, Mir N, Sahu A, Kumar S, Gupta A, Sagar R, Burden of post-traumatic amputations in children and adolescent at level 1 Trauma Center of India: A neglected psychosocial entity, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
15. Kaushal T, Satapathy S, Chadda RK, Bakshi S, Sagar R, Sapra S, Psychological outcome of care giving in childhood cancer: A study from India, 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 July 2018, Prague, Czech Republic
16. Salve HR, Pentapati SSK, Sagar R, Sreenivas V, Association of particulate matter exposure and depression: A Systematic Review and Meta-analysis (Poster), Joint Annual Meeting of International Society for Exposure Sciences—International Society for Environmental Epidemiology 2018, 29 August 2018, Ottawa, Canada
17. Masood M, Sagar S, Sagar R, Bed Sided Grief counselling sessions to a patient with amputation, International conference on cognitive behavioural intervention, 23-29 September 2018, Gurgaon
18. Tolahunase M, Chaurasia P, Sagar R, Dada R, Impact of Yoga and Meditation-Based Lifestyle Intervention on Depression, Quality of Life, And Cellular Aging in Infertile Couples, ASRM 2018—74th American Society for Reproductive Medicine Scientific Congress and Expo, USA, 6-10 October 2018, Denver, Colorado, USA
19. Sharma P, Sagar R, Pattanayak RD, A hospital based comparative study of Specific Reading Disorder (Dyslexia) in Indian setting, International Conference on Child and Adolescent Mental Health, 2-3 November 2018, Nepal
20. Sharma U, Maqbool M, Mir N, Kumar S, Arulselvi, Sagar R, Sagar S, Impact of Yoga therapy on perceived quality of life, depression, anxiety and stress among patient with lower limb amputation, Admitted at Surgical Unit of level I Trauma Centre, AIIMS, International Yoga Conference on Yoga for Public Health, 12-13 November 2018, Goa
21. *Batra P, Dhawan A, Sagar R, Mehta M, Pandey RM, The relationship between illness disability and functioning with Caregiver's perception of needs in patients with first episode Schizophrenia: An exploratory study, Silver Jubilee National Conference of Indian Association for Social Psychiatry, 16-18 November 2018, Rohtak*
22. *Sagar R, Singhal S, Kohli A, Batra P, Symposium VII child sexual abuse in India—Not under the carpet any more, Silver Jubilee National Conference of Indian Association for Social Psychiatry, 16-18 November 2018, Rohtak*
23. Salve HR, Kamble B, Krishnan A, Sagar R, Kant S, Nongkynrih B, Sreenivas V, Association of Common Mental Disorders and diabetes mellitus—Evidence from Case Control Study in rural Ballabgarh, Haryana, 13th SEA Regional Scientific Meeting of the International Epidemiological Association and International Conference on Public Health and Sustainable Development-IEA SEA 2018, November 2018, Bali, Indonesia

24. Sundari B, Poongothai S, Anjana RM, Rao D, Chwastiak L, Tandon N, Shankar R, Sridhar G R, Aravind SR, Sagar R, Ali MK, Mohan V, Perspectives from training the Care Coordinators—A new cadre to support team-based diabetes and depression: The Integrating DEPrEssioN and Diabetes Treatment (INDEPENDENT) study, 46th Annual Meeting of Research Society for the Study of Diabetes in India (RSSDI), 22-25 November 2018, Ahmedabad
25. Sadhu R, Mongia M, Mehta M, Sagar R, Veena K, Neuropsychological and Behavioural Deficits in Indian Children with Specific Developmental Disorders of Scholastic Skills, 2018 HKCPsych International Mental Health Congress, 14-16 December 2018, Hong Kong
26. Sagar S, Maqbool M, Sharma U, Mir N, Kumar S, Sagar R, Effectiveness of YOGA on QOL, Self esteem and psychopathology among patient with lower limb amputation admitted at Surgical Unit of Level I Trauma Center, AIIMS: A pilot study, ANCIPS 2019, 31 January-3 February 2019, Lucknow
27. Kaul RP, Sagar S, Kumar S, Bhutia O, Singhal M, Gupta A, Sagar R, 3D printing technology assisted surgery for maxillofacial trauma: Our experience at Level 1 Trauma Centre, First AIIMS Research Day, 25 March 2019, New Delhi
28. Kaul RP, Sagar S, Kumar S, Singhal M, Gupta A, Sagar R, Fat grafting Surgery for Post Traumatic Maxillofacial Defects: Our experience at Level 1 Trauma Centre, First AIIMS Research Day, 25 March 2019, New Delhi
29. Moorthy AS, Sagar S, Kumar S, Sagar R, Trikha V, Sawhney C, Kalaivani, Effect of Virtual Reality Therapy (VRT) in improving balance and quality of life among the lower limb amputees—A randomized control trial, First AIIMS Research Day, 25 March 2019, New Delhi
30. Tolahunase M, Sagar R, Dada R, Impact of yoga- and meditation-based lifestyle intervention on depression, quality of life, and cellular aging in infertile couples, First AIIMS Research Day, 25 March 2019, New Delhi
31. Kaul RP, Sagar S, Kumar S, Singhal M, Gupta A, Sagar R, Fat grafting surgery for Post Traumatic Maxillofacial Defects: Our experience at Level 1 Trauma Centre, First AIIMS Research Day, 25 March 2019, New Delhi
32. Kaul RP, Sagar S, Kumar S, Bhutia O, Singhal M, Gupta A, Sagar R, 3D printing technology assisted surgery for maxillofacial trauma: Our experience at Level 1 Trauma Centre, First AIIMS Research Day, 25 March 2019, New Delhi
33. Moorthy AS, Sagar S, Kumar S, Sagar R, Trikha V, Sawhney C, Kalaivani, Effect of Virtual Reality Therapy (VRT) in improving balance and quality of life among the lower limb amputees—A randomized control trial, First AIIMS Research Day, 25 March 2019, New Delhi
34. Mutahar A, Vivekanandhan S, Jain S, Srivastava AK, Sagar R, Circadian clock gene expression and ultrastructural changes in rat model of mania-like behavior, First AIIMS Research Day, 25 March 2019, New Delhi
35. Choudhary V, Satapathy S, Sagar R, Child sexual abuse: Development of a multi-dimensional scale and a psychological trauma treatment protocol, First AIIMS Research Day, 25 March 2019, New Delhi
36. Kaushal T, Satapathy S, Chadda RK, Bakhshi S, Sagar R, Development and feasibility a socio-culturally sensitive psychosocial intervention for children with acute lymphoblastic leukemia and their families: A mixed method study at AIIMS, Delhi, First AIIMS Research Day, 25 March 2019, New Delhi
37. Sharma P, Mehta M, Sagar R, Bhargava R, Comparative study of individual versus group transdiagnostic cognitive behavior therapy in adolescents with headache and anxiety disorder, First AIIMS Research Day, 25 March 2019, New Delhi
38. Leon C, Batabyal T, Tayade P, Sagar R, Sharma R, Kaur S, Behavioural correlates of cognitive interference in attention deficit hyperactivity disorder, First AIIMS Research Day, 25 March 2019, New Delhi
39. Ahmad A, Salve HR, Nongkynrihh B, Sagar R, Krishand A, Mental health literacy among adolescents in an urban area of Delhi, First AIIMS Research Day, 25 March 2019, New Delhi
40. Rajhans P, Sagar R, Kabra SK, Bhargava R, Patra BN, Psychiatry morbidity and cognitive functioning in children and adolescents with bronchial asthma, First AIIMS Research Day, 25 March 2019, New Delhi
41. Gudwani S, Upadhyay P, Sharma K, Sagar R, Dhamija RK, Kumaran SS, Cine imaging using water (Saline) bolus for investigating swallowing problems (Dysphagia) in Parkinson's Disease, ISMRM Workshop on Accessible MRI for the World India International Centre, 29-31 March 2019, New Delhi
42. Satapathy S, Full day workshop on Trauma-Focused CBT for Child Sexual Abuse (CSA), 3rd International Conference on Cognitive Behavioural Interventions, 25-29 September 2018, Gurgaon
43. Deep R, Jain R, Singh S, Kumar S, Mahal P, Vishwakarma A, Assessment of the lithium related knowledge, attitude and their relationship to adherence among bipolar disorder patients on lithium maintenance therapy, The 21st Annual International Society for Bipolar Disorder (ISBD) Conference, 20-23 March 2019, Sydney, Australia
44. Deep R, Jain R, Chawla N, Modak T, Ganesh R, Response to Lithium prophylaxis among patients with Bipolar Disorder: Relationship to clinical factors and inflammatory cytokine (TNF- α), The 21st Annual International Society for Bipolar Disorder (ISBD) Conference, 20-23 March 2019, Sydney, Australia

45. Chawla N, Pattanayak RD, Khandelwal SK, Garg A, Diffusion tensor imaging studies in Auditory hallucinations: A review, 71st Annual National Conference of Indian Psychiatric Society, 31 January-3 February 2019, Lucknow
46. Chawla N, Pattanayak RD, Khandelwal SK, Garg A, Hallucinatory experiences of Schizophrenia patients with persistent auditory hallucination, 71st Annual National Conference of Indian Psychiatric Society, 31 January-3 February 2019, Lucknow
47. Bohit A, Pramanik R, Deb KS, Assessment of distress, anxiety and depression symptoms among cancer patients and their relatives of suspected familial cancer visiting IRCH genetic clinic for counselling and analysis of the effect of genetic counselling on them, 8th Nursing Symposium on Cancer Care, 24 and 25 May 2018, Hong Kong
48. Verma R, Kumar N, Choudhary V, Bhati N, Sharma R, Transcranial direct current stimulation for cognitive rehabilitation in traumatic brain injury, 12th World Congress of the International Society of Physical and Rehabilitation Medicine (ISPRM), 8-12 July 2018, Paris, France
49. Srinivas R, Kumar N, Verma R, Repetitive Transcranial Magnetic Stimulation (rTMS) and seizure: A case report and critical analysis, 3rd Global Conference of Biological Psychiatry, 23-26 August 2018, Mumbai
50. Shubham N, Roy S, Kumar N, Verma R, Case vignette: Psychosurgery in a case of treatment refractory obsessive-compulsive disorder, 3rd Global Conference of Biological Psychiatry, 23-26 August 2018, Mumbai
51. Srinivas R, Roy S, Verma R, Kumar N, Seizure and psychosis: Forced normalization a case report and narrative review, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS 2019), 31 January-3 February 2019, Lucknow
52. Chattopadhyay A, Uikey MS, Verma R, Kumar N, Intermittent Theta Burst Stimulation (iTBS) for managing treatment resistant depression, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS 2019), 31 January-3 February 2019, Lucknow
53. Gupta S, Sood M, Verma R, Singh J, Comparative survey of factors associated with illness related knowledge among patients with severe mental illness and their caregivers, National Conference of Indian Association for Social Psychiatry (NCIASP) 2018, 16-18 November 2018, Rohtak
54. Ganesh R, Verma R, Bhargava R, Sood M, Relationship between illness disability in patients with first-episode Schizophrenia with Caregivers' perception of their needs, National Conference of Indian Association for Social Psychiatry (NCIASP) 2018, 16-18 November 2018, Rohtak
55. Patra BN, Epidemiology of emotional and behavioural disorders in children and adolescents, 23rd World Congress of International Association for Child and Adolescent Psychiatry and Allied Professions, July 2018, Prague, Czech Republic
56. Sagar R, Patra BN, Gupta P, Kumar M (Symposium), Study on Gap Analysis in Mental Health Care Services in Child Care Institutions of Delhi State, Annual National Conference of Indian Psychiatric Society (ANCIPS), 31 January-3 February 2019, Lucknow
57. Bhatnagar A, Gupta SK, Hans G, Gaddi V, Pandey V, Garg R, A Study on Domestic Violence against women and psychological co-morbidities in servant quarters of a tertiary care hospital in North India, 25th Annual Conference of International Association of Applied Management, 17-19 July 2018, Las Vegas, USA
58. Abdus MS, Moideen N, Hans G, Sharan P, Management difficulty due to interplay of emotionally unstable personality disorder and body dysmorphic disorder with anorexia: A case report, National Conference of Indian Association of Social Psychiatry, 16-18 November 2018, Rohtak
59. Jangra J, Shukla T, Hans G, A narrative review of creativity and mood disorders, 71st Annual National Conference of Indian Psychiatric Society, 31 January-3 February 2019, Lucknow
60. Kathiresan P, Rao R, Narnoli S, Hans G, Sharan P, Successful management of a case of protracted delirium tremens, 71st Annual National Conference of Indian Psychiatric Society, 31 January-3 February 2019, Lucknow
61. Faheem A, Rajkumar S, Hans G, Attenuated psychosis syndrome—New name for known entity—Narrative review, 71st Annual National Conference of Indian Psychiatric Society, 31 January-3 February 2019, Lucknow
62. Brammanathan S, Moideen N, Hans G, Hans SP, Sharan P, Organic catatonia with neurocysticercosis and hyperparathyroidism a rare presentation, 71st Annual National Conference of Indian Psychiatric Society, 31 January-3 February 2019, Lucknow

RESEARCH

Funded projects

Ongoing

1. NIHR Global Health Research Group on Psychosis Outcomes: The Warwick-India-Canada (WIC) Network, RK Chadda, National Institute of Health Research, UK, 3 years, 2017-2020, 269,146 GBP
2. Detection of New Psychoactive Substances among Substance Abuse Treatment Seekers in India—Multi Centric Study, RK Chadda, Department of Revenue, Government of India, 3 years, 2017-2020, Rs 651 lakhs

3. Development of Panic and Anxiety Indian Questionnaire (PANIQ), Pratap Sharan, ICMR, 3 years, 2018-2020, Rs 180 lakhs
4. Psycho-social outcome and Cognitive functions in Bipolar disorder: A longitudinal study, Rajesh Sagar, DST, 3 years, 2016-2019, Rs 28.53 lakhs
5. Impact of Post-Partum Depression and Anxiety on Infant Growth and Development: A Community Cohort Study, Rajesh Sagar, Self (extension of previous project), 3 years, 2016-2019, Rs 8.57 lakhs
6. Psychiatric morbidity and its early antecedents in the New Delhi Birth Cohort, Rajesh Sagar, QED and WHO-SEARO, 3 years, 2018-2020, Rs 8.67 lakhs
7. Clinical study, translation, cross cultural adaptation and development of norms of Cognitive Assessment System (COGNISTAT) for persons from Northern India, Rajesh Sagar, Cognitive Health Rehabilitation System LLP, 1 year, 2018-2019, Rs 7.92 lakhs
8. Center for Advance Research and Excellence (CARE) in Neuromodulation on Mental Health, Nand Kumar, ICMR, 5 years, 2019-2024, Rs 450 lakhs
9. To study the effect of high-frequency repetitive Transcranial Magnetic Stimulation (rTMS) in cognitive function and predominately negative symptoms in people suffering from Schizophrenia in Randomized Sham Controlled Double Blind Trial, Nand Kumar, DST, 3 years, 2015-2018, Rs 50.56 lakhs
10. NIHR Global Health Research Group on Psychosis Outcomes: Protocol based assessment and management of First Episode Psychosis (AIIMS Centre), Mamta Sood, National Institute of Health Research, UK, 3 years, 2017-2020, 115590 GBP
11. Feasibility and Efficacy Testing of Newly Developed AIIMS CTT (Non-computer based Cognitive Training Intervention Kit) for 6-11 years Old Children with ADHD, Sujata Satapathy, AIIMS, 2 years, 2018-2020, Rs 3.6 lakhs
12. Psychological Trauma Resilience in Children and Adolescents: Development and Psychometric Properties of a Multidimensional Scale, Sujata Satapathy, DST/CSRI, 3 years, 2017-2019, Rs 43.17 lakhs
13. Biomarkers of Lithium response in Bipolar disorder: Assessment of the clinical markers, peripheral blood based markers and gray matter volume in individuals with bipolar disorder on long-term lithium prophylaxis, Raman Deep, DST:ECRA, 3 years, 2018-2020, Rs 21.21 lakhs
14. Diffuse optical tomography based cortical analysis for evaluating auditory semantic and prosodic content, language acquisition and facial identification as determinants of emotion recognition in schizophrenia, Rohit Verma, DST CSRI Research Grant, 3 years, 2018-2021, Rs 51.98 lakhs
15. A study of acute and longitudinal effects of brain stimulation in treatment of depression and schizophrenia, Rohit Verma, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
16. H1-MR spectroscopy based evaluation of metabolic abnormalities in right dorsolateral prefrontal cortex in patients with obsessive compulsive disorder- a pilot study, Gagan Hans, AIIMS, 2 years, 2017-2019, Rs 0.9 lakhs
17. Translation and validation of the Teen Addiction Severity Index on Indian population, Renu Sharma, AIIMS, 2 years and 3 months, 2015-2018, Rs 2 lakhs

Completed

1. A study of brain activation using functional near infrared spectroscopy and quantitative electro-encephalographic spectral analysis in catatonia, Rohit Verma, AIIMS, 3 years, 2015-2018, Rs 2.25 lakhs
2. Field testing of ICD-11 proposals for sexual disorders and sexual health in India, Pratap Sharan, WHO, 3 years, 2016-2018, Rs 12 lakhs
3. Development of Identification Instrument for Prolonged Grief Disorder in SEAR countries, Pratap Sharan, WHO SEARO, 2 years, 2016-2018, Rs 4 lakhs

Departmental projects

Ongoing

1. Development of a multidimensional trauma scale and psychological trauma focused intervention for child sexual abuse
2. Development of home based intervention for specific learning disorder
3. Development of cognitive behavioral based intervention module for adolescents in conflict with law
4. Study of immunological, oxidative markers and cognitive function in ADHD
5. Preliminary assessment of the therapeutic efficacy of intermittent Theta-Burst Magnetic Stimulation (iTBS) in treatment resistant depression: A double blind sham controlled study

6. Repetitive transcranial magnetic stimulation in medication non-responsive obsessive compulsive disorder: A randomized double blind parallel group sham controlled trial to compare different sites of stimulation
7. Child sexual abuse: Development of multidimensional scale and psychological trauma focused intervention module
8. Psycho-behavioural and cognitive functioning of children with acute lymphoblastic leukaemia: Development and feasibility of composite psychological intervention module
9. Psychological trauma resilience in children and adolescents: Development and psychometric properties of a multidimensional scale
10. Psychiatric morbidity, quality of sleep, and mental adjustment style among adult myeloma patients in active treatment and maintenance phase
11. Assessment of Gray Matter Volume and White Matter Integrity in patients with suicidality in Bipolar disorder type I
12. Repetitive transcranial magnetic stimulation in medication non-responsive obsessive-compulsive disorder: A randomized double blind parallel group sham controlled trial to compare different sites of stimulation
13. Neuro-physiological and neuro-cognitive markers of prefrontal functioning as predictors of treatment response in first episode psychosis
14. Effects of brain stimulation in treatment of depression: A diffuse optical tomography study of acute and longitudinal effects on brain function
15. A pilot randomized controlled trial of targeted prefrontal cortex modulation with anodal transcranial Direct Current Stimulation (tDCS) for examining task dependent effect on executive functioning
16. A pilot randomized controlled trial of targeted prefrontal cortex modulation with bilateral transcranial Direct Current Stimulation (tDCS) for reducing craving in patients with opioid dependence
17. Behavioral effects of transcranial Direct Current Stimulation (tDCS) induced dorsolateral prefrontal cortex plasticity in alcohol dependence
18. Effects of brain stimulation in treatment of depression: A diffuse optical tomography study of acute and longitudinal effects on brain function
19. Neural correlates of obsessive compulsive disorder and its washing subtype: A cross-sectional fMRI study
20. A study of serum brain-derived neurotrophic factor levels in patients of schizophrenia on clozapine therapy and its association with clinical profile
21. A comparative study of neurochemical alteration in schizophrenia, obsessive compulsive disorder and schizophrenia with obsessive compulsive symptoms
22. Metacognitive therapy in depressive disorders

Completed

1. Prefrontal cortical activity in children with ADHD: A functional Near Infrared Spectroscopy (fNIRS) study
2. Emotional and behavioural health status associated with HIV status disclosure in children with HIV infection aged 8-18 years
3. Transcranial Direct Current Stimulation (tDCS) in treatment resistant obsessive-compulsive disorder: An open label trial
4. Neurochemical profile using magnetic resonance spectroscopy in subjects with Bipolar disorder type-I on Lithium Prophylaxis: Assessing the relationship to Lithium response
5. Assessment of knowledge, attitude and medication adherence pertaining to lithium prophylactic therapy in patients with bipolar disorder: Relationship to clinical variables
6. Serum BDNF levels in patients of first episode Schizophrenia: A pilot study
7. A pilot study of resting state quantitative electroencephalographic spectral analysis in Schizophrenia
8. A study on socio-cultural perspectives of the family care giving in patients with Schizophrenia
9. A cross-sectional study of association of illness disability and cognitive functioning in patients to caregiver needs in first episode Schizophrenia
10. A study of knowledge and attitude regarding ECT and rTMS among patients and their caregivers
11. To assess change in knowledge towards mental illness and treatment among caregivers of patient' with severe mental illness in a tertiary mental health care in-patient setting: A case-control study
12. A cross-sectional study about knowledge towards mental illness and treatment in patients with severe mental illness and their caregivers

13. Effect of cognitive and emotional stress in patients of multi-somatoform pain disorder: A FMRI based case control study
14. An observational study of side effects of selective serotonin reuptake inhibitors in patients attending psychiatric outpatient clinic
15. Evaluation of the effect of prosthodontic rehabilitation on quality of life and psychological distress in maxillectomy patients—A preliminary study
16. A study to assess knowledge regarding identification of delirium in various ICUs patients among staff nurses working in AIIMS, New Delhi
17. Depression and anxiety disorders in patients with type 2 diabetes mellitus and its relation with glycemic control, quality of life and disability
18. A study of the association of anxiety and depression with cardiac arrhythmia in post myocardial infarction patients
19. Assessment of needs, scope and focus for Consultation Liaison Services at AIIMS, New Delhi

Collaborative projects

Ongoing

1. A comparative study of neurochemical alteration on H1 MRS in schizophrenia, obsessive compulsive disorder and schizophrenia with obsessive compulsive symptoms, NMR
2. A cross sectional study to assess the severity of chronic pruritus and its effect on quality of life using the 12-item pruritus severity scale and the 5-ditch scale, Dermatology
3. A pilot multicentre open label parallel arm RCT evaluating whether yoga can delay initiation of insulin therapy in patients with type 2 diabetes mellitus with suboptimal glycemic control on near maximal oral drugs and/or who may require insulin therapy in near future, Endocrinology
4. A prospective study comparing outcomes and quality of life after laparoscopic donor nephrectomy versus open donor nephrectomy, Surgical Disciplines
5. A randomised, two arm, comparative, clinical study to evaluate the effectiveness of early integrated palliative care versus routine oncological care in advanced sarcoma patients in tertiary care centre in India, Medical Oncology, IRCH
6. A randomized control trial to study the impact of Yoga intervention in lower limb amputees following trauma in relation to postsurgical outcome, behavior and quality of life at Level I Trauma Centre, JPNATC
7. A study of allocentric neural navigation process schematic utilizing dynamic optic array for prospective control, Physiology
8. A study of autonomic functions in adolescents with specific learning disorder (Dyslexia) with and without comorbid ADHD, Paediatrics
9. A study to assess the factors influencing delay in treatment seeking in patients of common mental disorders, College of Nursing
10. A three arm randomized controlled study to compare sexual functions following open mesh hernioplasty, Laparoscopic Totally Extra Peritoneal (TEP) and Trans Abdominal Pre-Peritoneal (TAPP) repair of Groin Hernia, Surgical disciplines
11. A translational randomized trial of yoga-based lifestyle intervention for major depressive disorder (MDD) management in India and analyzing biomarkers of cellular aging associated with it, Anatomy
12. AADAR-Dementia Science Program (DSP), Biotechnology
13. Anatomical and functional changes in chronic central serous chorioretinopathy patients following various treatment modalities, Ophthalmology
14. Anxiety, stress and depression and quality of life assessment in patients undergoing keratoplasty surgery, Dr RP Centre
15. Assessment of cognitive, neuroanatomical and neurofunctional abnormalities in adults with type 1 Diabetes, Endocrinology
16. Assessment of distress, anxiety and depression symptoms amongst patients of suspected familial cancer visiting the IRCH genetic clinic for counselling and analysis of the effect of genetic counselling on them: A prospective cohort study, Medical Oncology, IRCH
17. Assessment of emotional and behavioral problems and quality of life among children and adolescents with cleft lip and palate, Centre of Dental Education and Research
18. Assessment of mental health services in district Faridabad, Haryana—A mixed method study, Centre for Community Medicine

19. Association between parental growth patterns and chronic disease risk in their children-An intergenerational study in the New Delhi Birth Cohort, Public Health Foundation of India
20. Association of common mental disorders with diabetes mellitus—A Community based Case-control Study in North India, Centre for Community Medicine
21. Burden and associated factors of chronic multimorbidity among adults (>30 years) in rural Ballabgarh, North India, Centre for Community Medicine
22. Central serous chorioretinopathy and Meditation: Functional and morphological outcome study, Ophthalmology
23. Cleft lip and palate anomaly in India; Clinical profile risk factors and current status of treatment: A hospital-based study, Main Phase, Centre for Dental and Educational Research
24. Collaborative care for depression and diabetes in India, Endocrinology
25. Common mental disorders and related mental health literacy among adolescents in an urban area of Delhi, Centre for Community Medicine
26. Comparison of “Multigene hereditary panel testing” profiles in breast cancer patients qualifying and not qualifying the NCCN 2018 criteria for genetic testing: A prospective study in North Indian population, Medical Oncology, IRCH
27. Comparison of effect of antidepressants on neurodegeneration in patients with depression, Pharmacology
28. Comparison of quality of life after single stage vs two stage management of patients with concomitant gall stones and common bile duct stones: A prospective randomized control trial, Surgical Disciplines
29. Content analysis and linguistic analysis of suicide notes, Forensic Medicine and Toxicology
30. Convergent validation of proposed behavioural indicators of intellectual and adaptive behaviour functioning for ICD-11, University of Ottawa and World Health Organization, Geneva
31. Correlation between preoperative CSF melatonin levels and post-operative delirium in geriatric hip fractures-intra-mural funding, Orthopaedics
32. Correlation of cortical sources and brain iron during rest and visuospatial working memory in attention deficit hyperactive disorder, Physiology
33. Depressive disorders amongst adolescents in rural Ballabgarh: A community based study, Centre for Community Medicine
34. Development and assessment of efficacy and acceptability of comprehensive treatment module in the management of patients with medically unexplained physical symptoms, Medicine
35. DTI, fMRI and qEEG correlates of cognition and behaviour in children and adolescents with well controlled non-lesional epilepsy: An observational study, Paediatric Neurology
36. EEG microstates of perceptual reversals of emotional stimuli in schizophrenia during binocular rivalry, Physiology
37. Effect of 30 minutes of YOGA and Meditation and life style modification in comparison to standard treatment on person with mild to moderate depressive disorders, Mental Health Foundation (India)
38. Effect of cognitive and emotional stress in patients of multi-somatoform disorder: A fMRI based case-control study, Nuclear Magnetic Resonance
39. Effect of EMF radiation due to mobile phone use on sleep and neurocognitive functions: A molecular approach, Medicine
40. Effect of integrated Yoga on ART outcomes and Psychological stress in patients undergoing In-Vitro-Fertilization (IVF) cycles: A prospective randomized controlled trial, Obstetrics and Gynaecology
41. Effect of Mindfulness Based Stress Reduction (MBSR) on Optic Disc Perfusion using OCT Angiography in Glaucoma Patients: A randomized controlled trial, Dr Rajendra Prasad Centre for Ophthalmic Sciences
42. Effect of paravertebral anaesthesia on quality of life scores and circulating tumour cells in breast cancer patients, Anaesthesia
43. Effect of Virtual Reality Therapy (VRT) in improving balance and quality of life in lower limb amputation, Trauma Centre
44. Effect of Yoga on psychological, cognitive and glycemic control in patients with T2DM and depression: Two arm parallel randomized controlled trial, Endocrinology
45. Effects of a preoperative carbohydrate drink on postoperative vomiting in paediatric strabismus surgery: A randomised controlled observer blinded trial, Anesthesiology
46. Effects of Yoga based lifestyle interventions on biomarkers of cellular aging in patients with depression, Laboratory for Molecular Reproduction and Genetics
47. Efficacy of a Family based comprehensive Yoga Program for weight reduction among over-weight children and Adolescents, Paediatrics, AYUSH

48. Efficacy of Yoga on symptom severity and quality of life of patients suffering from pain predominant Medically Unexplained Physical Symptoms (MUPS), Medicine
49. Evaluation of eating disorders and their effect on metabolic parameters and glycemic control in adult patients with diabetes mellitus type 2, Endocrinology
50. Evaluation of health-related quality of life in nystagmus patients, Dr RP Centre for Ophthalmic Sciences
51. Evaluation of prevalence, regional phenotypic variation, comorbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with Polycystic Ovary Syndrome (PCOS): A multicenter study across India, Endocrinology
52. Extent of internet use amongst adolescence with non-psychotic disorders: A case control study, AIIMS, New Delhi
53. Feasibility of introducing yoga and its effect on stress and perceived well-being on new medical under-graduate students of AIIMS, New Delhi, Centre for Community Medicine
54. Genetic association of cytokines with suicidal behavior in Indian population, Forensic Medicine and Toxicology
55. Genetic polymorphisms of serotonergic pathways genes and their association studies with disease severity and response to escitalopram treatment in patients with major depressive disorder, Institute of Genomics and Integrative Biology (IGIB)
56. Identification of biomarkers for cognitive impairment in mild and moderate traumatic brain injury patients, Trauma Centre
57. Impact of behavior and temperament on food intake and diet quality of adolescents studying in public schools of Delhi, Delhi University
58. Mapping functional and biochemical correlates in brain of Parkinson's Patient with Mild Cognitive Impairment, Nuclear Magnetic Resonance
59. Morphological, functional, biochemical and behavioral evaluation post—EMF radiation, Nuclear Magnetic Resonance
60. Neural correlates of obsessive-compulsive disorder and its washing subtype: A cross-sectional fMRI study, Nuclear Magnetic Resonance
61. Neurocognitive rehabilitation modules for patients with schizophrenia, Neuropsychology, CN Centre
62. Neuropsychiatric adverse effects of antiepileptic drugs: Focus on levetiracetam, Pharmacology
63. New Delhi Birth Cohort—Follow-up studies to Assess Association of Early Life Growth Patterns on Lung function, Cardio metabolic risk factors and mental health in a family cohort, Public Health Foundation of India
64. Optimizing diet and insulin regimes in children with type 1 diabetes in low-resource settings, Paediatrics
65. Prevalence and factors affecting preoperative anxiety, depression, and distress in cancer patients: A prospective cross-sectional study, Onco-Anaesthesia and Palliative Medicine
66. Prevalence of common mental disorders among pregnant women in rural Ballabgarh, Haryana, Centre for Community Medicine
67. Prevalence of mental health problems (anxiety, depression and stress reactions) in mothers of pre-term infants NICU—A cross sectional study, Obstetrics and Gynecology
68. Primary versus delayed primary closure in patients undergoing lower limb amputation following trauma: A randomized control study, Trauma Surgery
69. Prospective pilot study evaluating incidence of postoperative cognitive decline in older adults comparing isoflurane and desflurane, Anesthesiology
70. Prospective randomized controlled study comparing long term outcome, chronic pain, quality of life and cost effectiveness following laparoscopic repair of incision and ventral hernias with different techniques of Mesh Fixation—A pilot study, Surgical Disciplines
71. Prospective randomized controlled study comparing long term outcomes, chronic pain, quality of life and cost effectiveness following two techniques of mesh fixation—Non-absorbable versus absorbable tackers for laparoscopic mesh repair of incisional and ventral hernias, Surgical Disciplines
72. Prospective randomized controlled study to compare the outcome of standard four port laparoscopic cholecystectomy with single incision laparoscopic cholecystectomy in patients with Gall Stone Disease, Surgical Disciplines
73. Prospective randomized controlled trial comparing the effects of intraoperative dexmedetomidine and lignocaine administration over the incidence of post-operative cognitive decline in elderly, Anaesthesiology
74. Psychiatric morbidity and cognitive functioning in children and adolescents with bronchial asthma
75. Psychiatric morbidity in HIV/TB co-infection, Medicine and Microbiology
76. Psycho-behavioural and cognitive functioning of children with acute lymphoblastic leukemia: Development of a composite psychological intervention module

77. QEEG based neural correlates and microstates of attention and interference in ADHD—An endophenotypic marker, Physiology
78. QEEG based neural correlates and microstates of attention and interference in ADHD: An endophenotypic marker, Physiology
79. Qualitative study exploring perspectives on the International Classification of Diseases (11th revision); Using lived experience to improve mental health Diagnosis in India, World Health Organization, Geneva, Switzerland
80. Quality of life following BCS and mastectomy along with sentinel node biopsy in operable breast cancer, Surgery
81. Reconstruction of post-traumatic facial defects using adipose tissue derived mesenchymal stem cells seeded on 3D Printed Hydroxyapatite Scaffold guided by CAD Models in Zygomatico-orbito maxillary complex fractures, Trauma Surgery
82. Severity and pattern of early childhood caries and parental stress among pre-school children and its association with various behavioral factors, A hospital-based study, Centre of Dental Education and Research
83. Study of clock genes in rat model of mania-like behavior, Neurochemistry
84. Study of cortical sources of EEG and brain iron levels during rest and visuospatial working memory in Attention Deficit Hyperactivity Disorder (ADHD), Physiology
85. Study of molecular and peripheral blood biomarkers and their utility to diagnose mild and moderate Traumatic Brain Injury (TBI) induced cognitive impairment, Laboratory Medicine
86. Sustainable psychological first aid services in Tihar Prison, Mental Health Foundation (India)
87. Systematic Medical Appraisal, Referral and Treatment (SMART) Mental Health Programme
88. The Integrative Systematic Palliative Care (ISPC) vs Standard oncology care in advanced non-small cell lung cancer at a tertiary care centre in India: A prospective randomized controlled trial, Onco-Anaesthesia and Palliative Medicine
89. To correlate functional near infra-red spectroscopy measurement of auditory cortex activation with auditory verbal outcome in prelingual profound sensorineural hearing loss patients after cochlear implantation, Otorhinolaryngology
90. To determine the association between decreased cerebral blood flow in the prefrontal cortex intraoperatively and incidence of postoperative emergence delirium in children (2-5 years) induced and maintained with Sevoflurane: An fNIRS based Observational Study, Otorhinolaryngology
91. To develop an Oral Health Toolkit for Paediatric Oncology Patients (OHTPOP) and compare its effectiveness for a better oral health status and lesser oral complications versus standard of care, Centre of Dental Education and Research
92. To evaluate results of soft tissue reconstruction and augmentation with structural fat grafting in patients with post traumatic facial disfigurement, Trauma Surgery, JPNATC
93. To study clinical and immunological parameters in predicting short term outcomes in polytrauma patients admitted to Trauma Surgery, Trauma Surgery
94. To study management, outcomes and quality of life in patients with pelvic fracture at level I Trauma Center, Trauma Surgery
95. To study the effect of mobile phones on well-being, sleep and cognitive functions, Medicine
96. To study the effect of Yoga on Pulmonary Functions, Respiratory muscle strength and endurance, Chest wall mobility, Inflammatory markers and quality of life in blunt chest trauma patients and their correlation with Thoracic Trauma Severity Score at level I Trauma Centre, Trauma Surgery
97. Toxicological analysis and distribution pattern of alcohol and different drugs in various biological samples and their neurobiological effects in suicidal deaths, Forensic Medicine
98. Translational application of novel clinically accessible biological predictors to improved identification of mild and moderate Traumatic Brain Injury (TBI) induced neuropsychological impairment, Laboratory Medicine, JPNATC
99. Two arm parallel open-label randomized controlled add on trial to investigate the efficacy of Shirodhara (Ayurvedic Oil-Dropping Treatment) in the subjects with Chronic Insomnia Disorder, CIMR
100. Utility on novel Coated Platelets as a marker for early prognostication of neurocognitive impairment following traumatic injury, Trauma Centre, JPNATC

Completed

1. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of schizophrenia and Parkinson's Disease, Biophysics
2. Real time localization of brain area using Neuro navigation for TMS application in Stroke and Obsessive Compulsive Disorders patients, IIT Delhi

3. Perioperative anxiety and stress in children and parents undergoing congenital cardiac surgery: Effect of brief intervention, Department of Cardiac Anaesthesia, AIIMS, New Delhi
4. Development of A Scale to Measure the Psychosocial Impact of Vitiligo in Family Members of Patients, Department of Dermatology, AIIMS, New Delhi
5. Association of inflammatory cytokines with suicidal deaths: A hospital based comparative cross-sectional study, Department of Forensic Sciences and Toxicology, AIIMS, New Delhi
6. Clinical and biochemical evaluation for depression in patients with recently diagnosed head and neck cancer (Funded by AIIMS, Intramural Research Grant), Department of ENT, AIIMS, New Delhi
7. Study of peripheral stress biomarkers (S100B, 8-Isoprostane and 8-hydroxy-2-deoxyguanosine) in Major Depression-Department of Lab Medicine
8. Study of polymorphisms in TNF- α [308 G/A], IL-1 β [511 C/T], and IL-6 [174 G/C] genes in patients of Depression: Their association and clinical severity, Department of Lab Medicine
9. To study the effect of mobile phone use on well being, Sleep and cognitive function, Department of Medicine
10. HIV associated neurocognitive decline and brain metabolism, Department of Medicine
11. Impact of depression and anxiety symptoms on food intake of adolescents (13-15 years) studying in public schools of Delhi, Department of Home Economics, University of Delhi
12. To study clinical and immunological parameters in predicting short term outcomes in polytrauma patients admitted to Trauma Surgery
13. To assess the effect of repetitive Transcranial Magnetic Stimulation (rTMS) on cognitive functioning in patients with moderate TBI

PUBLICATIONS

Journals: 80

Abstracts: 25

Chapters in books: 15

Books: 1

PATIENT CARE

- **Special Clinics:**

Psychosomatic Clinic: Once in a week

Common Mental Disorders Clinic: Once in a week

Child and adolescent psychiatric specialty services

Severe Mental Disorders Clinic: Once in a week

Brain Stimulation/TMS clinic on Thursday: Once in a week

Neuropsychiatry OPD in CN Centre on Tuesday: Once in a week

Psychiatry services at CRHSP, Ballabhgarh

Dual Diagnosis Clinic: Once in a week

- **Ballabhgarh Psychiatry OPD services:** 3,974 New patients and 6,000 old patients were provided psychiatry services.
- **Consultation liaison services**
- **Public lecture:** On World Mental Health Day, 9 October 2018

Facilities in Department (Special Labs)

- Upgradation of Brain Mapping facility—Added fNIRS system to the existing QEEG system for development of a state-of-the-art facility for brain mapping
- Upgradation of ECT clinic—Improved data collection in functioning of ECT; Added utility of Ketamine use for increasing ECT effectiveness
- Advanced signal analysis of Electroencephalography—In collaboration with Department of Computer Sciences, IIT, Delhi

Community Services/Camps—Community Services/Camps

- AIIMS, New Delhi; 22 May 2018: *Overcoming Schizophrenia*
- Hauz Khas Police Station; 7 August 2018: *Managing Anxiety*

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Rakesh Kumar Chadda was expert member, Government of India Team to design mental hospital in South Sudan. Visited South Sudan on 2-5 January 2019 for site inspection as a member of team; Venkoba Rao Oration delivered at the 25th National Conference of the Indian Association for Social Psychiatry, Rohtak, 16-18 November 2018; Member, Editorial Board, BJP International; Chair, Awards Committee, Indian Association for Social Psychiatry, 2018-2021; Chair, Technical Resource Group on Injection Drug Users; Member, Nasha Mukti Abhiyan Task Force under National Health Policy (Ministry of Health and Family Welfare); Member, Selection Committee for National Awards for Outstanding Services in the field of Prevention of Alcoholism and Drug Abuse (Ministry of Social Justice and Empowerment); Was member, selection committee for AIIMS, Jodhpur, Bhubaneswar, Gorakhpur; University of Health Sciences, Rohtak; KGMU, Lucknow; Has been Advisor to UPSC in selection committee; Assisted NBE in different roles; Member, Dean (Research) Committee.

Professor Pratap Sharan is the Professor-in-Charge of Student Welfare at AIIMS; member of the International Advisory Group for Training and Implementation for ICD-11 Mental, Behavioural and Neurodevelopmental Disorders (2018 – onwards); the Vice President of the Indian Association for Social Psychiatry (IASP, 2018-2020); and the Co-Chair for PG Psychiatric Education Subcommittee for Indian Psychiatric Society (2017-2021). He is a Senior Editor of Journal for Eating Disorders; Associate Editor of the National Medical Journal of India; and member of the Editorial Board of the following journals: Indian Journal of Psychiatry, Indian Journal of Social Psychiatry, Journal of Indian Association for Child and Adolescent Mental Health, and Journal of Mental Health and Human Behaviour; and served as a Guest Editor for the Indian Journal of Social Psychiatry (2019;34:1-90) supplement. He served on the Advisory Committee of the Indian Council of Medical Research, Department of Health Research for the developments of Standard Treatment Workflows. He is the chief coordinator for the Committee for MBBS curricular reforms at AIIMS, New Delhi and a member of AIIMS Research Committee and AIIMS Ethics Committee. He is a member of the Selection Committee at National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru; King George's Medical University (KGMU), Lucknow; and various AIIMS. He served as an inspector for the commencement of post-graduation course in the Department of Psychiatry at various AIIMS. He is a reviewer for Medical Research Council, UK, Wellcome Trust, UK and the Indian Council of Medical Research. He delivered the Keynote address on "Mental Stigma and Empowerment" at Com' Acumen 2019 of the Jesus and Mary College (New Delhi; 18 January 2019); and chaired the "COPE Workshop on Publication Misconduct" at the Indian Association of Medical Journal Editors Conference (New Delhi; 5-8 April 2018); Symposium on "Neuromodulation: What the future holds" at the 2nd National CME on Neuromodulation (New Delhi; 13 May 2018); the NN De Oration at the 25th National Conference of the Indian Association for Social Psychiatry (Rohtak; 16-18 November 2018); and served as a judge for various awards of the Indian Psychiatric Society, Indian Association for Social Psychiatry, and AIIMS Research Section. He served as a member of the Research Advisory Committee of the George Institute for Global Health, India, and resource person for the Resilient Futures India Initiative of the Queen Mary University of London; Mental Health Capacity Building Programme of the Public Health Foundation of India; the Bhutan National NCD Risk Factor Survey (STEPS), the Intervention Packages for Children and Adolescent of the Department of Bio-Technology; and the "End of Life Care Policy" at AIIMS. He participated in the Master Speaker Videoconference series of the International Psychotherapy Institute. He served as a peer reviewer for the following journals: Plos One, BMJ Open, Psychological Medicine, Psychopathology, Psychiatry Research, BMC Psychology, Asian Journal of Psychiatry, the Primary Care Companion for CNS Disorders, National Medical Journal of India, Indian Journal of Psychiatry, and Indian Journal of Social Psychiatry. Examiner for MD (Psychiatry) examination and PhD and MD (Psychiatry) thesis for various national centres.

Rajesh Sagar was Honorary Professor by Department of Psychiatry, University of Melbourne, Melbourne, Australia; Secretary, Central Mental Health Authority (Regulatory body under Mental Health Act, Government of India), 2005-2018 then re-selected as member in 2018; Member, Ethics Committee, National Brain Research Centre, (Deemed University), Manesar, Gurgaon, 2010-continuing; Chief Editor of Indian Psychiatry Society, North Zone (Journal of Mental Health and Human Behavior) October 2010-2018; Convener of Specialty Advisory Board in Psychiatry, Diplomate of National Board (DNB), National Board of Examination, New Delhi, 2011-2019; Member of Ethics Committee of Central Council of Homeopathy Research (CCRH), Ministry of AYUSH, Government of India, 2012-continuing; Honorary Advisor for mental health to Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, 2013 and continuing; Co-Chairman, Journal Committee of Indian Psychiatry Society, 2018; Expert committee member to evaluate proposals on EMF radiation Exposure from Mobile towers and handsets and under Cognitive Science Research Initiative (CSRI), Department of Science and Technology (DST), Government of India, 2014-continuing; Expert Member of Project Review Committee for ICMR, DHR, CCRH; Expert member of Signal Review Panel of National Coordination Centre-Pharmacovigilance Programme of India, Indian Pharmacopoeia Commission; Expert Member of the Institutional Ethics Committee of the Public Health Foundation of India (PHFI-IEC); Invited as expert in Doordarshan, DD News, DD National, DD Kisan, Lok Sabha Channel and Radio program, FM Rainbow, FM Gold, All India Radio; Under the directions of Hon'ble Supreme Court as Secretary, CMHA -Conducted Inspection of three Central Mental Institution, i.e. Central Institute of Psychiatry (CIP), National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore and LGBRIMH, Tezpur, Assam, prepared detailed report and submitted to the Ministry; Received AIIMS Excellence Award in 2018 for best published paper and co-author in 2 other papers; Received award (1st prize) as co-author in best pub-

lished paper by AIIMS faculty and Junior Resident (MD/MS) category in 1st AIIMS Annual Research Day celebration; As Secretary, CMHA conducted Survey of mental health Institutions/facilities of NCT Delhi and participated in several meetings for Delhi State Legal Services Authority (DSLISA), NALSA, CMHA, SMHA under direction of Hon'ble Court order; Contributed in development of format to collect information from States/UT about rehabilitation of patients with psychiatric illness under direction of Hon'ble Supreme Court; Expert member and advisor in Ministry of Health and FW for various activities such as development of extensive media content in mental health under NMHP for and held several meetings, development of National Strategy for Suicide prevention for India, NMHP, Development of Mental Health First Aid (MHFA) for India, e-learning, Global Dementia Observatory, framing rules and regulations under the Mental Healthcare Act, 2017 and CMHA Rules and capacity assessment; Expert member of group for development of Standard Treatment Workflows (STW) for psychiatric conditions to use at various level of health care, ICMR and DHR; As Chairperson, developed the 5-day training programme for nurses and conducted the training in 4 batches of more than 200 nurses; Expert member to develop guidelines for mental health Disability under RPwD Act for MCI-May-July, 2018

Nand Kumar was nominated as member of Indo-U.S. Fellowship for Women in STEMM (WISTEMM) component under KIRAN Program on 22 March 2018; Attended Inauguration of Samarthan project on Mental Health issues on Psychological First Aid (PFA) services for Tihar inmate's linkages with the Mental Health Services for residents of Jails of the Government of NCT of Delhi on 16 April 2018; Appointed as board member of NNDC-I National Network of Depression Centres India on 14 May 2018; Attended 15th Meeting of the Programme Advisory and Monitoring Committee for the Technology Interventions for Disabled and Elderly (TIDE), of programme under DST from 11 to 12 June 2018; Hon. Editorial Director for an e-Magazine (Hindi) of Mental Health Foundation (India) on 27 December 2018; Nominated as a member of Selection Committee for the post of Consultant by the DG, ICMR on 7 February 2019.

Mamta Sood was expert member, Government of India Team to establish mental hospital at Juba, South Sudan, visited Juba, South Sudan on 2-5 January 2019 for site inspection; Secretary General, Indian Association for Social Psychiatry; Member, Institute Academic Committee; Member Selection Committee for AIIMS, Bhubaneswar and Andaman and Nicobar Islands Institute of Medical Sciences, Port Blair; Advisor to UPSC in selection committee.

Sujata Satapathy: With UNICEF and Government of Bihar initiative, and Supreme Court of India Order, I was leading a team in two phases for the assessment and psychological assessment of 44 children allegedly sexually abused in Child Care Institutes in different places of Bihar. Phase-I: 23-27 July 2018; Phase-II: 10-14 August 2018.

Raman Deep received the ICMR Tilak Venkoba Rao Award; Served as associate Editor of Journal of Mental Health and Human Behaviour (JMHHB), Official Journal of Indian Psychiatric Society, North Zone. (Between October 2010 and October 2018); General Secretary, Society for Promotion of Research in Mental Health and Substance Use (SPREMH).

Koushik Sinha Deb: 2019-2020: Chairperson, Website Committee, Indian Psychiatric Society.

Rohit Verma: Fellow of IPS: Accepted as a Fellow of the Indian Psychiatric Society (IPS) (Membership No. 1802832018); Membership of NAMS: Accepted as a member of the National Academy of Medical Sciences at Pondicherry, India; Dr JK Trivedi Award: For the study titled "*The relationship between illness disability and functioning with caregiver's perception of needs in patients with first episode schizophrenia: An exploratory study*" at the 25th National Conference of Indian Association for Social Psychiatry (NCIASP-2018) held at Rohtak, India from 16 to 18 November 2018; Dr GC Boral Award: For the study titled "*A cross sectional study on knowledge about the illness and its treatment among patients with severe mental illness and their caregivers*" at the 25th National Conference of Indian Association for Social Psychiatry (NCIASP-2018) held at Rohtak, India from 16 to 18 November 2018; Assistant editor of the journal: Asian Journal of Cognitive Neurology; Secretary General and Founder Member of Neuromodulation Society (India).

Bichitra Nanda Patra became life fellow member of Indian Psychiatric Society; Attended Research connect workshop hosted by Bangor University, UK at Istanbul, Turkey from 7 March to 9 March 2019.

Gagan Hans awarded fellow membership of Indian Association for Social Psychiatry at 25th Annual National Conference of Indian Association for Social Psychiatry 2018 at Rohtak, Haryana; Quoted in an article in India Today on 9 September, 2018 on Domestic Violence; Abstract titled "*Current Status of Child and Adolescent Mental Health Burden and Resources in India*" accepted at 23rd World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions (IACAPAP 2018); Successfully conducted pre-professional examination of the IX semester MBBS students in psychiatry at CRHSP, Ballabgarh; Served on the Medical Board for the Psychiatric assessment of newly joined Post Graduate Students at AIIMS.

Renu Sharma was member of Medical Board for Autism Spectrum Disorder in Department of Psychiatry, AIIMS, New Delhi in accordance with Ministry of Social Justice and Empowerment; Nominated as a Panelist for National Commission for Protection of Child Rights.

9.35. Pulmonary Medicine and Sleep Disorders

Professor and Head

Anant Mohan

Assistant Professors

Karan Madan

Pawan Tiwari

Vijay Hadda

Saurabh Mittal

Scientist-I

A Surendra Nath

Sneh Arora

HIGHLIGHTS

- Department has organized Pulomcrit 2019 and update workshop which is one the most sought after conferences in India and was attended by more than 500 attendees (Fig. 1).
- Department formulated guidelines for antimicrobial prescription in critically ill, a document to guide the physicians choosing antimicrobials for critically ill patients. This document was formulated in collaboration with ISCCM. There were gastroenterologists, neurologists, nephrologists, microbiologists and infectious disease specialists as experts (Fig. 2).



Figure 1



Figure 2

EDUCATION

CMEs/Workshops/Symposia/National and International Conferences

1. AIIMS PULMOCRIT 2019: UPDATE in Pulmonary, Critical Care and International Workshop on Ultrasound, 28 February-3 March 2019
2. Indo-US Symposium on Asthma and Allergy in collaboration with Indo-US Science and Technology Forum, AIIMS, 14-15 December 2018

Lectures delivered

Anant Mohan

1. Diagnosis of Lung cancer, AIIMS RT-LC meet, 13 May 2018, IRCH, AIIMS, New Delhi
2. Virtual bronchoscopic navigation, Interventional Pulmonology League, 2-3 June 2018, Mumbai
3. FB in ICU: Patient assessment, Interventional Pulmonology League, 2-3 June 2018, Mumbai
4. EBUS: Indian data, Interventional Pulmonology League, 2-3 June 2018, Mumbai
5. Panel on pulmonary infections, Pulmonary Radiology CME, 4 August 2018, AIIMS, New Delhi
6. Best five papers in asthma, Best of Chest, 5 August 2018, Noida
7. Advances in Interventional Pulmonology, Pulmonary CME, 4 August 2018, Maulana Azad Medical College, Delhi
8. Top papers in asthma, PACS, 19 August 2018, Metro Hospital, Noida
9. VBN: Sampling peripheral pulmonary lesions, RESPICON, 2 September 2018, NDMC Convention Centre, Delhi
10. BAL in ICU, 7 October 2018, Gurugram
11. Pandemic influenza: Diagnosis and management, INTERVIROCON, 12 November 2018, PGI, Chandigarh
12. COPD panel discussion, COPD CME, 17 November 2018, Delhi
13. Workshop: Foreign body removal using flexible bronchoscopy, NAPCON, 29-30 November 2018, Convention Centre, Ahmedabad
14. Liquid biopsy for managing lung cancer, NAPCON, 29-30 November 2018, Convention Centre, Ahmedabad
15. EGFR TKIs in LC: AIIMS data, Lung Cancer Update, 2 December 2018, AIIMS, Delhi
16. Recent advances in COPD management, RAJPULMOCON, 3 January 2019, Convention Centre, Jaipur
17. Debate: All severe COPD must be given ICS, RAJPULMOCON, 3 January 2019, Convention Centre, Jaipur
18. Panel discussion on Lung cancer, NATCON, 6 January 2019, Nagpur
19. Management of central airway obstruction, NATCON, 6 January 2019, Nagpur
20. Central airway obstruction: More common and complex than we thought, BRONCOCON, 8-10 February 2019, SGPGI, Lucknow
21. Postgraduate class on Lung cancer, PG Update, 17 February 2019, Safdarjung Hospital, Delhi
22. Management of Asthma, Allergy Conference, 5 March 2019, VPCI, Delhi
23. Management of central airway obstruction, Aligarh CME, 23 March 2019, Aligarh Muslim University, Aligarh

Karan Madan

1. Transbronchial Lung Cryobiopsy, CME Changing Paradigms in Management of Respiratory Diseases, 8 April 2018, PGIMER, Chandigarh
2. Rigid Bronchoscopy, EM-PULMOCON-HP-2018, 28-29 April 2018, IGMC, Shimla
3. Lung Cancer Update, 12-13 May 2018, NCI-AIIMS, New Delhi
4. IIP's, Lung Cancer Update, 12-13 May 2018, Srinagar
5. Benign airway stenosis (dilatation, stent placement): In whom and how? 1-3 June 2018, Interventional Pulmonology League (IPL), Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology
6. Rigid bronchoscopy and stent placement rotational masterclass: Indication, contraindication, pre-recorded case, 1-3 June 2018, Interventional Pulmonology League (IPL), Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology
7. Role of bronchoscopy in massive hemoptysis, 1-3 June 2018, Interventional Pulmonology League (IPL), Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology

8. Cryobiopsy hands on rotational masterclass, 1-3 June 2018, Interventional Pulmonology League (IPL), Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology
9. Benign airway stenosis, Interventional Pulmonology League (IPL), 1-3 June 2018, Organized by the Institute of Pulmonology, Medical Research and Development: 12th CME on Stepwise Approach to International Pulmonology
10. Models for prevention with uncertain risks or drivers public risk perceptions, First Conference on Environmental and Occupational Determinants of Cancer: Interventions for Primary Prevention, 26- 27 May 2018, AIIMS, New Delhi
11. The worsening radiograph: What next? Multidisciplinary approach with the bronchoscopy interventionist and surgeon, Radiology Course on Imaging in Chest Infections, 5 August 2018, AIIMS, New Delhi
12. Current evidence on bronchial thermoplasty, Materclass-Focused Training Programme, 8 July 2018, Hyderabad
13. Bronchoscopy in India—A blueprint for startups, Respiratory Update, 20-22 July 2018, Baroda Chest Society, Goa
14. Panel discussion—Ignited minds, future visions, Respiratory Update, 20-22 July 2018, Baroda Chest Society, Goa
15. Role of interventional pulmonology in management of asthma and COPD, Respiratory Update, 4-5 August 2018, India Chest Society, Guwahati
16. Ventilation strategy in asthma and COPD, Respiratory Update, 4-5 August 2018, India Chest Society, Guwahati
17. Bronchial thermoplasty (Live cases + Wet model), Workshop, PACS-India 2018, 18 August 2018, New Delhi
18. Probable UIP is IPF: Biopsy not required, Pro-con Debate, 19 August 2018, PACS-India 2018, New Delhi
19. Linear EBUS, Pulmo-Update, 8-9 September 2018, Hyderabad
20. Bronchoscopic navigation, Pulmo-Update, 8-9 September 2018, Hyderabad
21. Challenging cases in Mycobacteriology, CME Infectious Disease, 28 October 2018, Maulana Azad Medical College, New Delhi
22. EUS-FNA and EBUS TBNA changing the landscape of diagnostics, CYTOCON Workshop, 1-4 November 2018, Indian Academy of Cytologists, Goa
23. Bronchoscopy workshop, NAPCON, 29 November 2018, Ahmedabad
24. Mediastinal staging: PET vs Mediastinoscopy vs EBUS, Lung cancer management in Indian context, 1-2 December 2018, AIIMS, New Delhi
25. Interventions in ILD when and how? Annual Conference of Respiratory, Critical Care and Sleep Medicine-ACINUS 2018, 22 December 2018, ACINUS, Pune
26. Bronchial thermoplasty, ALLERGOCON, 10-12 January 2019, CMC, Vellore
27. BRONCHOCOCON, Workshop, 8-10 February 2019, SGPGIMS, Lucknow

Vijay Hadda

1. NIV for COPD, NIV Master Class, 18 November 2018, AIIMS, Rishikesh
2. HFNC, NIV Master Class, 18 November 2018, AIIMS, Rishikesh
3. USG assessment of diaphragm, Thoracic Ultrasound Workshop, 9 September 2018, AIIMS, Jodhpur
4. Assessment of skeletal muscle and diaphragm functions in ICU using ultrasound, PULMOCRIT 2019, 3 March 2019, AIIMS, New Delhi
5. High flow oxygen device, Mechanical Ventilation Workshop, 15-16 February 2019, SGRDIMSAR, Amritsar
6. Step ladder approach to hypoxic patient, NAPCON 2018, 29 November 2018, Gujarat University Convention and Exhibition Centre, Ahmedabad
7. Inspiratory muscle training among critically ill, NAPCON 2018, 1 December 2018, Gujarat University Convention and Exhibition Centre, Ahmedabad
8. Laser, cautery and heat ablation, BRONCHON 2019, 10 February 2019, SGPGI, Lucknow
9. Clinical pearls + tips and tricks, RESPICON 2018, 1 and 2 September 2018, RGCI, New Delhi
10. Experts views on thoracoscopy—Panel discussion, RESPICON 2018, 1 and 2 September 2018, RGCI, New Delhi
11. Bronchial Thermoplasty, RESPICON 2018, 1 and 2 September 2018, RGCI, New Delhi
12. NIV: Experience wins, PACS 2018, 19 August 2018, Metro Hospital, New Delhi

Pawan Tiwari

1. Cryogenics and 3D printing of biological structures for tissue engineering, NAPCON, 30 November 2018, Ahmedabad
2. Ultrasound in pulmonary medicine and critical care, PULMOCRIT, 28 February-1 March 2019, AIIMS, New Delhi
3. Early mobilisation in ICU, PULMOCRIT, 2 March 2019, AIIMS, New Delhi
4. Managing antimicrobial resistance in ICU, Symposium, 16 March 2019, New Delhi
5. Hands on training sessions in INDO-US allergy and asthma, Symposium, 15-16 December 2018, AIIMS

Saurabh Mittal

1. Workshop on Spirometry, Metro Centre of Respiratory Diseases, 18 August 2018, Noida
2. Domiciliary NIV in COPD, Metro Centre of Respiratory Diseases, 19 August 2018, Noida
3. Current air pollution scenario in India: Problems and solutions, NAPCON-2018 Conference, 1 December 2018, Ahmedabad
4. Practice changing research in robotics and digital technology, NAPCON-2018 Conference, 2 December 2018, Ahmedabad
5. Workshop on ultrasound in pulmonary medicine and critical care, PULMOCRIT-2019, 28 February-1 March 2019
6. How do I choose CPAP device, PULMOCRIT-2019, 2 March 2019
7. Interesting cases in Pulmonology, Medicine Update-2019, 10 March 2019, MAMC, New Delhi
8. Diagnosis and Management of TB in liver cirrhosis, CCILBS-2019, 20 April 2019, ILBS, New Delhi

RESEARCH

Funded projects

Ongoing

1. Elucidation of genetic alterations to understand the biology of non-small cell lung cancer patients, Anant Mohan, DBT, 3 years, 2015-2018, Rs 25 lakhs
2. Comprehensive assessment of clinical outcomes following a hospital based structured pulmonary rehabilitation programme in patients with moderate severe COPD and strategies for field-level implementation, Anant Mohan, ICMR, 3 years, 2018-2021, Rs 38 lakhs
3. A multicenter, randomized, 52-week treatment, double blind, triple dummy, parallel-group study to assess the efficacy and safety of QMF-149 compared with mometasone furoate in patients with asthma-Phase III, Anant Mohan, Novartis, 3 years, 2016-2019, Rs 12.5 lakhs
4. Application of the Sciences of Breathomics in Respiratory Diseases, Anant Mohan, ICMR-CARE (Centre for Advanced Research and Excellence), 5 years, 2019-2024, Rs 5 crores
5. Identification of novel biomarkers in active and latent TB in conjunction with HIV infection, Anant Mohan, DBT, 3 years, 2017-2020, Rs 1.80 crores
6. A phase III, randomized, double-blind, placebo-controlled trial to evaluate the efficacy and safety of VPM1002 and Immuvac Vaccines in preventing Tuberculosis (TB) in healthy household contacts of newly diagnosed sputum
7. Positive pulmonary TB patients, ICMR, 5 years, 2018-2023, Rs 1.96 crores
8. A phase IIB open label randomized trial to evaluate the anti-bacterial activity, pharmacokinetics, safety and tolerability of Metformin when given along with rifampicin, isoniazid, pyrazinamide and ethambutol in adults with newly diagnosed sputum positive pulmonary tuberculosis: A 8-week study, ICMR, 2 years, 2018-2020, Rs 1.5 crores
9. Effect of outdoor air pollution on acute respiratory symptoms in Delhi: A multicentric study, Karan Madan, ICMR, 1 year, 2018-2019, Rs 86.24 lakhs
10. Delhi air pollution: Health and effects (DAPHNE), Karan Madan, DBT
11. Immune cell dysfunctions and risk of hospital acquired infections in critically ill patients with sepsis, Vijay Hadda, SERB, 3 years, 2018-2020, Rs 35 lakhs
12. Characterization of leukocytes and prediction of outcome among patients with sepsis, Vijay Hadda, AIIMS, 2 years, 2018-2020, Rs 5.5 lakhs

13. An open label, randomized, active control clinical trial to compare safety and efficacy of risorine capsule in adult patients with RNTCP Category I Pulmonary Tuberculosis, Vijay Hadda, Cadila, 3 years, 2018-2020, Rs 50 lakhs

Departmental projects

Ongoing

1. A randomized, double blind, placebo-controlled, parallel-group phase 3 study to evaluate the efficacy and safety of dupilumab in patients with persistent asthma
2. An observational study of the clinico-pathological profile and outcomes in patients with lung cancer at a Tertiary Care Center
3. Clinical profile, pulmonary function and quality of life of patients with post TB chronic lung disorders in a Tertiary Care Hospital
4. Comparison of sample adequacy using different suction pressures during EBUS-TBNA: A randomized trial
5. Determination of plasma drug levels of treatment naïve extrapulmonary Tuberculosis and its comparison with treatment outcome
6. Diagnostic utility of sonographic and ultrasound elastography characteristics of mediastinal lymph node during endobronchial ultrasound guided transbronchial needle aspiration
7. Effect of Xylometazoline administration during nasal flexible bronchoscopy: A double blind, randomized, placebo-controlled trial
8. Etiologic and clinical profile of adult patients with bronchiectasis
9. Nebulized lignocaine for topical airway anaesthesia during flexible bronchoscopy: A randomized controlled trial
10. Prospective community based study to evaluate linkage between poor ambient air quality and health indicators among school and college students in Delhi and NCR region
11. Retrospective study on correlation of daily emergency visits with short term variations in ambient air quality
12. Study of outcomes following various interventional procedures for central airway obstruction
13. Study of plasma levels of anti tubercular drugs in patients with extrapulmonary TB
14. Study of the diagnostic yield of various bronchoscopic procedures for lung cancer
15. Transcricoid Injection vs “Spray as You go” method for local anaesthesia during Endobronchial Ultrasound guided Transbronchial Needle Aspiration (EBUS-TBNA) and flexible bronchoscopy: A randomized controlled trial
16. Utility of using ultrasound and spirometry in Predicting Transdiaphragmatic Pressure (Pdi) in patients with moderate to severe idiopathic interstitial pneumonias

Collaborative projects

Ongoing

1. A nanomedicine approach against drug-resistant EGFR kinase for the treatment of EGFR positive tumors, Department of Chemistry, IIT Delhi, Department of Biochemistry, Microbiology and Immunology, University of Ottawa, Canada
2. Adhesive sensors for detection of Tuberculosis from Skin, Laboratory Medicine
3. Blood test for all forms of active Tuberculosis (TB) for commercialization in India, Laboratory Medicine
4. Comparisons of cytokines, matrix metalloproteinase and bone markers between normal, pulmonary, osteomyelitis and osteoarticular tuberculosis subjects, Orthopaedics
5. Development of a remote healthcare delivery system: Early diagnosis, therapy, follow-up and preventive care for NCDs (Cardio-Pulmonary), Department of Transplant Immunology and Genetics, AIIMS
6. Development of platform technologies for high affinity antibodies for in vitro diagnostics, Laboratory Medicine
7. In Silico Trial for Tuberculosis Vaccine Development (STriTuVaD): A phase II clinical trial to assess the safety, immunogenicity and efficacy of 2 therapeutic vaccines against TB, DBT
8. Lipid-based immunodiagnostics of active tuberculosis, Laboratory Medicine
9. Structure-based design of nanobody inhibitors against EGFR: A protein engineering approach to develop novel therapeutics for lung cancer, Life Sciences, Shiv Nadar University, Center for Computational Biology and Bioinformatics, Central University of Himachal Pradesh

10. Targeting drug resistant tumor harboring mutant EGFRs: A next generation molecular approach for the treatment of non-small cell lung cancer, Department of Chemistry, IIT Delhi
11. Towards differential diagnosis of Tuberculosis at extrapulmonary sites using blood based gene signatures, Orthopedics
12. Transcriptome analysis to understand mechanism of tolerance in the hosts upon *Mycobacterium tuberculosis* infection, Laboratory Medicine

PUBLICATIONS

Journals: 52 Abstracts: 7 Chapter in Books: 1

PATIENT CARE

Pulmonary Medicine OPD

New Cases	10,525	Old Cases	23,578
Chemotherapy Procedures	3,994		

Lung Cancer Clinic

New Cases	217	Old Cases	2,189
-----------	-----	-----------	-------

Combined Pulmonary Surgery Clinic

New Cases	147	Old Cases	673
-----------	-----	-----------	-----

Sleep Disorder Clinic

New Cases	72	Old Cases	310
-----------	----	-----------	-----

ILD/PAH Clinic

New Cases	142	Old Cases	1,465
-----------	-----	-----------	-------

LABORATORIES

Respiratory Laboratory

Spirometry procedures	12,440	Diffusion capacity estimation	2,570
Body Box (Plethysmography) measurements	452	MIP, MEP	415
FOT/IOS	242		

Bronchoscopy Laboratory

Fiberoptic bronchoscopy procedures	1,787	Endobronchial Ultrasound	722
Thoracoscopy	62		
Cryotherapy	12	Stenting	48
Rigid Thoracoscopy	119	Electrocautery	4

Sleep Laboratory

Polysomnography studies	490	CPAP titration	450
-------------------------	-----	----------------	-----

Allergy Testing

CPET	178	FENO	645
Six Minute Walk Test	1,160	Skin Prick Test	46
Total IgE Level	2,845	Aspergillus IgE Level	2,560
Aspergillus IgG Level	655		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Anant Mohan was member of the Independent Expert Committee—Serious Adverse Events, Drugs Controller General (India) since July 2016; Member of Special Committee of “Special Centre for Molecular Medicine”, J.N.U. since September 2016; Member of Task Force “Environmental Sciences” at National Institute for Research in Environmental Health, Bhopal; Member-Secretary of the India Chest Society (Delhi-NCR Chapter); Joint Member-Secretary of the Indian Association of Bronchology since March 2019; Member of ICMR Committee for Formulating Work Plan for Respiratory Diseases, 2018-2019.

9.36. Radiodiagnosis

Professor and Head

Arun Kumar Gupta

Professors

Deep Narayan Srivastava
Sanjay Thulkar (IRCH)
Ashu Seith Bhalla
Shivanand Gamanagatti (Trauma
Centre)

Raju Sharma
Sanjay Sharma (RPC)
Smriti Hari
Atin Kumar (Trauma Centre)

Associate Professors

Chandan J Das
Surabhi Vyas
Devasenathipathy Kandasamy

Madhusudhan KS
Manisha Jana
Chandrashekhara SH (IRCH)

Assistant Professors

Smita Manchanda
Mukesh Yadav (IRCH)

Ankur Goyal

Priyanka Naranje
Ekta Dhamija (IRCH)

Scientist IV

Shashi B Paul

Chief Technical Officer (Group A)

Braham Singh

Renu Soorma

HIGHLIGHTS

The departmental faculty was actively engaged in patient care, education and research. The department made a concerted and successful attempt to reduce the waiting period for various imaging procedures. Reporting of all investigations is currently electronic and done on work-stations. During this period one flat panel digital subtraction angiography machine, four ultrasound machines and one C-arm fluoroscopy machine were added to the diagnostic armamentarium of the department. The department also acquired a state-of-the-art software for texture analysis of CT and MR images and another software for assessment of bone age. Faculty members delivered over 170 lectures in various CMEs, national and international conferences. Faculty members were actively involved in research and published 116 papers in various indexed national and international journals and contributed 55 chapters to text-books of Radiology. They also edited two books on Radiology. About 102 posters and oral papers were presented in various conferences in India and abroad. The department faculty members were principal investigators in 5 funded projects. Besides, they were involved in 21 ongoing departmental projects and nearly 100 collaborative projects with other clinical departments. The department conducted 2 CMEs during this period which were very well received and attended by delegates from across the country.

EDUCATION

Undergraduate

The department faculty was actively involved in teaching of undergraduate students. There were total of 60 lectures taken by the faculty for them in this period.

Postgraduate

There were total of 25 junior residents in the department during this period, including 6 new residents who joined the department.

Academic activities for post graduate students included around 35 seminars, 35 journal clubs, 70 case discussions, 70 interesting film sessions and 80 lecture classes.

The department provided short term training to 5 radiologists from all over the country and one from Nepal, during this period.

BSc (Hons) Medical Technology in Radiography (MTR)

This course is of three years duration and a total of 29 students are pursuing this course.

CMEs/Workshops/Symposia/National and International conferences.

CME organized

1. 2nd AIIMS Interventional Radiology Course on “IR Primer”, 14-15 April 2018
2. AIIMS Radiology Course on “Imaging of Chest Infections”, 4-5 August 2018

Lectures delivered

Deep Narayan Srivastava

1. Role of CT rotation technique in vertebral augmentation procedure, Workshop on Angiography, 26-27 April 2018, Chandigarh
2. Ultrasound guided injections in musculoskeletal pain management, 6th Annual Conference of Musculoskeletal Society (MSS), 9-12 August 2018, Chennai
3. Role of interventional radiology in cancer pain management, 58th Annual Conference of National Academy of Medical Sciences (NAMSCON), 26-28 October 2018, Puducherry
4. Role of interventional radiology in treatments in future India, 106th Indian Science Congress, 3-7 January 2019, Jalandhar
5. US guided injections in MSK, 72nd Annual Conference of IRIA, 17-18 January 2019, Chandigarh
6. Percutaneous laser disc decompression, 21st Annual Conference of Indian Society of Vascular and Interventional Radiology, 7-10 March 2019, Goa
7. Minimally invasive treatments in India in discussion meeting on unmet needs in health care of India, A joint NAMS-INSA Programme, 30 March 2019, Delhi

Raju Sharma

1. Imaging the Adrenal Gland, Dr Harnam Singh CME of Indian College of Radiology and Imaging, 7-8 July 2018, Indore
2. Film Reading Session, Dr Harnam Singh CME of Indian College of Radiology and Imaging, 7-8 July 2018, Indore
3. Current concepts in imaging of Acute Pancreatitis, IRIA CME, 15 July 2018, Jaipur
4. Unusual Liver Lesions, Max Hospital CME, 21 July 2018, New Delhi
5. Tuberculosis versus Crohn’s Disease Conundrum: Role of Imaging, Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology, 28-30 September 2018, New Delhi
6. Moderated a Panel Discussion on Pancreatic Cancer, Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology, 28-30 September 2018, New Delhi
7. Imaging of Thymus Gland, Annual Conference of Royal Australian and New Zealand College of Radiologists, 25-28 October 2018, Canberra, Australia
8. Imaging of Pancreatic Cancer, Annual conference of Royal Australian and New Zealand College of Radiologists, 25-28 October 2018, Canberra, Australia
9. Film Reading Session for Trainee Radiologists, Annual Conference of Royal Australian and New Zealand College of Radiologists, 25-28 October 2018, Canberra, Australia
10. Film Reading Session, Annual Conference of Society of Emergency Radiology, 2-4 November 2018, Hyderabad
11. Imaging of Carcinoma Rectum, Meeting of Rectal Cancer Working Group, 17 November 2018, Delhi
12. Dilemmas in Pancreatic Imaging: Carcinoma vs Inflammation, CME on Hepatobiliary Imaging, 25 November 2018, Delhi
13. LIRAD Primer for the Clinician, Annual Conference of Indian Society of Gastroenterologists, 30 November 2018, Kochi
14. Imaging a Pancreatic Head Mass, Annual Conference of Indian Society of Gastroenterologists, 30 November 2018, Kochi
15. How to Read a Liver CT, Annual Conference of Indian Society of Gastroenterologists, 1 December 2018, Kochi
16. GI Radiology: What a Gastroenterologist needs to Know, Gastroenterology for Young Masters, 13 January 2019, Delhi
17. Imaging of Pancreatic Carcinoma, Annual Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh

18. Pancreatic Cancer: Imaging, Delhi Imaging Conclave, 7 February 2019, Delhi
19. Imaging of Pancreatic Cancer, CME of Maharashtra State Branch of IRIA, 24 March 2019, Aurangabad
20. Differentiation of Bowel TB from Crohn's Disease: Can Imaging help? CME of Maharashtra State Branch of IRIA, 24 March 2019, Aurangabad
21. Acute Pancreatitis: Current Concepts, CME of Maharashtra State Branch of IRIA, 24 March 2019, Aurangabad
22. Film Reading Session, CME of Maharashtra State Branch of IRIA, 24 March 2019, Aurangabad
23. Imaging of Pancreatic Cancer, Annual Conference of Uttarakhand State Branch of IRIA, 30 March 2019, Rishikesh
24. Moderated a Panel Discussion on MRI: What are the expectations of the Clinician, Outreach workshop of International Society for Magnetic Resonance in Medicine, 29 March 2019, New Delhi

Sanjay Sharma

1. Orbital Radiology: What a resident must know, Occuloplasty and Ocular Oncology Workshop, 2 December 2018, New Delhi
2. Imaging of Orbit and Globe, 4th AIIMS-MAMC-PGI Imaging Course Series: Neuroradiology including Head and Neck, 1 April 2018, Chandigarh
3. Interpretation of MRI and CT for Neuro-ophthalmologists, 1st Annual Conference of the Indian Neuro-Ophthalmology Society (INOS), 30 September 2018, New Delhi

Ashu Seith Bhalla

1. Case Based Review of Cystic Lung Disease, IRIA Resident Education Programme (IREP), 14 and 15 July 2018, Lucknow
2. Classic Radiological Signs and patterns of Pulmonary infections, IRIA Resident Education Programme (IREP), 14 and 15 July 2018, Lucknow
3. Imaging in tuberculosis and its differentials, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
4. Vascular interventions in pulmonary infections, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
5. Imaging of complications of infections, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
6. Imaging in primary immune deficiency PIDD, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
7. Challenging cases in Thoracic and Head and Neck Interventions, 18th Annual Meeting of Asian and Oceanic Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), 14-16 September 2018, Chandigarh
8. Chest infection in immune compromised patients, 3rd National Conference of Nepal Radiology Association RADCON-2018, 26-27 October 2018, Kathmandu, Nepal
9. Approach to interstitial lung disease, 3rd National Conference of Nepal Radiology Association RADCON-2018, 26-27 October 2018, Kathmandu, Nepal
10. Approach to pulmonary nodules, 3rd National Conference of Nepal Radiology Association RADCON-2018, 26-27 October 2018, Kathmandu, Nepal
11. Thoracic Ultrasound, 11th Annual State Conference of the Chhattisgarh state Chapter of Indian Radiological and Imaging Association IRIA, 17 and 18 November 2018, Raipur
12. Approach to Pulmonary Infections, 11th Annual State Conference of the Chhattisgarh state Chapter of Indian Radiological and Imaging Association IRIA, 17 and 18 November 2018, Raipur
13. TB-What is new! 11th Annual State Conference of the Chhattisgarh state Chapter of Indian Radiological and Imaging Association IRIA, 17 and 18 November 2018, Raipur
14. Tuberculosis—The role of imaging modalities today, 20th National Conference on Pulmonary Diseases (NAPCON), 30 November to 2 December 2018, Ahmedabad
15. Panel discussion on Radiology in management of NSCLC, Lung Cancer Yearend review, 15-16 December 2018, Mumbai
16. Lung Carcinoma: CT Features of Spread through Air Spaces (STAS), Lung Cancer Yearend Review, 15-16 December 2018, Mumbai
17. How to plan a research study and carry it out? 71st National Conference of Indian Radiological and Imaging Association, 17 to 20 January 2019, Chandigarh

18. How to convert my thesis into a publishable manuscript, 71st National Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
19. MRI Chest, 71st National Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
20. Panel discussion on publication, 71st National Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
21. Imaging Manifestations of Vasculitis, Neph-Immune 2019, 3 February 2019, New Delhi
22. Pulmonary manifestations of Leukemia, 1st Annual International Conference of Society of Oncoimaging and Interventions SOIICON on Thoracic Oncology Imaging, 8-10 February 2019, New Delhi
23. Emergency Thoracic Ultrasound: Point of Care Ultrasound, Annual Conference of Delhi State Branch of IRIA, Delhi Imaging Update 2019, 16-17 February 2019, New Delhi
24. Approach to Pulmonary Infections, AIIMS Pulmocrit, 2-3 March 2019, New Delhi

Smriti Hari

1. Approach to a patient with mastalgia and Nipple discharge (Panel discussion), 12th AIIMS Surgical Week International Conference, CME cum Live Workshop (ENDOSURG 2018), 20 April 2018, New Delhi
2. Role of Radiologist in breast conserving surgery Post-neoadjuvant chemotherapy, 12th AIIMS Surgical Week International Conference, CME cum Live Workshop (ENDOSURG 2018), 20 April 2018, New Delhi
3. BIRADS-Concept and philosophy, CME of Breast Imaging; Basics and Current Updates, 21 July 2018, Aurangabad
4. BIRADS Category III lesions, CME of Breast Imaging; Basics and Current Updates, 21 July 2018, Aurangabad
5. Breast Interventions, CME of Breast Imaging; Basics and Current Updates, 21 July 2018, Aurangabad
6. Regional Lymph node assessment BI-RADS 3—When and Why? Imaging of the Breast—BEST KARE-2018, 27 and 28 October 2018, Chennai
7. MR Breast Diffusion and contrast—Ultimate imaging? Imaging of the Breast—BEST KARE-2018, 27 and 28 October 2018, Chennai
8. ‘Relax! I am Benign’ breast diseases, BISICON 2018; 6th Annual Conference of Breast Imaging Society (India), 16-18 November 2018, Patna
9. Tumour Board Cases (Panel Discussion), BISICON 2018; 6th Annual Conference of Breast Imaging Society (India), 16-18 November 2018, Patna

Shivanand Gamanagatti

1. IR in pelvic emergencies, Annual Conference of Society for Emergency Radiology, 2-4 November 2018, Hyderabad
2. What to report in TFCC tears, CME on MSK Ultrasound, 16 December 2018, Delhi
3. Response assessment in after locoregional therapies for HCC, 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh
4. Overview of Craniofacial Trauma, Delhi Imaging Update, 16-17 February 2019, New Delhi
5. Hepatic venous outflow tract obstruction, Imaging and intervention, 2nd Annual Conference of ISGAR, 28-30 September 2018, New Delhi
6. Interventions in Hepatobiliary and GI system, Gastroenterology Young Master’s Programme (GYM), 11-13 January 2019, Delhi
7. Amazing Interventions: Budd-Chiari Syndrome, Annual Conference of ISVIR, 7-10 March 2019, Goa
8. Role of IR in Placenta Accreta related hemorrhage, 25th Annual Conference of NARCHI, 23-26 February 2019, Delhi
9. Extra-hepatic blood supply of hepatocellular carcinoma: What an interventional radiologist needs to know, Angio-CT Hybrid Laboratory Workshop, 26-27 April 2018, Chandigarh
10. Endovascular management of renal trauma, Dr Harnam Singh Mid Term CME 2018, 7-8 July 2018, Indore
11. Imaging and Interventions in GI bleed, Radiology CME, 15 July 2018, Jaipur

Atin Kumar

1. Case based IR approach to patient with trauma, IR Primer on Basics of Angiography, Embolization and Sclerotherapy, 14-15 April 2018, Delhi
2. Workshop on basics of interventional techniques, IR Primer on Basics of Angiography, Embolization and Sclerotherapy, 14-15 April 2018, Delhi

3. Imaging of Brachial Plexus Injury, Harnam Singh Mid Term CME of IRIA, 7-8 July 2018, Indore
4. Imaging of abdominal trauma, Body Imaging Update CME, 28-29 July 2019, Delhi
5. Imaging of pancreatic trauma, Society for Emergency Radiology E Lecture, 15 June 2018, Delhi
6. Film Reading Session, Dr RK Goulatia mid term CME of IRIA, 1-2 September 2018, Gurugram
7. Imaging of Brachial plexus Injury, Annual Conference of American Society for Emergency Radiology, 26-29 September 2018, Washington DC, USA
8. Solid organ trauma—Imaging and intervention strategies, Annual Conference of Society for Emergency Radiology, 2-4 November 2018, Hyderabad
9. Workshop on Peripheral Angio Simulator, Annual Conference of Society for Emergency Radiology, 2-4 November 2018, Hyderabad
10. Blunt vs penetrating abdominal trauma, 72nd Annual Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
11. Imaging of CSF leak—When and what to do? Delhi Imaging Update 2019—Annual Conference of Delhi State Chapter of IRIA, 16-17 February 2019, Delhi
12. Case presentation—My worst day in IR suite, 21st Annual Conference of Indian Society of Vascular and Interventional Radiology, 7-10 March 2019, Goa

Chandan J Das

1. Endovascular interventions in Budd Chiari Syndrome, 2nd CME (SLIRF, Society of Image Guided Therapy), 18-20 May 2018, Kandy, Sri Lanka
2. Imaging of Acute Abdomen—A case-based review, 1st Emergency Radiology CME-2018, 22 June 2018, Guwahati
3. Ablation of Small Renal Masses—How I Do It Complication after Ablation—Case Based, 5th Asian Conference on Tumor Ablation (ACTA), 6-7 October 2018, Chennai
4. Imaging the foreign bodies, 5th Annual Conference Society for Emergency Radiology, 2-4 November 2018, Hyderabad
5. DWI of Abdomen How I do it, 44th Annual Conference of IRIA, 1-2 December 2018, Jorhat
6. Imaging algorithm and endovascular management of Renovascular hypertension, 72nd Annual Conference of Indian Radiological and Imaging Association, 17-19 January 2019, Chandigarh

Madhusudhan KS

1. Cryoablation in liver and renal tumors: What is the evidence? Angio-CT hybrid Laboratory Workshop, 26-27 April 2018, Chandigarh
2. Facet and sacroiliac joint interventions, Interventional radiology CME and workshop on musculoskeletal interventions by National Academy of Medical Sciences, 20 May 2018, Delhi
3. Interventional radiology in portal hypertension, Interventional radiology CME by Delhi State Chapter of IRIA, 19 August 2018, Delhi
4. Imaging of IgG4 cholangiopathy, CME on Hepatobiliary Imaging, 25 November 2018, Delhi
5. Epidemiology and staging of hepatocellular carcinoma, Annual Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
6. Bile duct injury: From prevention to management—Panel discussion, Biennial Conference of Endolap MAMC, 3 March 2019, Delhi
7. Renal embolization: Indications, embolic agents and results, Annual Conference of Indian Society of Vascular and Interventional Radiology, 7-10 March 2019, Goa

Devasenathipathy Kandasamy

1. USG imaging in PCOS, PCOS Investigators Meeting, 5-6 April 2018, Srinagar
2. USG imaging in PCOS, PCOS Investigators Meeting, 12-13 April 2018, Hyderabad
3. Imaging in DSD, Assam Chapter of Paediatric Surgeons, 3-7 May 2018, Silchar, Assam
4. Imaging in vertebral fractures, 6th International Conference of Geriatric Orthopedic Society of India, 6-9 September 2018, New Delhi
5. Clinical Imaging Perspective—Body imaging, Machine Learning in Medical Imaging—An Introductory Workshop, 8 September 2018, New Delhi

6. Ultrasound Liver, Workshop on Neonatal brain, Asian and Oceanic Society for Paediatric Radiology (AOSPR), 14-16 September 2018, Chandigarh
7. Film Reading Session, Asian and Oceanic Society for Paediatric Radiology (AOSPR), 14-16 September 2018, Chandigarh
8. Neonatal cranial USG, ACTION Trial, 26-27 October 2018, Cuttack, Orissa
9. Imaging of Chest, PRODVANCE 2018, 10-11 November 2018, Bathinda
10. Imaging of abdomen and pelvis, PRODVANCE 2018, 10-11 November 2018, Bathinda
11. MRI in Paediatric Chest, RESPICON 2018, 23 November 2018, Indore
12. Interventional Radiology in Paediatric Chest, RESPICON 2018, 23 November 2018, Indore
13. Clinic radiological aspects in pediatric chest imaging—Panel discussion, RESPICON 2018, 23 November 2018, Indore
14. IgG4 Related diseases, What radiologists should know? 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh
15. Imaging in Conjoined twins, 21st Annual AIIMS, Micro Neurosurgery Workshop, 13-14 February 2019, New Delhi
16. Radiology is always a Data Science, Mathematics in Biomedical Sciences, 10 March 2019, New Delhi

Manisha Jana

1. Skeletal dysplasias made simple, AOSPR 2018, 15 September 2018, Chandigarh
2. Imaging of pediatric airways, IRIA 2019, 19 January 2019, Chandigarh

Surabhi Vyas

1. Workshop—Biopsy and RFA, IR Primer on Basics of Angiography, Embolization and Sclerotherapy, April 2018, Delhi
2. Imaging in a child with limp: Essential requisites, CME Body imaging update, July 2018, Delhi
3. Worsening radiograph, What next? Multidisciplinary approach with the bronchoscopy interventionist and surgeon, Imaging of chest infections, AIIMS radiology course series, August 2018, Delhi
4. Immuno compromised host: Can I suspect and predict the defect, Imaging of chest infections, AIIMS Radiology Course Series, August 2018, Delhi
5. Congenital uterine anomalies, Delhi state chapter IRIA-Ultravision 2018, October 2018, Delhi
6. Paediatric chest radiograph: Basic reading, Respicon 2018, November 2018, Indore
7. Basics of chest CT terminology, technical factors and radiation, Respicon 2018, November 2018, Indore
8. Nuclear imaging in pediatric pulmonology, Respicon 2018, November 2018, Indore
9. Interpretation of mammography, 44th Annual Conference of Assam State Chapter IRIA, December 2018, Jorhat, Assam

Smita Manchanda

1. FNAC and Biopsies under USG guidance: Workshop, IR Primer on Basics of DSA, Sclerotherapy and Embolization, 14 April 2018, New Delhi
2. Classification of Vascular Anomalies, IR Primer on Basics of DSA, Sclerotherapy and Embolization, 14 April 2018, New Delhi
3. Imaging in Female Infertility, Body Imaging Update, 29 July 2018, New Delhi
4. Case Based Discussion on Community and Hospital Acquired Pneumonia, AIIMS Radiology Course—Imaging in Chest Infections, 4 August 2018, New Delhi
5. Approach to consolidation, AIIMS Radiology Course—Imaging in Chest Infections, 5 August 2018, New Delhi
6. Quiz: Score and be rewarded, AIIMS Radiology Course—Imaging in Chest Infections, 5 August 2018, New Delhi
7. Imaging in Pulmonary Thromboembolism, Monthly Meeting of Delhi State Chapter of IRIA, 8 September 2018, New Delhi
8. Sonographic assessment of Adnexal Masses, “Ultravision 2018” organized by Delhi State Chapter of IRIA, 6 October 2018, New Delhi
9. Placental Pathology: Role of Imaging and Intervention, “IREP 2018”, organized by Punjab State Chapter of IRIA, 18 November 2018, Amritsar

10. Conventional HSG: Is it still relevant? Emerging role of MRI in Tubal Pathology, “CME on Infertility” Annual Conference of Haryana State Chapter of IRIA, 24 March 2019, Rohtak
11. MRI in Endometriosis: Pearls and Pitfalls, “CME on Infertility” Annual Conference of Haryana State Chapter of IRIA, 24 March 2019, Rohtak

Ankur Goyal

1. IR in Low flow vascular malformations Case-based quiz on vascular anomalies ‘Label it correctly’, AIIMS Radiology Course: IR primer on Basics of DSA, Sclerotherapy and Embolization, 14-15 April 2018, New Delhi
2. MSK FNACs and Biopsies: Tips and Tricks, Interventional Radiology CME and workshop on Musculoskeletal Interventions conducted by National Academy of Medical Sciences (NAMS) in collaboration with Musculoskeletal Society of India, 20 May 2018, New Delhi
3. Ultrasound in musculoskeletal trauma: What a radiologist should know, CME: Body Imaging Update, organized by Army Hospital (R&R), Delhi Cantt, 28-29 July 2018, New Delhi
4. Approach to nodules Interactive Radio-path case discussion, AIIMS Radiology Course on Imaging in Chest Infections, 4-5 August 2018, New Delhi
5. Supratentorial and Sellar Masses: An Imaging Approach, Dr RK Goulatia CME 2018 (Gastrointestinal and Hepatobiliary Imaging), 1-2 September 2018, Gurugram
6. Contrast-enhanced Ultrasound in Hepatobiliary system: Technique, Tips and Tricks, Medanta Ultrasound Update on Hepatobiliary Ultrasound, 8-9 September 2018, New Delhi
7. Live demonstration of wrist ultrasound interactive film reading session for the residents, Musculoskeletal Ultrasound conference held at PGIMER, Dr RML Hospital, 16 December 2018, New Delhi
8. GI Radiology: What the Gastroenterologist should know, Gastroenterology Young Master’s Programme (GYM) 2019 conducted by Indian Society of Gastroenterology, 11-13 January 2019, New Delhi
9. Current concepts in imaging of peripheral nerves and Tunnels and Crossings of the extremities: Imaging Roadmap, 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh
10. Panelist in Dr Suren Kothari film reading session, 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh
11. Imaging in Colorectal cancer, “13th AIIMS Surgical Week” International Conference, CME cum Live Workshop (ENDOSURG 2019), 28-31 March 2019, New Delhi
12. Faculty (clinical mentor in brainstorming multidisciplinary sessions), ISMRM Accessible MRI Workshop, Organized by ISMRM India Chapter, 29-31 March 2019, New Delhi

Priyanka Naranje

1. Pre and post procedural evaluation in interventional radiology, AIIMS radiology course: IR Primer on Basics of Angiography, Embolization and Sclerotherapy, 14 and 15 April 2018, New Delhi
2. Resident quiz, AIIMS radiology course: IR Primer on Basics of Angiography, Embolization and Sclerotherapy, 14 and 15 April 2018, New Delhi
3. Abdominal infections in febrile neutropenia: Radiologists’ perspective, National Hematology Update: XI, 15 April 2018, New Delhi
4. Paediatric chest X-ray and CT scan: Basic and Applied, 3rd State Conference “Awesome Pulmonology” of IAP Respiratory Chapter-Rajasthan State, 8 July 2018, Jaipur
5. Approach to mediastinal and airway disease, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
6. Approach to pleural disease, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
7. Thoracic USG in pneumonia: When and How, AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
8. Quiz: Score and be rewarded! AIIMS Radiology Course: Imaging of Chest Infections, 4-5 August 2018, New Delhi
9. Chest X Ray in ICU Setting, Monthly Meeting of Delhi State Chapter of IRIA, 8 September 2018, New Delhi
10. Paediatric Radiology Film Reading Session by Experts-Chest, 18th Annual Meeting of Asian and Oceanic Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), 14-16 September 2018, Chandigarh
11. Thoracic ultrasonography, 3rd National Conference of Nepal Radiology Association RADCON-2018, 26-27 October 2018, Kathmandu, Nepal

12. Imaging of recurrent and non-resolving pneumonias, 3rd National Conference of Nepal Radiology Association RADCON-2018, 26-27 October 2018, Kathmandu, Nepal
13. Airway emergencies—Imaging evaluation, 5th Annual Conference of Society for Emergency Radiology SERCON 2018, 2 November 2018, Hyderabad
14. Lung nodules—Fleischner Society Guidelines and General Approach, 20th National Conference on Pulmonary Diseases (NAPCON), 30 November to 2 December 2018, Ahmedabad
15. Prediction of Therapeutic Effect of Chemotherapy for NSCLC Using Dual-Input Perfusion CT Analysis: Comparison among Bevacizumab Treatment, Two-Agent Platinum-based Therapy without Bevacizumab, and Other Non-Bevacizumab Treatment Groups, Updates in Lung Cancer—Year End Review, 15-16 December 2018, Mumbai
16. Panel discussion: Oligometastatic disease, 18th Annual Conference—RGCON 2019: Thoracic Oncology, 9 February 2019, New Delhi

Shashi B Paul

1. Talk-CEUS assessment of liver lesions: Advantages and Limitations, Importance in assessment of small liver lesion and CEUS-LIRADS guidelines at, Medanta Ultrasound Update, 8-9 September 2018, New Delhi

Oral papers/posters presented

1. Baby A, Hari S, Paul SB, Dhamija E, Prasad V, Chauhan D, Malla S, Beware! Breast cancers can be circumscribed, 6th Annual Conference of Breast Imaging Society, BISICON 2018, 16-18 November 2018, Patna
2. Arora A, Gamanagatti S, Sharma R, Shalimar, Verma R, Paul SB, Extrahepatic collateral supply to HCC: What Radiologist Needs to Know, ECR 2019, 27 February to 3 March 2019, Vienna, Austria
3. Bagga B, Das CJ***, Contrast enhanced ultrasonography in characterizing adrenal masses, Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
4. Bagga B, Goyal A, Bhalla AS, Das A, Kandasamy D, Phlebographic patterns in low flow vascular malformations and their implications on management, Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
5. Bagga B, Goyal A, Srivastava DN, Ansari M, Popeye and reverse Popeye: Clinico-radiological spectrum, Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
6. Behera RK, Madhusudhan KS, Srivastava DN, Gamanagatti S, Right sided versus left sided PTBD in the management of malignant biliary obstruction: a randomized controlled study, ECR 2019, 27 February-3 March 2019, Vienna, Austria
7. Dawani A, Bhalla AS, Naranje P, Jana M, Gupta AK, Primary Pulmonary Neoplasms in Paediatric Population, IRIA 2019, 19 January 2019, Chandigarh
8. Das CJ, Nischant V, Ablation of Renal masses, 72nd Annual Indian Radiological Imaging Association (IRIA) Conference 2019, 16-19 January 2019, Chandigarh
9. Das CJ, Kumar R, Role of MR Neurography and PET-CT in evaluation of brachial plexopathy, 72nd Annual Indian Radiological Imaging Association (IRIA) Conference 2019, 16-19 January 2019, Chandigarh
10. Deepak R, Kumar A, Sharma R, Bhalla AS, Gamanagatti S, Gupta A, Kumar S, Can Contrast Enhanced Ultrasound be an alternative to CECT for grading and triaging abdominal organ injuries? RSNA 2018, 25-30 November 2018, Chicago, USA
11. Deepak R, Kumar A, Sharma R, Bhalla AS, Gamanagatti S, Gupta A, Kumar S, The role of CEUS in detection and grading of renal injuries in blunt abdominal trauma, 104th Annual Meeting of Radiology Society of North America, 25-30 November 2018, Chicago, USA
12. Deepak R, Kumar A, Sharma R, Bhalla AS, Gamanagatti S, Gupta A, Kumar S, Contrast Enhanced US appearance of post-traumatic visceral pseudoaneurysms and active extravasation: An overview of vascular injuries, RSNA 2018, 25-30 November 2018, Chicago, USA
13. Deshmukh A, Das CJ, Portal hypertensive colopathy manifesting as refractory hematochezia successfully treated with transjugular intrahepatic portosystemic shunt, ISVIR 2019, March 2019, Goa
14. Chauhan D, Prasad V, Dhamija E, Hari S, Paul SB, Baby A, Malla S, Paget's Disease of Breast: Clinico-radiological perspective, 6th Annual Conference of Breast Imaging Society, BISICON 2018, 16-18 November 2018, Patna
15. Chauhan D, Hari S, Dhamija E, Mathur S, Enigmatic Breast Lesions: From Difficult Radiological Interpretation to Unusual Histopathology Findings, European Congress of Radiology (ECR 2019), 27 February-3 March 2019, Vienna, Austria
16. Diwan K, Dhamija E, Thulkar S, Abdominopelvic extranodal lymphoma: Spectrum of Imaging findings, Annual conference of ISGAR 2018, 28-30 September 2018, Delhi

17. Diwan K, Dhamija E, Kumar M, Gupta P, Thulkar S, Renal metastases in lung cancer: Retrospective analysis of 700 patients, Annual conference of ISGAR 2018, 28-30 September 2018, Delhi
18. Diwan K, Dhamija E, Thulkar S, Distinguishing pseudomyxoma peritonei from peritoneal mucinous carcinomatosis: CT identification, Annual Conference of ISGAR 2018, 28-30 September 2018, Delhi
19. Diwan K, Dhamija E, Thulkar S, Imaging features of breast cancer: Potential biomarker, BISICON 2018, 16-18 November 2018, Patna
20. Diwan K, Dhamija E, Kumari A, Thulkar S, Difficult breast mammogram: An obstacle to overcome, BISICON 2018, 16-18 November 2018, Patna
21. Dohare N, Sharma S, Madhusudhan KS, Jana M, Das P, Malik R, Hepatic Shear Wave Elastography as an additional paradigm in assessing response to endovascular intervention in pediatric Budd-Chiari Syndrome, AOSPR 2018, 14-16 September 2018, Chandigarh
22. Gambhir M, Gamanagatti S, Sharma R, Manchanda S, Kumar A, Endovascular interventions in Obstetric emergencies: A game changer, ECR 2019, 27 February-3 March 2019, Vienna, Austria
23. Gambhir M, Gamanagatti S, Sharma R, Manchanda S, Kumar A, Kriplani A, Dadhwal V, Malhotra N, Sharma JB, Endovascular Interventions in Obstetric Emergencies: A Game changer, 1st Research Day of AIIMS, 25 March 2019, New Delhi
24. Ghosh A, Kandasamy D, Machine Learning: A stepwise theoretical primer for residents, RSNA 2018, 25-30 December 2018, Chicago, USA
25. Goyal A, Sangwan A, Kumar A, Kandasamy D, Sharma R, Bhalla AS, Sahu SA, Singhal M, Khandpur S, Sudheer A, Contrast-enhanced Ultrasound in Vascular Anomalies: A new paradigm**, 104th Scientific Assembly and Annual Meeting of Radiological Society of North America (RSNA), 25-30 November 2018, Chicago, USA
26. Goyal A, Sangwan A, Gamanagatti S, Kumar A, Singhal M, Radiofrequency ablation in the treatment of refractory pain in fibro-adipose vascular anomaly, 21st Annual Conference of ISVIR 2019, 7-10 March 2019, Goa
27. Kesav P, Jana M, Kandasamy D, Percutaneous cholecystography in diagnosis of biliary atresia, Annual Meeting of ISGAR 2018, September 2018, New Delhi
28. Kumar V, Das CJ, Sharma S, Thulkar S, Kumaran SK, Datta Gupta, Kumar R, Jagannathan NR (Poster), Added value of magnetic resonance spectroscopic imaging to multiparametric MRI for detection of prostate cancer using PIRADS version 2, Joint Annual Meeting of ISMRM-ESMRMB, 16-21 June 2018, Paris, France
29. Khuttan P, Dhamija E, Malla S, Mohapatra S, Meyyappan L, Singh S, Leiomyosarcoma of renal vein: An unusual entity, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi
30. Khuttan P, Dhamija E, Malla S, Mohapatra S, Meyyappan L, Singh S, Recurrent tumor thrombus in IVC following nephrectomy and thrombectomy: A case report, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi
31. Maji P, Malik R, Sharma S (Poster), Transjugular Liver biopsy in children and adolescents, 51st Annual meeting of ESPGHAN, 11 May 2018, Geneva
32. Makhija N, Madhusudhan KS, Srivastava DN, Sharma R, Gamanagatti S, Vikram NK, Role of MRI in Monitoring of patients of NAFLD: Comparison with USG, lipid profile and BMI, Korean congress of radiology 2018, 12-15 September 2018, Seoul, Korea
33. Makhija N, Hari S, Dhamija E, Paul SB, Her-2 Enriched Breast Cancer, BISICON 2018, 16-18 November 2018, Patna
34. Makhija N, Hari S, Dhamija E, Paul SB, Missed / Misinterpreted Masses on Breast Ultrasonography, BISICON 2018, 16-18 November 2018, Patna
35. Malla SR, Bhalla AS, Manchanda S, Contrast enhanced Ultrasound (CEUS): Uncovering the Pandora's Box of Possibilities in the evaluation of neck masses, Korean Congress of Radiology, 12-15 September 2018, Seoul, South Korea
36. Malla S, Singh S, Dhamija E, Khuttan P, Mohapatra S, Meyyappan L, Thulkar S, Oncological Emergencies in Abdomen, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi
37. Malla S, Dhamija E, Khuttan P, Mohapatra S, Meyyappan L, Thulkar S, Singh S, Palliative care interventions in oncology, Oncology Imaging and Interventions 2018, 27 May 2018, Chandigarh
38. Malla S, Chahal S, Kulshrestha V, Gamanagatti S, Uterine fibroid embolisation: How we do it? ISVIR 2019, 9-13 March 2019, Goa
39. Malla S, Chahal A, Kulshrestha V, Gamanagatti S, Obstetric emergencies: Can interventional radiologist be the saviour? ISVIR 2019, 9-13 March 2019, Goa
40. Malla S, Chahal A, Chumber S, Sharma S, Madhusudhan KS, Computed Tomography Guided Lumbar Sympathectomy as a Palliative Measure in Patients with Peripheral Vascular Disease not amenable to Reconstructive Therapy, ISVIR 2019, 9-13 March 2019, Goa

41. Malla S, Prasad V, Chauhan D, Hari S, Paul SB, Dhamija E, Baby A, Diseases of male breast, BISICON, 16-18 November 2018, Patna
42. Malla S, Chahal A, Gupta D, Gamanagatti S, Pull type radiologically inserted gastrostomy: An improvised technique using a frugal innovation, Korean Congress of Radiology, 12-15 September 2018, Seoul, South Korea
43. **Manchanda S**, Naranje P, Jana M, Bhalla AS, Imaging approach to prenatal diagnosis of thoracic lesions, AOSPR 2018, 14-16 September 2018, Chandigarh
44. **Manchanda S**, Bhalla AS, Ponneth MS, Kumar R, Barwad A, Water Balloon Technique in USG of Carcinoma Buccal Mucosa: Corollary to Puffed Cheek CT, RSNA 104th Scientific Assembly and Annual Meeting, 25-30 November 2018, Chicago, USA
45. **Manchanda S**, Bhalla AS, Ponneth MS, Kumar R, Barwad A, Alam M, Preoperative evaluation of squamous cell carcinoma tongue (T1-T3): Is ultrasound enough? Correlation with MRI and histopathological staging. **Competitive paper presentation for the Dr Ashok Mukherjee Award 2019**, 72nd Annual Conference of IRIA 2019, 17-20 January 2019, Chandigarh
46. **Manchanda S**, Sherwani P, Bhalla AS, Kumar R, 3D CT in the pre-operative evaluation of cochlear implant patients: Going beyond the routine, 72nd Annual Conference of IRIA 2019, 17-20 January 2019, Chandigarh
47. Mewar SK, Sharma S, Dhamija E, Bhattachajee R, Thulkar S, et al. (Poster), In bore MR guided prostate biopsy using multiparametric MRI to avoid unnecessary biopsies, Joint Annual Meeting of ISMRM-ESMRMB, 16-21 June 2018, Paris, France
48. Mewar SK, Sharma S, Dhamijia E, Thulkar S, Kumar P, Kumar V, Kumaran SK, Datta Gupta, Kumar R, Jagannathan NR (Poster), Use of multiparametric MRI in guiding in bore guided prostate biopsy and routine TRUS guided biopsy for detection of prostate cancer, ISMRM Workshop on Quantitative Body Imaging, 26-28 March 2019, New Delhi
49. Meyyappan L, Dhamija E, Malla S, Khuttan P, Mohapatra S, Singh S, Malignant peripheral nerve sheath tumor of sciatic nerve extending into deep femoral vein—A rare presentation, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi
50. Meyyappan L, Dhamija E, Malla S, Khuttan P, Mohapatra S, Singh S, Endometrial changes in patients receiving tamoxifen therapy for breast cancer, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi
51. Monga A, Madhusudhan KS, Goyal A, Das CJ, Srivastava DN, Image guided joint injections in lumbar facet arthropathy: Therapeutic efficacy, Korean Congress of Radiology 2018, 12-15 September 2018, Seoul, Korea
52. Monga A, Madhusudhan KS, Goyal A, Das CJ, Srivastava DN, Comparison between percutaneous balloon vesselplasty and percutaneous vertebroplasty in chronic painful compression fractures of dorsolumbar spine, ISVIR 2019, 7-10 March 2019, Goa
53. Murugan N, Kandasamy D, Sharma R, Goyal A, Gupta AK, Tandon N, Gupta N, Goswami R, Seenu V, Damle N, Multiparametric 4D MRI in diagnosis of parathyroid lesion in patients with PHPT (primary hyperparathyroidism), ECR 2019, 27 February-3 March 2019, Vienna, Austria
54. Murugan N, Kandasamy D, Sharma R, Goyal A, Gupta AK, Tandon N, Gupta N, Goswami R, Seenu V, Damle N, Role of 4DCT in localisation of ectopic parathyroid lesions, ECR 2019, 27 February-3 March 2019, Vienna, Austria
55. Murugan N, Bhalla AS, Naranje P, Manchanda S, Types of Hypersensitivity reaction and lung—An Ill understood conundrum, SCII 2019, 12-13 April 2019, Vellore
56. Jagannathan NR, Kumar P, Kumar R, Kumar V, Kumaran SS, Sharma S, Thulkar S, Gupta SD (Poster), Metabolic Profiling of Blood Plasma for Distinguishing Prostate Cancer in Patients with Positive Biopsy and Negative Biopsy using NMR Spectroscopy, Joint Annual Meeting of ISMRM-ESMRMB, 16-21 June 2018, Paris, France
57. Nichat V, Gamanagatti S, Kandasamy D, Gupta AK, JARGONS SIMPLIFIED: Paediatric Radiology Interventions, Asian and Oceanic Society for Paediatric Radiology (AOSPR), 14-16 September 2018, Chandigarh
58. Paul SB, Dhamija E, Prasad V, Gamanagatti S, Das P, Shalimar, Acharya SK, Combined hepatocellular cholangiocarcinoma: Clinical and imaging findings, Annual Conference of ISGAR, 28-30 September 2018, Delhi
59. Paul SB, Gamanagatti S, Prasad V, Dhamija E, Das P, Shalimar, Acharya SK, Hepatocellular carcinoma with Extrahepatic Collateral Supply: Diagnosis and impact on management with Transarterial chemoembolization, Annual Conference of ISGAR, 28-30 September 2018, Delhi
60. Paul SB, Shekhar Singh S, Yadav D, Dhamija E, Gamanagatti SR, Shalimar, Acharya SK, Spectrum of Contrast enhanced ultrasound findings in Hepatocellular carcinoma treated with locoregional therapy, 26th Annual Scientific Meeting Indian National Association for Study of the Liver, (INASL 2018), 2-5 August 2018, New Delhi

61. Paul S, Ekta Dhamija E, Sahu P, Gamanagatti SR, Shalimar, Acharya SK, Management of hepatocellular carcinoma associated with hepatic venous outflow tract obstruction (HVOTO-HCC): A challenging task for an Interventional Radiologist, 59th Annual Conference of Indian Society of Gastroenterology, (ISGCON 2018), 28 November-1 December 2018, Kochi, Kerala
62. Prakash A, Sharma S (Oral paper), Orbital cysticercus: More than that meets the eye, Combined 18th Meeting of Asian Oceanian Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), Organized by PGIMER, Chandigarh, 14-16 September 2018, Chandigarh
63. Prasad V, Chauhan D, Hari S, Paul SB, Dhamija E, Baby A, Malla S, Breast Sonography: A problem solving tool, BISICON, 16-18 November 2018, Patna
64. Prasad V, Dhamija E, Paul SB, Hari S, Manchanda S, Baby A, Role of ultrasonography in locoregional staging of breast cancer: Beyond evaluation of primary breast mass, Korean Congress of Radiology, 12-15 September 2018, Seoul, South Korea
65. Prithviraj SK, Gamanagatti S, Kumar A, Imaging and intervention in traumatic peripheral vascular injuries, IRIA 2019, 17-20 January 2019, Chandigarh
66. Naranje P, Meena P, Bhalla AS, Goyal A, Gupta AK, Kabra SK, Etiological spectrum of pediatric hemoptysis: A tertiary care centre experience¹, 18th Annual Meeting of Asian and Oceanic Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), 14-16 September 2018, Chandigarh
67. Naranje P, Bhalla AS, Jana M, Kabra SK Gupta AK, Pattern recognition in pediatric interstitial lung diseases: A tertiary care centre experience, ECR 2019, 27 February-3 March 2019, Austria, Vienna
68. Naranje P, Singh R, Bhalla AS, Manchanda S, Gupta AK, Mahapatra M, Spectrum of Infectious and Non-Infectious Pulmonary Manifestations in Patients with Haematological Disorders, 72nd Annual Conference of IRIA 2019, 17-20 January 2019, Chandigarh
69. Rajamohan N, Sharma R, Kandasamy D, Goyal A, Bhalla AS, Parshad R, Jain D, Thymic imaging in patients with myasthenia Gravis: Is DECT superior to MRI? ECR 2019, 27 February-3 March 2019, Vienna, Austria
70. Ramachandran A, Dhamija E, Thulkar S, Incidental vascular findings of potential clinical implications in patients with known abdominal malignancy, Annual Conference of ISGAR 2018, 28-30 September 2018, Delhi
71. Ramachandran A, Dhamija E, Thulkar S, Incidental abdominal imaging findings of potential clinical significance in patients with known malignancies, Annual Conference of ISGAR 2018, 28-30 September 2018, Delhi
72. Sangwan A, Goyal A, Kandasamy D, Kumar A, Kimura's Disease: How to Suspect this Uncommon Entity Clinico-radiologically, AOSPR 2018, 14-16 September 2018, Chandigarh
73. Sangwan A, Goyal A, Sharma R, Kandasamy D, Bhalla AS, Kumar A, Shamendra AS, Contrast Enhanced Ultrasound: A safe and novel modality to characterize vascular anomalies in children, AOSPR 2018, 14-16 September 2018, Chandigarh
74. Sangwan A, Goyal A, Kumar A, Sharma R, Kandasamy D, Bhalla AS, Singhal M, Arava S, TWIST and TRAK MR Angiography in the Evaluation of Vascular Anomalies^Ω, ISMRM Accessible MRI Workshop, organized by ISMRM India Chapter, 29-31 March 2019, New Delhi
75. Santhalia PK, Kandasamy D, Jana M, Naranje PM, Sharma R, Imaging of Paediatric Renal Masses: Pictorial Essay, 18th Annual Meeting of Asian and Oceanic Society of Paediatric Radiology(AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), 14-16 September 2018, Chandigarh
76. Kapur S, Jana M, Gupta L, Bhalla AS, Naranje P, Gupta AK, Chest MRI using multivane XD, a Novel T2 weighted free breathing MR sequence: Comparison of image Quality with conventional Sequences, KCR 2018, 12-15 September 2018, Seoul, Korea
77. Paul SB, Vishnubhatla Sreenivas V, Singh S, Nadda N, Dhamija E, Shalimar, Nayak B, Acharya SK, Resurrection of serum alphafetoprotein: Utility in monitoring treatment response in hepatocellular carcinoma, 26th Annual Scientific Meeting Indian National Association for Study of the Liver (INASL 2018), 2-5 August 2018, New Delhi
78. Paul SB, Dhamija E, NaddaN, Sahu P, Das P, Shalimar, Acharya SK, Combined hepatocellular cholangiocarcinoma: A diagnostic conundrum, 59th Annual Conference of Indian Society of Gastroenterology, (ISGCON 2018), 28 November-1 December 2018, Kochi, Kerala
79. Shera TA, Bhalla AS, Naranje P, Mohan A, Lung cancer in Idiopathic Pulmonary Fibrosis, Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
80. Shera TA, Sharma A, Kumar R, Bhalla AS, Mohan A, Das CJ, Thulkar S, Comparison of 18 FDG-PET/CT characteristics of adenocarcinoma of the lung cancer in patients with mutant and wild type epidermal growth factor receptor, 1st SCII Conference, 12 and 13 April 2019, Vellore

81. Sherwani P, Jana M, Bhalla AS, Naranje P, Gupta AK, Kandasamy D, Thoracic manifestations in primary immunodeficiency: Imaging findings, AOSPR 2018, 14 September 2018, Chandigarh
82. Sherwani P, Dawani A, Kandasamy D, Sharma R, Naranje P, Jana M, Gupta AK, Unraveling Paediatric Liver Tumors: Clinico-imaging Features, 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh
83. Sherwani P, Jana M, Bhalla AS, Naranje P, Gupta AK, Kandasamy D, Pulmonary manifestations of primary immunodeficiencies in paediatric patients: Imaging Consideration, 72nd Annual Conference of IRIA, 17-20 January 2019, Chandigarh
84. Saha S, Singhal M, Chauhan S, Sahu S, Dave A, Goyal A, Sangwan A, Kumar A, FAVA: Misdiagnosis to diagnosis—Role of Interdisciplinary partnership, 53rd Annual Conference of Association of Plastic Surgeons of India (APSICON 2018), 21-25 November 2018, Lucknow
85. Singh R, Naranje P, Bhalla AS, Vyas S, Gupta AK, Chest radiography findings in the ICU: A pictorial essay and guidance to device and ventilatory associated complications, IRIA 2019, 17-20 January 2019, Chandigarh
86. Singh R, Naranje P, Kandasamy D, Jana M, Gupta AK, Damle NA, Be calm: Not all skull lytic lesions are LCH2, AOSPR 2018, 14-16 September 2018, Chandigarh
87. Singh S, Dhamija E, Malla S, Khuttan P, Mohapatra S, Meyyappan L, Thulkar S, Desmoid-Type Fibromatosis: Ct Imaging Spectrum, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi
88. Singh S, Mohapatra S, Malla S, Meyyappan L, Khuttan P, Dhamija E, Radiation Induced Changes in Lung Oncology Imaging and Interventions 2018, 27 May 2018, Delhi
89. Singh S, Manchanda S, Naranje P, Ultrasound Appearances in Ectopic Pregnancy: Finding the Fugitives, Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
90. Singh S, Naranje P, Kandasamy D, Gamanagatti S, Nichat V, Gupta AK, CT Guided Paediatric Interventions: Our Experience, Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
91. Srivastava DN, Monga A, Madhusudhan KS, Malla S, Comparison between percutaneous balloon vesselplasty and percutaneous vertebroplasty in chronic painful compression fractures of dorsolumbar spine, ECR 2019, 27 February-3 March 2019, Vienna, Austria
92. Sudhakaran D, Jana M, Naranje P, Kandasamy D, Gupta AK, Spectrum of lower urogenital abnormality in children undergoing VCUg/ RGU: Experience of a tertiary care centre, Korean Congress of Radiology, 12-15 September 2018, Seoul, South Korea
93. Sudhakaran D, Naranje P, Bhalla AS, Jana M, Unravelling hidden killer: Role of CT pulmonary angiography in apparently idiopathic pulmonary arterial hypertension, Korean Congress of Radiology, 12-15 September 2018, Seoul, South Korea
94. Sudhakaran D, Naranje P, Bhalla AS, Manchanda S, Intrathoracic immunoglobulin G4 related diseases: Imaging findings, SCIICON 2019, 12-13 April 2019, Vellore
95. Sudhakaran D, Naranje P, Bhalla AS, Manchanda S, Semiquantitative fibrotic scoring and correlation with clinic-radiological parameters in UIP pattern of ILD, SCIICON 2019, 12-13 April 2019, Vellore
96. Vyas S, Bhalla AS, Kumar U, Naranje P, Gupta AK, Chest CT in Rheumatoid arthritis: A tertiary center experience, 72nd Annual Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
97. Vyas S, Bhalla AS, Kumar U, Naranje P, Gupta AK, HRCT in progressive systemic sclerosis: Review of scoring systems and patterns, 72nd Annual Conference of Indian Radiological and Imaging Association, 17-20 January 2019, Chandigarh
98. Vyas S, Malla S, Bhalla AS, Kumar U, Gupta AK, Ultrasonography in early rheumatoid arthritis of hand and wrist joints: Comparison with magnetic resonance imaging, European Congress of Radiology, 27 February-3 March 2019, Vienna, Austria
99. Shera TA, Bhalla AS, Naranje P, Mohan A, Lung cancer in Idiopathic Pulmonary Fibrosis, 72nd Annual Conference of IRIA 2019, 17-20 January 2019, Chandigarh
100. Nichat V, Naranje P, Bhalla AS, Jana M, Manchanda S, Gupta AK, Imaging of pulmonary agenesis-hypoplasia complex: Spectrum and approach, 18th Annual Meeting of Asian and Oceanic Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), 14-16 September 2018, Chandigarh
101. Singh VP, Dhamija E, Paul SB, Hari S, Baby A, Manchanda S, Axillary lymph node evaluation by ultrasound for staging of Breast carcinoma, 74th Korean Congress of Radiology (KCR 2018), 12-15 September 2018, Seoul, Korea

102. Vora Z, Manchanda S, Sharma R, Hari S, Das CJ, Kumar S, Kachhawa G, Mathur S, Khan M, Can SWE of endometrial and subendometrial lesions provide additive information: Initial Experience, RSNA 2018, 25-30 November 2018, Chicago, USA

RESEARCH

Funded projects

Ongoing

1. Pilot Implementation of Collaborative Digital Diagnosis System (CollabDD) Using Medical Imaging, Arun Kumar Gupta, Department of Health Research, 3 years, 2016-2018, Rs 49 lakhs
2. Diffusion Tensor Imaging (DTI) to assess renal acute allograft dysfunction in renal transplant patient, Chandan J Das, DST, 2 years, 2016-2018, Rs 23 lakhs
3. Evaluation of Incremental Role of MR Perfusion in the Characterization of Neck Masses, Smita Manchanda, AIIMS, 2 years, 2016-2018, Rs 1 lakh

Completed

1. Evaluation of the graft kidney by contrast-ultrasound and elastography in early post-operative period, Ankur Goyal, AIIMS, 2 years, 2016-2018, Rs 5 lakhs

Departmental projects

Ongoing

1. Percutaneous image guided interventional radiology procedures in spinal diseases
2. Role of Advanced CT and MR techniques in pancreatic masses
3. Evaluation of Soft tissue vascular anomalies using CEUS and elastography
4. Role of Interventional Radiology in obstetric related hemorrhage
5. Role of Contrast Enhanced Ultrasound and MR Perfusion in the characterization of neck masses
6. Role of ultrasound guided wire localization and surgical removal of clipped pretreatment positive axillary lymph nodes in increasing the diagnostic accuracy of sentinel lymph node biopsy after neoadjuvant chemotherapy in breast cancer patients
7. Multimodality imaging evaluation of chronic mass forming mastitis and role of Ultrasound guided core needle biopsy in determining the etiology
8. Role of imaging for clinical outcome evaluation in pelvic fracture patients
9. Imaging in infantile brachial plexopathy
10. Evaluation of Soft tissue vascular anomalies using CEUS and elastography
11. Fibroadipose Vascular Anomaly: Comprehensive analysis of clinic-radiologic-pathological features and treatment outcomes of this new entity
12. Sclerotherapy in low-flow vascular malformations: Assessment of clinical effectiveness of the current practices in a tertiary care center
13. Role of advanced MRI and ultrasonography in Evaluation of Prostate Cancer
14. Management of bilio-enteric anastomotic strictures: Role of percutaneous interventions
15. Correlation of MRI and Lung ultrasonography in connective tissue related interstitial lung disease
16. Role of HRCT in the diagnosis of apparently idiopathic interstitial lung diseases
17. Randomized controlled trial of uterine artery embolization vs Abdominal hysterectomy for symptomatic uterine fibroids in patients who have completed their family
18. Evaluation of split-bolus dual energy CT in staging of carcinoma larynx
19. Deep Learning for detection and classification of abnormalities on Full Field Digital Mammography
20. Diagnostic accuracy of Contrast enhanced Ultrasound in detecting early response to Neoadjuvant Chemotherapy in Breast cancer patients
21. Imaging and Intervention in Paediatric Budd Chiari Syndrome

Completed

1. Advanced MR Imaging and Image Guided Interventions in chronic low back pain
2. Role of high frequency sonography in evaluation and management of traumatic injuries of upper limb
3. Dual Energy CT and MR evaluation of thymic lesions
4. Comparison of 4D CT, 4D MRI and Fluorocholine PET in the Localization of Parathyroid Lesions in Patients with Primary Hyperparathyroidism (HPT)
5. Role of Dual Energy Computed Tomography in the Evaluation of Liver Fibrosis in Patients of Chronic Liver Disease
6. Diagnostic and Prognostic role of MRI in acute traumatic cervical cord injury
7. Role of shear wave Elastography in Diagnosis Prognostication and Follow-up of Neonatal/Infantile cholestatic liver diseases
8. To identify the imaging features of chronic cavitary pulmonary aspergillosis and differentiate it from simple aspergilloma on DECT in patients with post—TB sequelae and hemoptysis
9. Role of MRI in evaluation of Residual Tumor Burden following Neoadjuvant Therapy in patients with Breast Cancer
10. Evaluation of feasibility of Shear wave Sono-Elastography in the assessment of uterine pathology with MRI and/or Histopathology correlation
11. Role of multiparametric MRI and Ga-68 PSMA PET Scan in evaluation of intermediate and high-risk prostate cancer
12. Right sided versus left sided percutaneous transhepatic biliary drainage in the management of biliary obstruction: A randomized controlled study
13. Role of dual energy computed tomography in the evaluation of liver fibrosis in patients of chronic liver disease
14. MRI Evaluation of Thymic Lesions
15. Role of High Frequency Sonography in evaluation and management of upper limb injuries
16. Role of shear wave elastography in assessment of response to neo adjuvant chemotherapy in patients with breast cancer

Collaborative projects

Ongoing

1. Safety, suitability and clinical effectiveness of unicompartmental knee replacement in the Indian population (UKIERI-DST), Orthopaedics
2. Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome (UKIERI-DST), Orthopaedics
3. Disconnected pancreatic duct syndrome is uncommon and asymptomatic following cystogastrostomy for pseudocyst/walled off necrosis in patients with acute pancreatitis, Gastroenterology
4. Stem cell therapy in Peri anal fistula in Crohn's Disease, Gastroenterology
5. Modalities of therapeutic interventions and assessment of multisystem complications in idiopathic hypoparathyroidism, Endocrinology
6. The feasibility and safety of the sub-xiphoid video assisted thymectomy for myasthenia gravis: A pilot study, Department of Surgical Disciplines
7. Efficacy and tolerability of hyperbaric oxygen therapy in structuring and fistulizing small bowel Crohn's Disease, Gastroenterology
8. Prevalence of NAFLD and its association with cardio-metabolic risk factors in North India, Endocrinology
9. Evaluation of various clinical and immunological parameters in predicting the outcomes of sino-nasal and skull base invasive fungal diseases: A descriptive study, Otorhinolaryngology—Head and Neck Surgery
10. Prospective pilot study for evaluating incidence of occult lymph node metastasis in Patients of Olfactory Neuroblastoma, Otorhinolaryngology—Head and Neck Surgery
11. Evaluation of unknown head and neck primaries metastatic to cervical lymph node in adults, Otorhinolaryngology—Head and Neck Surgery
12. Comparison of efficacy of Mitek mini anchor suture technique with conventional technique for TMJ disc placcation in Wilkes Class III patients—A randomized controlled trial, Oral and Maxilla-Facial Surgery
13. Sdh-x gene mutation in head and neck paragangliomas: A clinicopathological study, Otorhinolaryngology—Head and Neck Surgery

14. Clinico radiological correlation of Vitamin D level and immune markers with severity of disease in cases of Allergic Rhinitis, Nasal Polyposis and Recurrent Nasal Polyposis, Otorhinolaryngology—Head and Neck Surgery
15. Determination of plasma drug levels of Anti-Tubercular drugs in patients with Extra-Pulmonary Tuberculosis (Lymph nodes and Pleural effusion) and its association with treatment outcomes, Pulmonary Medicine and Sleep Disorders
16. Etiology and clinical profile of adult patients with bronchiectasis, Pulmonary Medicine and Sleep Disorders
17. An ambispective cohort study of the predictors of diagnostic yield of various bronchoscopic procedures for lung cancer at a tertiary level health care facility, Pulmonary Medicine and Sleep Disorders
18. A pilot study to evaluate the role of 68 Ga-PSMA scan in patients with Juvenile nasopharyngeal Angiofibroma, Otorhinolaryngology—Head and Neck Surgery
19. Evaluation of clinical features and treatment outcomes in patients with skull base osteomyelitis, Otorhinolaryngology—Head and Neck Surgery
20. Comparative analysis of orbital volume in 3D-model assisted mesh adaptation versus conventional technique in reconstruction of orbital floor fracture, Oral and Maxilla-Facial Surgery
21. Coblation Assisted Endoscopic Excision of Juvenile Nasopharyngeal Angiofibroma: A Prospective Pilot Study (ENT, Otorhinolaryngology—Head and Neck Surgery)
22. Comparison of outcomes in post cochlear implantation children with and without congenital inner ear malformation, Otorhinolaryngology—Head and Neck Surgery
23. Comparison of identification rate of fluorescein plus methylene blue vs technetium Sulphur colloid plus methylene blue for detection of sentinel node in ladies with operable breast cancer, Surgery
24. Systematic management strategy of axilla in women with operable breast cancer- With randomization of node positive patients to Level 1 vs complete axillary lymph node dissection, Surgery
25. Evaluation of the role of radical radiotherapy in achieving pathological complete remission in breast cancer patients with complete clinical remission following neoadjuvant chemotherapy—A superiority randomized controlled trial, Surgery
26. Comparison of cosmetic outcome and resection margins following intra-operative ultrasound guided excision with conventional palpation guided breast conservation surgery in breast cancer—A randomized controlled trial, Surgery
27. Proteomics of axillary sentinel lymph node tissues in early breast cancer: Implications for identification of biomarker to guide surgical intervention, Surgery
28. Metallic tumor marker clip for breast cancer: Design, development and clinical implications, Radiodiagnosis, IRCH
29. Inter-Institutional Programme for Maternal, Neonatal and Infant Sciences: A translational approach to studying Preterm Birth, Paediatrics
30. Immunophenotypic profile of tumor infiltrating cells of the immune system and expression of PDL1 in triple negative/Her-2 neu positive breast cancer patients and their correlation with response to neoadjuvant chemotherapy, Pathology
31. Whole body MRI in the assessment of metastatic disease of osteosarcoma and Ewing's sarcoma, Orthopaedics
32. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and stillbirths, Department of Paediatrics
33. Incidence and risk factors of preterm brain injury (periventricular leukomalacia and/or intraventricular hemorrhage) in very low birth weight neonates (32 weeks gestation or and less than 1,500 gm birth weight): A prospective cohort study, Department of Paediatrics
34. A prospective randomized trial comparing laparoscopic versus endoscopic drainage for walled off necrosis following acute pancreatitis, Department of Surgery
35. A randomized sham controlled clinical trial of targeted low frequency repetitive transcranial magnetic stimulation in childhood focal onset refractory epilepsy, Department of Paediatrics
36. Muscle ultrasound in children with peripheral hypotonia in children aged 1 month- 18 years, Department of Paediatrics
37. Evaluation of changes in measured GFR, echocardiography, markers of bone mineral metabolism and carotid intima media thickness after renal donation, Department of Nephrology
38. DTI, fMRI and qEEG correlates of cognition and behavior in children and adolescents with well controlled non-lesional epilepsy: An observational study, Department of Paediatrics
39. VIRADS for carcinoma urinary bladder, Urology
40. ¹⁷⁵Lu dosimetry in castration resistant prostate cancer, Nuclear Medicine
41. EBUS in Mediastinal lesions—Correlation with CT and PET-CT, Medicine

42. Comparison of mesotherapy with surgery in management of superficial lipomas, Surgical disciplines
43. Study to classify periorbital hyperpigmentation based on clinico-investigative profile, Dermatology
44. Anti-tubercular drug induced liver injury in patients with fatty liver, Medicine
45. To evaluate the role of computerized tomography in diagnosis of recurrence of treated post pulmonary tubercular patients, Medicine
46. Role of impulse ossicometry in the evaluation and follow up of newly diagnosed cases of interstitial lung disease, Medicine
47. To study the prevalence of obstructive sleep apnea in patients with interstitial lung disease, Medicine
48. Clinical radiological and functional correlation in treated pulmonary tuberculosis sequel patients, Medicine
49. Osteopontin as a Biomarker and Its Relationship with Phenotypic Severity Score in Enzyme Naive Children with Gaucher Disease, Department of Paediatrics
50. Prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) in Children with Down Syndrome, Department of Paediatrics
51. To study changes in muscle thickness and muscle echogenicity in critically ill children, aged 1-18 years during their initial 7 day stay in PICU: An observational study, Department of Paediatrics
52. Evaluation of diaphragm function of ventilated children using Bed side ultrasonography, Department of Paediatrics
53. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and stillbirths, Department of Paediatrics (ICMR funded)
54. Prevalence of NAFLD and its association with cardio-metabolic risk factors in North India, Endocrinology
55. Modalities of therapeutic interventions and assessment of multisystem complications in idiopathic hypoparathyroidism, Endocrinology
56. Role of placental growth factor, uterine artery doppler and 3D doppler ultrasound of placenta for prediction of pre-eclampsia in high risk pregnancies, Obstetrics and Gynaecology
57. Evaluation of 2Dimensional and 3Dimensional Ultrasonography in preoperative assessment of adnexal masses, Obstetrics and Gynaecology
58. Prospective Pilot Study for Evaluating Incidence of Occult Lymph Node Metastasis in Patients of Olfactory Neuroblastoma, Otorhinolaryngology—Head and Neck Surgery
59. Association between therapeutic drug levels and worm infestation with treatment response in patients with TB lymphadenitis, Medicine
60. Comparison between two regimens of intermittent Ulipristal Acetate treatment in management of uterine myomas: Pilot study, Obstetrics and Gynaecology
61. Prevalence of Non-Alcoholic Fatty Liver Disease in Indian Young Adults (18-30 years): Pilot Study, Medicine
62. Correlation of placental vascularization indices and placental elastography in IUGR pregnancies with perinatal outcome: A case control study, Obstetrics and Gynaecology
63. Evaluation of quantitative and qualitative bone healing following application of Low-Level Laser Therapy (LLLT) during consolidation period of mandibular distraction osteogenesis, Oral and Maxillofacial Surgery
64. Correlation of first trimester metabolic parameters and maternal body fat indices with development of gestational diabetes mellitus in Asian Indian women- a comparative study, Obstetrics and Gynaecology
65. Comparison of Cervical Shear Wave Elastography, Bishop Score, and Transvaginal Cervical Length Measurement for Prediction of Successful Labor Induction: A Pilot Study, Obstetrics and Gynaecology
66. Prediction of Difficult Laryngoscopy and Orotracheal Intubation Using Lateral Neck X-ray: A Prospective Observational Double-Blind Study, Anaesthesiology, Pain medicine and Critical Care
67. Systemic effect of surgery in obstructive sleep apnea severity—An evaluation with inflammatory markers, Otorhinolaryngology—Head and Neck Surgery
68. Study of risk factors for breast cancer in Indian women: A case control study, Breast Endocrine and General Surgery
69. Role of ultrasound in predicting depth of tumor invasion and lymph node metastasis in early tongue carcinoma, Otorhinolaryngology—Head and Neck Surgery
70. A phase IIB Open Label Randomized trial to evaluate the anti-bacterial activity, pharmacokinetics, safety and tolerability of Metformin when given along with rifampicin, isoniazid, pyrazinamide and ethambutol in adults with newly diagnosed sputum positive pulmonary tuberculosis: An 8-week study, Pulmonary Medicine and Sleep Disorders

71. A Phase III, Randomized, Double-blind, Placebo controlled Trial to Evaluate the Efficacy and Safety of VPM1002 and Immuvac Vaccines in Preventing Tuberculosis (TB) in Healthy Household Contacts of Newly Diagnosed Sputum Positive Pulmonary TB Patients, Pulmonary Medicine and Sleep Disorders
72. Sonographic carotid velocimetry as a predictor of fluid responsiveness in patients, Medicine
73. Economic Burden, Prevention and Control of Pneumonia among Elderly, Centre for Community Medicine
74. Prosthetic material(mesh) anchored by mechanical device versus glue during laparoscopic repair of ventral hernia: A double blind randomized controlled trial, Surgical disciplines
75. Oncological outcomes of breast conservation surgery in patients with locally advanced breast cancer post neo-adjuvant chemotherapy, Surgical disciplines
76. Feasibility of Enhanced recovery after surgery protocol in general thoracic surgery: Prospective cohort study, Surgical disciplines
77. Assessment of Post Cholecystectomy Symptoms and Quality of Life Evaluation: A Prospective Cohort Study, Surgical disciplines
78. To study the significance of tumour infiltrating lymphocytes in breast cancer patients, Surgical disciplines
79. Study of risk factors for breast cancer in Indian women: A case control study, Surgical disciplines
80. Outcomes following minimal access thymectomy in patients with thymoma, Surgical disciplines
81. Double blind randomized control trial to assess the outcome of pulley release and pulley reconstruction for de Quervain's tenosynovitis, Orthopaedics
82. Comparison of mesotherapy (non operative) with surgery in management of superficial lipomas, Department of Surgical Disciplines
83. Abdominal infections in immunocompromised hosts: A Radiological, Microbiological and Clinical Correlation, Hematology
84. Derivation of nomograms for aortic and iliofemoral dimensions using multidetector computed tomography in the Indian population, Cardiac Radiology
85. Role of contrast enhanced USG in assessing activity in nonspecific aortoarteritis, Cardiac Radiology
86. Incidence and outcome of neutropenic enterocolitis in paediatric cancer patients, Department of Paediatrics
87. To compare the diagnostic performance of Whole-Body Low Dose Computed Tomography (WB LDCT) and Conventional Skeletal Survey (CSS) in diagnosis and management of patients with Multiple Myeloma (MM) in a tertiary care center, Hematology
88. Role of contrast enhanced ultrasound in the diagnosis of hepatocellular carcinoma in patients of cirrhosis and in the assessment of tumor response after percutaneous ablation, Gastroenterology
89. Assessment of liver fibrosis in patients with Chronic liver disease using Transient elastography, Shear wave elastography and Serum biochemical markers, Gastroenterology
90. Assessment of tumor response to locoregional therapy in patients of Hepatocellular carcinoma using shear wave elastography, Gastroenterology
91. Comparison of Transarterial radioembolization versus Transarterial chemoembolization in the management of intermediate Hepatocellular Carcinoma: A Randomized Control Trial, Gastroenterology, Nuclear Medicine
92. Role of microRNAs as a biomarker in hepatocellular carcinoma, Gastroenterology
93. Role of Liquid Biopsy Biomarkers in Hepatocellular carcinoma and Hepatitis B virus induced carcinogenesis, Gastroenterology
94. Ultrasound Assessment of Gastric Emptying of Clear Fluids with Different Energy Content in Children: A Crossover Pilot Study, Anesthesiology
95. The pattern of visual impairment in spectrum of hypoxic ischaemic encephalopathy, Ophthalmology
96. Evaluation of the outcome of Intra lesional Bleomycin in orbital lymphangioma, Ophthalmology
97. Role of MR guided biopsy in detection of prostate cancer, NMR
98. Retro prospective Study Evaluating Correlation between Proposed MRI based Optic Nerve Staging in Extraocular Retinoblastoma with Clinical Outcome and Prospective Evaluation of Optic Nerve Enhancement without Optic Nerve Thickening, Ophthalmology
99. Effects of use of bolster and its orientation on kidney position in reference to prone percutaneous nephrolithotomy, Urology
100. Interstitial lung Diseases: Texture based analysis for quantification, CSIR-IGIB

Completed

1. Role of MRI in evaluation of multifocality in hepatoblastoma and correlation of VEGF with multifocality, Paediatric Surgery
2. Analgesic efficacy and safety profile of Glossopharyngeal nerve block using extraoral approach by landmark technique versus ultrasound guided technique in patients with Eagle's Syndrome, A randomized, prospective, controlled trial, Anesthesiology
3. Assessment of depth of invasion in oral cavity squamous cell carcinoma by clinical palpation and radiology and their correlation to histopathological depth of invasion, Otorhinolaryngology—Head and Neck Surgery
4. Efficacy of intrabronchial voriconazole instillation for inoperable pulmonary aspergilloma: A randomized controlled trial, Pulmonary Medicine and Sleep Disorders
5. An observational study of the clinico-pathological profile and outcomes in patients with Lung Cancer at A Tertiary Care Center, Pulmonary Medicine and Sleep Disorders
6. Surgical outcome of patients with pulmonary aspergilloma—An Observational Study, Surgery
7. Evaluation of epidermal growth factor receptor (EGFR) expression in cholesteatoma sac in different types of pneumatization of temporal bone, Otorhinolaryngology—Head and Neck Surgery
8. Comparison of cosmetic outcome and resection margins following intra-operative ultrasound guided excision with conventional palpation guided breast conservation surgery in breast cancer—A Randomized Controlled Trial, Surgical disciplines
9. Ambispective cohort study to evaluate oncological and aesthetic outcomes of skin sparing mastectomy with implant, Surgical disciplines
10. To establish algorithm for management of axilla in patient with clinically axillary lymph node negative early operable breast cancer, Surgical disciplines
11. Study pattern of HIV Drug resistant mutations in HIV patients co-infected with active tuberculosis, Medicine
12. Role of inflammation in Indian women with Polycystic Ovary Syndrome (PCOS) and its modulation by dietary factors, Endocrinology
13. Study of the utility of FDG-PET/CT Vs CECT for the evaluation of fever of more than 4 weeks duration in HIV/AIDS (AIDS associated PUO), Medicine
14. Gallium-68 (Ga-68)-labeled PSMA PET/CT in the evaluation of prostate cancer patients, Nuclear medicine
15. To study the effect of platelet rich plasma therapy on Leprosy related peripheral neuropathy, Dermatology
16. Evaluation of gene expert in tubercular lymphadenopathy, Medicine
17. Treatment outcomes in patients with MDR/XDR, A prospective study, Medicine
18. Preoperative prediction of tumor angiogenesis by DW MRI and perfusion CT in renal cell carcinoma and using these biomarkers to predict tumor grade in advanced renal cell carcinoma, Urology
19. Opportunistic infection in AIDS, Medicine
20. Role of chest radiograph in predicting length of central line, Anesthesiology
21. Role of cytokines in severe dengue infection, Medicine
22. Pulmonary infections in renal transplant recipients: A prospective cohort observational study, Nephrology
23. Role of PET-CT and DWI in evaluation of tumor angiogenesis and treatment response in advanced carcinoma lung, Nuclear Medicine
24. Diagnosis of patients of oligo arthritis with special reference to brucellosis and Lyme's Disease, Medicine and Microbiology (Infectious diseases)
25. Pilot study to assess the role of metabolic imaging in patients with undiagnosed abdominal pain, Surgical disciplines
26. A split face randomized controlled study comparing the efficacy of fractional CO2 laser and micro needling in the treatment of acne scars. A split face randomized controlled study comparing the efficacy of fractional CO2 laser and micro needling in the treatment of acne scars, Dermatology and Venereology
27. Variation of different methods of physical examination for swelling in thyroid region in adolescent and adult: Cross-sectional study, Surgical disciplines
28. Bone Mineral Density in Children and Adolescents with Congenital Adrenal Hyperplasia receiving Physiological Steroid Replacement, Department of Paediatrics
29. Prevalence and Risk Factors of Allergic Bronchopulmonary Aspergillosis in Children with Poorly Controlled Asthma, Department of Paediatrics
30. Role of MRI in evaluation of multifocality in hepatoblastoma and correlation of VEGF with multifocality, Department of Paediatric Surgery

31. Assessment of depth of invasion in oral cavity squamous cell carcinoma by clinical palpation and radiology and their correlation to histopathological depth of invasion, Otorhinolaryngology—Head and Neck Surgery
32. Analgesic efficacy and safety profile of Glossopharyngeal nerve block using extraoral approach by landmark technique versus ultrasound guided technique in patients with Eagle's Syndrome, A randomized, prospective, controlled trial, Anaesthesiology, Pain Medicine and Critical Care
33. To Compare the Efficacy of Ulipristal Acetate versus GnRH Agonist in Women with Symptomatic Uterine Myoma and Post treatment Follow Up: A Prospective Randomized Control Study, Obstetrics and Gynaecology
34. Applicability of Laparoscopic Ultrasound in Various Intra-Abdominal Pathologies, A Prospective Observational Study, Surgical disciplines
35. Achalasia cardia: Long term outcome and assessment of factors predicting outcome following laparoscopic Heller's cardiomyotomy, Surgical disciplines
36. Lung Ultrasound for diagnosis of early Ventilator associated pneumonia in critically ill, Anaesthesia

PUBLICATIONS

Journals: 95

Abstracts: 5

Chapters in books: 55

Books: 2

PATIENT CARE

S. No.	Name of Investigations/Special procedures	Total no. of Investigation
1	Routine X-rays	
	• OPD	1,06,548
	• Indoor	30,151
	• Casualty	60,763
	• Portable	47,450
2	Special Investigations	
	• Barium Studies	2,687
	• Intravenous Urography	1,651
	• Micturating cystourethrography	2,624
	• Hysterosalpingography	831
	• Operation Theater Studies	174
	• Others contrast studies	1,116
3	Mammography	3,833
4	Dexa Scan	110
5	Ultrasound	
	• Routine	33,528
	• Emergency	26,272
	• Doppler (Routine + Casualty)	4,018
6	CT	
	• Body	20,912
	• Head	7,711
7	MRI (Main + NMR)	2,522 + 3,407
8	Interventional Procedures	
	• Vascular Studies	2,611
9	Interventional Non-Vascular studies	
	• CT Guided	566

	• Ultrasound Guided	4,696
	• Fluoroscopy Guided	2,714
	• Mammography Guided	29
	• Grand Total	3,66,924

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Arun Kumar Gupta was executive committee member of ‘Indian Journal of Paediatrics’.

Professor Deep Narayan Srivastava elected as President of the section of Medical Sciences for 2019-2020 and also Council Member of the “Indian Science Congress Association (professional body under Ministry of Science and Technology, Government of India); Associate Editor, Annals of the National Academy of Medical Science (India) published by National Academy of Medical Sciences, New Delhi; Member of editorial advisory board of Indian science congress association journal “Everyman’s science” for 2019-2020.

Professor Raju Sharma: Key Note Address in the Research and Referral Hospital CME on Imaging, 28 July 2019, New Delhi; Dr MVK Shetty Oration delivered at the Joint Annual Conference of Asian Oceanian Society of Paediatric Radiology and Indian Society of Paediatric Radiology, held at PGIMER, Chandigarh; Delhi Imaging Update Oration delivered at the Annual Conference of Delhi State Chapter of Indian Radiology and Imaging Association, held on 16 February 2018, Maulana Azad Medical College Delhi.

Professor Sanjay Sharma was Editorial Board Member JCIR: Uro-Radiology Section; Consulting Editor (Radiology), Indian J Urology; External expert for ICMR, for assessing extra mural funded project June 2018.

Professor Ashu Seith Bhalla was President of Society of Chest Imaging and Interventions; Joint Editor Indian Journal of Radiology and Imaging.

Professor Shivanand Gamanagatti was Fellow of Indian College of Radiology; Dr Diwan Chand Agarwal Memorial Oration: Imaging, Interventions and future in hepatocellular Carcinoma, 72nd Annual Conference of IRIA, PGIMER, Chandigarh.

Professor Atin Kumar delivered NG Gadekar Oration of Indian College of Radiology and Imaging 2018; Elected ‘President Elect’ of Delhi Chapter of Indian Radiological and Imaging Association for 2019; Worked as Treasurer of Delhi Chapter of Indian Radiological and Imaging Association for 2018; Organizing Secretary of CME on IR Primer on Basics of Angiography, Embolization and Sclerotherapy.

Dr Chandan J Das was FRCP (Edin) Fellow of Royal College of Physician, Edinburg, UK; FICR (Fellow of Indian College of Radiology); Member, National Academy of Medical Sciences; Onco Imaging Award 2017-2018 by Indian College of Radiology and Imaging (India); ICMR International Fellowship for young Biomedical Scientist; 2018-2019 to visit MD Anderson Cancer Centre, USA.

Dr Devasenathipathy Kandasamy was section editor for Springer Nature Comprehensive Clinical Medicine; Member of Subject Expert Committee of Central Drugs Standard Control Organization.

Dr Madhusudhan KS received “JCIR Best reviewer award 2017-2018” (for Journal of Clinical Interventional Radiology) presented by the Indian Society of Vascular and Interventional Radiology, at the annual conference, Goa, 7-10 March 2019; “ESGAR Certificate of Excellence in Abdominal Radiology Level II” for subspecialty recognition by the European Society of Gastrointestinal and Abdominal Radiology in 2019.

Dr Manisha Jana: MD thesis as a chief guide ‘Role of Shear Wave Elastography in Diagnosis, Prognostication and Follow Up of Neonatal/Infantile Cholestatic Liver Diseases’ won gold medal in Professor K Subbarao Award for the best thesis in 2018; Selected as ‘Reviewer of the year’ by the Indian Journal of Radiology and Imaging (IJRI) in 2018.

Dr Ankur Goyal received Academic Excellence Award in recognition and appreciation of contribution to promoting academics in Radiology and imaging sciences, Awarded at Delhi Imaging Update 2019 held at MAMC, New Delhi (16-17 February 2019); Joint Organizing Secretary, Delhi Imaging Update DIU 2019 Annual Conferences of Delhi state chapter of IRIA; Joint Organizing Secretary in “AIIMS Radiology Course: IR primer on Basics of DSA, Sclerotherapy and Embolization” held in New Delhi on 14-15 April 2018; Joint Secretary, Delhi State Chapter of IRIA (2018-2019).

Dr Priyanka Naranje won second prize in scientific paper poster presentation at AOSPR 2018 for topic entitled “Etiological spectrum of pediatric hemoptysis: A tertiary care centre experience”; Joint Organizing Secretary “AIIMS Radiology Courses: Imaging of Chest Infections 2018” held at AIIMS, New Delhi on 4-5 August 2018.

Dr Shashi Paul was member of the ‘Task force on Hepatocellular carcinoma’, formed by the Indian National Association for the study of Liver (INASL).

Dr Smita Manchanda was Invited as external expert of Radiodiagnosis at “All India Radio” for the health programme “Sanjeevani—Baat Sehat Ki” aired on ‘AIR Vividh Bharti’ channel in May 2018; Core member of “Technical Committee for finalization of Guidance Note on Permanent Medical Boards for Medical Termination of Pregnancy beyond 20 weeks of Gestation” (May 2018); Organizing Secretary “AIIMS Radiology Courses: Imaging of Chest Infections 2018” held at AIIMS, New Delhi on 4-5 August 2018; Core member of “Committee for formulation of Guidelines on Prevention and Management of Zika virus in a Pregnant mother” (October 2018).

Dr Surabhi Vyas was Chairing session on competitive papers BISICON Patna India 16, 17 November 2018.

VISITING SCIENTISTS

1. Dr Vikas Gulani, Professor of Radiology, Case Western University, Ohio, USA
2. Dr Ajay Singh, Massachusetts General Hospital, Harvard University, USA
3. Dr Aseem Sharma, Mallinckrodt Institute of Radiology, Washington University, St. Louis, USA
4. Dr Akhsay Baheti, Tata Memorial Hospital, Mumbai

9.37. Reproductive Biology

Professor and Head

Ashutosh Halder

Professor

Pradeep Kumar Chaturvedi

Assistant Professors

Surabhi Gupta

Mona Sharma

Scientists

Deepak Pandey, Scientist II

Neeraj Kumar, Scientist II

Manish Jain, Scientist I

Group A Officer

Mariama Mathew

HIGHLIGHTS

Department is mainly involved in teaching, training and research besides providing genetic counseling and diagnostic services for reproductive disorders, congenital malformations, cancers and infertility in molecular cytogenetic lab; laboratory analysis of reproductive hormones, thyroid profile and cancer markers in CRIA facility; semen analysis services in andrology lab. Most of reproductive genetic counseling cases were self-referral. In CRIA facility newer tests such as TOXO-IgG, TOXO-IgM, Rubella-IgG, Rubella-IgM, CMV-IgG and CMV-IgM were introduced last year for in and out patients apart from 40 parameters regularly done. CRIA facility has done 2,37,956 tests this year an increase of approximately 33,000 tests from last year. Department has also started online reporting for these tests. Molecular cytogenetics laboratory is also provided various FISH and PCR related services.

Faculty members of the department were invited by several national academics for different academic contributions (NII Stem Cell Committee, NABL Core Accreditation Committee, Ministry of Agriculture expert (pesticides) meeting, ICMR APS and ad hoc/SRF Project Review/ Selection Committee, MCI assessment for DM (medical genetics) Courses, PAC and IRB Committee Member of NIHF, Ayush, etc).

EDUCATION

Students

PhD (Registered/Ongoing) - 5

MSc (Reproductive Biology and Clinical Embryology) - 10

Postgraduate- MD Laboratory Medicine (Laboratory training for 15 days)

MD Biochemistry (Laboratory training for 15 days)

JRF/SRF- 3

Academic activities

Twice a week course lecture
Weekly seminars and journal clubs
Biweekly laboratory data presentation
Day to day case wise/laboratory work discussion

CMEs/Workshops/Symposia/National and International Conferences

1. Department (along-with Prader Willi Syndrome Association of India) conducted half day Symposium on Prader Willi Syndrome, 12 September 2018, AIIMS, New Delhi
2. Department conducted one National Workshop on Molecular Cytogenetics (Probe production for FISH), 12-16 November 2018, AIIMS, New Delhi

Lectures delivered

Ashutosh Halder

1. Clinical application of cytogenetics, 26th UP ASICON 2018, 6 October 2018, Kalam Convention Center, KGMU, Lucknow
2. An overview on Molecular Cytogenetics, National Workshop on Molecular Cytogenetics: In House FISH Probe Production, 12-16 November 2018, AIIMS, New Delhi
3. Genetics and Genomics of Infertility and Demonstration of Microarray/aCGH, Current Trends in Genomic and Molecular Medicine and The First Indo-UK Training Workshop, 19-21 November 2018, King George Medical University, Lucknow
4. Medical Applications of Cytogenetics, Molecular cytogenetics and cytogenomics, Genetics and Genomics in Human Health and Diseases, 7-8 December 2018, Centre of Genetics and Genomics, MGIMS, Wardha, Maharashtra
5. Genetics and Genomics Human Reproductive disorders, Genetics and Genomics in Human Health and Diseases, 7-8 December 2018, Centre of Genetics and Genomics, MGIMS, Wardha, Maharashtra
6. Potential biomarkers of polycystic ovary syndrome, ICRED and 37th Meeting of Society for Reproductive Biology and Comparative Endocrinology (SRBCE), 19-21 January 2019, Navrachana University, Vadodara, Baroda, Gujarat
7. Genomics and epigenomics of infertility, 18th Annual Laboratory Management and Medicine Congress (Medlab Middle East) and Cytogenetics IVF Conference, 7 February 2019, Dubai Convention Centre, UAE
8. Genetics, Genomics and Epigenomics of Infertility, Global Conference on Reproductive Health and Lifestyle Factors 29th Annual Meeting of the Indian Society for the Study of Reproduction and Fertility (ISSRF), 22-24 February 2019, JNU, Delhi

Surabhi Gupta

1. Panel discussion on “Resources for teachers in Life Sciences”, Workshop on Identification of Subject Wise Resources for Teachers, 24 May 2018, NIPEA, New Delhi

Mona Sharma

1. Infertility, Genetics and beyond, National conference of Anatomical Society of India (NATCON 66), AIIMS, Rishikesh, 11 November 2018, India

Oral papers/posters presented

1. Halder A, Kumar H, Dihydrotestosterone (DHT): A potential biomarker of hyperandrogenemia in polycystic ovary syndrome, 48th Annual Conference of Endocrine Society of India, 15-18 November 2018, Mayfair Convention, Bhubaneswar
2. Halder A, Kumar H, Copy number variations in in diseases, 44th Annual Conference of the Indian Society of Human Genetics (ISHG), 30 January to 1 February 2019, NIBG and Kalyani University, Kalyani, West Bengal
3. Aggarwal K, Choudhury J, Dhingra R, Chaturvedi PK, Gupta S, Role of miRNA-143 in modulating trophoblast cell invasion, Global Conference on Reproductive Health with Focus on Occupational, Environmental and Lifestyle Factors and 29th Annual Meeting of the ISSRF, 23 February 2019, New Delhi
4. Aggarwal K, Choudhury J, Dhingra R, Chaturvedi PK, Gupta S, Role of miRNA-143-3p in modulating trophoblast cell invasion, AIIMS Annual Research Day, 26 March 2019, New Delhi, **Third prize for best poster presentation in MSc poster category**
5. Choudhury AR, Chaturvedi PK, Gupta S, Pandey D, Zinc modulates stromal cell-mediated acinar morphogenesis of the normal prostatic epithelium, AIIMS Annual Research Day, 26 March 2019, AIIMS, New Delhi

6. Rishi I, Sharma JB, Jain M, Sharma M, Evaluation of Parameters to Standardize Single Strand Conformation Polymorphism for Detecting Gene Mutations in Patients of Idiopathic Premature Ovarian Failure, Global conference on reproductive health with focus on Occupational, environmental and lifestyle factors 29th Annual Meeting of the Indian Society for the Study of Reproduction and Fertility (ISSRF), 22-24 February 2019, JNU, Delhi, **Best poster award**
7. Sharma A, Jain M, Halder A, Kumar R, Kaushal S, SNP Microarray study in Sertoli Cell Only Syndrome (SCOS), Indian Society for the Study of Reproduction and Fertility (ISSRF), 22-24 February 2019, JNU, New Delhi

RESEARCH

Funded projects

Ongoing

1. An investigation to find out reasons for Phenotypic Heterogeneity/Variability in 22q11.2 deletion Syndrome, Ashutosh Halder, ICMR, 3 years, 2015-2018, Rs 41 lakhs
2. Poly Cystic Ovarian Syndrome (PCOS): An investigation to find out reasons for discrepancy between hyperandrogenism (clinical) and hyperandrogenemia (biochemical) and underlying etiologic (epigenetic and genetic) factors, Ashutosh Halder, DST-SERB, 3 years, 2018-2021, Rs 51 lakhs
3. An investigation to find out genetic factors in idiopathic familial ovarian failure, Ashutosh Halder, DST- SERB, 3 years, 2018-2021, Rs 44 lakhs
4. Quality control for hCG kits, PK Chaturvedi, HLL Lifecare Ltd/Ministry of Health, Yearly, 2018-2019, Rs 9 lakhs
5. Effects of Non-ionizing Electro Magnetic Field (EMF) on Human Health (referral center), PK Chaturvedi, ICMR, 5 years, 2017-2022, Rs 15 lakhs
6. Phase II clinical trial with an intravasal injectable male contraceptive-RISUG, PK Chaturvedi, ICMR, 1 year, 2018-2019, Rs 3 lakhs
7. Role of 3,5,3'-L-triiodothyronine (T3) in the modulation of VEGF expression and Leydig cell function, Surabhi Gupta, DBT, 3 years, 2016-2019, Rs 39 lakhs
8. Generation of genome-edited mice using CRISPR/Cas-9 based knock-out/knock-in technology to study mammalian sperm-egg fusion, Surabhi Gupta, DBT, 3 years, 2017-2020, Rs 75.5 lakhs
9. Embryo-uterine cross-talk for implantation and beyond: Role for exosomal microRNAs, Surabhi Gupta, DST-SERB, 3 years, 2018-2021, Rs 44.2 lakhs
10. Study of potential sperm factors and related signaling pathways in eliciting oocyte intracellular calcium rise, Mona Sharma, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
11. HDAC inhibitor(s) mediated genome-wide dynamics of healthy aging in *Caenorhabditis elegans*, Neeraj Kumar, DST-SERB, 3 years, 2017-2020, 50 lakhs
12. Elucidating health-span regulatory modules by genome-wide combinatorial effects of transcription factors downstream of insulin signaling, Neeraj Kumar, DBT, 3 years, 2018-2021, Rs 50 lakhs
13. To elucidate the oxidative stress mediated regulation of turnover and translation regulatory mRNA binding proteins (TTR-RBPs) during embryo development, Neeraj Kumar, AIIMS, 2 years, 2017-2019, Rs 10 lakhs
14. To study the effects of dietary flavonoids on prostate epithelial cells growing under the influence of prostate stromal cells, Deepak Pandey, AIIMS, 2 years, 2017-2019, Rs 10 lakhs
15. High resolution Genomic Screening using SNP Microarray to find out Genomic Causes in Idiopathic Sertoli Cell Only Syndrome (SCOS) cases, Manish Jain, AIIMS, 2 years, 2017-2019, Rs 10 lakhs

Departmental projects

Ongoing

1. Etiopathology of Macroprolactinemia
2. Etiology and biomarker of polycystic ovarian syndrome
3. The genetic determinants of premature ovarian failure
4. Analysis of anti-cancer activity of herbal extracts on prostate cancer cell lines
5. Role of miR-143-3p in modulating Trophoblast cell invasion
6. Epigenetic changes during epithelial to mesenchymal transition in trophoblast cells under physiological and pathological conditions
7. Role of microRNAs in regulation of angiogenic factors in trophoblast cells
8. Citrate synthase expression in human sperm and oocyte activation in mice

9. To study the effect of Oxidative stress on the expression of mRNA 3' UTR binding protein genes in early embryo development
10. Effects of dietary flavonoids on hormone mediated stromal-epithelial interaction in prostate cells
11. An investigation to find out genetic factors in idiopathic familial ovarian failure

Completed

1. Testicular Germ cell arrest (maturation arrest): An Investigation of Phenotype-Genotype Correlation
2. Spermiation defect: Role of heavy metal, Vitamin A and sertoli cell maturity
3. Rapid Detection of Chromosome 13 and 21 Aneuploidy by Primed In Situ Labeling
4. Chromosome mosaicism and aneuploidy in preimplantation mouse embryo
5. Double blind randomized clinical trial of polyherbal preparation Ashokarista on post- menopausal women
6. Role of cytokines in premature ovarian failure
7. Evaluation of molecular basis of clinical aggressiveness in cervical carcinoma of young age
8. Biological basis of skewed sex ratio
9. Genetics of primary testicular failure
10. Effect of pregnancy hormones on HLA-G expression in trophoblast cells
11. Mutational Analysis of HS6ST2: A Candidate Gene in Idiopathic Premature Ovarian Failure
12. Effect of L-acetyl carnitine on TNF-alpha Induced Apoptosis in mice follicles
13. To study the role of conserved RNA binding proteins (RBPs) in reproductive aging using *Caenorhabditis elegans* as model system
14. Assessment of HDACi on embryo developmental competence during reproductive aging
15. To study the effects of selenium and Vitamin E on prostate cells
16. Genetic study on Sertoli Cell Only Syndrome (SCOS)

Collaborative projects

Ongoing

1. Role of Bone Marrow Microenvironment in Multiple Myeloma, Medical Oncology, IRCH
2. Understanding the pathophysiology of endometriosis by protein profiling and correlation with stress, Physiology
3. Molecular Genetic Evaluation of Unexplained Stillbirths, Genetics Unit, Paediatrics
4. Unique aspects of idiopathic hypoparathyroidism, Endocrinology
5. MicroR A and hTERC gene profiles as biomarkers in oral potentially malignant and malignant lesions, CDER
6. Impact of parental history of type 2 diabetes ... in Indian women with PCOS, Endocrinology
7. Impact of Checkpoint inhibitors on suppressed state of immunity in tuberculosis, Transplantation Immunology and Immunogenetics
8. Reference range of serum alpha feto protein in Indian children below 3 years of age, Paediatric Surgery
9. Age specific nomogram of Anti Mullerian Hormone and Antral follicle counts in infertile and fertile Indian women, Obstetrics and Gynecology
10. Role of Plasma Renin Activity in predicting renal damage in patients with neurogenic bladder and its correlation with existing parameters of renal damage, Paediatric Surgery
11. Role of miRNA mediated modulation of signal transduction in pancreatic cancer, Gastroenterology
12. To study the long-term effects of disease and its treatment in survivors of pediatric solid tumors, Paediatric Surgery
13. Effect of tyrosine kinase inhibitors on sperm parameters and pituitary gonadal axis in males with chronic myeloid leukemia, Hematology
14. Role of micro RNA-30 in cystathionine gamma lyase mediated trophoblast cell invasion and status in preeclampsia, Anatomy

Completed

1. Evaluation of C MET gene expression in gastric adenocarcinoma and co-relation with conventional clinic-pathological parameters, A descriptive study, Pathology, UCMS/GTB, Delhi University
2. Evaluation of hTERC amplification in cervical cytology specimens as a marker of histologic grade of cervical intraepithelial neoplasia, Pathology, UCMS/GTB, Delhi University

3. Study of clinico-dysmorphic profile and associated malformation in children with cardiac malformation, MAMC, Delhi University
4. Role of microRNA in Spermatogenesis, National Institute of Immunology, Delhi
5. Characterization of chromosomal anomalies in multiple myeloma using cytogenetics and FISH, Medical Oncology, IRCH
6. Molecular biology of Multiple Myeloma, Medical Oncology, IRCH
7. Molecular biology of early immature T-cell acute lymphoblastic leukemia, Laboratory Oncology, IRCH
8. Lymphocyte reconstitution and infectious morbidity post autologous hematopoietic stem cell transplantation, Department of Medical Oncology, IRCH
9. A prospective cohort study to measure the effectiveness of NISWANI in achieving regression of Fibroadenoma and Mastalgia, National Institute of Cancer Prevention and Research, Noida, UP; Surgery
10. Comparison of high spermatic vessel ligation, low spermatic vessel ligation in rat testis, Paediatric Surgery

PUBLICATIONS

Journals: 6 Abstract: 1 Chapters in book: 1

PATIENT CARE

- **Patient care in outpatient service:** Department of Reproductive Biology is not part of standard outpatient service. Over 100 cases were referred to Dr Halder, mainly from other hospitals of Delhi or self referral for Counseling/ Planning of Management/Advice and related to Reproductive Genetics in particular Male Primary Hypogonadism, Recurrent Abortion, Recurrent IVF failure, Genetic Disorders and Malformation Syndromes

- **Work load in the form of laboratory service:** Additional molecular cytogenetic technique was standardized in addition to ongoing fluorescent in situ hybridization services using STR/microsatellite markers and used for patient care
- **Special laboratory facilities in Department of Reproductive Biology, AIIMS**

Molecular Cytogenetics laboratory

- a. Microdeletion FISH on blood (Interphase/ Metaphase cell), buccal cell, urine cell, solid tissue, etc

Total 300 patients have been recruited which all are suspected microdeletion syndrome. FISH and QF-PCR of all cases were done in Molecular Cytogenetic lab. New technique such as Methyl Specific PCR for PWS cases was standardized and started facility of Methyl Specific PCR. Microdeletion Syndromes for which genetic facility is given are:

- DiGeorge syndrome (22q11.2)
 - William syndrome (7q11.23)
 - Prader Willi syndrome (15q11.13)
 - Retinoblastoma (13q)
 - Miller decker syndrome (17p13.3)
 - Langer Giedion's syndrome (8q24.11)
 - 1p36.13
 - Wolff Hirschhorn (4p16.3)
- b. Prenatal FISH (Amniotic fluid cells/chorionic tissue)
 - Trisomy 21 (Down syndrome)
 - Trisomy 18 (Edward Syndrome)
 - Trisomy 13 (Patau Syndrome)
 - Any autosomal aneuploidies (on request)
 - c. Karyotyping (only research use)
 - d. Sex Chromosome FISH (X, Y, SRY: only research and infertility)
 - e. Yq Microdeletion PCR (Cover app. 20 primer)
 - f. PRINS (Chromosome 13, 18, 21, X, Y)
 - g. QF-PCR (DG, WS, PWS, RB, MD, Langer-Giedion's, Trisomy 13, 18, 21, etc.)
 - h. Methyl Specific PCR (PWS)
 - i. DNA Microarray for Microdeletion Syndrome/Primary Testicular Failure

CRIA Facility: Routine assays of 41 parameters for LH, FSH, Prolactin, T3, T4, TSH, Testosterone, Estradiol, Progesterone, alpha Feto-Protein, Prostate Specific Antigen (PSA), Beta hCG, CA-125, cortisol and Vitamin D, Anti TPO, Anti Tg, free T3, free T4, BNP, Troponin I, CKMB, Homocysteine, SHBG, CEA, CA 19.9, CA 15.3, Free PSA, Pro Grp, HE4, Active B12, Ferritin, Folate, Insulin, PTH, C-peptide, HbA1c and anti CCP, DHT, 17 Hydroxy progesterone, ACTH, GH, Inhibin B and AMH in Procalcitonin (PCT) the blood samples of in and out patients were carried out in the facility. New tests such as TOXO-IgG, TOXO-IgM, Rubella-IgG, Rubella-IgM, CMV-IgG and CMV-IgM were also started last year.

Name of assay	Number of tests done	Name of assay	Number of tests done
FSH	8,094	Anti CCP	3,481
LH	7,042	PTH	12,090
Prolactin	6,260	ANTI-TPO	1,224
DHEA-S	552	Insulin	1,909
Total T3	20,340	Procalcitonin	3,645
Total T4	24,535	Anti TG	174
TSH	48,600	BNP	287
Testosterone	2,253	Free T3	432
Estradiol	1,127	Free T4	506
Progesterone	279	Free PSA	126
AFP	5,692	Troponin I	319
PSA	3,299	GH	153
Beta hCG	1,626	TOXO-IgG	11
CA-125	2,974	TOXO-IgM	11
Cortisol	1,389	Rubella-IgG	4
Vitamin D	29,063	Rubella-IgM	6
Folate	10,632	CMV-IgG	17
Active Vitamin B12	14,729	CMV-IgM	17
CA19.9	2,138	DHT	15
CEA	2,322	17 OH progesterone	355
Ferritin	9,587	AMH	4,656
Research Samples	6,000		
TOTAL	2,37,956		

Number of tests performed has increased from **2,05,383** last year to **2,37,956** this year.

Andrology services were given to 60 patients that included complete sperm parameters (sperm counts, motility, vitality, morphology).

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Department Award

Department oration named after “**Professor KR Laumas**” for year 2018 was received by **Professor M Rajalakshmi**.

Isha Rishi (MSc student) received **Best Poster Award** at 29th annual meeting of ISSRF on 22-24 February 2019 held in JNU, New Delhi.

Kanika Aggarwal (MSc student) received **3rd Best Poster award at AIIMS Annual Research Day** held on 26 March 2019, at AIIMS, New Delhi.

Professor Ashutosh Halder was Task Force Member of Human Developmental and Disease Biology—Maternal and Child Health Programme of DBT; Task Force member of Medical Genetics of MCI; Assessment of physical and other teaching facilities at Kasturba Medical College, Manipal for DM—Medical Genetics course approval of MCI; Advisory Panel Expert Member (Genetics) of NAMS; Member of Programme Advisory Committee (PAC) and Institutional Review Board (IRB) of NIHF; Member of Institutional Committee-Stem Cell Research (IC-SCR) of NII; Executive Member of MP PCOS Society; Accreditation Committee Member of NABL on Genetics and Cytogenetics; Expert Committee Member of CCRAS (under Ministry of AYUSH); External Examiner for DM (Medical Genetics; SGPGIMS, Lucknow), Post Doctoral Fellowship (Clinical Cytogenetics; CDFD, Hyderabad) and PhD (thesis and viva) in various university (JNU, CDRI, DU, SGPGI, Bundelkhand University, Kerala University, etc); Assessment Board Member for promotion of AIIMS

Various Departmental Promotion Committee; Assessment Board Expert for promotion of ICMR scientists; PAC Committee Member, ICMR (SRF/RA projects); Selection Committee member for selection of Faculty, IGIMS, Patna; Reviewer/editorial board member for Current Science, Journal of Genetics, SM Journal of Gynecology and Obstetrics, Translational Biomedicine, Scholars Report, Science Alert, JAPI, Clinical Case Reports and Reviews, British Journal of Medicine and Medical Research, International Blood Research and Reviews, Journal of Clinical and Diagnostic Research, Indian Paediatrics, Sciencedomain international, Clinico Economics and Outcomes Research, Research in Public Health, Polish Ministry of Science and Higher Education/National Science Centre/National Centre for Research and Development (project review), ICMR (project/paper), etc; New citations over 100 (total over 900); was **Editorial/Advisory Board/Executive Member of the following International Journals:** Open Journal of Clinical Diagnostics of Scientific Research (publishes more than 200 open access journals); Journal Clinical Case Reports and Reviews (CCRR); JBR Journal of Clinical Diagnosis and Research; Asian Journal of Medical Sciences (until 2012); Austin Journal of Reproductive Medicine and Infertility; Bioinfo Publications Journals (publishes more than 70 open access and more than 70 subscription based peer reviewed journals); Global Journal of Human Genetics and Gene Therapy; Clinical Research and Development: Open Access; Asian journal of pharmaceutical and clinical research; **National Journals:** Journal of the Association of Physicians of India (Genetics section); Clinical Research and Development; Innovare Journal of Medical Science.

Professor Pradeep Kumar Chaturvedi was member of ethic committee for PG, AIIMS, Examiner for PhD and MSc PhD examiner IM Tech Chandigarh, Guwahati University, Calcutta University, NDRI Karnal, Reviewer of projects of Department of Biotechnology (DBT), Member Selection Committee ICMR), Member Expert Committee ICMR for review projects on Centre for Advance Research and also Ad-hoc projects, Reviewer Journal of Andrologia.

Dr Surabhi Gupta was expert reviewer for grants in Department of Biotechnology (DBT).

Dr Mona Sharma was expert reviewer of DBT proposals and book proposals (CRC Press).

VISITING SCIENTIST

At the National Workshop on Molecular Cytogenetics: In House FISH Probe Production, scientists who were invited for talks were:

1. Dr Ashish Fauzdar (Scientist, E.S.I. Hospital, Punjabi Bagh, New Delhi)
2. Dr Isha Choudhary (Scientist, Dr Lal Path Lab, New Delhi).

9.38. Rheumatology

Professor and Head

Uma Kumar

Assistant Professors

Ranjan Gupta

Sajal Ajmani (Contract)

Danveer Bhadu

HIGHLIGHTS

The department was created and notified in August 2015. It is providing state-of-art patient care services and is also instrumental in building resources which are required to deal with a massive load of patients with rheumatological illnesses. Because of space constraint department is able to conduct only two OPDs and one Rheumatology Clinic. It has a six-bed Rheumatology Day Care service which was started in 2012, first in India that is catering to the needs of patients requiring short admissions for various infusions, investigations, and procedures. Department has been on the forefront in research as well, it has research grant of Rs 2,31,32,711.00 from extramural sources and many collaborative projects. Departmental Clinical Immunology Lab caters to the whole hospital in terms of performing vast numbers of various immunological investigations. Realizing the need for trained Rheumatology specialists, short-term training to medical specialists from other organizations (India and abroad) is being provided regularly. Department has an active teaching programme and it is trying to start a super-specialty course 'DM' in Rheumatology. Educational activities to increase awareness about various rheumatological disorders among the public and medical professionals are regular features.

EDUCATION

UG lectures/Seminars and bedside teaching

1. Systemic sclerosis and overlap syndromes
2. Approach to a patient with polyarthritis

3. Management of rheumatoid arthritis
4. Scope of Clinical Immunology, present concept in autoimmunity and autoimmune disorders
5. Rheumatoid arthritis and Spondyloarthritis
6. Primary systemic necrotizing vasculitis
7. Systemic lupus erythematosus

Nursing classes

1. Primary immunodeficiency disorders
2. Allergy and hypersensitivity reactions
3. Overview of immune system
4. Inflammatory myositis
5. Small vessel vasculitis

Short term training provided to physicians

1. Dr Lov Raj Lohani, Nepal
2. Dr All Allaudin Mamun, Medical Officer, Bangladesh

CMEs/Workshops/Symposia/National and International Conferences

1. Public awareness programme on lupus, 10 May 2018, Delhi
2. Delhi Rheumatology Association Monthly Clinical Meeting, 26 November 2018, Delhi

Lectures delivered

Uma Kumar

1. Biologics in spondyloarthritis, AOTCON-Ortho Academicia 2018, 30 March-1 Apr 2018, Pondicherry, TN
2. SpA and its management, IMA-CME, 24 June 2018, Karnal, Haryana
3. Development of targeted nanomedicine for the treatment of Rheumatoid arthritis, CME, 4 July 2018, New Delhi
4. Changing Paradigm of AS, NSAIDs to biological (Treat to Target), Sponyloarthritis-2018, 11 August 2018, New Delhi
5. Evolution or Revolution in RA-Tofacitinib, MRACON 2018, 1-3 September 2018, Pune, Maharastra
6. Air pollution and autoimmunity, IISF-2018 "Clean Air Campaign", 6-7 October 2018, Lucknow, Uttar Pradesh
7. Aspects of Rheumatoid Arthritis, CME, 23 October 2018, Faridabad, Haryana
8. Cardiovascular comorbidities in RA, IRACON 2018, 6-8 December 2018, Guwahati
9. CTD related ILD (other than PSS), Symposium on ILD, 9 December 2018, New Delhi
10. Changing paradigm in treatment of AS-NSAIDs to biologics and ASAS-EULAR guidelines for management of SpA (place of biologics), RAISE Rheumatology Symposium, 21 December 2018, New Delhi
11. CPC, Annual conference of API Delhi, 23 December 2018, New Delhi
12. Panel discussion on evolving science of JAKi inhibitors inRA, Annual Conference of API, 22 January 2019, New Delhi
13. Biosimilars: A new era, APICON 2019, 8-10 February 2019, Kochi
14. Extra-articular manifestations of RA, Annual DRA Update, 3 February 2019, New Delhi
15. Biologic in Sponyloarthritis, Ortho Academicia 2019, 2-4 March 2019, Goa

Ranjan Gupta

1. Principles of immunofluorescence test and trouble shooting, CME and Hands on WorkshopANA and ANCA in Autoimmune Diagnostics, 30 September 2018, Ahmedabad
2. Evidence based management in Sjogren's Syndrome, IRACON 2018, 7 December 2018, Guwahati
3. Takayasu's arteritis: An approach, DRA Update, 3 February 2019, New Delhi

Danveer Bhadu

1. Spondyloarthritis and its management, Silver Jubilee Annual Conference IMA, Rohini, 5 August 2018, Delhi
2. Emergencies in Rheumatology, Delhi Rheumatology Association Monthly Meeting, 26 November 2018, Delhi
3. Emergencies in Rheumatology, CME by IMA, 30 December 2018, Sikar

Oral papers/posters presented

1. Chowdhury K, Mitra DK, Kumar U, Das S, IL-17 producing iNKT cells correlate positively with disease activity DAS28-ESR in Rheumatoid arthritis, 5th European Congress of Immunology, 2-5 September 2018, Amsterdam, Netherland
2. Gautam S, Kanga U, Kumar M, Goswami A, Kumar U, Dada R, Evaluation of Polymorphisms at 3'Untranslated Region in *HLA-G* gene with Susceptibility to Rheumatoid Arthritis, National Conference of Anatomical Society of India (NATCON) 66, 12-14 November 2018, Department of Anatomy, AIIMS, Rishikesh, India
3. Gautam S, Kumar U, Kanga U, Goswami A, Chaurasia P, Dada R, Yoga's potential for improving disease activity and inflammatory markers among patients with Rheumatoid arthritis, National Conference of Anatomical Society of India (NATCON) 66, 12-14 November 2018, Department of Anatomy, AIIMS, Rishikesh, India
4. Gautam S, Kumar U, Kanga U, Kumar M, Dada R, Impact of mind body intervention on quality of life and markers of inflammation in Rheumatoid arthritis, Workshop cum Symposia on "Translational Research in Biomedical and Agricultural Sciences", 6-7 July 2018, Department of Biochemistry, AIIMS, New Delhi, India
5. Gautam S, Kumar U, Kanga U, Kumar M, Dada R, Influence of Human Leukocyte Antigen-G 14bp Ins/Del And +3142G>C Polymorphism on Disease Susceptibility in Patients with Rheumatoid Arthritis, 7th FIMSA (Federation of Immunological Societies of Asia-Oceania) Congress, on "Crosstalk between Innate and Adaptive Immunity in Health and Disease", 10-13 November, 2018, Bangkok, Thailand
6. Gautam S, Kumar U, Kanga U, Kumar M, Dada R, Yoga-based lifestyle intervention and its impact on quality of life, stress markers and immune parameters in rheumatoid arthritis patients, Cell Symposia: Aging and Metabolism-2018, 23-25 September 2018, Sitges, Spain
7. Gautam S, Kumar U, Kumar M, Goswami A, Chaurasia P, Dada R, Maintenance of mitochondrial integrity by Yoga: Implications in Autoimmune Inflammatory Arthritis, National Conference of Anatomical Society of India (NATCON) 66, 12-14 November 2018, Department of Anatomy, AIIMS, Rishikesh, India
8. Gautam S, Tolahunase M, Kumar M, Kumar U, Dada R, Potential role of Yoga in amelioration of disease activity and depression severity in Rheumatoid arthritis: A randomized controlled trial, 1st National Biomedical Research Competition (NBRCOM-2018), 15 October 2018, Department of Pharmacology, AIIMS, Rishikesh, India
9. Gautam S, **Kumar U**, Chandana S, Kumar D, Dada R, Alterations in disease activity and fertility potential in men with Rheumatoid arthritis by yoga based lifestyle intervention, Human Reproduction 2018. Volume 33: Supp 1 2018: i167-i168 European Society of Human Reproduction and Embryology (ESHRE) 2018, 1-4 July 2018, Barcelona, Spain
10. Gautam S, **Kumar U**, Dada R, Efficacy of Yoga and meditation based lifestyle intervention on inflammatory markers in patients with Rheumatoid arthritis, ICAAIR 2018: 20th International Conference on Allergy, Asthma, Immunology and Rheumatology, Published in World Academy of Science, Engineering and Technology, International Journal of Medical and Health Sciences, Vol: 12, No: 5, 2018 waset.org/abstracts/91114, 14-15 May 2018, London, United Kingdom
11. Samanta J, Nagar S, Kumar U, Saraya A, Pancreatitis-panniculitis-polyarthritis syndrome: An unusual presentation of acute pancreatitis, Annual Conference of Indian Rheumatology Association, 4-6 December 2018, Guwahati
12. Surabh G, Uma K, Kumar M, Dada, Nagar S, Tenosynovitis: An unusual presentation of gout, Indian Journal of Rheumatology, Annual Conference of Indian Rheumatology Association, 4-6 December 2018, Guwahati
13. Tanwar S, Mattoo B, Jain S, Kumar U, Bhatia R, Aberrant Pain Modulation in Fibromyalgia Syndrome, 13th Annual Scientific Meeting, Neuromodulation Society of Australia and New Zealand, 6-8 April 2018, Sydney, Australia

RESEARCH

Funded projects

Ongoing

1. A double blind, randomised, placebo-controlled trial evaluating efficacy and safety of oral nintedanib treatment for at least 52 weeks in patients with 'Systemic Sclerosis associated Interstitial Lung Disease' (SSc-ILD), Uma Kumar, Boehringer Ingelheim India Pvt Ltd, 4 years, 2015-2019, Rs 4.95 lakhs
2. T helper cells and their signature cytokines as biomarkers in lupus nephritis, Ranjan Gupta, SERB, DST, 3 years, 2015-2018, Rs 11 lakhs
3. CD163+ macrophages and sCD163 in blood and urine as marker of LN activity, Ranjan Gupta, Indian Rheumatology Association, 2 years, 2016-2018, Rs 1 lakh
4. Multi-institutional Network Programme on Systemic lupus Erythematosus: Understanding the diversity of SLE, Ranjan Gupta, DBT, 5 years, 2018-2023, Rs 99.85 lakhs

Collaborative projects

Ongoing

1. Effect of motor imagery on corticomotor excitability and pain status in rheumatoid arthritis patients, Anatomy
2. Evaluation of the role of Salivary Scavenger and Agglutinin (SALSA) and lectin pathway components in rheumatoid arthritis, Guru Gobind Singh University
3. Identifying the role of exogenous ATP in joint inflammation, South Asian University, New Delhi
4. Impact of yoga and meditation on epigenetic profile in rheumatoid arthritis, Anatomy, AIIMS
5. Interplay between innate and adaptive immunity in lupus: Inflammatory effects of apoptotic cell-reactive antibodies on neutrophils and monocytes, National Institute of Immunology, New Delhi
6. Musculoskeletal symptoms and their impact on the physical and psychological health in adolescent school children, Santosh University Ghaziabad
7. Rational use of drugs, Pharmacology
8. Understanding biology of Rheumatoid arthritis: Functional characterization of some/novel genetic determinants, Delhi University

Completed

1. Association of non-classical HLA -G Gene polymorphism in rheumatoid arthritis and impact of Yoga intervention on its levels, Anatomy
2. Development of targeted nanomedicine for the treatment of rheumatoid arthritis, Pathology

PUBLICATIONS

Journals: 10

Chapters in books: 2

PATIENT CARE

Department caters to large number of patients. In last one year approximately 25,000 patients attended outpatient department.

Facilities in the department

1. Rheumatology Clinic: 4,982 patients were seen
2. Rheumatology OPD: 5,312 new patients were seen and 22,000 follow up patients were seen
3. Rheumatology Day Care

Pulse/Biological therapy	Intraarticular injections	Intramuscular injections	Subcutaneous injections	Biopsies	Difficult case discussion	Others	Total
1,423	1,045	136	569	39	510	102	3,824

4. Musculoskeletal Ultrasound: 101 (which includes guided procedure)
5. Clinical Immunology laboratory is equipped with Nephelometer, Immunofluorescence microscope, Polarized microscope, and ELISA

RF	10,407
ANA	14,290
ANCA	7,314
aCL	6,340
AntiDsDNA	6,065
C3	345
Cryoglobulins	93
Anti LKM	2,673
ASMA	2,668
IgG, IgA, IgM	67
Synovial Fluid for crystal	424
Total	50,686

Community Service

Dr Uma Kumar

1. Participated in Medical Camp at Leh, Laddakh and Pratapgarh, UP
2. Organized public awareness programme on SLE at AIIMS
3. Writing in print media to increase awareness about rheumatological disorders
4. Participating in TV and Radio programs on arthritis

Organized Medical Camps

1. 30 September 2018 at Rail Vihar, Indirapuram, Ghaziabad, Uttar Pradesh and examined 138 patients
2. 14 October 2018 at Nanda Tower, Kaushambi, Ghaziabad, Uttar Pradesh and examined 63 patients
3. 10 February 2019 at BK Dutt Colony, New Delhi and examined 113 patients

Awareness programme on musculoskeletal health among adolescents at Schools of South Delhi

S. No.	Name of School	Date	Number of students attended
1	Sarvodaya Senior Secondary School, Masjid Moth, New Delhi	24 April 2019	450
2	Rajkiya PratibhaVikas Vidhyalaya Tyagraj Nagar, New Delhi	9 May 2019	440
3	Government Co-ed Senior Secondary School, Laxmi Bai Nagar, New Delhi	11 July 2019	200
4	Sarvodaya Senior Secondary School, Safdurjung Enclave, New Delhi	2 August 2019	500
5	Sarvodaya Senior Secondary School, Ekta Vihar, RK Puram, New Delhi	2019	500
6	Jose Marti Senior Secondary School, Sec 12, RK Puram, New Delhi	12 October 2019	980
7	Sarvodaya Senior Secondary School, Sec 7, RK Puram, New Delhi	5 November 2019	550
8	Sarvodaya Senior Secondary School, Sec 13, RK Puram, New Delhi	15 November 2019	450
9	Sarvodaya Senior Secondary School, Nanak Pura, New Delhi	28 November 2019	350
10	Sarvodaya Senior Secondary School, Munirika Village, New Delhi	11 December 2019	500

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Uma Kumar was expert member of task force on metabolic and Autoimmune Disorders-DBT, 19-20 July 2018, Lodhi Road, New Delhi; Chairperson, Monsoon Rheumatology Summit under Kerala Chapter-IRA, 21-22 July 2018, Bolgatty, Cochin; Collaborative work was awarded **Best poster award in AYUSH category (overall 4th rank)** entitled, "Potential role of yoga in amelioration of disease activity and depression severity in Rheumatoid arthritis: A randomized controlled trial" in 1st National Biomedical Research Competition (NBRCOM-2018) on 15 October 2018 at AIIMS, Rishikesh.

Dr Danveer Bhadu was Quizmaster in DRA Update-2019 (2, 3 February) organized by Department of Rheumatology and Clinical Immunology, Army Hospital (R&R), Delhi Cantt; Chairperson in "Connective Tissue Disorders" session in Delhi Rheumatology Update-2019.

Dr Sajal Ajmani was Chairperson in "Spondyloarthritides" session in Delhi Rheumatology Update-2019 on 3 February 2019.

VISITING SCIENTIST

Tsutomu Takeuchi, MD, PhD, Professor of Rheumatology, Keio University School of Medicine, General Director of Keio University Hospital.

9.39. Surgical Disciplines

Professor and Head

Anurag Srivastava

Professors

Sunil Chumber
Sandeep Aggarwal

Rajinder Parshad
Virinder Kumar Bansal

V Seenu (on leave)
Anita Dhar

Associate Professor

Hemanga K Bhattacharjee

Assistant Professors

Asuri Krishna
Mohit Joshi

Piyush Ranjan
Yashwant Rathore

Manjunath Maruti Pol
Suhani

Kamal Kataria Om Prakash

HIGHLIGHTS

Our department is involved in Minimal Invasive, Thoracic, Vascular, Renal Transplant, Breast, Endocrine and Gastrointestinal and Bariatric Surgery. We are running Breast Cancer, Bariatric and Renal Transplant Clinics. Apart from this, we have been running Minimal Invasive Training Programme for basic and advanced Laparoscopic surgical skills. Many doctors came for short-term training from India and nearby SAARC countries. Eminent international faculties came to AIIMS and shared their experiences. Our department facilitated in training of trainers for roll-out of National Cancer Screening Programme. We have also developed module for performing Breast Cancer screening.

EDUCATION

1. Postgraduate Seminar on every Wednesday from 5.00 pm to 6.00 pm
2. Journal Club presented by MCh Senior Resident on every Monday from 5 pm to 6 pm
3. Journal Club presented by Junior Resident on every Saturday
4. Mortality and morbidity round by Junior Resident once in a week in each unit
5. Lectures, Teaching Schedule in OPD/Ward for MBBS students
6. Internal assessment from time to time conducted for Jr. Residents and MBBS students
7. Lectures for nursing students
8. The following training courses were organized in the Minimally Invasive Surgery Training Centre of the department:

Basic and Advanced Laparoscopic Training Course:	16
Laparoscopic Hernia Surgery:	8
Laparoscopic Suturing:	2

CMEs/Workshops/Symposia/National and International Conferences

1. 13th AIIMS Surgical Week, International Minimal Access Surgery Conference, CME cum Live Operative Workshop, ENDOSURG 2019, 28-31 March 2019, AIIMS, New Delhi
2. Hands on Workshop on Abdominal Wall Suturing in association with Delhi State Chapter of Association of Surgeons of India, 24 February 2019, Dry and Wet Lab of the SET Facility, AIIMS, New Delhi
3. Second National CME on Bariatric Surgery with Hands on Cadaver Course, 22 and 23 February 2019, AIIMS, New Delhi
4. Laparoscopic Abdominal Surgery Training for postgraduate and MCh candidates, December 2018, SET Facility, AIIMS, New Delhi
5. Guest lecture on role of Bailey and Love in teaching Indian surgeons by Dr Ronan O'Connell, Ireland, 16 November 2018, Department of Surgical Disciplines, AIIMS, New Delhi

6. “Breast Health Awareness Camp” for AIIMS EHS and AIIMS Non EHS Staff, 30 October 2018, Department of Surgical Disciplines, AIIMS, New Delhi
7. Breast health awareness talk in “Common cancers of men and women: Breast Cancer and Prostate Cancer”, 29 October 2018, Department of Telecommunications, AIIMS, New Delhi
8. Suturing workshop on Abdominal Wound Closure, 25 August 2018, SET Facility, AIIMS, New Delhi
9. Suturing workshop for undergraduate and postgraduate, 30 April 2018, SET Facility, AIIMS, New Delhi

Lectures delivered

Anurag Srivastava

1. Research methodology for the surgeons, AMU Surgery Update 2019, 1-3 March 2019, Department of Surgery, AMU, Aligarh
2. Benign breast diseases: Presentation, ANDI concept and care, PG Clinical Update 2019, 31 January-3 February 2019, Department of Surgery, LHMC, New Delhi
3. Indian contributions to breast surgery, 34th Annual Conference of the ASI, Odisha Chapter and Bharampur Oration OSASICON 2019, 19-20 January 2019, NOCCi Residency, Balasore, Odisha
4. Research methodology for diagnostic test evaluation, Annual Conference of Society for Evidence Based Health Care EBMCON-2019, 2-4 January 2019, Kasturba Medical College and Kasturba Hospital, MAHE, Manipal
5. Master postgraduate class on locally advanced breast cancer, 78th Annual National Conference of Association of Surgeons of India ASICON 2018, 26-30 December 2018, Chennai Trade Centre, Chennai
6. Survival analysis: Current trends, Workshop on Principles of Cancer Epidemiology Biostatistics Resource and Training Centre, 11-13 October 2018, CMC, Vellore
7. Skin sparing mastectomy, Panel discussion on breast cancer management in resource constraint environment, Second Asian Society of Mastology ASOMA, 3-5 October 2018, Male, Maldives
8. Postgraduate master class: Breast examination, Lecture: How do I do it? Axillary node dissection, ASI Regional Refresher Course ASICON-2018, 21-23 October 2018, Jolly Grant Medical College, Dehradun
9. Diagnostic test evaluation in medicine, Workshop on Research Methodology, 3-5 September 2018, Department of Community Medicine, Gauhati Medical College and Hospital, Bhangagarh, Guwahati
10. Management of benign breast diseases, Midterm Conference ASI Odisha State Chapter and Annual Conference of SELSIOSALSICON, 11-12 August 2018, Odisha
11. Multilevel modelling and longitudinal, repeated measure data analyses, 4-7 June 2018, Department of Biostatistics, CMC, Vellore
12. Spotlight discussion on fluorescent method of margin assessment in Breast cancer surgery, San Antonio Breast Cancer Symposium SABCS 2018, 4-7 December 2018, San Antonio Convention Center, San Antonio, Texas, USA

Sunil Chumber

1. CME in surgery, January-February 2019, Lady Hardinge Medical College, New Delhi
2. Organized the CME, 2nd National Conference of Indian Society of Clinical Nutrition (INSCN) 31 August-2 September 2018, AIIMS, New Delhi
3. Medullary Carcinoma of Thyroid, Surgery Update, September 2018, Maulana Azad Medical College, New Delhi

Rajinder Parshad

1. Complications following laparoscopic fundoplication, ENDOSURG 2018, 21 April 2018, Jawahar Lal Auditorium, AIIMS, New Delhi
2. Symposium on bile duct injury, ENDOSURG 2018, 21 April 2018, Jawahar Lal Auditorium, AIIMS, New Delhi
3. Concepts of Enhanced Recovery After Surgery (ERAS), 2nd National Conference of Indian Society of Clinical Nutrition (INSCN), 1 September 2018, Jawahar Lal Auditorium, AIIMS, New Delhi
4. TEP repair of inguinal hernias, Surgery Update 2018, 28 September 2018, Maulana Azad Medical College, New Delhi
5. Thymectomy—VATS or Robotics, SELSICON-2018, 29 September 2018, KN Udapa Auditorium, BHU, Varanasi
6. Laparoscopic management of Achalasia Cardia: An overview JAKASICON-2018, 20 October 2018, Government Medical College, Jammu
7. Video assisted thoracoscopic surgery, 58th AMASI Skill Course, 21 October 2018, Lady Hardinge Medical College, New Delhi

8. Laparoscopy vs endoscopic treatment for achalasia cardia, SURGICON 2018, 25 November 2018, Northern Railway Central Hospital, New Delhi
9. Moderator of long case: Surgical obstructive Jaundice (CA Pancreas), "LHMC Surgery PG Clinical Update 2019", 1 February 2019, Lady Harding Medical College, New Delhi
10. Robotic thoracic oncology session, "ROBO-ONCO-CON 2019", 3 February 2019, Max Super Speciality Hospital, Saket, New Delhi
11. Moderator live operative workshop: RGCON 2019, 8 February 2019, Rajiv Gandhi Cancer Institute and Research Centre, New Delhi
12. Surgical management of GERD, AMU Surgery Update-2019, 1 March 2019, Jawaharlal Nehru Medical College, AMU, Aligarh, Uttar Pradesh
13. A master video presentation topic: Laparoscopic management of Achalasia cardia, ENDOLAP @ MAMC, 2 March 2019, Maulana Azad Medical College, New Delhi
14. Difficult situation in fundoplication, Endosurg 2019, 29-31 March 2019, All India Institute of Medical Sciences, New Delhi

Sandeep Aggarwal

1. Bariatric surgery in India—An AIIMS perspective, IMA-Jalandhar CME on Bariatric Surgery, 27 April 2018, Jalandhar
2. Operative demonstration of gastric bypass, International Bariatric Surgery Conference and Live Operative Workshop, 21-22 May 2018, Dayanand Medical College and Hospital, Ludhiana
3. Gastric bypass-operative technique, International College of Surgeons (ICS)-NZCON, 12-13 May 2018, Agra
4. Expert for Indian data on type 2 diabetes mellitus and bariatric surgery, DiaSurg-2018, 24-25 August 2018, Hyderabad
5. Management of late complications after RYGB, 3rd Fellowship Course in Bariatrics and Metabolic Surgery (FIAGES), 9-11 August 2018, Ahmedabad
6. Bariatric surgery in India faculty for hands on training course, 5th Duke-Pudong Master of Metabolic and Bariatric Surgery Training/Course, 4-5 September 2018, Pudong University, Shanghai, China
7. Moderator for panel discussion on Laparoscopic Sleeve Gastrectomy, IASGCON 2018, 3-6 October 2018, Chandigarh
8. Technical Pitfalls in Bariatric Surgery, IASGCON 2018, 3-6 October 2018, Chandigarh
9. Intraop Pitfalls in Bariatric Surgery: Trouble Shooting, SURGICON, 23-25 November 2018, Northern Railways Hospital, New Delhi
10. Panellist for metabolic surgery debates, International Diabesity and Metabolic Surgery Summit (IDMSS), 28-30 November 2018, Tel Aviv, Israel
11. Panellist for controversies in metabolic surgery, International Diabesity and Metabolic Surgery Summit (IDMSS), 28-30 November 2018, Tel Aviv, Israel
12. Panellist in GERD after Sleeve, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2019, Kolkata
13. Panellist in preventing mortality in Bariatric Surgery, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2019, Kolkata
14. Panellist in Do surgeons want to develop a new procedure to get the label of Innovator, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2019, Kolkata
15. Demonstrated Laparoscopic Sleeve Gastrectomy procedure, Roux-En-Y-Gastric Bypass and MGB Procedure, BARIME 2019, 2nd National CME on Bariatric Surgery with Hands on Cadaver Course, 22-23 February 2019, AIIMS, New Delhi
16. Hiatus Hernia during Sleeve Gastrectomy—How to manage, BARIME 2019, 2nd National CME on Bariatric Surgery with Hands on Cadaver Course, 22-23 February 2019, AIIMS, New Delhi
17. Moderator of panel discussion on Bariatric and Metabolic Surgery, Endolap, 1 March 2019, Maulana Azad Medical College, New Delhi

VK Bansal

1. Panel discussion of difficult scenarios in laparoscopic cholecystectomy, 13th AIIMS Surgical Week (ENDOSURG 2019), 27-31 March 2019, AIIMS, New Delhi

2. Renal transplant: An overview for PGs (20 + 10 min), KGMU Surgical Week and Surgical Education Programme and 64th Annual Foundation Day, 11 February 2019, Department of General Surgery, King Georges Medical University, Lucknow
3. Case presentation on Abdominal Lump LHMC PG Clinical Update 2019, 31 January-3 February 2019, LHMC, New Delhi
4. Prevention of Bile duct injuries—Principles of safe Cholecystectomy, ASICON 2018, 27-30 December 2018, Chennai Trade Centre, Chennai
5. “Laparoscopic surgery do’s and don’ts”, SURGICON 2018, 23 November 2018, Northern Railway Hospital, New Delhi
6. Pancreatico gastrostomy, National Conference of Indian Association of Surgical Gastroenterology, 3-5 October 2018, PGIMER, Chandigarh
7. “TEP vs TAPP which is better”, International Hernia Collaboration Conference, 3 May 2018, New Delhi
8. Panel discussion on Bile duct injury different scenarios, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi
9. Live operative demonstration of Laparoscopic CBD exploration, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi
10. Live operative demonstration of Laparoscopic incisional hernia repair, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi
11. Live operative demonstration of Laparoscopic inguinal Hernia, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi
12. Live operative demonstration of two Laparoscopic incisional Hernia, 13th AIIMS Surgical Week (ENDOSURG 2019), 27-31 March 2019, AIIMS, New Delhi
13. Live operative demonstration of Laparoscopic CBD exploration, 13th AIIMS Surgical Week (ENDOSURG 2019), 27-31 March 2019, AIIMS, New Delhi
14. Live operative demonstration of Laparoscopic cystogastrostomy for pseudocyst of pancreas, 13th AIIMS Surgical Week (ENDOSURG 2019), 27-31 March 2019, AIIMS, New Delhi
15. Live operative demonstration of Laparoscopic incisional Hernia, South Zone Conference of SELSI 2018, 20-22 July 2018, Kochi, Kerala

Anita Dhar

1. Current concepts in the Management of Chronic Limb Ischemia, Surgery Update 2018, 14 April 2018, Department of Surgery, Jawaharlal Nehru Medical College, AMU, Aligarh
2. Surgical management of lymphedema, ICSIS-NZCON 2018, North Zone Conference, 12 May 2018, International College of Surgeons, Agra
3. Different modalities in treatment of Toxic MNG, ISOPES 2019, 16 February 2019, SGPGI, Lucknow
4. Examiner expert for cases Varicose Veins, Diabetic Foot, Peripheral Vascular Disease, SCOPE-2019, 8 February 2019, PGIMER RML Hospital, New Delhi
5. Expert examiner for LHMC PG Clinical Update, Clinical Update 2019, 2 February 2019, LHMC, New Delhi
6. Role of stem cell in Peripheral arterial disease, Symposium on Exploring the Wonders of Stem Cell Therapy, 2 May 2018, PGIMER and Dr RML Hospital, New Delhi
7. Prevention of lymphedema in patients undergoing axillary dissection for breast cancer by Benzathine penicillin: A non-inferiority randomized controlled trial, VAICON 2019, 17-20 January 2019, Hyderabad

Hemanga K Bhattacharjee

1. Laparoscopic right hemicolectomy: Technical tips, 13th AIIMS Surgical Week, International Minimal Access Surgery Conference, CME cum Live Operative Workshop, ENDOSURG 2019, 28-31 March 2019, AIIMS, New Delhi
2. VAAFT—Does it really work, What is the evidence, 11th Annual National Conference of Society of Endoscopic and Laparoscopic Surgeons of India, SELSICON 2018, 28-30 September 2018, BHU, Varanasi
3. Management of large incisional Hernia, Midterm Conference of Association of Surgeons of India, OSALSICON 2018, Odisha Chapter, 11-12 August 2018, Kolinga, Odisha
4. Art and science of stapler technology, International Conference in Minimally Invasive Surgery, MISCON 2018, 20-22 July 2018, Kochi, Kerala

5. Transverse Abdominis Release (TAR) ICSIS-NZCON 2018, 12-13 May 2018, Agra, UP
6. Laparoscopic ventral hernia repair (IPOM) by all suture fixation technique, 13th AIIMS Surgical Week, International Minimal Access Surgery Conference, CME cum Live Operative Workshop, ENDOSURG 2019, 28-31 March 2019, AIIMS, New Delhi
7. Laparoscopic appendectomy, Midterm Conference of Association of Surgeons of India, OSALSICON 2018, Odisha Chapter, 11-12 August 2018, Odisha
8. Laparoscopic cholecystectomy, the 12th AIIMS Surgical Week, International Conference, CME cum Live Workshop (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi
9. A conference of Master Video presentations, Endolap-MAMC, 1-3 March 2019, MAMC, New Delhi
10. Annual conference of the Association of Surgeons of India, Delhi State Chapter, 23-25 November 2018, Northern Railway Hospital, New Delhi

Asuri Krishna

1. Staging Laparoscopy, SELSICON 2018, October 2018, BHU, Varanasi
2. Laparoscopic CBD exploration, HASICON, February 2019, Nuh, Haryana
3. Panel discussion Laparoscopic CBD exploration, ASI Meet, March 2019, AIIMS, Delhi
4. Debate “Robotics in incisional hernia repair”, ENDOSURG 2019, March 2019, AIIMS, Delhi
5. Sutures in surgery, UG Suturing Workshop, 22 April 2018, AIIMS, New Delhi
6. Kidney transplantation surgery, World Nurses Day 2018, 12 May 2018, AIIMS, New Delhi

Piyush Ranjan

1. Workshop for developing State Action Plan (SAP) for Trauma Care, MOHFW, February 2019, Pune, Maharashtra
2. Road safety legislation and multi-sectoral action, WHO, December 2018, New Delhi
3. Expert meeting on website “India Against Cancer”, December 2018, NICPR, Noida
4. Video demonstration “MRM”, 2 February 2019, LHMC, New Delhi
5. Examination of Extremities, SCOPE, 9 February 2019, RML Hospital, New Delhi
6. Panel discussion on DTC, SURGICON 23 November 2018, Northern Railway Hospital, New Delhi
7. UG and PG Quiz, ENDOSURG-2018 and 2019, April 2018 and March 2019, AIIMS, New Delhi
8. Panel discussion—Benign breast diseases, ABSICON, 28 December 2018, AIIMS, New Delhi
9. Benign breast diseases, ASOMACON, 3 October 2018, Maldives

Mohit Joshi

1. Quiz for post-graduates, Chaired sessions: Free paper; operative workshop, 12th AIIMS Surgical Week (ENDOSURG 2018), 19-22 April 2018, AIIMS, New Delhi
2. Selecting an appropriate journal for publication, Workshop on ‘Submitting manuscript for publication’, 2 May 2018, CMET, AIIMS, New Delhi
3. Responsibilities and conduct in operation theater, Induction Programme for OT Assistants, 12-14 September and 10 October 2018, CMET, AIIMS, New Delhi
4. MCQs—preparation and validation, NATCON 66 (66th National Conference of the Anatomical Society of India), 11 November 2018, AIIMS, Rishikesh
5. Initial assessment and management of trauma patients, Workshop on ‘Basic skills for trauma management’, Oil Medimeet-2019, 2-3 February 2019, Oil India Hospital, Duliajan, Dibrugarh
6. Life-saving trauma care measures during CBRN scenarios, 7th Workshop on Medical Management of CBRN Casualties for Medical Officers, 12 February 2019, DRDO, New Delhi
7. Trauma Shock, Head injuries, 2nd National PG Meet-2019, 15-16 February 2019, Sri Guru Ram Das University of Health Sciences, Amritsar

Yashwant Rathore

1. Video Assisted Thoracoscopic Surgery (VATS) in benign lung conditions, International Uniport VATS Training Programme, 11-22 March 2019, Shanghai Pulmonary Hospital, Shanghai, China

Suhani

1. Why should I write? IJS paper writing workshop, 17 June 2018, Delhi
2. Anatomy and imaging of Pancreas, CME on Pancreas, 9 September 2018, Delhi
3. Laparoscopic cholecystectomy, SCOPE Course, 14 October 2018, Delhi
4. Panelist: PG Case discussion, SCOPE Course, 12-13 October 2018, Delhi
5. Why should I write? SURGICON 2018, 23 November 2018, Delhi
6. Panel discussion: Manuscript writing, SURGICON 2018, 23 November 2018, Delhi
7. Why should I write? ASICON 2018, 28 December 2018, Chennai
8. Right hemicolectomy, LHMC PG Clinical Update 2019, 2 February 2019, Delhi
9. How I do it? Lap cholecystectomy, SCOPE 2019, 9 February 2019, Delhi
10. Why to write? MEDSICON, 9 March 2019, Delhi

Kamal

1. Video presentation Laparoscopic Management of Hydatid Cyst, 12th AIIMS Surgical Week, 22-24 April 2018, AIIMS, New Delhi
2. Triple assessment in breast cancer, 2nd Annual Conference of Asian Society of Mastology, 3-5 October 2018, Male, Maldives
3. Follow up and cosmetic assessment in Breast Cancer, ABSICON 2018 (7th Annual Conference and Workshop), 9-11 November 2018, AIIMS, New Delhi
4. "Complications in laparoscopic surgery", HASICON 2019, 23 February 2019, SHKM Government Medical College, Nalhar, Nuh, Haryana
5. LHMC PG Clinical Update, Clinical Update 2019, 31 January-3 February 2019, Lady Harding Medical College, Delhi
6. Demonstration of examination of Abdomen—Renal Mass, SCOPE 2019, 7-10 February 2019, Ram Manohar Lohiya Hospital, Delhi
7. Diagnosis of Minor Anorectal Conditions, 13th AIIMS Surgical Week, Endosurg, 28-31 March 2019, AIIMS, New Delhi

Om Prakash

1. Periampullary tumor, ENDOSURG, March 2019, AIIMS, New Delhi
2. Nutritional complications post renal transplantation, INSCN, September 2018, AIIMS, New Delhi

Oral papers/posters presented

1. Aggarwal S, Case of stapler misfire and Spiral sleeve converted to Roux-en-Y Gastric bypass, 23rd International Federation for the Surgery of Obesity and Metabolic Disorders World Congress, 26-29 September 2018, Dubai
2. Aggarwal S, Catastrophe averted following Mini Gastric Bypass, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
3. Aggarwal S, Concomitant Hiatal hernia repair and laparoscopic Sleeve Gastrectomy results, SURGICON 2018, 23-25 November 2018, Northern Railway Hospital, New Delhi
4. Aggarwal S, Correlation between preoperative Endoscopy and Reflux Symptom Score for GERD in Bariatric patients, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
5. Aggarwal S, De-novo GERD and weight regain following Sleeve gastrectomy converted to Roux-en-Y gastric bypass with hiatal hernia repair*, IAGES 2019, February 2019, Bhubaneswar, Odhisa (**Second Prize in Best Video Presentation Category at Annual Conference of Indian Association of Gastrointestinal and Endoscopic Surgeons (IAGES)**)
6. Aggarwal S, First case of Adenocarcinoma of Esophagus following Mini Gastric Bypass, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
7. Aggarwal S, Impact of Bariatric Surgery induced weight loss on cardiovascular disease risk reduction in morbidly obese patients, SURGICON 2018, 23-25 November 2018, Northern Railway Hospital, New Delhi

8. Aggarwal S, Impact of Bariatric Surgery induced weight loss on cardiovascular disease risk reduction in morbidly obese patients, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
9. Aggarwal S, Impact of Bariatric Surgery on NAFLD using 1-year Liver Biopsy, International Disability and metabolic Surgery Summit, November 2018, Tel Aviv, Israel
10. Aggarwal S, Impact of Bariatric Surgery on Type 2 Diabetes Mellitus in morbidly obese patients—Results from a Tertiary Care Teaching Hospital in India, International Diabetes and Metabolic Surgery Summit, November 2018, Tel Aviv, Israel
11. Aggarwal S, Impact of Bariatric Surgery on Type 2 Diabetes Mellitus in morbidly obese patients—Results from a tertiary care teaching hospital in India, AIIMS Research Day, March 2019, AIIMS, New Delhi
12. Aggarwal S, Incidentally detected Pancreatitis during Laparoscopic Sleeve Gastrectomy, 23rd International Federation for the Surgery of Obesity and Metabolic Disorders World Congress, 26-29 September 2018, Dubai
13. Aggarwal S, Initial experience with OAGB, International Diabetes and Metabolic Surgery Summit, November 2018, Tel Aviv, Israel
14. Aggarwal S, Mid- to long-term outcomes of Laparoscopic Sleeve Gastrectomy in Indian Population: 3-7 year results—A retrospective cohort study, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
15. Aggarwal S, Outcomes in morbidly obese adolescent patients undergoing One Anastomosis Gastric Bypass or laparoscopic sleeve Gastrectomy, 17th National Conference on Obesity and Metabolic Surgery Society of India (OSSICON 2019), 24-26 January 2018, Kolkata
16. Aggarwal S, Outcomes in Super Obese Patients Undergoing One Anastomosis Gastric Bypass or Laparoscopic Sleeve Gastrectomy, SURGICON 2018, 23-25 November 2018, Northern Railway Hospital, New Delhi
17. Aggarwal S, Pitfalls in Bariatric surgery video capsule, IAGES 2019, February 2019, Bhubaneswar, Odhisa
18. Aggarwal S, Roux-en-Y Gastric bypass, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
19. Aggarwal S, Surgical management of Super-super obese with grade 3 esophageal varices with chronic liver disease, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
20. Aggarwal S, Surgical management of Super-super obese with grade 3 esophageal varices with chronic liver disease, ASI—Delhi State Chapter, 23 February 2018, AIIMS, New Delhi
21. Aggarwal S, Technical difficulties and pitfalls during Laparoscopic Sleeve gastrectomy, 17th National Conference on Obesity and Metabolic Surgery Society of India, 24-26 January 2018, Kolkata
22. Aggarwal S, Technical difficulties and Pitfalls during Laparoscopic Sleeve Gastrectomy, 26th International Congress of European Association for Endoscopic Surgery (EAES), 30 May-1 June 2018, London
23. Aggarwal S, Utility of Epworth Sleepiness Scale to Predict OSA in morbidly obese patients an prediction of a better score, 26th International Congress of European Association for Endoscopic Surgery (EAES), 30 May-1 June 2018, London
24. Dhar A, “Breast Health Awareness Camp”, AIIMS EHS and AIIMS Non EHS Staff, 30 October 2018, AIIMS, New Delhi
25. Kapila S, Parshad R, Wrap Migration: Laparoscopic management by AMASICON2018, 15-17 November 2018, SGPGIMS, Lucknow, UP
26. Kataria K, Comparative initial experience of endoscopic thyroidectomies: Transoral extra-vestibular versus axillary-breast approach, ISTS 2018 (Indian Society of Thyroid Surgeon), 24-26 August 2018, Tata Memorial Hospital, Mumbai
27. Krishna A, An audit with outcome analysis and clinico-epidemiological trends of breast cancer, ABSICON 2018, 10 November 2018, JLN Auditorium, AIIMS, New Delhi
28. Kumar R, Parshad R, Is minimal access thymectomy an option in Thymomas AMASICON2018, 15-17 November 2018, SGPGIMS, Lucknow, UP
29. Modi A, Parshad R, Appendiceal knotting: A rare cause of small bowel obstruction ENDOSURG 2018, 22 April 2018, AIIMS, New Delhi
30. Modi A, Suhani, Bhattacharjee HK, Parshad R, Angle of his accentuation as an antirefluxsurgery for patient undergoing laparoscopic Heller’s cardiomyotomy for achalasia—Experience of over 100 cases ASICON 2018, 30 December 2018, Chennai (**Second prize in oral presentation in ASICON 2018**)

31. Modi A, Suhani, Bhattacharjee HK, Parshad R, Is Laparoscopic Heller's cardiomyotomy a viable option in megaesophagus, SURGICON 2018, 25 November 2018, New Delhi (**Received first prize in poster presentation in SURGICON 2018**)
32. Oberai A, Suhani, Bhattacharjee HK, Parshad R, Prospective study to evaluate the role of protocol based management of Intercostal Chest Tubes (ICD) in patients undergoing elective thoracic surgery by ASICON 2018, 30 December 2018, Chennai (**First prize in the oral presentation in ASICON 2018**)
33. Oberoi AS, Parshad R, Protocol based management of chest tubes in elective pulmonary resections: A prospective cohort study by ENDOSURG 2018, 22 April 2018, AIIMS, New Delhi
34. Pol MM, Human induced pluripotent stem cells derived hematopoietic progenitor cells for treatment of hematopoietic failure among trauma hemorrhagic shock, SYSCON-2018, 11-12 January 2018, New Delhi
35. Pol MM, Hydrostatic Dilatation+Balloon Angioplasty vs Hydrostatic Dilatation+Malleable Vascular Dilator for ≤ 2 mm Calibre Veins Used During Creation of Arteriovenous Fistula for Haemodialysis, First Annual Research Day, 26 March 2019, New Delhi
36. Pol MM, To study the effect of handgrip exercise on the outcome of arteriovenous fistula surgery: A randomized controlled trial, 78th Annual Conference of ASI, Chennai, ASICON-2018: Best free paper award, 3rd prize (session 2, station 17), 26-30 December 2018, Chennai
37. Pol MM, To study the effect of handgrip exercise on the outcome of arteriovenous fistula surgery: A randomized controlled trial, SURGICON-2018, 23-25 November 2018, New Delhi
38. Prakash O, 10 year experience of Laparoscopic management of hydatid disease, SELSICON 2018, 28-30 September 2018, BHU, Varanasi
39. Prakash O, 400 cases of pancreaticogastrostomy for reconstruction of pancreatic stump after whipple's pancreaticoduodenectomy, IASGCON, 2018, 4-7 October 2018, Chandigarh
40. Prakash O, A prospective study assessing the learning curve in complex laparoscopic procedures, ISOT, 2018 First Prize, 5-7 October 2018, Hyderabad
41. Prakash O, A randomized study of patient satisfaction in surgical patients—A quality improvement study, SAGES, 2019 Annual Meeting, 3-6 April 2019, Baltimore, USA
42. Prakash O, A randomized study of patient satisfaction in surgical patients—A quality improvement study, SELSICON 2018, 28-30 September 2018, BHU, Varanasi
43. Prakash O, A randomized study of patient satisfaction in surgical patients—A quality improvement study, IASGCON, 2018, 4-7 October 2018, Chandigarh
44. Prakash O, A study to assess pancreatic endocrine and exocrine functions in patients with pancreatic trauma, SELSICON 2018, 28- 30 September 2018, BHU, Varanasi
45. Prakash O, A study to assess pancreatic endocrine and exocrine functions in patients with pancreatic trauma, IASGCON, 2018, 4-7 October 2018, Chandigarh
46. Prakash O, An experience of over 1,500 cases of laparoscopic groin hernia surgery at a tertiary care centre, SAGES, 2019 Annual Meeting, 3-6 April 2019, Baltimore, USA
47. Prakash O, Comparison of pure polypropylene mesh vs Covered mesh in laparoscopic incisional and ventral hernia repair: A non randomised cohort study, SAGES, 2019 Annual Meeting, 3-6 April 2019, Baltimore, USA
48. Prakash O, Comparison of pure polypropylene mesh vs Covered mesh in laparoscopic incisional and ventral, SELSICON 2018, 28-30 September 2018, BHU, Varanasi
49. Prakash O, Critical ergonomic adjustments in laparoscopic surgery, MISICON, 2018, 13-15 May 2018, Kochi
50. Prakash O, Experience of laparoscopic cystogastrostomy of more than 100 cases at tertiary referral centre, IASGCON, 2018, 4-7 October 2018, Chandigarh
51. Prakash O, Hyper acute rejection of a living related kidney graft, ISOT, 2018, 5-7 October 2018, Hyderabad
52. Prakash O, Improving operative room performance in laparoscopic surgery of surgical residents via short term focused training—A quality improvement study, SAGES, 2019 Annual Meeting, 3-6 April 2019, Baltimore, USA
53. Prakash O, Improving operative room performance in laparoscopic surgery of surgical residents via short term focused training—A quality improvement study, SELSICON 2018 First Prize, 28-30 September 2018, BHU, Varanasi
54. Prakash O, Laparoscopic cystogastrostomy: Experience of more than 100 cases at a tertiary referral centre, SELSICON 2018, 28-30 September 2018, BHU, Varanasi

55. Prakash O, Laparoscopic repair of post kidney transplant incisional hernia: A case report, ISOT, 2018, 5-7 October 2018, Hyderabad
56. Prakash O, Spontaneous renal allograft rupture of unknown etiology: A case report, ISOT, 2018, 5-7 October 2018, Hyderabad
57. Rathore Y, Interval laparoscopic cholecystectomy after endoscopic retrograde cholangio-pancreatography, International Congress of European Association of Endoscopic Surgery (EAES), 30 May-1 June 2018, London, UK
58. Rathore Y, Pilot study to assess the role of metabolic imaging in patients with undiagnosed abdominal pain, ASICON-2018, 26-30 December 2018, Chennai
59. Rathore Y, Pilot study to assess the role of minimal access surgery in treatment of surgical infections, ASICON-2018, 26-30 December, Chennai
60. Srivastava A, Fluorescence guided breast conserving surgery [abstract], San Antonio Breast Cancer Symposium, 4-8 December 2018, San Antonio, TX, USA
61. Srivastava A, Prevention of lymphedema in patients undergoing axillary dissection for breast cancer by benzathine penicillin: A non-inferiority randomised controlled trial, San Antonio Breast Cancer Symposium, 4-8 December 2018, San Antonio, TX, USA
62. Srivastava A, Quality of life and cost-effectiveness in patients undergoing level I versus level II and III axillary lymph node dissection for breast cancer: A double blind randomised controlled trial with non-inferiority hypothesis, San Antonio Breast Cancer Symposium, 4-8 December 2018, San Antonio, TX, USA
63. Suhani, An audit with outcome analysis and clinico-epidemiological trends of breast cancer, ABSICON 2018, 10 November 2018, AIIMS, New Delhi
64. Suhani, Muscle sparing latissimus dorsi flap in breast reconstruction: Our experience, ASICON 2018, 27 December 2018, Chennai

RESEARCH

Funded projects

Ongoing

1. Solid tumor targeting using homing peptides and Plasmonic Photothermal Technique (D-1848), Anurag Srivastava, DBT, 3 years, 2018-2021, Rs 5 lakhs
2. A label extension, single arm multicentric Phase III study to assess the efficacy and safety of approved product Stempeucel® in patients with critical limb ischemia due to Buerger's Disease, Anita Dhar, Stempeutics Pvt Ltd, 2 years, 2018-2020, Rs 15 lakhs with free supply of stem cells
3. Complete estrogen Blockade in recalcitrant mastalgia: A randomized clinical trial, Suhani, AIIMS, New Delhi, 2 years, 2018-2019, Rs 4.99 lakhs
4. Design, development and validation of ergonomically enhanced surgical instruments, Piyush Ranjan, AIIMS, 2 years, 2018-2019, Rs 4 lakhs

Completed

1. Safety and efficacy of a compression bandage including MOBIDERM® during intensive phase of Lymphedema treatment in BCRL Indian patients: A randomized controlled trial, THUASNE, France, Anita Dhar, 1 year, 2018, Rs 8 lakhs
2. A study of endothelial Nitric Oxide Synthase (eNOS), Nitric Oxide (NO), cytokines, Vascular Endothelial Growth Factor-A (VEGF-A) in lower limb arterial disease and the alteration with the clinical outcome, Anita Dhar, AIIMS, 2 years, 2016-2018, Rs 5 lakhs
3. Centachroman versus Tamoxifen in symptomatic benign breast disease, Randomized clinical trial, Manjunath Maruti Pol, AIIMS, 1 year, 2016, Rs 0.6 lakhs
4. To study the effect of handgrip exercise on the outcome of arteriovenous fistula surgery, A randomized controlled trial, Department, 1 year, 2016, Rs 0.25 lakhs
5. Hydrostatic dilatation plus balloon angioplasty versus hydrostatic dilatation plus malleable vascular dilator for 2 mm or less caliber veins used during creation of arteriovenous fistula for hemodialysis, A randomized controlled trial, Manjunath Maruti Pol, Department, 1 year, 2016, Rs 0.2 lakhs
6. Complete estrogen blockade in recalcitrant mastalgia: A pilot study, AIIMS, Suhani, 2 years, 2016-2018, Rs 2.81 lakhs

Departmental projects

Ongoing

1. A prospective cohort study for decision analysis approach to the management of non-lactational mastitis
2. A prospective randomised trial comparing laparoscopic vs endoscopic drainage for walled off necrosis following acute pancreatitis
3. A prospective randomized control study to compare antral resection versus antral preservation during Laparoscopic Sleeve Gastrectomy for Morbidly Obese
4. A prospective randomized trial comparing laparoscopic vs endoscopic drainage for walled off necrosis following acute pancreatitis
5. A randomized controlled trial to compare Decongestive Compression Therapy (DCT), DCT within BPG and hydrophobic silicone tube placed drainage in lymphedema of upper limb post breast cancer treatment
6. A randomized controlled, parallel group, non inferiority trial to compare identification rate and cost effectiveness of fluorescein plus methylene blue vs technetium sulphur colloid plus methylene blue for detection of sentinel node in ladies with operable breast cancer
7. A study of gut microbiome in patients with gallbladder cancer
8. A study of physiological outcome and correlation with symptomatic outcome following laparoscopic hellercardiomyotomy in primary achalasia cardia
9. A study to validate routine use of CECT scan of torso in patients presenting with dangerous mechanism of injury in Level I Trauma Center
10. A three arm randomized controlled study to compare sexual functions following open mesh hernioplasty, Laparoscopic Totally Extra Peritoneal (TEP) and Trans Abdominal Pre-Peritoneal (TAPP) repair of Groin Hernia
11. A two arm parallel design superiority randomised trial comparing penicillin +standard of care vs standard of care alone in achieving complete healing of leg ulcers in patients with chronic venous hypertension
12. An investigation to identify the etiopathogenesis of fibroadenoma: An ultrastructural and physicochemical study
13. Assessment of post cholecystectomy symptoms and quality of life evaluation: A prospective cohort study
14. Comparison of learning curve on Two-Dimensional (2D) endovision system, Ultra-High Definition (HD) (4K) endovision system and Three-Dimensional (3D) HD endovision system for standardized phantom tasks: An ex-vivo study
15. Comparison of mesotherapy (non operative) with surgery in management of superficial lipomas
16. Comparison of oncologic and functional outcomes in ladies with breast cancer treated with breast conservation compared to those treated with mastectomy: An ambispective study
17. Comparison of oncological and cosmetic outcomes of skin sparing mastectomy versus breast conservative surgery among ladies with early breast cancer: A randomised comparison with superiority hypothesis
18. Comparison of Three-Dimensional (3D) endovision system versus Ultra-High Definition (HD) (4K) endovision system in minimally invasive surgical procedures—An open labeled randomized study
19. Comparison of Two-Dimensional (2D) endovision system, Ultra-High Definition (HD) (4K) endovision system and Three-Dimensional (3D) HD endovision system on standardized phantom tasks: An ex-vivo study
20. Correlation of imaging and operative findings with long term clinical and biochemical outcome in patients with primary hyperparathyroidism
21. Decision analysis approach in management of non lactational mastitis
22. Dosimetric study in children and young adults with differentiated thyroid cancer undergoing Radioiodine (¹³¹I- Na) therapy
23. Electrolyte and acid-base disturbances in renal transplant patients—A prospective observational study
24. Epidemiology and analysis of predictors of mortality in trauma patients at a Level I Trauma Center
25. Ergonomic analysis of muscle activity during laparoscopy and influence of training
26. Evaluation of gamma synuclein as a serum bio-marker in breast cancer
27. Evaluation of safety and efficacy of oral Cyclophosphamide, Methotrexate and Capecitabine (CMC) in locally advanced breast cancer patients: A pilot study of 20 cases
28. Extracellular matrix remodelling in obesity induced adipose tissue dysfunction and insulin resistance

29. Follow up study to evaluate correlation of imaging and operative findings with clinical and biochemical outcome in patients with primary hyperparathyroidism
30. ICG fluorescence imaging for identifying and assessing the perfusion of parathyroid gland during thyroid surgery
31. Improving pain management following laparoscopic surgery: A randomised quality improvement study
32. Improving pain outcomes following laparoscopic surgery—A quality improvement RCT
33. Incidence of postoperative hypocalcemia after indocyanine green fluorescence guided vs conventional assessment of parathyroid function following total thyroidectomy—A randomised controlled trial
34. Long term outcome of patients with benign breast diseases an ambispective study
35. Mesh fixation with penetrating fixation device versus fibrin sealant during laparoscopic repair of ventral hernia, A double blind randomized control trial
36. Nipple discharge in women; Evaluation and randomized trial comparing limited length ductal cone excision (1.5 cm) with 3 cm ductal cone excision in women presenting with non-bloody nipple discharge
37. Omega Loop Gastric Bypass versus Roux En Y Gastric Bypass for type 2 diabetes mellitus in obese subjects: A randomized controlled trial
38. Oncological outcomes of breast conservation surgery in patients with locally advanced breast cancer post neoadjuvant chemotherapy
39. Optical characterization of breast cancer
40. Outcomes following Minimal Access Thymectomy in patients with Thymoma
41. Pilot study on parathyroid dissection and preservation from thyroidectomy specimen and correlation with postoperative calcium and parathormone levels
42. Pilot study to identify hematological markers in the failure of arterio-venous fistulas for hemodialysis in end stage renal disease
43. Primary versus delayed primary closure of stump in patients undergoing lower limb amputation following trauma: A randomized control study
44. Prospective randomized controlled trial comparing angle of his accentuation vs toupet fundoplication as a anti reflux procedure in patients of achalasia cardia undergoing Hellers Cardiomyotomy
45. Prospective study to evaluate outcomes of protocol-based management of chest tubes in patient undergoing elective thoracic surgery
46. Prosthetic material (Mesh) anchored by mechanical device versus glue during laparoscopic repair of abdominal wall hernia: A double blind randomized control trial
47. RCT comparing stent vs no stent for ureteric anastomosis following LRRT
48. Standardized laparoscopic mesh repair of midline ventral hernia
49. Stent vs no stent in ureteroneocystostomy in live related renal transplant: A prospective randomized controlled trial
50. Study effect of Bariatric Surgery induced weight loss on urinary incontinence
51. Study the impact of Bariatric Surgery induced weight loss on cardiovascular disease risk reduction in morbid obese patients
52. Study the impact of Laparoscopic Mini Gastric Bypass on weight loss and co morbidities in morbidly obese patients undergoing Bariatric Surgery
53. Surgical outcome in geriatric population
54. The effect of 1 cm versus 2 cm resection margin and oncoplastic closure of breast parenchymal defect on oncological and aesthetic outcome in ladies with early breast cancer: A 2x2 factorial randomized controlled trial
55. The feasibility and safety of the subxiphoid video assisted thymectomy for myasthenia gravis: A pilot study
56. Three arm randomised comparison of laparoscopic peritoneal dialysis catheter insertion with or without omentectomy versus conventional open peritoneal dialysis catheter insertion in chronic kidney disease stage 5 patients in terms of catheter malfunction and post-operative complications
57. To define surgical outcome in patients who are converted to minimally invasive surgery to open procedure
58. To develop a protocol for early discharge of patients with non-operative management of liver and splenic injury
59. To evaluate the effect of bariatric surgery on sleep disordered breathing parameters using overnight polysomnography
60. To evaluate the role of age adjusted Charlson comorbidity index scoring in predicting 30 days post operative outcomes in patients undergoing surgery under general and regional anaesthesia

61. To study effect of bariatric surgery induced weight loss on urinary incontinence
62. To study port placement and ergonomics in laparoscopic splenectomy
63. To study the causes of cancellation among patients scheduled for elective operations
64. To study the management, outcome and quality of life in patients with pelvic trauma at a Level I Trauma Center
65. Use of Platelet rich plasma in management of diabetes with PAD
66. Validation of different methods of physical examination for swelling in thyroid region and sonographic correlation—
A cross-sectional study
67. Validation of different methods of physical examination of breast and axilla in patients with breast diseases—
A cross-sectional study

Collaborative projects

Ongoing

1. A molecular and immunohistochemical study of human colorectal carcinomas to classify them according to the consensus molecular subtypes and to evaluate its prognostic and therapeutic relevance, Pathology
2. A prospective cohort study to measure the effectiveness of NISWANI in achieving regression of Fibroadenoma and Mastalgia, Ministry of AYUSH
3. Development of field-portable multi-modal imaging and spectroscopic system for breast cancer detection and diagnosis in real-time, IIT Delhi
4. Development of labyrinth based mechanical and fast isolation technique for identifying circulating tumour cells of colorectal carcinomas for metastatic evaluation, Pathology
5. Elucidating the link between NUPRI and colorectal cancer stem cells, Biochemistry, Surgical Oncology
6. Isolation, identification and characterization of cancer stem cells from different histopathological grades of colorectal carcinoma, Biochemistry, Physiology, Gastrointestinal Surgery and Pathology
7. Solid tumor targeting using homing peptides and plasmonic photo thermal technique, Bose Institute, IIT Ropar, CSIO Chandigarh
8. To study the role of regulatory T cells in immune suppression in patient with colorectal cancer, Transplant Immunology and Immunogenetics

PUBLICATIONS

Journals: 38 Abstracts: 9 Chapters in Books: 4

PATIENT CARE

The department is providing regular services in multiple fields including multimodality treatment for breast cancer patients, minimally invasive surgery, renal transplantation, Hepatobiliary and pancreatic surgery, thoracic and thoracoscopic surgery, plastic and reconstructive surgery, endocrine surgery, metabolic and bariatric surgery, vascular surgery including surgery for vascular access in end stage renal disease patients and cancer surgery. The department runs the following special clinic besides regular OPD:

- BCC (Breast Cancer Clinic), which includes follow up of old cases, chemotherapy, and registration of new cases
- Follow UP Clinic
- Bariatric Clinic
- Kidney Transplant Clinic
- Chest Clinic

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Anurag Srivastava gave an oration in Odisha Chapter of Associations of Surgeons of India, Research on fluorescence based detection of cancer was highlighted in spotlight discussion in San Antonio, Texas Breast Cancer Symposium, December 2018 and In Editorial of NATURE (Photonics), March 2019; Chairman, Linen Committee of the AIIMS, New Delhi, Store Purchase Committee of C-MET; Member, Statutory Body of Aligarh Muslim University, Staff Selection Committee, Project Review Committee of ICMR, Virtual Teaching Society, European Society of Mastology, EUSOMA, Asian Society of Mastology ASOMA; Life Member, AACR, Association of Surgeons of India, Indian Association of Surgical

Oncology, Association of Breast Surgeons of India, Delhi Surgical Society, INDIACLEN, ACTREC Alumini Association, Advanced Centre for Cancer Treatment Research and Education, Tata Memorial Centre; Fellow, International Clinical Epidemiology Network (INCLIN); Swasthya Chetna Awam Jan Sampark Abhiyan NCD, Screening and Awareness Camps on 14-27 November 2018 at Pragati Maidan, New Delhi.

Professor Sunil Chumber was Examiner, AIIMS, Jodhpur, Final MBBS Examination in Surgery, December 2017; Subharti Vivekanand University, Meerut, Final MS Examination in Surgery, May 2018; DNB Examination in General Surgery at AIIMS, New Delhi, November 2018; MS Final Examination, Internal Examiner at AIIMS, 2018; Interviewed Boards Attended, AIIMS, Bhopal, Expert in Surgical Oncology, July 2018, at AIIMS, New Delhi; AIIMS, Mangalagiri, Expert in General Surgery, November 2018, at JIPMER, Pondicherry; AIIMS, Jodhpur, Expert in General Surgery, December 2018, at AIIMS, Jodhpur; Attended the UPSC Selections to interview candidates for GDMO for various institutions, January 2019; AIIMS, Gorakhpur, Expert in General Surgery, February 2019, at SGPGI Lucknow; AIIMS, Nagpur, Expert in General Surgery, February 2019, at JIPMER, Pondicherry; IGIMS, Patna, Expert in General Surgery, February 2019, at IGIMS, Patna; Leh, Ashoka Mission, September 2018.

Professor Rajinder Parshad: Professor TC Goel Guest Lecture at The Surgical Education Programme, 107th Foundation Day, King George's Medical University, Lucknow, Uttar Pradesh, 16 February 2019; Central Zone Executive Member of AMASI for the period of 2016-2018; Nominated by Director, AIIMS as Special Invitee in the meeting for Techno-commercial evaluation for different M&E items of Surgical Oncology Department at Dr BRAIRCH for NCI-AIIMS (Jhajjar Campus) held on 24 July and 7 August 2018 at Dr BRAIRCH, AIIMS; Member of Dean's Committee at All India Institute of Medical Sciences, New Delhi; Departmental Assessment for MCh Course in "Minimal Invasive Surgery" and "Breast and Endocrine Surgery in the department"; MCQs to updated AIIMS Question Bank for Entrance Examination; Departmental Examination of Junior and MCh Residents; Course Director in MIS Training Centre course of department on Operative Laparoscopic-Basic and Advanced course; Paper Setter for MS (Surgery) Exam, May 2018 by Baba Farid University of Health Sciences, Faridkot; External Examiner to evaluate the PhD thesis by University of Delhi; External Examiner to evaluate the MD thesis by PT. BD University of Health Sciences, Rohtak; External Examiner to conduct Final Professor MBBS Practical Exam at Government Medical College, Jammu held from 11 to 14 June 2018; External Examiner to evaluate the MS thesis by Punjab University, Chandigarh; External expert in standing selection committee for post of Assistant Professor by IGIMS, Patna on 26 October 2018; Chair the session, AIIMS PULMOCRIT-2019, 3 March 2019, All India Institute of Medical Sciences, New Delhi.\

Professor Sandeep Aggarwal organized the Second National CME on Bariatric Surgery with Hands on Cadaver Course on 22 and 23 February 2019 at AIIMS which focused on postgraduate students to fill the gap in medical curriculum; Expert Member of the Inspection Team for inspection of Renal Transplantation facilities at Dr Ram Manohar Lohia Hospital, New Delhi under the Transplantation of Human Organs and Tissues Act, 1994 in the month of March 2019; Invited by Department of Surgery, Lady Hardinge Medical College, New Delhi to Mentor the Surgeons to Establish Bariatric Surgery Programme, Did Operative Demonstration of two cases including Laparoscopic Sleeve Gastrectomy and Laparoscopic Roux-En-Gastric Bypass on 13 April 2018.

Professor Virinder Kumar Bansal was Visiting Professor, Department of Organ Transplant,

University of Michigan, USA, 15-23 October 2018; Appointed as Co-ordinator for starting Renal Transplant at IGMC, Shimla by Himachal Pradesh Government; **Course Director**, Operative Laparoscopy (5-day course) - 14 courses, Laparoscopic Suturing Skills (3-day course) - 2 courses, Laparoscopic Hernia Surgery (3-day course) - 8 courses, Cadaver Course for General Surgeons (3-day course) - 1 course; **Co-Organizing Chairman**, 12th AIIMS Surgical Week (ENDOSURG 2018) at AIIMS, New Delhi from 19-22 April 2018, 13th AIIMS Surgical Week (ENDOSURG 2019) at AIIMS, New Delhi from 27 to 31 March 2019.

Professor Anita Dhar: Complete spectrum of peripheral vascular disease management are available covering arterial, venous and lymphatic diseases. Established a vascular lab with facilities for checking ABI, TcPo₂, Supervised Exercise therapy on Treadmill, compression bandaging for all venous and lymphatic disease patients. Group and individual teaching for management of the lymphedema viz. a viz skin care irradiation of fungal infection, manual lymphatic drainage and compression bandaging (self learning).

Dr Hemanga K Bhattacharjee received International Surgical Education Scholars Award of the American College of Surgeons (ACS) for year 2017; Awarded the Fellow of American College of Surgeons (FACS) title in American College of Surgeons Clinical Congress, San Diego, USA; Received the Certificate for AIIMS Excellence Research Award 2017 on the occasion of 62nd AIIMS Foundation Day; As a part of the American College of Surgeons International

Surgical Education Scholarship; visited the Department of Surgery, University of Southern California, Los Angeles, USA and the Department of Surgery, UC San Diego Health, San Diego, USA from 1 October to 6 November 2018 as an observer.

Dr Asuri Krishna received ICMR international travelling fellowship for pancreatic transplant to Manchester Royal Infirmary 2018; was Invited Reviewer in SLEPT; Invited Reviewer BJS; Co Editor Indian Journal of Laparoscopic Surgery.

Dr Piyush Ranjan was Awarded Membership: EUSOMA - European Society of Breast Cancer Specialists, ESSO - European Association of Surgical Oncology; First prize, Can Tranexamic acid reduce axillary drainage following axillary dissection for carcinoma Breast-Preliminary report from a tertiary care hospital, Anurag Srivastava, Anita Dhar, Piyush Ranjan, Kamal Kataria, Chitresh Kumar, ASOMACON 2018, Male, Maldives; Third prize, Localisation of chemosensitive Breast cancer with nasogastric tube tip—A novel approach, Vishwa Bharti Gaonkar, Anurag Srivastava, Anita Dhar, Piyush Ranjan, Kamal Kataria, ASOMACON 2018, Male, Maldives; Appointed member of CBSE Curriculum Committee for Health Care; Invited Lectures, Fibroadenomas and Breast Cysts, ASOMACON, Male, Maldives, October 2018; Chairperson for Benign Breast Diseases, ABSICON, AIIMS, Delhi; Organising Secretary, Endosurg, Delhi 2018; AIIMS Breast Course, Delhi, April 2018; UG Quiz, March 2019, Scope; Chairperson, Management of Differentiated Thyroid Cancer, Surgicon; Video Demonstration Modified Radical Mastectomy, LHMC; Judge, Medisicon, Safdarjung Hospital, March 2019; Video Presentation, Scope, February 2019; Lectures for Gynaecologist and Medical Officers for Cancer Screening, ECHO, NICPR; Competitive paper, Judge, MEDSICON, 9 March 2019, Vardhman Mahavir Medical College, New Delhi; FACE - First Aid for Common Emergencies for Paramedical and Technical Staff, AIIMS, March and April 2018; Training of Trainers for Kumbhmela Preparedness, Lucknow, December 2018; Training of Paramedics and Doctors for Kumbhmela Preparedness, Prayagraj, December 2019; Cancer Screening Camp, IITF, Pragati Maidan, November 2018.

Dr Mohit Joshi was Coordinator from the Department of Surgery for BSc (OT Technology) course started at AIIMS in August 2018, New Delhi; Chairperson, AIIMS Pulmocrit-2019, 2-3 March 2019, AIIMS, New Delhi, Chairperson, 13th AIIMS Surgical Week and International Conference, CME cum Live Workshop (ENDOSURG 2019), 29 March 2019, 10 November 2018, New Delhi; Judge Poster Session, 10th National Conference on Health Professions Education (NCHPE), 15-17 November 2018, NKP Salve Institute of Medical Sciences, Nagpur; Convener, Translational Health Science and Technology Institute (THSTI), Basic Course Workshop in Medical Education, 6-7 August 2018, Faridabad, Haryana, Basic Course Workshop in Medical and Health Professions Education, 11-13 March 2019, AIIMS, New Delhi; Course Director, Management of Acute Wounds in ED (MAWE), 18 September 2018, JPNATC, AIIMS, New Delhi.

Dr Yashwant Rathore organized suturing workshop for Undergraduate and Postgraduate students on 30 April 2018 and 13 April 2019; Co organizing secretary of 13th AIIMS surgical week (Endosurg 2019) on 28-31 March 2019 and April 2018; Organized Suturing Workshop on Abdominal Wound Closure on 25 August 2018; Organized Breast Awareness Camp at AIIMS Delhi on 30 October 2018; was actively involved in Breast Awareness and Health Camp in Trade Fare, Pragati Maidan, Delhi; Also helped in organizing Bariatric surgery patient support group meeting held on April 2018.

Dr Manjunath Maruti Pol was Joint Organizing Secretary of 13th AIIMS Surgical Week (Endosurg 2019) on 28-31 March 2019; Organized Suturing Workshop on abdominal wound closure on 25 August 2018.

Dr Suhani received award for contribution in surgical education: By Delhi State Chapter, Association of Surgeon's of India at SURGICON 2018; Invited as working committee member of Indian Journal of Cancer; Developed e-SET modules on core needle biopsy and skin suturing for skill based teaching of medical undergraduates and interns at SET facility; Core member of the content development group at SET Facility; Organized abdominal wall suturing workshop in SET Facility in August 2018 and February 2019 for teaching abdominal wall closure techniques on models in dry and Wet Lab.

Dr Kamal Kataria was Organizing Secretary of 13th AIIMS Surgical Week (Endosurg 2019) on 28-31 March 2019, 2nd National Conference of Indian Society of Clinical Nutrition on 31 August-2 September 2018; Organized Suturing workshop on abdominal wound closure on 25 August 2018.

VISITING SCIENTISTS

1. Dr Ronan O'connell, Editor-in-chief, Bailey and Love, Ireland.

9.40. Transfusion Medicine and Blood Bank

Professor and Head

DK Sharma

Chief Medical Officer, In charge

Poonam Coshic

Assistant Professors

Hem Chandra Pandey

Gopal Patidar

Rahul Chaurasia

HIGHLIGHTS

The department is committed to patient care and blood safety and works tirelessly to achieve this aim. The MD Transfusion Medicine was started in 2017 with first student joining in January 2017. Presently we have six students pursuing MD. Sincere efforts have been initiated to boost the voluntary blood donation and the same increased from 38.5% in 2016 to 68.4% in 2017. In the first two months this year it has been 76.7%. Donor education, motivation and recruitment are being strengthened in rural areas which have added to the voluntary donation.

Blood safety is an ongoing effort and we have been successful in starting testing by ECI, which is more sensitive test for screening all collected units using fourth generation tests for HIV and third generation for HCV. For additional layer of safety ID-NAT test is being done on all collected units and from February this year more sensitive and specific test Ultrio Elite has been started. NAT laboratory of Main Blood Bank is the central testing facility for infectious markers for CNC blood bank and JPNATC blood bank.

Testing facility of antibody screening using extended panel has been extended to emergency patients also. Antibody identification in patients having irregular antibodies is now being done regularly as a routine procedure.

Blood bank is supporting ABO incompatible kidney transplants by performing plasmapheresis procedures and antibody titer testing for the patients.

EDUCATION

1. CMET course on “Good Transfusion Practices” for training residents and nursing staff

CMEs, National and International conferences

Lectures delivered

Hem Chandra Pandey

1. Pre-transfusion testing and compatibility issues, “Training of Trainers for Strengthening of Blood Services and e-RaktKosh” for Medical Officers and Technical personnel from blood banks of the states of
 - a. Chhattisgarh 18 April 2018
 - b. Meghalaya 2 June 2018
 - c. Uttar Pradesh 25 July 2018
 - d. Jammu and Kashmir 29 August 2018
 - e. Chhattisgarh 10 October 2018
 - f. Punjab 12 December 2018
 - g. Kerala 14 March 2019
2. Quality management system requirements and blood safety standards for blood banks and blood transfusion services in India: Frequently encountered non compliances, Sensitization CME for Blood Banks Conducted by Chhattisgarh SBTC and AIIMS Raipur, 5 June 2018, Raipur
3. Blood donor registries and post-donation follow-up of TTI reactive blood donors, Sensitization CME for blood banks conducted by Chhattisgarh SBTC and AIIMS Raipur, 5 June 2018, Raipur
4. Neonatal transfusion practice (panelist), TRANSMEDCON 2018, 7th Annual National Conference of Indian Society of Transfusion Medicine, 24 November 2018, Kochi
5. ABO blood group discrepancies and their resolution, Advanced Immunohematology Wet Workshop, 1 February 2019, New Delhi
6. Application of immunohematology tests in neonatology and pediatrics, “Hands-on Workshop” on “Basics in Immunohematology”, 2 February 2019, Noida
7. Problem solving: Hemolytic Disease of Newborn (HDN), “Hands-on Workshop” on “Basics in Immunohematology”, 2 February 2019, Noida

8. Weak D-Clinical significance and approach to identification, CME cum workshop on “Advanced Immunohematology in Transfusion Medicine”, 15 February 2019, New Delhi

Gopal Kumar Patidar

1. Anti-M^A Antibody in M^aN patient: A rare case report, “International Symposium on blood safety” jointly organized by the Department of Transfusion Medicine and International Society of Blood Transfusion, Amsterdam, The Netherlands, 30 November 2018, Chandigarh
2. Blood group discrepancy: Introduction and resolution, Hands-on workshop in basics in immunohematology, 2 February 2019, Noida

Oral papers/posters presented

1. Akhtar N, Chaurasia R, Arulselvi S, Arya V, Karjee S, Utility of type and screen policy for pre-transfusion testing: Experience at an urban level 1 trauma center in North India, AABB-AATM Congress 2018, 7 December 2018, Delhi
2. Chaurasia R, Akhtar N, Arulselvi S, Arya V, Karjee S, Transfusion of type specific Red Blood Cells for immediate requests: An experience at Level 1 Trauma Center, AABB-AATM Congress 2018, 7 December 2018, Delhi
3. Dhiman Y, Patidar GK, Hazarika A, Family history during screening blood donors, do we really give much importance? TRANSMEDCON 2018, 7th Annual Conference of Indian Society of Transfusion Medicine, 23 November 2019, Kochi
4. Pandey HC, Verghese M, Rana A, Rajkumar, Jain P, Residual risk estimation of transmission of HBV, HCV and HIV in the donated blood in an Indian setting, TRANSMEDCON 2018, 7th Annual Conference of Indian Society of Transfusion Medicine, 23 November 2019, Kochi
5. Patidar GK, Khan AK, Dhiman Y, Singh K, Hazarika A, Red Cell Allo-antibodies in Healthy Blood Donors, TRANSMEDCON 2018, 7th Annual Conference of Indian Society of Transfusion Medicine, 23 November 2019, Kochi
6. Singh K, Khan AK, Patidar GK, Hazarika A, Audit of blood requisition and utilization in elective neurosurgical procedures, TRANSMEDCON 2018, 7th Annual Conference of Indian Society of Transfusion Medicine, 23 November 2019, Kochi

RESEARCH

Funded projects

Ongoing

1. A randomized control trial for evaluation of transfusion related immuno-modulation in patients with meningioma, Gopal Kumar Patidar, AIIMS, 2 years, 2018-2019, Rs 5 lakhs
2. In-vitro assessment of platelets stored in PAS at 22°C and 4°C: A pilot study, Poonam Coshic, AIIMS, 1 year, 2018-2019, Rs 5 lakhs.

Departmental projects

Ongoing

1. Analysis of ABO antibody titre in healthy blood donors
2. Assessment of ABO antibody titre and coagulation factors level after mixing and dilution with normal saline of A and B blood group donor plasma
3. Clinical and serological characterization of autoimmune hemolytic anemia
4. Donor Notification: Improve response rate by new method of registration
5. Estimation of incidence rate of HIV, HBV and HCV in healthy blood donors and their residual risk of transmission after ID, NAT screening
6. Evaluation of Biolog-id solution (a RFID based system) for red blood cell traceability and inventory management, Implementation at Main Blood Bank AIIMS, New Delhi
7. Family history during screening of blood donors: Do we really give much importance?
8. Prospective observation study of transfusion practices in severely injured trauma patients in emergency department at Level 1 Trauma Center
9. Prospective observational study to analyze incidence of different errors in analytical stage of transfusion chain
10. The outcomes of leukoreduced and non-leukoreduced blood component transfusion in patients undergoing cardiac surgery

Collaborative projects

Ongoing

1. Complement factor H (CFH)-related protein 1 (CFHR1) and its role in maintenance of immunological tolerance, Regional Center for Biotechnology, Faridabad
2. To study the clinical and neurophysiological outcomes after using platelet rich plasma in acute peripheral nerve injury repair, Plastic Surgery, JPNATC, AIIMS

PUBLICATIONS

Journal: 1

PATIENT CARE

- (a) Facilities available in the department (including special clinics and/or special laboratory facilities):
- Autologous blood donation
 - Autologous platelet donation
 - Voluntary blood donation camp facility
 - Apheresis procedures (SDP, TPE, PBSC)
 - Irregular antibody identification
 - Antibody screening
 - Antibody titers
 - Automated blood grouping and serology
 - Automated infectious markers testing
 - ID-NAT testing of all donated units of three blood banks of AIIMS
 - 100% blood component preparation
 - Leucodepleted blood/components
 - Irradiation facility
- (b) Community services/camps etc:
- Main blood bank organized total 86 voluntary donation camps in Delhi NCR and collected over 6,300 units
 - Carrying out motivational and educative programme for donors in rural areas in association with CHC Ballabgarh
 - Main blood bank is to become mother blood bank for storage centre of CHC Ballabgarh, in process

9.41. Transplant Immunology and Immunogenetics

Professor and Head

DK Mitra

Assistant Professors

Uma Kanga

Rakesh Kumar Deepak

Scientist II

Sunil Kumar

Lata Kumari

Scientist I

Sanjeev Goswami

Gaurav Sharma

Sonia Verma

EDUCATION

During the year 2018-2019, our department trained 20 students/doctors from various hospitals and institutions from India and abroad. These candidates received training on laboratory techniques in Transplant Immunology, Immunogenetics-HLA testing, post transplant monitoring and other immunological investigations for immune deficiency.

Short-term training-AIIMS (1-2 weeks): The department provided short term training to the Junior residents from Pathology (3), Laboratory Medicine (3) and Senior Residents (DM Students) of Nephrology (1), Hematology (6), Biochemistry (3), Medical Oncology (3) from AIIMS.

Continuing Medical Education (CME)

During the year, the faculty and scientists of the department participated and delivered several lectures in National and International conferences. Our department regularly provides training on various cell culture assays, including flowcytom-

etry based assays to students and visiting trainees our department coordinates a national level Quality Control exercise for DNA based typing of HLA genes for assessment of quality of testing by other HLA laboratories in India. The faculty also delivered special lectures in Departments of Biotechnology and Pathology, AIIMS as part of the academic curriculum of these departments. Faculty/Scientists delivered lectures to MD/DM residents from Paediatrics, Hematology, Anatomy, Nephrology, Biochemistry, Medical Oncology, Pathology and Laboratory Medicine. Several lectures on Transplant Immunology were also delivered to nursing students of the institute.

Lectures delivered

DK Mitra

1. Host immune response profile in TB patients and its impact on efflux pump of *M. tuberculosis*, Newton Bhabha Fund Researcher Links Workshop—School of Natural Product Studies, 4-7 September 2018, Jabalpur University, Kolkata
2. Host immune response profile and impact of blocking PD-1 pathway on protective immune response in tuberculosis patients, 4th International Conference on Translational Research: Recent Developments and Innovations in Human Health and Agricultural Research, 11-13 October 2018, Goa
3. Inhibiting PD-1 pathway Rescues Poly-functional T Cells in tuberculosis: Impact on bacillary containment, 2nd International Conference on Contemporary Antimicrobial Research-2018, 15-17 December 2018, IIT, Kharagpur
4. T regulatory cells in infections, Hospital Planning and Beyond Symposium, 28 January 2019, IIT, Kharagpur
5. Host T cell response of Visceral Leishmaniasis patients, CME on “Recent trends in the field of Transplant Immunology and Immunogenetics”, 8-9 February 2019, IGIMS, Patna
6. Treg response in Arthritis patients, National Conference on Emerging Trends in Disease Model Systems, 25-27 March 2019, NCCS, Pune
7. T cell subsets and role of PD-1 and its ligands in the pathogenesis of tuberculosis and provide mechanistic insight into the possible molecular therapeutics, 2018 Keystone Symposia Conference X7: Tuberculosis: Translating Scientific Findings for Clinical and Public Health, 15-19 April 2018, Fairmont Chateau Whistler, Whistler, British Columbia

Uma Kanga

1. How to choose a best donor in a haplo-identical transplant, National Hematology Update X1, 14-15 April 2018, New Delhi
2. Transplantation: Acceptable mismatches and anti-HLA antibodies, National Seminar on Mechanism of Immune Response, 10-11 August 2018, Varanasi
3. Post-transplant DSA Monitoring, Indian Association of Nephrology Conference, 18-19 August 2018, Pune
4. Immunology of rejection for the Nephrologists, Indian Society for Organ Transplantation, 5-7 October 2018, Hyderabad
5. Immunomodulators Impacting transplantation outcome: HLA-G, Treg frequency, Cytokine imbalance, 45th Annual Meeting of Indian Immunology Society, 1-3 November 2018, Faridabad
6. Non-classical HLA genes as Immunomodulatory Molecules: Role in transplantation, 5th conference of Indian Society for Histocompatibility and Immunogenetics, 2-4 November 2018, Mumbai
7. HLA system in Health and Disease, Immunology Seminars, 7 January 2019, Noida
8. Characterizing Immune Alloreactivity in Renal Transplantation, West Zone Transplant Conclave 2019, 3 February 2019, Mumbai
9. Role of CDC and DSA in Renal Transplantation, Update on Immunology and Infection in Renal Transplant, 16 February 2019, Nadiad, Gujarat
10. Role of HLA-G exon 8 Polymorphism in conferring genetic susceptibility to T1D among North Indians, 32nd European Immunogenetics and Histocompatibility Conference, 9-12 May 2018, Venice, Italy
11. The clinical relevance HLA and non-classical HLA genes in transplantation, Federation of Clinical Immunology Societies—FOCIS 2018
12. IIS-Symposium on ‘Targeting Immune Response’, 20-23 June 2018, San Francisco, USA
13. HLA-A*02 repertoire in three defined population groups from North and Central India Panjabi Khatries, Kashmiri Brahmins and Sahariya Tribe, 44th Annual Meeting of American Society for Histocompatibility and Immunogenetics, 1-5 October 2018, Baltimore, USA
14. Immunomodulatory factors influencing graft versus host disease manifestation: HLA-G expression, Treg cell frequency and Th1-Th2 cytokines, Asia Pacific Histocompatibility and Immunogenetics Conference 2018, 10-14 November 2018, Sydney, Australia

Gaurav Sharma

1. Differential Vulnerability to HIV/AIDS: Host Genetics and HLA Expression, National Seminar on Mechanisms of Immune Response, 10-11 August 2018, BHU, Banaras
2. Engraftment kinetics of donor type chimerism in lineage specific cell population post HSCT, ISHICON-2018, 3-4 November 2018, TMH, Mumbai

RESEARCH

Funded projects

Ongoing

1. Impact of host T cell response on expression and function of drug efflux pumps: Relevance to drug resistant TB, DK Mitra, ICMR, 3.5 years, 2014-2018, Rs 78.5 lakhs
2. Multivalent Leishmania Vaccine Development, DK Mitra, BIRAC DBT, 3 years, 2015-2018, Rs 397.57 lakhs
3. Functionalization and validation of a cloud based Integrated Medical Device (IMD): Delivery of specialized diagnostic, therapeutic and follow up care to the remote underserved population, DK Mitra, Azure Software Pvt Ltd, 3 years, 2017-2020, Rs 16.44 lakhs
4. Development of a Remote Healthcare Delivery System: Early Diagnosis, Therapy, follow-up and Preventive Care for NCDs (Cardio-Pulmonary), DK Mitra, IMPRINT (HRD+ ICMR), 1 year, 2017-2018, Rs 64.85 lakhs
5. NKT cell subsets: Impact on Mycobacterium tuberculosis specific effectors T cell responses, DK Mitra, ICMR, 3 years, 2017-2020, Rs 70.26 lakhs
6. In Silico Trial for Tuberculosis Vaccine Development (STriTuVaD) European Commission Horizon 2020, DK Mitra, DBT, 5 years, 2018-2023, Rs 500 lakhs
7. Genome wide transcription analyses in DR Mtb: Identification and Immunomodulation of novel targets, DK Mitra, DBT, 3 years, 2018-2021, Rs 148 lakhs
8. Studies to delineate the Immunoregulatory role of PD-L1/PD-1 pathway and exploring it as a potential tool for vaccination strategies against Visceral Leishmaniasis, DK Mitra, DST, 3 years, 2018-2021, Rs 70 lakhs
9. NKT cell subsets: Impact on Mycobacterium tuberculosis specific effectors T cell responses, DK Mitra, DBT, 3 years, 2018-2021, Rs 70 lakhs
10. Killer Immunoglobulin Receptor-Human Leukocyte Antigen (KIR-HLA) interactions: Significance in Hematopoietic Stem Cell Transplantation, Uma Kanga, AIIMS, 2 years, 2017-2019, Rs 4.0 lakhs
11. Genomic analysis of HLA and non HLA genes and humoral profile of Type 1 Diabetes Mellitus in the population of North East India, Uma Kanga, DBT (BCIL), 3 years, 2017-2020, Rs 127.8 lakhs
12. Influence of HLA and KIR genes on Chikungunya infection in North Indian population, Gaurav Sharma, AIIMS, New Delhi, 2 years, 2017-2019, Rs 4 lakhs

Completed

1. Centre for Excellence in Molecular Medicine—Advance programme in Basic and Applied Immunogenetics, Uma Kanga, ICMR, 6 years, 2012-2018, Rs 218 lakhs
2. Inphase polymorphism analysis of the HLA minigenome and its application of Next Generation Sequencing (Japanese Society for Promotion of Science), Uma Kanga, DST-JSPS Indo-Japanese, 2 years, 2016-2018, Rs 6.8 lakhs

Departmental projects

Ongoing

1. Chronic Atherosclerosis Disease: Integrated analysis of stage-specific alterations in gene expression and miRNA profile of atherosclerotic plaques and correlation with plasma-derived extracellular vesicles in circulation
2. Clinical relevance of non-classical HLA, MICA and NKG2 receptors in HSCT
3. Development of cost effective inhouse assays for HLA diagnostic services
4. Establishment of heterogeneity in genetic markers: Potential use in transplant monitoring
5. Genomic diversity of HLA genes in Kashmiri population—Advantage of NGS technology
6. Identification of microRNA signature linked to AA and response to immunosuppressive therapy
7. Identification of signatures for predicting rejection in Renal Transplantation

8. Immune reconstitution following haematopoietic stem cell transplantation
9. Impact of checkpoint inhibitors on suppressed state of immunity in tuberculosis
10. NKT cells in Tuberculosis: Impact on Protective T cell response
11. Phenotypic and functional characterization of various T cell subsets in sarcoidosis

Collaborative projects

1. Evaluation of novel forensic exhibits and informativity of Y-STR markers in chimersm situation, Forensic Medicine
2. Genomic analysis of HLA and Non-HLA genes and humoral profile of Type 1 Diabetes Mellitus in the population of North East India, Anatomy, Tezpur Medical College
3. Genetic propensity to nasopharyngeal carcinoma in Nagas from North East India, Naga Hospital and Authority, Nagaland
4. Potential role of HLA-G mediated immunomodulation by tissue specific human Mesenchymal Stem Cell (hMSCs), Stem Cell Facility

PUBLICATIONS

Journals: 3 Abstracts: 1 Chapter in Book: 1

PATIENT CARE

Renal Transplantation

	Recipients	Donors	Total
Live Related	511	477	988
Cadaver Transplantation (Kidney)	97	7	104
Cross Match Test-CDC (Serology)	1,286		
Cross Match Test (Flowcytometry)	392		
Luminex PRA	412		
Luminex (DSA monitoring)	271		

Bone Marrow/Hematopoietic Stem Cell Transplantation (Haematology, AIIMS)

Diagnosis	Recipients	Donor	Total
Aplastic anaemia	175	489	664
Acute leukaemia (AML+ALL)	74	198	272
Thalassaemia	50	126	176
Chronic leukaemia	31	87	118
Others	99	279	378
Total	429	1,179	1,608

S. No.	Diagnosis	No. of Tests Done
A	Low Resolution HLA Typing (PCR-SSP or PCR-SSO Luminex based)	
1	HLA-A locus	1,608
2	HLA-B locus	1,608
3	HLA-DRB1 locus	605
4	HLA-DRB3/4/5 loci	125
B	High Resolution HLA Typing (Sequence Based Typing/ PCR-SSO Luminex)	
5	HLA-A locus	90
6	HLA-B locus	90

7	HLA-C locus	90
8	HLA-DRB1	95
9	HLA-DQB1	95
10	HLA-DQA1	95
C	Donor Specific Antibody (DSA) Monitoring Luminex based assays	
11	HLA class I	14
12	HLA class II	14
D	Chimerism studies in BMT	
13	Post transplant recipients	120
14	Pre transplant recipients	120
15	Donors	120
	Total Tests	4,787
E	Unrelated Donor searches for BMT * During the year requests received by 'Asian Indian Donor Marrow Registry' for HLA matched donors	45*

II. Disease Association HLA Screening tests

	Diseases	HLA test	No of Tests
16	Ankylosing Spondylitis and other Spondyloarthropathies	HLA-B-27	516
17	Coeliac Disease	HLA-DQA1/DQB1	34
18	Narcolepsy/Cataplexy	HLA-DQB1	10
19	Behcets' Disease	HL-B*51	24
	Total		584

PRIMARY IMMUNODIAGNOSTICS

Free of cost service provided for Primary and Secondary Immunodeficiency Diseases

S. No.	Diagnosis	Markers/Assays	No. of Tests
	T Cell Frequency	CD3, CD4, CD8	599
	B Cell Frequency	CD19, 20	681
	NK Cell Frequency	CD3, CD56, CD16	383
	NK Cell Activity (HLH)	CD3, CD56, Perforin	242
	ALPS	CD3, CD4, CD8, TCR $\alpha\beta$	64
	Leukocytes Adhesion Deficiency	CD11a,b and CD18	232
	Chronic Granulomatous Disease	DCFDA/DHR	653
	Hyper IgM	CD3, CD69, CD154 (CD40L)	39
	T cell function (IFN-gamma)	CD3, CD8, IFN-gamma	51
	Class Switch Memory	CD19 ⁺ /CD27 ⁺ /IgD ⁻	48
	Degranulation Assay	CD3 ⁻ /CD56 ^{dim} /CD107a ⁺	15
	IL-12 Assay	CD14 ⁺ /IL-12 ⁺	22
	IL-17 Assay	CD3 ⁺ /IL-17 ⁺	4
	MSMD	CD14 ⁺ /IFN γ R ₁ ⁺ /IFN γ R ₂ ⁺	2
Total			3,035

BONE MARROW TRANSPLANTATION, IRCH, AIIMS

Diagnosis	Recipients
AML	91
CML	25
ALL	57
Others	26
Total	199
Donors	344
Total	543

S. No.	Diagnosis	Tests done
	Low Resolution HLA Typing (PCR-SSP)	
1.	HLA-A locus	604
2.	HLA-B locus	619
3.	HLA-DRB1 locus	119
	Total	1,342

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Uma Kanga was elected as Asia Pacific Region Councillor of the Asia Pacific Histocompatibility and Immunogenetics Association (APHA) (2018 onwards); was elected as Treasurer of Indian Immunology Society (IIS) for 2-year term (2018-2020).

9.42. Urology

Professors and Head

PN Dogra (up to 30 November 2018)

Amllesh Seth (1 December 2018)

Professor

Rajeev Kumar

Associate Professor

Prabhjot Singh

Assistant Professors

Rishi Nayyar

Brusabhanu Nayak

Sanjay Kumar

Siddharth Jain

Manoj Kumar

HIGHLIGHTS

1. Transplant was started in Urology OT with the help of General Surgery Department
2. Dual console da Vinci Xi surgical robot was commissioned in the Urology OT replacing the older version of the robot
3. The 3rd Sarinder Man Singh Memorial Oration in Urology was delivered by Dr Mahender Bhandari, former faculty at the Department of Urology, AIIMS on 26 April 2018



Commissioning of dual console da Vinci Xi surgical robot in Urology OT in May 2018 by Director, AIIMS.

EDUCATION

The faculty of the department participated in and delivered lectures in continuing medical education programmes, symposia, national and international conferences during the year.

The department imparted lectures for the undergraduates and nursing students (BSc and MSc). The department trains 11 postgraduates for the degree of MCh in Urology over a 3-year period. Post-MCh Fellowship training is available for sub-specialities including minimally invasive urology, uro-oncology, reconstructive urology and urogynecology.

Efforts are being made to start the renal transplant programme under the department with help from the Departments of Surgical Disciplines and Nephrology. The aim is to include renal transplant which is an essential part of urology training into regular curriculum for residents. 15 cases of live donor kidney transplant have been done in Urology OT by Dr Sandeep Aggarwal and his team in association with Urology team to facilitate transfer of surgical skills (Courtesy: Director, Dr Randeep Guleria; HOD Surgery, Dr Anurag Srivastava; HOD Nephrology, Dr Sanjay Aggarwal).

The faculties of the department are examiners for NBE and MCh. Urology in various universities and inspector for the Medical Council of India and National Board for recognition of standard of teaching and training and facilities for Urology postgraduate courses. The faculty of the department took active part in restructuring and reframing the curriculum for MCh and DNB training courses in Urology of other upcoming institutes.

Faculties of the department (Dr Prabhjot, Dr Rishi, Dr Brusabhanu) have actively taken part in development of various modules of skill sets for students, which is a step forward towards e-learning. Faculty also took lectures for the SET Facility towards their faculty development programme. Training of interns and MBBS students for urethral catheterization: Male and female on mannequin pelvis was done in the SET Facility on trial basis and shall soon be incorporated into their regular curriculum. Skill Simulators (URO/PERC MENTOR) Training was formally inducted in the regular curriculum of residents (Dr Sanjay).

Lectures delivered

PN Dogra

1. Panelist in plenary session: Robotic reconstructive surgery, WCE, Annual Meeting, 20-23 September 2018, Paris, France
2. Demonstrated: Preperitoneal Robotic assisted radical prostatectomy, Conference at Kokilaben Dhirubhai Ambani Hospital, 14 October 2018, Mumbai
3. Meet the professor sessions, NZUSICON 2018, 16-18 November 2018, Ludhiana
4. Panelist: Management of locally advanced and oligometastatic Prostate Cancer, International Speaker Programme, 26 February 2019, New Delhi

Amlesh Seth

1. Panelist: Rapid fire round on complications in Urological Surgery, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
2. AIIMS experience of Sigmoid Neo-bladder Reconstruction, NZUSICON 2018, 16-18 November 2018, Ludhiana
3. Convener and chaired: BOE Course 2—How to proceed if the PSA is 4-11? USICON 2019, 23-26 January 2019, Bhubaneswar
4. Role of imaging including mpMRI and TRUS-Fusion biopsy and role of Urine based molecular markers, USICON 2019, 23-26 January 2019, Bhubaneswar
5. Changing algorithm of diagnosis and staging of CA Prostate in 2018, USICON 2019, 23-26 January 2019, Bhubaneswar

Rajeev Kumar

1. The MCI's attempted solution: Challenges, NMJI and IAMJE meeting on publishing, 7-8 April 2018, New Delhi
2. Components of a peer review, NMJI and IAMJE meeting on publishing, 7-8 April 2018, New Delhi
3. Scientific question and study design, NMJI and IAMJE meeting on publishing, 7-8 April 2018, New Delhi
4. Significance, p values, and other jargon, UAA Congress, 17-22 April 2018, Kyoto, Japan
5. mpMRI biopsies—Cognitive, fusion and in-bore, UAA Congress, 17-22 April 2018, Kyoto, Japan
6. Genitourinary tuberculosis, UAA Congress, 17-22 April 2018, Kyoto, Japan
7. Moderator—Poster session-Adrenal, AUA Annual Meeting, 18-21 May 2018, San Francisco, USA
8. Microsurgery for male infertility: Tips and tricks, ASU 2018, 1-2 August 2018, Wayanad
9. Pseudo journals and predatory practices-avoiding the minefield, Taiwan Urological Association Annual Meeting, 17-19 August 2018, Taipei, Taiwan
10. Why do my papers get rejected, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
11. Pregnancy data on varicocele surgery, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
12. Laparoscopic and robotic adrenalectomy, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
13. Residency issues: Faculty perspective, NZUSICON 2018, 16-18 November 2018, Ludhiana
14. Selecting a thesis and study types, NZUSICON 2018, 16-18 November 2018, Ludhiana
15. Converting a thesis into a paper, NZUSICON 2018, 16-18 November 2018, Ludhiana
16. Asian Urology-a SWOT analysis, KUA Annual Meeting, 28-30 November 2018, Seoul, South Korea
17. Status of Robotic Surgery in India, Asian Robotic Urological Society Meeting, 19 January 2019, Kuala Lumpur, Malaysia
18. Writing an abstract, USICON 2019, 23-26 January 2019, Bhubaneswar
19. Chairing a session and presentation skills, USICON 2019, 23-26 January 2019, Bhubaneswar
20. Lap adrenal complications, USICON 2019, 23-26 January 2019, Bhubaneswar
21. Varicocele controversies, USICON 2019, 23-26 January 2019, Bhubaneswar
22. Moderator—Live surgery, Pelvic Health Update, 8-9 March 2019, Chandigarh
23. Varicoceles-case discussions, EUA Annual Meeting, 15-19 March 2019, Barcelona, Spain

Prabhjot Singh

1. Panelist in “Prostate Cancer”, “Swasth Bharat” Programme, 13 July 2018, New Delhi
2. Panelist for abstracts, ASCO for RCC in “Best of American Society of Clinical Oncology (ASCO) Conference”, 29 July 2018, New Delhi
3. Role of PCA3, PHI, 4K score, ConfirmMDx before biopsy, Update on management of Prostate Cancer, 8 September 2018, Gurgaon
4. Role of Cytoreductive radical prostatectomy/Radiotherapy in metastatic Prostate Cancer, Update on management of Prostate Cancer, 8 September 2018, Gurgaon
5. Environmental factors affecting male reproductive system, National Conference on Awareness of Changes in Lifestyle Influencing Adolescent Health, 15 September 2018, Pilani
6. Prostate Cancer: Prevention, Screening, Diagnosis and Treatment, Cancer Control and Prevention for North Eastern Region (NER), 15 September 2018, New Delhi
7. Current concepts of urinary stone formation and medical management, Surgery Update, 25 September 2018, New Delhi
8. How to prepare SOPs, Content Development Workshop, SET Facility, AIIMS, 28 September 2018, New Delhi
9. Debate lecture: Abiraterone as an adjuvant therapy in hormone sensitive Prostate Cancer, USICON 2019, 24 January 2018, Bhubaneswar

Rishi Nayyar

1. Moderator: Male perineal surgeries, Global Perineocon 2018, 6-8 April 2018, New Delhi
2. Training of urology residents on a hands on simulation model of Bipolar TURP, UROMET Programme under Board of Education, USI, 12-14 April 2018, Gurgaon
3. PCNL: How I do it, Workshop on PCNL, CUE NZUSI, 5 May 2018, New Delhi
4. Laparoscopic training: How much relevant in the Robotic era? Reconstructive Urology, CUE NZUSI, 21-22 July 2018, Jodhpur
5. Role of biomarkers in Prostate Cancer decision making, Update in Management of Cancer Prostate, 8 September 2018, Gurgaon
6. Training of urology residents on a hands on simulation model of Bipolar TURP, UROMET Programme under Board of Education, USI, 7-8 September 2018, Gurgaon
7. Basic 2D graphics and animations for skill modules, Content Development Workshop, SET Facility, AIIMS, 9 November 2018, New Delhi
8. Panelist: Evaluation and management of overactive bladder: Strategies for optimizing care, Annual Workshop of Apeejay Stya Education Research Foundation, 10 November 2018, New Delhi
9. Men’s Health Survey, NZUSICON 2018, 16-18 November 2018, Ludhiana
10. Complications and management of Burch Colposuspension, Pre-congress workshop of AOGD on Pelvic Reconstructive Surgery, 23 November 2018, Gurgaon
11. Uterovesical/Urethrovaginal Fistula, Pre-Congress workshop of AOGD on Pelvic Reconstructive Surgery, 23 November 2018, Gurgaon
12. HIVEC: A new paradigm in management of NMIBC, SURGICON 2018, 25 November 2018, New Delhi
13. Training of urology residents on a hands on simulation model of Bipolar TURP, UROMET Programme under Board of Education, USI, 15-16 December 2018, Gurgaon
14. Female PFUDD: 5 cases, 5 modes of management, DUSCON 2018, 25 December 2018, New Delhi
15. Recurrent bladder neck stenosis: Reconstruction in the minimally invasive era, USICON 2019, 23-26 January 2019, Bhubaneswar
16. Debate ‘Is Lap surgery skill required to be a good robotic surgeon—On the yes side’, USICON 2019, 23-26 January 2019, Bhubaneswar
17. Gadgets and Gizmos for pelvic floor rehabilitation, First update on pelvic health, 8-9 March 2019, Chandigarh

Brusabhanu Nayak

1. Adjuvant therapy in non-metastatic RCC: Whom and when, Master class in Uro-oncology with live operative International minimally invasive surgery workshop 2018, 18-19 August 2018, New Delhi

2. Panelist in panel discussion, ASCO for RCC in “Best of American Society of Clinical Oncology (ASCO) Conference”, 29 July 2018, New Delhi

Manoj Kumar

1. Comforting life with urinary diversion, Nursing and Healthcare Innovation: Sharing the learning, 14 March 2019, New Delhi

Oral papers/posters presented

1. Bansal D, Nayak B, Singh P, Nayyar R, Seth A, Ramachandran R, Randomized controlled trial to compare the length of stay, preoperative outcomes and complications in patients undergoing radical cystectomy with and without ERAS protocol in a tertiary care center in India, NZUSICON, 16-18 November 2018, Ludhiana
2. Bansal D, Nayyar R, Singh P, Jain S, Individualized management of obliterative urethral stricture in females—Five patients, five management strategies, USICON, 23-26 January 2019, Bhubaneswar
3. Dadhwal R, Jain S, Nayyar R, Female pelvic fracture with bladder neck obliteration: A new insight into management, NZUSICON, 16-18 November 2018, Ludhiana
4. Garg H, Tiwari DP, Nayak B, Singh P, Yadav S, Kumar R, Seth A, Dogra PN, Nayyar R, A retrospective analysis of various surgical approaches of nephron sparing surgery and correlation of RENAL score with histopathological grade, DUSCON, 25 December 2018, New Delhi
5. Gurnani N, Kaushal R, Kumar M, Dada R, Kumar R, Male infertility: Demographics, etiology and outcomes of standard practice, DUSCON, 25 December 2018, New Delhi
6. Gurnani N, Kumar M, Jain S, Management of primary urethral carcinoma at tertiary cancer institute: A case report, NZUSICON, 16-18 November 2018, Ludhiana
7. Nayak B, Bansal D, Singh P, Seth A, Nayyar R, Ramachandran R, Randomized controlled trial to compare the length of stay, Perioperative outcomes and complications in patients undergoing radical cystectomy with and without the enhanced recovery after surgery (ERAS) protocol in a tertiary care centre in India, EAU Congress 2019, 15-19 March 2019, Barcelona, Spain
8. Nayak B, Khan N, Singh P, Seth A, Dinda A, Kaushal S, Micro RNA 182 and Micro RNA 187 as potential biomarkers in Prostate Cancer patients, 38th Congress of SIU, 4-7 October 2018, Seoul, South Korea
9. Nayak B, Khan N, Singh P, Seth A, Dinda A, Kaushal S, miRNA 182 and 187 as potential biomarker in Prostate Cancer patients and its correlation with staging of prostate cancer, 10th EMUC (European Multidisciplinary Urological Cancer), 8-11 November 2018, Amsterdam, Netherlands
10. Nayyar BU, Thariani K, Kumari R, Nayyar R, Sharma JB, Interstitial cystitis—Bladder crying for help! Annual Conference of AOGD, 24-25 November 2018, New Delhi
11. Nayyar R, Female PFUDD: 5 cases, 5 modes of management, DUSCON, 25 December 2018, New Delhi
12. Nayyar R, Saini S, Sharma A, Dogra P, Perils of trans-urethral resection of bladder tumors: Objective evidence to its oncological safety using circulating tumor cells as a marker, World Congress of Endourology, 20-23 September 2018, Paris, France
13. Saini S, Nayyar R, Sharma A, Dogra P, Jeopardizing the oncological safety: Trans-urethral resection of bladder tumor may induce measurable hematogenous seeding of cancer cells, NCCN Annual Conference, 21-22 March 2019, Orlando, USA
14. Seth A, A potential therapy of non-muscle invasive Urothelial Bladder Cancer using localized photothermal ablation and chemotherapy, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
15. Seth A, Budd-Chiari Syndrome with adequate hepatic reserve is no contraindication for radical nephrectomy plus cavoatrial thrombectomy, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
16. Seth A, Single centre experience on use of De-Epithelization for second stage closure for proximal hypospadias—A novel technique, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea
17. Singh P, Kumar R, Nayak B, Sharma A, Prevalence of HPV16 and HPV18 subtypes in Penile Cancer patients of Indian origin and their association with htert promoter methylation and telomerase activity, 38th Congress of SIU, 4-7 October 2018, Seoul, South Korea
18. Singh P, Srivastava N, Nayak B, Garg B, Spectrum of clinical and urodynamic findings in patients of spinal tuberculosis with lower urinary tract symptoms, before and after spinal surgical intervention, 38th Congress of SIU, 4-7 October 2018, Seoul, South Korea

Awards won: [1] Best moderated poster at NZUSICON 2018
[2] Best moderated poster at NZUSICON 2018

[3] Best moderated poster at DUSCON 2018, 2nd prize

[4] Best moderated poster at DUSCON 2018, 3rd prize

RESEARCH

Funded projects

Ongoing

1. A multicenter, prospective, longitudinal registry of patients with Prostate Cancer in Asia, Amllesh Seth/Prabhjot Singh, Jansen Incorporated, 3 years, 2016-2019, Rs 14,00,000
2. Human papillomavirus status in penile carcinoma in Indian patients: Incidence, type distribution and correlation with Clinicopathological staging, Prabhjot Singh, AIIMS, 3 years, 2016-2019, Rs 9,50,000
3. Clinical value of patient-specific three-dimensional printing of kidney before partial nephrectomy: Quantitative and qualitative assessments, Rishi Nayyar, AIIMS, 1 year, 2018-2019, Rs 5,00,000
4. The prognostic role of Circulating Tumor Cells (CTC) and CXCR1 expression in tumor tissue in patients with metastatic clear cell RCC: A prospective observational longitudinal cohort study, Brusabhanu Nayak, AIIMS, 2 years, 2018-2020, Rs 8,50,000
5. Identification of Glucose Related Protein 78 (GRP78) as a biomarker for tumor behavior in patients of Renal Cell Carcinoma (RCC), Manoj Kumar, AIIMS, 2 years, 2017-2019, Rs 5,00,000

Completed

1. Application of Nanotechnology for combined Chemo and Photo-thermal therapy for Non-Muscle Invasive Urinary Bladder Cancer, Amllesh Seth, DBT, 3 years, 2015-2018, Rs 90 lakhs
2. Male infertility: Demographics, etiology and outcomes of standard clinical practice, Rajeev Kumar, ICMR, 3 years, 2015-2018, Rs 11.66 lakhs
3. Role of circulating tumor cells in patients undergoing TURBT for Bladder Cancer: Effect on tumor cells dissemination and its correlation with histopathology, Rishi Nayyar, AIIMS, 2 years, 2016-2018, Rs 9 lakhs
4. Study of miRNA 182 and miRNA 187 as potential biomarkers in Prostate Cancer patients and its correlation with serum PSA, Gleason score and Prostate Cancer staging, Brusabhanu Nayak, AIIMS, 2 years, 2015-2017, Rs 4,80,000

Departmental projects

Ongoing

1. Clinicopathological profile of renal tumors in pediatric, adolescent and young adult population
2. Cold cup versus loop biopsy for restaging of cancer bladder during TURBT
3. Comparison of electrocautery versus ultrasonic shears in laparoscopic nephrectomy
4. Does intra-urethral flora have a role in post-procedural incidence of urinary tract infection in healthy males undergoing endourological procedure—A clinical study
5. Evaluation of seminal biomarkers for the diagnosis of obstruction as the cause of azoospermia in infertile men
6. Long term oncological and functional outcomes following post radical prostatectomy patients in CA Prostate patients
7. Long-term outcomes of RARP
8. Radiological anthropometric assessment of various bolster positions for PCNL
9. Randomized controlled trial to compare standard Mitomycin, HIVEC and BCG for intermediate risk Bladder Cancer
10. Role of mp MRI using VIRAD (Version 1) in predicting the stage and grade of disease in carcinoma urinary bladder
11. Unilateral versus bilateral vasoepididymal anastomosis: Prospective randomized trial

Completed

1. Randomized controlled trial to compare the length of stay, Preoperative outcomes and complications in patients undergoing radical cystectomy with and without ERAS protocol in a tertiary care center in India

Collaborative projects

Ongoing

1. A prospective randomized control trial to compare the efficacy of darifenacin versus mirabegron for treatment of overactive bladder, Obstetrics and Gynaecology
2. Clinico-microbiological profile and outcome of patients with Urosepsis, Microbiology
3. Comparison of 18f-fluoromethylcholine and 68ga-PSMA PET/CT in restaging of patients with adenocarcinoma prostate, Nuclear Medicine
4. Comparison of 68Ga-PSMA PET/CT and 18F-NaF PET/CT for detection of bone metastases in high risk Prostate Cancer patients, Nuclear Medicine
5. Comparison of urodynamic study and vaginal pessary test to unmask occult SUI in patients undergoing vaginal surgery for uterine prolapse, Obstetrics and Gynaecology
6. Evaluation of incontinence in patients undergoing bariatric surgery, Surgery
7. Hemodynamic profile in the perioperative period in patients undergoing Pheochromocytoma and paraganglioma surgery with and without low dose diltiazem infusion, Anaesthesia
8. In-vitro urinary and serum NMR based metabolomics in Prostate Cancer, NMR
9. Molecular profiling and phenotype-genotype correlation of patients with Pheochromocytoma/Paraganglioma: Deciphering implications in management and prognostication, Pathology
10. Preoperative intravascular volume status measured by inferior vena cava collapsibility index in patients with Pheochromocytoma and paraganglioma undergoing surgical tumor removal: A prospective observational cohort study, Anaesthesia
11. Role of Gene Xpert urine in GUTB patients, Medicine
12. Role of In-bore MR guided Biopsy in detection of Prostate Cancer, NMR
13. Study of Association of Methylenetetrahydrofolate Reductase (MTHFR) Polymorphisms in Infertile Men, Anatomy
14. Telomere status and DNA repair mechanisms in idiopathic male infertility, Anatomy
15. Ultrasound Guided Erector Spinae Plane Block for Postoperative Analgesia in patients undergoing percutaneous Nephrolithotomy—A double-blinded, Randomized controlled trial, Anaesthesia
16. Use of PET-CT with Gallium-68 Labeled Prostate specific membrane antigen in the diagnosis and follow-up of patients with Prostate Cancer, Nuclear Medicine

Completed

1. Erectile dysfunction in Nonalcoholic fatty liver disease, Medicine
2. Molecular subtyping of muscle invasive Bladder Cancer on the basis of immunohistochemical markers, Pathology
3. Role of Diuretic 18F-FDG PET/CT in Patients of renal cell carcinoma and correlation of PET parameters with histopathological grading, Nuclear Medicine
4. Role of multiparametric MRI and diffusion tensor imaging in Prostate Cancer: Comparison with whole mount histopathological examination of Robotic prostatectomy specimens, Radiology
5. To study current practices of management of bacterial UTI in patients at AIIMS, Medicine

PUBLICATIONS

Journals: 26 Abstracts: 9

PATIENT CARE

Main Hospital OPD

New cases:	16,405	Old cases:	43,228
------------	--------	------------	--------

BRAIRCH Uro-malignancy clinic

New cases:	502	Old Cases:	6,377
------------	-----	------------	-------

Andrology and Infertility Clinic

New cases:	562	Old cases:	1,582
------------	-----	------------	-------

Admissions

Long Admissions:

1,565

Short Admission:

1,063

Discharges:

2,480

Main OT Surgical Procedures: 2,175**Open surgery: 431**

Radical cystectomy	34	Radical or cytoreductive nephrectomy	31+3
Radical cystectomy with nephroureterectomy	2	Radical nephrectomy with IVC thrombectomy	14
Salvage cystectomy	0	Radical Nephroureterectomy	9
Partial cystectomy	4	Simple nephrectomy	16
End to End Urethroplasty	15	Partial nephrectomy	5
Anterior lay open	1	Heminephrectomy	0
Transpubic Urethroplasty	0	RPLND	8
Augmentation Cystoplasty	2	Graft urethroplasty	14
Adrenalectomy	6	Second stage closure	7
Adrenalectomy with IVC thrombectomy	0	Pyeloplasty	9
Paraganglioma excision	1	Continent catheterisable pouch	0
Ureteric Reimplant	9	Boari flap	2
VVF repair	17	Ureteroureterostomy	0
Vesicouterine fistula repair	2	Total penectomy	4
Orchidopexy/orchiectomy (undescended testis)	5	Prostatectomy	0
AUS implantation/Penile prosthesis	0	Partial Penectomy	15
Perineal urethrostomy	6	Hypospadias repair	7
Cystolithotomy	2	TVT/TOT	0
Ilioinguinal lymph node dissection	3	Ureterocalycostomy	0
High Inguinal Orchiectomy	19	Circumcision	33
Simple orchidectomy	75	Others	51

Renal transplant: 30

Donor nephrectomy	15	Live related renal transplant	15
-------------------	----	-------------------------------	----

Endourology: 1,421

Upper tract: 412		Lower tract: 1,009					
PCNL	167	TURP/TUIP/TUEB	92	CLT	72	DJS	306
URS	173	TURBT	251	PCCLT	3	DJR	47
RIRS	58	TUR fulguration	25	HOLEP	24	OIU/BNI/Endodilatation	54
PCNUL	7	TURED	5	HOLCT	1	Deflux injection	11
Endopyelotomy	7	Clot evacuation	7	PVP	3	Laser welding	0
		Endoevaluation	29	Ureterocele incision	4	Others	75

Laparoscopic: 170

Radical nephrectomy	40	Partial nephrectomy	11
Simple nephrectomy	41	Adrenalectomy	28
Retroperitoneoscopic nephrectomy/nephroureterectomy	5+2	Radical Nephroureterectomy	11

Pyeloplasty	11	Ureterolithotomy	10
Pyelolithotomy	2	Lap radical prostatectomy	0
Ureteric reimplant	0	Paraganglioma excision	1
Simple nephroureterectomy	4	Diagnostic lap	3
		Others	1

Robotic: 89

Radical prostatectomy	30	Radical cystectomy	0	Pyeloplasty	31
Ureterolithotomy	2	Simple prostatectomy	0	Ureteric reimplant	1
Partial nephrectomy	20	Radical Nephrectomy	1	Others	4

Microsurgery: 34

VEA	26	VVA	1	MVL	2
Scrotal exploration	5	TESE	0		

Minor OT: 14,226

Endoscopic	3,118
Open	11
Minor cases	4,588
Uroflowmetry	6,119
Urodynamic Study	390

ESWL: 1,435

New cases	359	Old cases	1076
-----------	-----	-----------	------

Ultrasound procedures: 298

Prostate TRUS biopsy	208	SPC	8
MRI - TRUS Fusion biopsy	51	PCN	3
In Bore biopsy	26	USG	2

Community services/camps etc.

1. Participated in National Conference on Awareness of changes in lifestyle influencing adolescent health at Balika Vidyapeeth, BITS Campus, Pilani on 15 September 2018 (Prabhjot Singh)
2. Prostate Cancer: Prevention, Screening, Diagnosis and treatment in short observership programme on Cancer Control and Prevention for North Eastern Region (NER) at AIIMS on 18 September 2018 (Prabhjot Singh)
3. Active contribution and free OPD services in a 3 day community health camp held at Shivkumari Dubey Intercollege, Naudhera, Suvansa, Pratapgarh, UP on 14 October 2018 (Rishi Nayyar)
4. Participated in medical camp at Leh, Ladakh on 25-30 September 2018 (Brusabhanu Nayak)
5. Participated in DD health show on “stone diseases and urinary tract infection” (Brusabhanu Nayak)
6. Participated in live public health programme “Swasthya Sanjeevani” on Prostate Cancer in All India Radio (Brusabhanu Nayak)

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Awards for residents

PG quiz for residents: Won by Dr Devanshu Bansal at NUSICON 2018.

Professor Prem Nath Dogra received 11th SELSI Oration “Robotics and General Surgeons”, 29 September 2018 at 11th National Conference of SELSI, BHU, Varanasi; Babu Parmanand Memorial National Award by Bharatiya Dalit

Sahitya Akademi on 9 December 2018 in 34th National Conference of Dalit Writers in Delhi; Dr Himadri Sarkar Memorial Oration by USI for the year 2019; Urology Gold Medal by USI for the year 2019; Chaired live surgery session, Global Perineocon 2018, 6-8 April 2018, New Delhi; Chaired live operative workshop, NZUSICON 2018, 16-18 November 2018, Ludhiana; Chaired, USI—NAUS Joint session, USICON 2019, 23-26 January 2019, Bhubaneswar; Chaired, How to break bad news—Developing communication skill, USICON 2019, 23-26 January 2019, Bhubaneswar; Chaired, Making Indian guidelines—Facts or fiction, USICON 2019, 23-26 January 2019, Bhubaneswar; Chaired, Laparoscopic partial nephrectomy, Workshop on Laparoscopic Urology, 10 March 2019, Ghaziabad.

Professor Amlesh Seth was elected as President, North Zone Urological Society of India; Member of the Subject Expert Committee (SEC) (Reproductive and Urology) under DGHSs, Office of DCGI (India); Chaired Live surgery, Hypospadias in adults, Live Operative Workshop on Reconstructive Urology, 16-17 June 2018, Manipal; Chaired plenary session, Complication—This is how I managed it: Audience submitted cases, SIU Annual Meeting, 3-7 October 2018, Seoul, South Korea; Chaired sessions, “Live Surgery of Urethral Reconstruction in PFUDD”, “Laparoscopic UVF repair” and “Robotic Pyeloplasty”, NZUSICON 2018, 16-18 November 2018, Ludhiana; Chaired live operative workshop, Urethra@AINU, Workshop of ISORU, 2-3 March 2019, Hyderabad; Chaired live operative workshop, Pelvic Health Update, 8-9 March 2019, Chandigarh; Chaired Keynote Lecture session, EUA Annual Meeting, 15-19 March 2019, Barcelona, Spain.

Professor Rajeev Kumar: *New events for 2018-2019:* Delivered UAA Lecture at annual meeting of the European Association of Urology, 15-19 March 2019, Barcelona, Spain; Faculty for workshops on scientific medical writing, Research Day, JIPMER Puducherry, 6-7 March 2019, IPGMER, Kolkata, 1-2 September 2018, IJU workshop on peer review, Hyderabad, 14-15 April 2018, Workshop for researchers, AIIMS, New Delhi, 7-8 September 2018, Workshop for faculty, AIIMS, New Delhi, 5-6 April 2018; *Continuing from previous years:* Associate Dean (Academics), AIIMS, New Delhi; Co-Chair Scientific Committee and Member, Board of Directors, *Société Internationale d’Urologie*; Chairman Scientific Committee and Co-opt executive member, *Urological Association of Asia*; Chief editor, *Indian Journal of Urology*; Associate editor, *National Medical Journal of India*; International consulting editor, *Journal of Urology*; Editorial board member, *Indian Journal of Medical Research*; Editorial board member, *Journal of Endourology*; Executive member, *British Journal of Urology International*; Associate editor, *International Journal of Urology*; Editorial board member, *Investigative and Clinical Urology*; Editorial board member, *Asian Journal of Urology*; Secretary, *World Association of Medical Editors (WAME)*; Honorary secretary, *Indian Association of Medical Journal Editors*.

Dr Prabhjot Singh: Indo American Cancer Association John N Kapoor fellowship “Urologic Clinical observership” at University of Southern California, Los Angeles, USA under Dr Inderbir Singh Gill from 16 October to 15 November 2018; Awarded Indian Journal of Urology Best Reviewer Award 2018 at USICON, Bhubaneswar, Odisha on 24 January 2019; Chaired, LRP-DVC control and vesicourethral anastomosis, Workshop on Laparoscopic Urology, 10 March 2019, Ghaziabad; Chaired live surgery session, Global Perineocon 2018, 6-8 April 2018, New Delhi; Chaired live surgery session, Master class in Uro-oncology with live operative International minimally invasive surgery workshop 2018, 18-19 August 2018, New Delhi.

Dr Rishi Nayyar presented Live Surgical Demonstration of ‘Vaginal VVF repair’ at Global Perineocon 2018, New Delhi; Achiever’s Award 2018 from Delhi Urological Society; Core faculty for the Board of Education of Urological Society of India UROMET Programme; Faculty for the SET (Skill-e Learning-Telemedicine) Facility; Member of the Subject Expert Committee (SEC) (Reproductive and Urology) under DGHSs, Office of DCGI (India); Editorial committee member, *Indian Journal of Urology*; Chaired, Filling cystometry, 2nd International Masterclass on Neurogenic Bladder, Incontinence and Urodynamics, BOE USI, 15-16 September 2018, New Delhi; Chaired, Technical Modifications in PCNL, PERCON 2018, 29-30 September 2018, New Delhi; Chaired, Reconstructive Urology Techniques, Reconstructive Urology, CUE NZUSI, 21-22 July 2018, Jodhpur; Chaired, Autologous Fascial Sling, Pre-Congress Workshop of AOGD on Pelvic Reconstructive Surgery, 23 November 2018, Gurgaon; Chaired, Female Urethroplasty, Pre-Congress Workshop of AOGD on Pelvic Reconstructive Surgery, 23 November 2018, Gurgaon; Chaired, Laparoscopic nephrectomy with IVC Thrombectomy, Workshop on Laparoscopic Urology, 10 March 2019, Ghaziabad.

Dr Brusabhanu Nayak Chaired Session, Workshop on Laparoscopic Urology, 10 March 2018, Ghaziabad.

10.1. Cardiothoracic Sciences Centre

Chief

VK Bahl

Cardiology

Professor and Head

VK Bahl

Professors

Anita Saxena
KC Goswami
Sundeep Mishra
N Naik
S Singh

SS Kothari
R Juneja
Sandeep Seth
G Karthikeyan
Ambuj Roy

Balram Bhargava*
R Narang
Rakesh Yadav
Gautam Sharma
S Ramakrishnan

Associate Professor

Saurabh K Gupta

Assistant Professors

Deepti Siddharthan Satyavir Yadav

*On deputation as DG ICMR

Cardiothoracic and Vascular Surgery

Professor and Head

SK Choudhary

Professors

UK Chowdhury
Milind P Hote

AK Bisoi

V Devagourou
Sachin Talwar

Associate Professors

Manoj Kumar Sahu

P Rajashekar

Assistant Professors

Sarvesh Pal Singh

Ramesh P Menon

Cardiac Anaesthesiology

Professor and Head

Sandeep Chauhan

Professors

Neeti Makhija
Sambhunath Das
Suruchi Hasija

Poonam Malhotra
Parag Gharde

Minati Choudhury
Vishwas Malik
Arindum Choudhury

Associate Professors

Suruchi Hasija

Arindum Choudhury

Cardiac Biochemistry

Professor

Lakshmy Ramakrishnan

Scientist I

Manoj Kumar Tembhre

Cardiac Nuclear Medicine

Professor

Chetan D Patel

Cardiac Pathology

Professor

Ruma Ray

Associate Professor

Sudheer Kumar Arava

Cardiovascular Radiology and Endovascular Interventions

Professor and Head

Sanjiv Sharma

Professors

Gurpreet Singh Gulati

Priya Jagia

Assistant Professors

Sanjeev Kumar

Arun Sharma

Stem Cell Facility

Professor

Sujata Mohanty

Blood Transfusion Services

Professor

R Lakshmy

Chief Medical Officer

Anjali Hazarika

Assistant Professor

Gopal Patidar

Sup. Medical Social Service Officer

Veena Belani

Chief Technical Officer

Bijay Majhi
Gulshan Mehta

Suresh Kumar
Gajendra Singh Chauhan

HIGHLIGHTS

Cardiology

In the year 2018-2019, the Department catered to nearly 1,40,000 outpatient visits. Over 35,000 patients underwent echocardiography and about 3,000 diagnostic cardiac catheterizations were performed. More than 3,000 patients underwent interventional procedures including angioplasty, device implantations and balloon valvoplasties.

During this period, the department participated in several research projects studying patients across a wide spectrum of cardiac disease. Important publications relating to STEMI, heart failure, rheumatic heart disease, and global burden of disease were published in high-impact scientific journals. We organized major cardiology meetings including CSI national conference 2018. The faculties of the department are part of major cardiology journals including Heart Asia, Indian Heart Journal, Annals of Pediatric Cardiology and JPCVS. Various faculty members were part of important committees.

In addition to patient-care, research and teaching, the department was involved in a major way in furthering the academic discourse in cardiology in the country. Faculty members from the department have been elected to executive positions in the national and regional cardiology bodies and have helped refocus on the academic agenda.

Cardiothoracic and Vascular Surgery

The Department was actively involved in patient care, teaching and research. A wide range of patients with all types of congenital and acquired cardiovascular diseases were seen in the outpatient clinic and one of the maximum numbers of surgical procedures in the country to manage these were performed. The department was actively engaged in research and collaboration at national and international levels in the field of research and publications. The faculty of the department delivered 122 lectures and presented 12 research papers at various national and international conferences and had 25 plus publications in peer reviewed national and international journals of repute. The educational activities of the department, especially in the fields of aortic surgery and cardiac surgical intensive care were noteworthy. A total of 15 workshops and 2 wetlabs were conducted encompassing lung transplantation, vascular anastomosis techniques, anticoagulation, proximal aorta and other topics dealing with diverse aspects of cardiac surgery. The department, with its intensive care team, did exemplary work in the field of infection control practices and developed post-cardiac surgery ICU care protocols.

Cardiac Anaesthesiology

The faculty and the resident doctors from the Department were awarded in national and international conferences. All Professors and Additional Professors had been examiners for various DM Cardiac Anaesthesia, MD Anaesthesia and DNB anaesthesia course all over India. Department has been a pioneer in starting a fellowship in Paediatric Cardiac Anaesthesia and approval sanctioned to start fellowship in Vascular Anaesthesia soon. All the faculties in the department are Editors, Editorial board/Review members of various national and international Cardiac Anaesthesia, Anaesthesia and Echocardiography journals. A book on Perioperative transesophageal echocardiography has been published by the joint effort of all the faculty members of the department. Dr Poonam Malhotra has become the President of IACTA (non-elected), continuing as the President of SCA-Delhi and NCR Branch (non-elected) and become the past President of ECMO Society of India (non-elected). She is Editor-in-chief of Journal of Cardiac Critical Care (JCCC). Released 2 issues in 2018. Most faculty members are on the Editorial/Advisory board of the journal. 72 papers published by the Department of Cardiac Anaesthesia published in various national and international journals. The faculties of department attended several international conferences and presented papers /delivered lectures.

Cardiac Biochemistry

The Department caters to inpatients and outpatients of cardiothoracic center. For several investigations carried out in the department patients are also referred from other departments as well as from other institutions. Quality of analysis is being ensured in the department though participation in several EQAS programmes. The department is active in research as evidenced by seven extra mural grants as chief investigators and 13 collaborative projects involving several departments. Two students are currently pursuing PhD and the faculty from cardiac biochemistry is involved in 5 other PhD thesis as co-guide. Faculty of the department is involved as technical advisory committee member for a nutrition survey being conducted by UNICEF and Health Ministry. The faculty from the department is also a member of technical advisory committee for AP Government for a project on chronic kidney disease. This is in addition to being an expert member of project review committee for ICMR in the area of non-communicable diseases and obesity and metabolic syndrome.

Cardiac Nuclear Medicine

Nuclear Medicine in Cardiothoracic Centre (CTC) is equipped with a Dual Head SPECT-CT Gamma Camera on which diagnostic nuclear cardiological procedures are performed routinely. The unit is also actively involved in teaching and research work. Nuclear Medicine Post Graduate and Nuclear Medicine Technology students are trained on rotational basis in nuclear cardiology procedures. Presently, I am involved in thesis or research paper work of 11 DM, MD, PhD and MSc students where nuclear cardiology is part of their research work. Myocardial SPECT studies with Tc-labeled tracers and PET studies with N-13 Ammonia and F-18 FDG are routinely performed. We have also started the use of other PET radiotracer like Gallium-68 DOTANOC for cardiac sarcoidosis, cardiac infective and inflammatory pathologies. We have

also assessed the feasibility of F-18 FDOPA for evaluation of cardiac sympathetic innervations. The unit was involved in international multi-center research project titled Value of intraventricular synchronism assessment by Gated SPECT Myocardial Perfusion Imaging (MPI) in the management of heart failure patients submitted to cardiac resynchronization therapy, funded by International Atomic Energy Agency, Vienna, Austria. This unit has been collaborating with other departments in funded project, one of which is funded by ICMR, one by International Atomic Energy Agency and one funded by National Heart, Lung and Blood Institute (NHLBI), USA.

Cardiac Pathology

The department is engaged in routine diagnostic reporting of Histopathology and Cytopathology cases, teaching of Undergraduate and postgraduate students, Coordinating Postgraduate seminars, journal clubs and Conducting Pulmonary Pathology interdepartmental conferences. The department is active in research and developmental activities, especially related to Cardiac and Pulmonary Pathology. The department performs other duties as and when rendered by the institute.

Cardiovascular Radiology and Endovascular Interventions

The faculty of the department delivered 59 lectures at various national and international scientific meetings. The department hosted 29 observers from various places in India and abroad. They were/are receiving training in various aspects of cardiovascular imaging and endovascular interventions. The faculties are members of editorial boards and reviewers for numerous scientific journals. The departmental faculty has been running 29 research projects and thesis. They published 22 research papers in various peer reviewed international journals. 21 papers were presented at various national/international meetings, some of which have also won awards. In addition 10 chapters were published in books. The department continues to provide cardiovascular imaging and vascular interventional treatment services to patients referred from various specialty departments in the hospital.

Stem Cell Facility

Stem Cell Facility is committed to rendering excellent patient care services with an integral part dedicated towards basic, preclinical and clinical stem cell research during the past financial year, 2018-2019. Department of Biotechnology, Government of India has extended its financial support for next 3 years towards developing this facility as Center of Excellence in Stem Cell Research. Overall, the facility is currently involved in 9 projects that are running in collaboration with other departments of AIIMS and funded by DBT, ICMR, DST, etc. The faculty-in-charge, Professor Sujata Mohanty, takes utmost initiative in organizing various educational programmes involving training (both theory and hands-on-experience) to postgraduates and professionals from different institutions in India in the field of Science and Technology. A dedicated team of 16 PhD researchers, and 7 MD and DM students are registered for degree, along with a team of 4 Scientists and 1 DST-Inspire Faculty currently recruited in Government funded projects at the Facility. Research scholars from other reputed Institutes of India, like IISER Mohali, IIT Delhi, IIT Guwahati, IIT-Kharagpur, Delhi University-South Campus, IGIB, NII, THSTI, NBRC and ICPO have also been co-supervised in their PhD work. The facility has successfully published a total of 16 research publications in high impact peer reviewed journals. Dr Mohanty is involved in several reputed international scientific organizations as a member of the editorial board committee in Scientific Reports (Nature publishing group), Translational Surgery, current Trends in Stem cells and Regenerative Medicine, Insights in Stem Cells, etc. She is also an active member of various international and national bodies like International Society for Cellular Therapy (ISCT), International Society for Stem Cell Research (ISSCR) and International Society of Biological Chemists, Indian Science Congress, Indian Immunology Society. She has delivered several lectures (as invited speaker) in several Research Institutes/Universities across the country and is providing continuous support and contribution towards the evaluation of various research projects under Research and Development section of the funding agencies like DBT, DST, ICMR, Bio-CARE, BIRAC, etc. During this financial year, the facility has also collaborated with three international universities (University of Michigan, Bridgeport University and Purdue University, USA).

Blood Transfusion Services

The Blood Transfusion services of CN Centre caters to round the clock transfusion needs of patients admitted in CN Centre of AIIMS by collecting, processing and providing safe and quality blood and blood components. The activities include both inhouse and outdoor blood collection, blood donor motivation and pre-donation and post-donation counseling, blood component preparation, various serological tests and special procedures like apheresis and therapeutic phlebotomy. Components like packed red cells, plasma, fresh frozen plasma, platelet rich plasma, platelet concentrate, cryoprecipitate, leucodepleted red cells and platelets are available in adequate numbers at all times. Facility for Apheresis procedures and autologous donation is available. Surplus plasma is being sent for plasma product fractionation.

Serological tests performed in the BTS include tests for blood grouping, screening for irregular antibodies, compatibility tests using latest technology like column agglutination and SPRCA assay. Every unit of blood collected is tested for transfusion transmissible infections like Hepatitis B, Hepatitis C, HIV-1 and 2, syphilis, Malaria. Automation is used in most of the laboratories in the department for better output and quality. Donor blood samples are also being screened by NAT (Nucleic Acid Amplification test) as an additional screening test to detect HIV/HCV/HBV and thus improve blood safety.

Quality management system is in place for its products like blood and blood components, equipments, processes, and services. The BTS also participates in External Quality Assessment Scheme for its various Lab Tests. Haemovigilance, both recipients as well as donor vigilance is in place and the department participates in the Haemovigilance Programme of India (HvPI).

EDUCATION

Cardiology

The department is involved in the education and training of undergraduate, postgraduates. The daily academic activities include journal club, mortality meeting, cath conferences, short and long seminars, debates, clinical case discussion and spotters by faculty.

CMEs/Workshops/Symposia/National and International Conferences

1. CSI 2018 Scientific contents, Mumbai
2. AIIMS Circulation Research Workshop, AIIMS, New Delhi
3. CSI Delhi Branch Annual Meeting 2019, New Delhi

Lectures delivered

VK Bahl

1. Recent trials in cardiology that are making news, CARDICON-2018, 7 April 2018, Bihar
2. Moderator and Judge-Selected Abstracts Session, TCTAP 2018, 28 April-1 May 2018, South Korea
3. Newer innovative procedures, NIC, 11 May 2018, Hyderabad
4. Upcoming newer technologies in interventional cardiology, EIICCON-2018, 16 June 2018, Kolkata
5. Upcoming innovations in interventional cardiology, APVIC, 30 June 2018, Delhi
6. Revascularisation in stable angina, Conference on Cardiovascular Diseases 2018, 5 August 2018, Kolkata
7. Management of STEMI: Cardiology Summit-2018, 11-12 August 2018, Goa
8. Left main trifurcation disease, TCT 2018, 21- 25 September 2018, California
9. Revascularisation in stable angina: Is it a placebo, MAPICON-2018, 16 September 2018, Punjab
10. PLTA: Journey of last 40 years, IGIMS, 23 January 2019, Bihar
11. Management of stable angina, ISHR-2019, 16-17 February 2019, Rajasthan
12. Trifurcation Angioplasty, Asia PCR/Sing Live 2018, 22-24 February 2019, Maharashtra
13. Recent interventional trials, India Live, 28 February-3 March 2019, Maharashtra

Anita Saxena

1. Cardiology, diabetes and nephrology at the limits, cardiology, diabetes and nephrology at the limits, 9-11 April 2018, London
2. Role of fetal echocardiography in detecting critical congenital heart defects for timely management, CME and Workshop in Paediatric Cardiology and Ped Cardio Thoracic Surgery, 21-22 April 2018, New Delhi
3. Clinical evaluation of a patient with congenital heart disease, CME, 22 April 2018, New Delhi
4. Evaluation of revised Jones criteria for diagnosing acute rheumatic fever in the setting of a tertiary cardiac centre in India, AEPC 2018, 9-12 May 2018, Athens
5. Congestive heart failure in children timing of surgery in congenital heart disease RHD: Relic or relevant, CME, 3 June 2018, Chandigarh
6. Co-operation visit, Co-operation visit, 23-26 July 2018, Germany
7. NCM, NCM 2018, 11-12 August 2018, New Delhi
8. Rheumatic valve disease: Challenges in children, ESC 2018, 26-27 August 2018, Munich
9. Late complications in adult with post-operative fontan: Treatment strategy, guidelines for primary and secondary prophylaxis for rheumatic heart disease in India, APPCS 2018, 30 August-1 September 2018, Bali
10. Echocardiography in rheumatic heart disease role of fetal echocardiography in detecting critical congenital heart defects for timely management, 10th International Echo Course and Workshop, 9 September 2018, Bhopal
11. How do I follow a child with rheumatic MR and AR steps to reduce burden of RHD in India, Annual Meeting of PCSI, 14-16 September 2018, Ahmedabad
12. Timing of surgery or catheter intervention in common CHD Interactive session on interesting X-rays of pediatric cardiac patients, CME, 21 October 2018, Ludhiana

13. Hands on morphology course, Hands on Morphology Course, 17-19 November 2018, London
14. Secondary prevention for RHD, Acute rheumatic fever—An update, Approach to cyanotic congenital heart disease in adults, CSI 2018, 22-25 November 2018, Mumbai
15. Managing valvular heart disease in pregnancy left ventricular dysfunction: Differential diagnosis, WCC 2018, 5-8 December 2018, Dubai
16. Approach to cyanotic congenital heart disease, Clinical Cardiology Update, 11-12 January 2019, Chennai
17. Recent management of congestive cardiac failure, PEDICON, 9-10 February 2019, Mumbai
18. Transoesophageal echocardiography course on congenital heart disease, 28-29 March 2019, London

SS Kothari

1. Congestive heart failure in children, 19th Annual Conference of Paediatric Cardiac Society of India, 14-16 September 2018, Gandhi Nagar
2. (1) Infective Endocarditis, (2) Pulmonary Hypertension, 70th Annual Conference of Cardiological Society of India, 22-23 November 2018, Mumbai
3. Fontan Circulation, CME on Paediatrics Cardiology and Pulmonary Hypertension Society, 10 March 2019, Thiruvananthapuram

G Karthikeyan

1. Global burden of RHD: Current estimates, European Society of Cardiology Congress 2018, 25-29 August 2018, Munich
2. Developing your research question, 19th Annual South African Heart Congress 2018, 4-7 October 2018, Sun City
3. The great debate: The orbita study: Implications for developing countries ignore at your peril, 19th Annual South African Heart Congress 2018, 4-7 October 2018, Sun City
4. How will we treat RHD patients in the future? 19th Annual South African Heart Congress 2018, 4-7 October 2018, Sun City
5. Should we be using digoxin in 2019? 2nd Asia-Pacific Heart Failure Forum 2018, 16 November 2018, Hong Kong
6. Digoxin in 2019, Cardiology Society of India Annual Conference 2018, 22-25 November 2018, Mumbai
7. Use of anticoagulants in LMIC, World Congress of Cardiology 2018, 5-8 December 2018, Dubai
8. Thrombolysis for MI in 2019—Where should LMIC's Invest, World Congress of Cardiology 2018, 5-8 December 2018, Dubai
9. Future of CAD Imaging—Anatomic Imaging: CTA, CTP, CT-FFR, World Congress of Cardiology 2018, 5-8 December 2018, Dubai
10. Mechanical heart valve thrombosis, World Congress of Cardiology 2018, 5-8 December 2018, Dubai

S Ramakrishnan

1. NSTEMI, Cardicon 2018 (CSI), 7-8 April 2018, Patna
2. ARNI vs ACEI in HF, TAPICON 2018, 13-15 July 2018, Kodaikanal
3. Cardiology quiz, Update in CVD 2018, 5 August 2018, Kolkata
4. Statin use for primary prevention, Medicine 2018—ACP India Chapter, 2 September 2018, Lucknow
5. Post operated TOF, PCSI 2018, 14-16 September 2018, Ahmedabad
6. Venous contrast echocardiography, Congenital mitral and tricuspid valve disease, systemic approach to multi-valvular heart disease, Echo India 2018, 4-7 October 2018, Chennai
7. Angiography in CHD, India advanced CV Therapeutics 2018, 19-21 October 2018, Mumbai
8. Neonatal interventions tips and tricks, International Meeting on Paediatric Cardiology and Surgery 2018, 16-17 November 2018, Algiers, Algeria
9. Part of the scientific core team, 70th Annual Conference of Cardiological Society of India (CSI) 2018, 22-25 November 2018, Mumbai
10. Pulmonary hypertension, Cleveland Clinic—Advanced Certificate Course in Cardiology 2019, 2-3 February 2019, Hyderabad
11. Acute rheumatic fever, International Society of Heart Research 2019, 15-17 February 2019, Jaipur
12. Diuretics in hypertension, WCCICC Conference 2019, 22-24 February 2019, Mumbai

Saurabh K Gupta

1. Virtual cardiac dissection, PCSI 2018, 14-16 September 2018, Gandhinagar
2. Virtual cardiac dissection, ACT 2018, 12-14 October 2018, Chennai
3. When to suspect cardiac disease in a child, UPPEDICON 2018, 16-17 November 2018, Lucknow
4. Spotters exotica for PG students, CSI 2018, 22-25 November 2018, Mumbai
5. Advanced imaging for complex ccTGA, ccTGA Focussed Workshop, 12-13 January 2019, Mumbai
6. Timing of intervention in CHD—An overview, Delhi CSI PG Programme, 3 February 2019, New Delhi
7. Pathogenesis and management of fontan failure, Chitra Fontan Summit, 10 March 2019, Trivandrum
8. Is it RCM or CCP? 23rd Annual Conference of Delhi CSI, 23-24 March 2019, New Delhi

Oral papers/posters presented

1. Agarwal A, Gupta SK, Shaw M, Gulati GS, Ramakrishnan S, Saxena A, Kothari SS, Devagoourou V, Talwar S, Sharma S, Airan B, Clarifying anatomy of common arterial trunk—A clinical study of 70 patients, PCSI 2018, 14-16 September 2018, Gandhinagar
2. Gupta SK, Virtual cardiac dissection—A novel low-cost method of advanced 3D visualization of intracardiac anatomy, CSI 2018, 25 November 2018, Mumbai
3. Relan J, Gupta SK, Saxena A, Unusual association anomalous right SVC to LA and Vein of Galen malformation in an infant, PCSI 2018, 14-16 September 2018, Gandhinagar
4. Saxena A, Ramakrishnan S, Gupta SK, Juneja R, Kothari SS, Mid-term prognosis of acute rheumatic carditis in children presenting to a tertiary cardiac centre in India, APPCS 2018, 30 August-1 September 2018, Bali, Indonesia
5. Saxena A, Ramakrishnan S, Roy A, The natural history of subclinical rheumatic heart disease: Experience from North India, APPCS 2018, 30 August-1 September 2018, Bali, Indonesia

Cardiothoracic Vascular Surgery

The department was actively involved in the teaching of undergraduates, postgraduates, MCh students, MSc (Perfusion technology) students and nurses. Currently 29 students are pursuing MCh in CTVS, 1 is pursuing DM in cardiac surgical intensive care and 12 are pursuing MSc (Perfusion technology). The department imparted short term training to 11 postgraduates and postdoctoral students from within AIIMS, New Delhi, 1 from Jammu and Kashmir and 3 from outside India (2 from Australia and 1 from Nigeria).

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop on Lung Transplantation, 29 April 2018, All India Institute of Medical Sciences, New Delhi
2. Workshop on Lung Transplantation, 20 May 2018, All India Institute of Medical Sciences, New Delhi
3. Wet lab on Lung Transplantation, 20 May 2018, All India Institute of Medical Sciences, New Delhi
4. Anticoagulation Workshop, 9 September 2018, All India Institute of Medical Sciences, New Delhi
5. Workshop on Techniques of Vascular Anastomosis, 30 September 2018, All India Institute of Medical Sciences, New Delhi
6. Wet Lab on Techniques of Vascular Anastomosis, 30 September 2018, All India Institute of Medical Sciences, New Delhi
7. Workshop on Lung Transplant, 21 October 2018, All India Institute of Medical Sciences, New Delhi
8. Workshop on Techniques of Vascular Anastomosis, 28 October 2018, All India Institute of Medical Sciences, New Delhi
9. Workshop on Lung Transplant, 11 November 2018, All India Institute of Medical Sciences, New Delhi
10. AIIMS-NOTTO Workshop on Establishing universal guidelines for the management of organ donor, 28 November 2018, All India Institute of Medical Sciences, New Delhi
11. ECMO workshop conducted at Mech V 2018—A Comprehensive Mechanical Ventilation Course, From Basics to Advanced, 8-9 December 2018, New Delhi
12. Workshop on PiCCO in the cardiac lung ultrasound echo and advanced haemodynamics monitoring workshop (CLUE-2018), 16 December 2018, ILBS, New Delhi
13. ECMO workshop, 5th Annual Conference of the Heart Failure Association of India HFAICON 2019, 2-3 February 2019, Gurugram
14. Myths and Facts of H1N1 Virus, 1 March 2019, AIIMS, New Delhi
15. Workshop on Proximal Aorta, 16-17 March 2019, All India Institute of Medical Sciences, New Delhi

Lectures delivered

Shiv Kumar Choudhary

1. Lung transplant: Indian scenario, Workshop on Lung Transplantation, 29 April 2018, AIIMS, New Delhi
2. Indication and patient selection for lung transplant (Moderator), Workshop on Lung Transplantation, 29 April 2018, AIIMS, New Delhi
3. Preoperative work-up in lung transplant (Moderator), Workshop on Lung Transplantation, 29 April 2018, AIIMS, New Delhi
4. Techniques of lung transplant (Moderator), Workshop on Lung Transplantation, 20 May 2018, AIIMS, New Delhi
5. Technique of heart lung transplant (Moderator), Workshop on Lung Transplantation, 20 May 2018, AIIMS, New Delhi
6. Peri-operative management of lung transplant (Moderator), Workshop on Lung Transplantation, 20 May 2018, AIIMS, New Delhi
7. Wet lab on lung transplant (Moderator), Workshop on Lung Transplantation, 20 May 2018, AIIMS, New Delhi
8. Surgical preparation and cannulation technique in Acute Type A Dissection Repair, IACTS CT CME, 4 August 2018, New Delhi
9. Mechanism of action of Warfarin, Acitrom, Heparin, Low Molecular Weight Heparin and Drug Interactions (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
10. Indications for oral anticoagulation and therapeutic INR (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
11. Anticoagulation excess: Danger signs and management (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
12. Anticoagulation on ECMO (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
13. Antiplatelets—Indications (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
14. Bridging therapy for patients on oral anti-coagulation (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
15. Newer/Novel Oral Anti-Coagulants (NOACs) (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
16. Patient education about anticoagulation (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
17. Pregnancy with PHV and anticoagulation (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
18. Starting and Achieving therapeutic INR levels (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
19. Thromboelastography—Relevant aspects to cardiac surgery (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
20. Warfarin resistance (Moderator), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
21. Hardware requirements for vascular anastomosis, Workshop on Techniques of Vascular Anastomosis, 30 September 2018, AIIMS, New Delhi
22. Techniques of end to end vascular anastomosis, Workshop on Techniques of Vascular Anastomosis, 30 September 2018, AIIMS, New Delhi
23. Technique of end to side vascular anastomosis, Workshop on Techniques of Vascular Anastomosis, 30 September 2018, AIIMS, New Delhi
24. Wet lab on vascular anastomosis (Demonstrator), Workshop on Techniques of Vascular Anastomosis, 30 September 2018, AIIMS, New Delhi
25. Post-operative management of lung transplant (Moderator), Workshop on Lung Transplant, 21 October 2018, AIIMS, New Delhi
26. Immunosuppression after lung transplant (Moderator), Workshop on Lung Transplant, 21 October 2018, AIIMS, New Delhi
27. Managing acute Type A dissection at a non-specialized centre, 8th International Aortic Summit, 22-25 November 2018, Chennai, New Delhi
28. Aortic Surgery: How to prepare yourself, 8th International Aortic Summit, 22-25 November, 2018, Chennai, New Delhi

29. Video lecture, Carotid Cannulation, 8th International Aortic Summit, 22-25 November 2018, Chennai, New Delhi
30. Video lecture, Ventral Aorta Repair, 8th International Aortic Summit, 22-25 November 2018, Chennai, New Delhi
31. Diagnostics in CTEPH, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai, New Delhi
32. Chronic Type B dissection: Endovascular or surgery, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai, New Delhi
33. Tips and tricks in management of Acute Type A Dissection. (Meet the Expert Session), The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai, New Delhi
34. Managing acute Type A dissection in a non-specialized center, (Meet the Expert Session), The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai, New Delhi
35. Cannulation strategy in acute Type A dissection, (Meet the Expert Session), The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai, New Delhi
36. Nomenclature in proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
37. Anatomy of proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
38. Pathophysiology of ascending aortic aneurysm (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
39. Natural history and evidence based guidelines (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
40. Decision making in proximal aortic aneurysm, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
41. What should be done for moderately dilated aorta, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
42. How to read thoracic CT? (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
43. CT angiography in proximal aortic aneurysms (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
44. Echocardiography in proximal aortic diseases (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
45. Work-up in proximal aorta, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
46. Technique of Bentall's procedure, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
47. Video lecture Bentall's procedure, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
48. Anesthetic management in Bentall's procedure (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
49. Perfusion management in Bentall procedure (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
50. Del Nido Cardioplegia (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
51. Perspective of OT Nurse in Bentall Procedure (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
52. Perspective of ICU nurse in management of aortic cases (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
53. Perspective of Physical Therapist in management of aortic cases (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
54. Cerebral and Spinal Cord Protection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
55. AIIMS protocol of cerebral protection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
56. Prevention of bleeding in proximal aortic surgeries (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
57. Video lecture hemiarach replacement, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi

58. Video lecture hemiarach replacement with cannula translocation technique, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
59. Extra-cardiac anatomy relevant for aortic surgeon (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
60. Video lecture femoral cannulation (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
61. Video lecture axillary cannulation (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
62. Aortic dissection: Pathophysiology (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
63. Clinical presentation: Type A dissection (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
64. CT Angio in Type A dissection and its variants (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
65. Diagnostic evaluation in Type A dissection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
66. Emergency room management in Type A dissection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
67. Preparations for Type A dissection repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
68. Surgical repair of Type A dissection, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
69. Dissection repair: Anaesthesia perspective (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
70. Intra-op TEE in proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
71. NIRS (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
72. Video lecture I: Type A dissection repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
73. Video lecture II: Type A dissection repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
74. MRI in proximal aortic pathologies (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
75. Post-operative imaging in proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
76. Post-operative management in Proximal aorta (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
77. Arch and dissection: Perspective of perfusionist (Moderator), Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
78. Video lecture Frozen Elephant Trunk, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
79. Video Lecture Bio-Bentall's, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
80. Video lecture: Pericardial packing, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
81. Video lecture: Trans-aortic edge to edge mitral valve repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi
82. Video lecture: Ventral aorta repair, Workshop on Proximal Aorta, 16-17 March 2019, AIIMS, New Delhi

Milind Hote

1. Heart valves—Donation, banking and transplantation, 5th FORT-MOHAN Foundation workshop on Transplant Coordination under the aegis of NOTTO held at Fortis Memorial Research Institute, 6 April 2018, Gurugram
2. Heart valve harvesting from deceased donor, NOTTO scientific session Safdarjung Hospital, 28 November 2018, New Delhi
3. ECMO vs LVAD—Bridge to heart transplant, 5th Annual Conference of Heart Failure Association of India, 2 February 2019, Gurugram
4. RV failure following mechanical circulatory support/Transplantation, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai

Sachin Talwar

1. Paediatric myocardial protection, Paediatric cardiac surgery and cardiology: Healing little hearts together, 22-23 April 2018, New Delhi
2. Problems in patients with adult congenital Heart disease, IACTS Techno College Cardiac CME, 5-6 May 2018, Kanpur
3. Current perspectives in Paediatric Myocardial Protection, Conclave on Paediatric Cardiac Perfusion and Intensive Care, 1 July 2018, Mumbai
4. Current developments in Fontan, CME of Indian Association of Cardiovascular and Thoracic Surgeons, 4 August 2018, New Delhi
5. Management of True Taussig-Bing Anomaly, 19th Annual Conference of the Paediatric Cardiac Society of India, 14-17 September 2018, Ahmedabad
6. Approach to palliative surgery in TOF patient, Paediatric Cardiac anesthesia update, 30 September 2018, Ludhiana
7. Management strategies of TOF patients in Indian scenario (Panelist), Paediatric Cardiac Anesthesia Update, 30 September 2018, Ludhiana
8. Surgical options in a child with transposition of great arteries, Cardiac Anesthesiology Post Graduate Assembly, 27-28 October 2018, AIIMS, New Delhi
9. Surgical strategies in patients with pulmonary hypertension, 70th Annual Conference of Cardiological Society of India, 22-23 November 2018, Mumbai
10. Living with the Fontan, 70th Annual Conference of Cardiological Society of India, 22-23 November 2018, Mumbai
11. The Fontan Circulation, 2nd Sanjeevani Seminar-single Ventricle and Fontan Circulation, 5 January 2018, Palwal
12. Is: There a role for palliation? Surgical approaches to systemic to pulmonary artery shunt, Transannular patch, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai
13. Reoperations in pediatric and congenital heart diseases (Moderator), The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai
14. Unbalanced AV Canal/Straddling AV Valves, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai
15. Panelist on Database in Paediatric and Congenital Heart Surgery, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai
16. Debate in favour of Off Pump Fontan, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai

Manoj Kumar Sahu

1. Antimicrobial Resistance (AMR), Infection Control Workshop, 4 April 2018, AIIMS, New Delhi
2. Role of mechanical circulatory support for heart failure patients, Heart Failure Workshop, 6 August 2018, AIIMS, New Delhi
3. Heparin Induced Thrombocytopenia/Thrombosis (HIT/HITT), Anticoagulation Workshop, 9 September 2018, AIIMS, New Delhi
4. Mechanical CPR-Autopulse, Advanced Cardiopulmonary Resuscitation Workshop, 21 September 2018, AIIMS, New Delhi
5. Cardiac Output Devices—Which one is good for my ICU? Calibrated vs Non-calibrated pulse contour analysis device, Cardiac Lung Ultrasound Echo and Advanced Haemodynamics Monitoring Workshop (CLUE)-2018, 15-16 December 2018, Institute of Liver and Biliary Sciences, New Delhi
6. Perioperative Arrhythmias, CME 'Cardiac Anaesthesiology Postgraduate Assembly-2018', 27-28 October 2018, AIIMS, New Delhi
7. Management of Heart Transplant patients, Cardiac Failure and Advanced Heart Failure Workshop in Cardiovascular Research Convergence, 14 October 2018, AIIMS, New Delhi

8. Influenza in cardiac patients—Clinical diagnosis, Symposium on H1N1 myths and facts, 1 March 2019, AIIMS, New Delhi
9. Respiratory Care in Heart Failure (CPAP, BiPAP, Ventilators), 5th Annual Conference of the Heart Failure Association of India, 2-3 February 2019, Gurugram

Sarvesh Pal Singh

1. Heart Transplant ALL you need to know, AIIMS Nursing Update 2018, 6 August 2018, New Delhi
2. Paediatric Sedation in CT suite—What every Radiologist should know? CME on Advanced Cardiac Imaging at AIIMS, New Delhi, 18 August 2018, New Delhi
3. TEG aspects relevant to cardiac surgery, Anticoagulation Workshop, 9 September 2018, New Delhi
4. Anticoagulation on ECMO, Anticoagulation Workshop, 9 September 2018, New Delhi
5. Starting heart transplant programme in Government Hospital—Challenges and opportunities, ISOTCON 2018; 29th Annual Conference of Indian Society of Organ Transplantation, 5 October 2018, Hyderabad
6. Listing for Heart Lung Transplant, Cardiovascular Research Convergence 2018, 14 October 2018, New Delhi
7. Management of Brain dead Organ Donor in ICU—NOTTO and ISCCM Guidelines, Universal Guidelines for Evaluation and Optimization of Organ in a Donor, 28 November 2018, New Delhi
8. ECMO for respiratory failure, Mech V 2018—A Comprehensive Mechanical Ventilation Course, From Basics to Advanced, 9 December 2018, New Delhi
9. Perioperative Immunosuppression and postoperative complications after Heart Transplant, 5th Annual Conference of the Heart Failure Association of India, HFAICON 2019, 2-3 February 2019, Gurugram, Haryana
10. ECMO for respiratory failure: The challenges ahead, Pulmocrit 2019, 3 March 2019, New Delhi
11. Critical Care Aspects of management of Primary Graft dysfunction after Heart Transplant, Midterm Meeting of Society for Heart Failure and Transplantation (SHFT) 2019, 24 March 2019, New Delhi

Oral papers/posters presented

1. Choudhary SK, Mathew AB, Parhar A, Hote MP, Talwar S, Rajashekhar P, Genetic polymorphisms and dosing of Vitamin-K antagonist in Indian patients after heart valve surgery, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai
2. Choudhary SK, Pradeep R, Roy R, Arawa S, Talwar S, Analysis of the extent of degenerative changes in ascending aorta of patients with bicuspid aortic valve, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai
3. Parul, Agasti S, Rajashekar P, Hote MP, Talwar S, Choudhary SK, Study to assess the understanding of anticoagulation among patients after valvular surgery, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons (Nursing track), 22-23 February 2019, Chennai
4. Rabbani S, Singh SP, Hote MP, Heart Transplant at a Tertiary Care Institute—An Experience of Past 3 years, 6th Annual Conference of Society for Heart Failure and Transplantation, 15-16 September 2018, Coimbatore **Best paper award**
5. Sanal Kumar VR, Bharath RS, Radhakrishnan PK, Chandrasekaran N, Choudhary SK, Oommen C, Raghunanda BN, In vitro prediction of the lower-critical hemorrhage index, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai
6. Talwar S, Arora Y, Choudhary SK, Airan B, Results of surgical repair of aortopulmonary window with interrupted aortic arch, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai, **Best poster award**
7. Talwar S, Chatterjee S, Sreenivas V, Makhija N, Kapoor PM, Choudhary SK, et al, Comparison of del Nido and histidine-tryptophan-ketoglutarate cardioplegia solutions in pediatric patients undergoing open heart surgery: A prospective randomized clinical trial, 98th Annual Meeting of The American Association for Thoracic Surgery, 28 April-1 May 2018, San Diego, USA
8. Talwar S, Makhija N, Sreenivas V, Choudhary SK, Airan B, Does a complete extracorporeal circulation free approach to patients with univentricular hearts leads to superior early outcomes? Annual meeting of the CHSS, 21-22 October 2018, Chicago, USA

9. Talwar S, Sengupta S, Choudhary SK, Airan B, The intra-extracardiac Fontan: Preliminary results, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai
10. Talwar S, Siddarth B, Choudhary SK, Airan B, Variable morphologic features and results of surgery for hemitruncus, The joint meeting of 27th Annual Meeting of The Asian Society of Cardiovascular and Thoracic Surgeons and 65th Annual Conference of Indian Association of Cardiovascular and Thoracic Surgeons, 21-24 February 2019, Chennai
11. Yadav R, Solanki Y, Kumar L, Gharde P, Choudhary SK, Determination of adequacy of antegrade cerebral perfusion flow during unilateral cerebral perfusion in hemi-arch aortic surgery, 19th Annual Conference of Indian Society of Extracorporeal Technology, 22-23 February 2019, Chennai

Cardiac Anesthesiology

- 6 DM candidates including 1 sponsored and 9 other MD-Junior resident doctors from Main Anaesthesia Department have undergone super specialty training in Cardiac-Thoracic-Anaesthesia
- 6 MD candidates from Lady Harding Medical College and two from Kolkata were imparted short term training in the specialty of Cardiac-Anaesthesia
- Short term training imparted to 4 DM candidates from Shree Chitra Tirunal Institute, Trivandrum

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop on ECHO Basic Course on ECHO Simulators, 15 July 2018, New Delhi
2. Workshop on VA and VV ECMO under the banner of TSS and Getinge India (Maquet), 25 August 2018, New Delhi
3. Live Webinar and Workshop on ECHO Advanced Course on GE and Phillips ECHO machines and simulators, 2 September 2018, New Delhi
4. Practices and advances in Cardiac Resuscitation on 21 October 2018 at AIIMS, New Delhi
5. CME: 'Cardiac Anaesthesiology Postgraduate Assembly 2018', 27 and 28 October 2018, New Delhi
6. Workshop on Applied ECMO under the banner of SCA-Delhi and NCR Branch in association with ECMO Society of India (ESOI) and Getinge India (Maquet), 4 November 2018, New Delhi
7. Live Webinar and Workshop on PV cusps on TEE by Dr Navin C Nanda with Mediknit and hands-on workshop on Phillips Echo Machine, 23 November 2018, New Delhi
8. Workshop on Point of Cardiac Care Ultrasound (POCCUS) by Dr Navin C Nanda, Dr Rakesh Gupta, Dr KK Kapur, Dr Kanchi Muralidhar, Dr Naman Shastri on ECHO Simulators, 17 February 2019, New Delhi

Lectures delivered

Neeti Makhija

1. Anaesthetic concerns in a child with congenital heart disease for non-cardiac surgery, 17th North Zone ISA Conference and 57th Annual Conference of ISA-Delhi Chapter, 13-14 April 2018, New Delhi
2. Anaesthetic and Perioperative management of Ascending Aorta and Aortic Arch Anomalies, Post Graduate Assembly organized by the Department of Cardiac Anaesthesia, 27-28 October 2018, New Delhi
3. Echo Assessment of Prosthetic Valve, 13th Annual Perioperative and Critical Care Transesophageal Echocardiography Workshop, 1-3 March 2019, Chandigarh
4. Mitral Regurgitation: How to grade eccentric MR/common errors, 13th Annual Perioperative and Critical Care Transesophageal Echocardiography Workshop, 1-3 March 2019, Chandigarh

Poonam Malhotra Kapoor

1. Goal Directed Coagulation management in the perioperative period of cardiac surgery, 28th Annual National Conference of Research Society of Anaesthesiology Clinical Pharmacology (RSACPCON-2018), 6-8 April 2018, Jaipur
2. Panelist for panel discussion on Extra corporeal Membrane Oxygenation—An anaesthesiologists perspective—Clinical and technical consideration, 28th Annual National Conference of Research Society of Anaesthesiology Clinical Pharmacology (RSACPCON-2018), 6-8 April 2018, Jaipur
3. Physics, instrumentation and machine settings, XXIV World Congress of Echocardiography and Cardiovascular Imaging, 17-20 May 2018, Albena Resort, Bulgaria
4. Intraoperative echocardiography, XXIV World Congress of Echocardiography and Cardiovascular Imaging, 17-20 May 2018, Albena Resort, Bulgaria

5. 3D TEE in cardiac surgery, XXIV World Congress of Echocardiography and Cardiovascular Imaging, 17-20 May 2018, Albenia Resort, Bulgaria
6. Anticoagulation in ECMO, Hemodynamic Monitoring Workshop, 26 May 2018, Jaipur
7. Echocardiographic Navigation in AF How to Choose NOAC, Atrial Fibrillation Symposium, 27 May 2018, New delhi
8. Post Paediatric Cardiac Surgery: Low Cardiac Out Put Syndrome Management, 6th Fiacta Refresher Course, 8-10 June 2018, Ahmedabad
9. Management of Donor for Heart Transplant and Management of Transplanted Patient in ICU, 6th Fiacta Refresher Course, 8-10 June 2018, Ahmedabad
10. Attend a webinar and delivered a lecture on ECHO in ECMO, Ecmo India 2018—9th National Training and Cardiac ECMO Conference, 20-22 June 2018, Mumbai
11. ECMO in Critical Care, Crticogynecon-2018, 23 June 2018, New Delhi
12. Heart Failure Current Management: When Drugs Alone is not Enough: ECMO, LVAD/Heart Transplant, 10th Asia Pacific Vascular Intervention Course (APVIC-X) / Fellows Course, 29 June -1 July 2018, New Delhi
13. Expert Panelist in a session on Heart Failure: Classical Repertoire, Modern Instruments, 10th Asia Pacific Vascular Intervention Course (APVIC-X) / Fellows Course, 29 June -1 July 2018, New Delhi
14. Transesophageal Echocardiography, Medanta ICU Summit, 30 June-1 July 2018, Gurgaon
15. Conducted a hand-on workshop on TEE on simulator, Medanta ICU Summit, 30 June-1 July 2018, Gurgaon
16. Echo Basics, TSS Sim Education Webinar, 15 July 2018, New Delhi
17. Conducted a hand-on workshop on TEE and TEE, TSS Sim Education Webinar, 15 July 2018, New Delhi
18. Anticoagulation during ECMO, National Mechanical Ventilation, Haemodynamic and ECMO Workshop, 17-20 July 2018, Bangalore
19. Simulation in echocardiography, 12th National and 3rd International IACTA-TEE Workshop (PWTEET), 20-26 August 2018, Bangalore
20. Air pollution and health, International Conference on Health and Air Pollution: Effects and Management (ICOHAP-EM), 7-8 September 2018, New Delhi
21. Echocardiography for Aortic valve—MICS aortic valve and TAVI, SMICTSI 3rd Annual Conference of SMICTSI, 9 September 2018, Bengaluru
22. Chaired a session on MICS, SMICTSI 3rd Annual Conference of SMICTSI, 9 September 2018, Bengaluru
23. Iabp, Inotropes and Vad for Cardiac Resuscitation, Practices and advances in Cardiac Resuscitation, 21 October 2018, New Delhi
24. Perioperative management for Tetralogy of Fallot, Cardiac Anaesthesiology Postgraduate Assembly 2018, 27-28 October 2018, New Delhi
25. ECMO in Thoracic Surgery, IACTS Thoracic CME-2018, 3-4 November 2018, Guwahati
26. Current status preventing and managing perioperative delirium, 13th Chennai Cardiac Anaesthesia Update, 10-11 November 2018, Chennai
27. National coordinator for FATE transthoracic workshop, 66th Annual National Conference of Indian Society of Anesthesiologist, 25-29 November 2018, Agra
28. Anticoagulation and monitoring—Newer trends, ECMOCON Kolkata 2018, the 9th Annual Conference of ECMO Society of India, 8-9 December 2018, Kolkata
29. Echo in ECMO, ECMOCON Kolkata 2018, the 9th Annual Conference of ECMO Society of India, 8-9 December 2018, Kolkata
30. Topic: Ethical and medicolegal issues in ECMO, ECMOCON Kolkata 2018, the 9th Annual Conference of ECMO Society of India, 8-9 December 2018, Kolkata
31. Coagulation management in ECMO, 6th Annual Conference SWAAC ELSO 2019, 15-18 January 2019, Cairo, Egypt
32. ECMO complication, 6th Annual Conference SWAAC ELSO 2019, 15-18 January 2019, Cairo, Egypt
33. Adult ECMO Physiology—VV and VA, CRITICARE 2019, Silver Jubilee 25th Annual Conference, 30 January-3 February 2019, Mumbai
34. Monitoring and Optimizing Oxygen Delivery on VV and VA ECMO, CRITICARE 2019, Silver Jubilee 25th Annual Conference, 30 January-3 February 2019, Mumbai
35. Initiation and Troubleshooting—VV VA, CRITICARE 2019, Silver Jubilee 25th Annual Conference, 30 January-3 February 2019, Mumbai

36. Panelist in a scientific session on Putting It Together – A Patient on ECMO + CRRT – Management Issues and Decanulation, CRITICARE 2019, Silver Jubilee 25th Annual Conference, 30 January-3 February 2019, Mumbai
37. Panelist of a session on Importance of the latest hypertension guidelines and their applicability for public health in India, 74th Annual Conference of the Association of Physicians of India, 7-8 February 2019, Kochi
38. CVD in women, Scope of the problem and possible prevention steps, 74th Annual Conference of the Association of Physicians of India, 7-8 February 2019, Kochi
39. Hemodynamically unstable patient in the ICU—Echo Guided Management, 22nd Annual Conference of Indian Association of Cardiovascular Thoracic Anaesthesiologists, 22-24 February 2019, Kolkata
40. Moderated a scientific session on Topic Venoarterial ECMO S/P Single Ventricle Repair—Indications; Management and Weaning Challenges 22nd Annual Conference of Indian Association of Cardiovascular Thoracic Anaesthesiologists, 22-24 February 2019, Kolkata
41. Hypertension in women, Scientific CME, themed—Womb to Womanhood, 8 March 2019, Bengaluru

Sambhunath Das

1. Cardiac resuscitation in special disease/conditions from cardiac etiology, CME on Practices and Advances in Cardiac Resuscitation, 21 October 2018, New Delhi
2. Moderator for panel discussion on: ‘How to have a successful recovery from cardiac arrest?’, CME on Practices and advances in Cardiac Resuscitation, 21 October 2018, New Delhi
3. Perioperative management of Cardiac Transplantation, Post graduate assembly in Cardiac Anaesthesia at AIIMS, 27 November 2018, New Delhi

Vishwas Malik

1. Moderated a session on Surgical AVR versus TAVR, 2nd National Symposium on Cardiac Surgical Intensive Care, 22-24 June 2018, AIIMS, New Delhi
2. Moderator a session on Perioperative Bleeding, Cardiac Anaesthesia Update, 10-11 November 2018, Chennai
3. Evaluation of RV function, TEE workshop, 1 December 2018, Gurgaon

Suruchi Hasija

1. TEE and its role in cardiac and non-cardiac surgery, MD Anaesthesia Teaching Programme, 3 August 2018, New Delhi
2. Role of team work in CPR, Update in cardiopulmonary resuscitation, 21 September 2018, New Delhi
3. Myths and Facts of H1N1, Symposium on H1N1 Infection, 1 March 2019, New Delhi

Arindam Choudhury

1. Aetiopathogenesis and diagnosis of cardiac arrest, CME on Cardiac Arrest and Resuscitation, 21 September 2018, New Delhi
2. Airway assessment by ultrasonography, SANCON 2019, 17 February 2019, Kathmandu
3. When to intervene the tricuspid valve after MVR, Perioperative and critical care TEE workshop (TEEPGI), 2 March 2019, Chandigarh
4. Physiology of CPB for open heart surgery, Part of PG—Lecture series, 9 March 2019, New Delhi

Oral papers/posters presented

1. Airan R, Kapoor PM, Chowdhury UK, Which is most appropriate criterion body weight or hematocrit in cyanotic cases during CPB, 1st Research Day AIIMS, 26 March 2019, New Delhi
2. Dhawan I, Makhija N, Choudhury M, Choudhury A, A modified tricuspid annular plane excursion for assessment of right ventricular systolic function, 33rd Annual Congress of the European Association of Cardiothoracic Anaesthesiology (EACTA) in collaboration with ACTACC, 19-21 September 2018, Manchester, UK
3. Hasija S, Chauhan S, Kaushal B, Whole lung lavage by innovative technique in 2.5 year old child with pulmonary alveolar proteinosis, Clinical Combined Round, 22 January 2019, New Delhi
4. Kejriwal N, Makhija N, Tuteja R, Sharma A, Kiran U, To evaluate the effect of Rajyoga Meditation on cognitive co relates in patients undergoing surgical repair for congenital heart disease, AIIMS, 9-10 March 2019, Rishikesh, Uttarakhand
5. Makhija N, Magoon R, Ischemia begets right ventricular dysfunction after cone repair in a case of Epstein’s anomaly, 33rd Annual Congress of the European Association of Cardiothoracic Anaesthesiology (EACTA) in collaboration with ACTACC, 19-21 September 2018, Manchester, UK

6. Pathak P, Das S, 13th Annual perioperative and Critical Care, Impact of tidal volume alterations on Echocardiographic parameters in VSD patients—A pilot study, Echocardiography Workshop, PGI, 1-3 March 2019, Chandigarh
7. Pathak P, Das S, Impact of tidal volume alterations on Echocardiographic parameters in VSD patients—A pilot study, 13th Annual perioperative and Critical Care Echocardiography Workshop, 1-3 March 2019, Chandigarh
8. Sharma A, Makhija N, Kejriwal N, Das SN, Airan B, Gupta VP, Tuteja R, Devagourou V, Menon R, Choudhary SK, Kiran U, Importance of dedicated meditation space within the hospital premises, AIIMS, 9-10 March 2019, Rishikesh, Uttarakhand

Cardiac Biochemistry

- Guided 2 PhD students as chief guide and 5 as co-guide
- Chief guide for 2 MD student
- Co-guide for 10 MD thesis projects
- Took guest lecture for students of MSc (Forensic Science) of LNJN National Institute of Criminology and Forensic Science, New Delhi

CME/Workshops/Symposia/National and International Conferences Organized

1. Hematology (Basic principle and its clinical implication), 6 August 2018, AIIMS, New Delhi
2. HbA1C (Basic principle and its clinical implication), 9 October 2018, AIIMS, New Delhi

Lectures delivered

R Lakshmy

1. Role of endothelial progenitor cells in coronary artery disease, Atherosclerosis—The Indian epidemic organized by Indian Society of Atherosclerosis Research—Delhi Chapter and Sir Gangaram Hospital, 26 September 2018, Delhi

Manoj K Tembhre

1. Nutrition and Health (Talk/Lecture), One Day Symposium at Galgotias University, 27 May 2018, Greater Noida, UP (Delhi-NCR)

Oral papers/posters presented

1. Tarik M, Ramakrishnan L, Amirchand R, Salve HR, Mathur P, Joshi P, Krishnan A, Feasibility of measuring sodium, potassium and creatinine from urine dried on filter paper, 1st AIIMS Research Day, 26 March 2019, Delhi
2. Verma A, Jain R, Dhawan A, Lakshmy R, Association of oxidative stress and inflammatory markers with inhalant use among treatment seeking adolescents, 2018 NIDA (National Institute on Drug Abuse) International Forum, 11 June 2018, San Diego

Cardiac Nuclear Medicine

- No. of Postgraduate students: 36 (20 MD Nuclear Medicine students and 16 MSc Nuclear Medicine Technology students on rotational basis in Nuclear Cardiology)
- No. of Thesis/research papers completed: 2
- Moderator in Journal Club/Seminars/Intra-department lectures: 8
- No. of new Thesis started: 2
- 'On site' teaching of MD students while reporting clinical studies

CMEs/Workshop/Symposia/National and International Conference

Lectures delivered

Chetan D Patel

1. Cardio-oncology nuclear medicine option, Consultant Meeting on Cardio-Oncology, 23-27 July 2018, International Atomic Energy Agency Vienna, Austria
2. Nuclear medicine in evaluation of cardiac sympathetic innervation, 16th Annual Conference of Association of Nuclear Medicine Physicians of India, 22-23 September 2018, Kochi, Kerala
3. Panel discussion on Nuclear Cardiology, 50th Annual Conference of Society Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh

4. Clinical application of nuclear imaging in CAD, 2nd World Congress on Cardiac Imaging and Clinical Cardiology, 22-24 February 2019, Sahar, Mumbai

Oral papers/poster presented

1. Dheer P, Gupta P, Taywade S, Passah A, Pandey AK, Patel C, Ordered subset expectation maximization parameters for image reconstruction in Tc99mMIBI myocardial perfusion single photon emission computed tomography in Indian population, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh
2. Goyal H, Bal CS, Patel CD, Goyal V, Tripathi M, Gupta P, Kumar P, Evaluation of cardiac sympathetic denervation using L-3,4-dihydroxy-6-F18 fluorodihydroxy phenylalanine-positron emission tomography-computed tomography in Parkinson Disease, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh
3. Goyal H, Patel C, Parida G, Goyal V, Bal C, Evaluation of Cardiac Sympathetic Denervation using 18F-FDOPA PET-CT in Idiopathic Parkinson Disease, SNMMI 2018 Annual Meeting, 23-26 June 2018, Pennsylvania Convention Center, Philadelphia, USA
4. Goyal H, Tripathi M, Goyal V, Patel CD, Kumar P, Bal CS, Semiquantitative analysis of 18F-FDOPA brain PET-CT in Idiopathic Parkinson Disease Patients in correlation with clinical rating scale and in tremor predominant subgroup, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Congress Center Dusseldorf, Düsseldorf, Germany
5. Harish N, Bakhshi S, Patel C, Gupta RK, Sharma A, Sharma A, Bal CS, Kumar R, Role of PET-CT in staging and extent of chloroma in acute myeloid leukemia, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Congress Center Dusseldorf, Düsseldorf, Germany
6. Harish N, Bakhshi S, Patel C, Sharma A, Gupta R, Sharma A, Bal C, Kumar R, Role of 18F-FDG PET/CT in detection of disease burden and response assessment in patients with myeloid sarcoma, SNMMI 2018 Annual Meeting, 23-26 June 2018, Pennsylvania Convention Center, Philadelphia, USA
7. Harish N, Kumar R, Bakhshi S, Patel C, Gupta RK, Sharma A, Sharma A, Bal CK, Utility of fluoro-2-deoxyglucose positron emission tomography-computed tomography in diagnostic evaluation of myeloid sarcoma, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh
8. Kaushik P, Patel CD, Kumar R, Gulati GS, Parakh N, Seth S, Guleria R, Bal CS, Role of 68Ga-DOTANOC positron emission tomography/computed tomography and myocardial perfusion imaging in cardiac sarcoidosis: A comparison to cardiac magnetic resonance, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh
9. Kumar R, Nalli H, Gupta RK, Bakhshi S, Patel C, Sharma A, Sharma A, Bal CS, Role of 18F-FDG PET/CT in Evaluation of Response to Therapy in Patients with Chloroma, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Congress Center Dusseldorf, Düsseldorf, Germany
10. Kumar R, Sharma A, Vishali, Mohan A, Bhalla A, Sreenivas V, Das C, Patel C, Bal C, Pandey A, Role of texture parameters evaluated from F18-FDG PET/CT in treatment response assessment of Non-Small cell lung cancer, SNMMI 2018 Annual Meeting, 23-26 June 2018, Pennsylvania Convention Center, Philadelphia, USA
11. Pandey AK, Lal S, Sharma A, Kumar R, Patel C, Bal CS, Optimization of number of principal components to be used for reconstructing 99mTc-MDP bone scan for reporting purpose, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh
12. Patel CD, Goyal H, Goyal V, Gupta P, Bal CS, Tripathi M, Evaluation of Myocardial Sympathetic Denervation in Advanced Parkinson Disease Patients with Autonomic dysfunction using 18F-FDOPA PET-CT, 31st Annual Congress of the European Association of Nuclear Medicine, 13-17 October 2018, Congress Center Dusseldorf, Düsseldorf, Germany
13. Sharma A, Mohan A, Bhalla A, Vishnubhatla S, Das C, Pandey A, Patel C, Bal C, Kumar R, Role of metabolic tumor volume based parameters evaluated from baseline whole body F18-FDG PET/CT in prediction of overall survival in Non-small cell lung cancer, SNMMI 2018 Annual Meeting, 23-26 June 2018, Pennsylvania Convention Center, Philadelphia, USA
14. Singh S, Pandey AK, Sharma A, Patel C, Bal CK, Optimization of the value of MEVIS Image Registration Toolkit module parameters for PET/CT image registration on personal computer, 50th Annual Conference of Society of Nuclear Medicine, 22-25 November 2018, PGI, Chandigarh

Cardiac Pathology

- Routine diagnostic reporting of Histopathology and Cytopathology cases
- Teaching of undergraduate students

- Teaching of Postgraduate students
- Coordinating Postgraduate seminars, journal clubs
- Conducting Pulmonary Pathology interdepartmental conferences
- Research and developmental activities, especially related to Cardiac and Pulmonary Pathology

Lectures delivered

Sudheer Kumar A

1. Cystic lesions of the lung, MAPCON, 7-9 September 2018, AFMC, Pune
2. Vascular lesions of the skin, MAPCON, 7-9 September 2018, AFMC, Pune
3. Panel discussion: Heart failure, CRC, 13 October 2018, ICGEB, New Delhi
4. Biopsy: Inflammation and viruses, Cardiovascular research convergence, 14 October 2018, AIIMS, New Delhi
5. Heart transplantation in India, APCON 2018, 30 November-1 December 2018, RMCH, Bareilly, UP
6. Annual conference of DSI, Treasurers report: Presentation, 7-9 December 2018, DY Patil Medical College, Navi Mumbai
7. Cardiac anomalies in conjoint twins, International Conference on Conjoined Twins, 14-15 February 2019, AIIMS, New Delhi
8. Approach to myocarditis, ISHR, 15-17 February 2019, Marriott, Jaipur

Cardiovascular Radiology and Endovascular Interventions

Teaching

Extra-departmental

Undergraduates: Lectures on basics of cardiovascular imaging and vascular interventions

Postgraduates: Cardiac Radiology quiz, moderating seminars in departments of allied specialties viz. Medicine, Surgery, Gastroenterology, Cardiology and Cardiothoracic Surgery

Clinico-Radiology meetings with Department of Cardiology and CTVS

Participation in Clinical Combined Rounds and Clinical Grand Rounds with Allied specialties

Intra-departmental

Daily case presentations, and Weekly journal clubs and seminars

Training

Training of junior and senior radiology residents, senior residents in Cardiology, CTVS and Cardiac Anaesthesia, and external observers in techniques of cardiovascular imaging and vascular interventions

CMEs/Workshops/Symposia/National and International Conferences Organized

1. CME on Insights in advanced Cardiac Imaging: Ischemic Heart disease and congenital heart disease:18 August 2018, AIIMS, Delhi.

Lectures delivered

Sanjiv Sharma

1. Angio-CT hybrid laboratory-Role in vascular interventions, Workshop on hybrid and Advance Imaging, 26 April 2018, Chandigarh
2. Obtaining vascular access, 2nd CME on Image Guided Therapies from Basics to Advances, 18-20 May 2018, Sri Lanka
3. Current status of various endovascular strategies for BTK lesions, 2nd CME on Image Guided Therapies from Basics to Advances, 18-20 May 2018, Sri Lanka
4. Imaging diagnosis and endovascular treatment of pulmonary embolism, 2nd CME on Image Guided Therapies from Basics to Advances, 18-20 May 2018, Sri Lanka
5. Pulmonary Thromboembolism and DVT, 1st NE-Emergency Radiology CME-2018, 22 June 2018, Shillong
6. Acute aortic syndromes, 1st NE-Emergency Radiology CME-2018, 22 June 2018, Shillong
7. Type B aortic dissections and aortic aneurysms imaging, planning therapeutics strategies and How-I-Do-it, 1st NE-Emergency Radiology CME-2018, 22 June 2018, Shillong

8. Complicated Type B Dissection-Difficult endovascular device landing, CPEC- 2018 and World Experts @ CPEC (WE @CPEC), 26-30 July 2018, China
9. Autologous stem cells for Critical Limb Ischemia, CPEC-2018 and World Experts @ CPEC (WE @CPEC), 26-30 July 2018, China
10. Gene and stem cell therapy in CLI, Annual Meeting of Cardiovascular and Interventional Radiology Society of Europe, 23-27 September 2018, Lisbon, Portugal
11. Imaging diagnosis and intervention in DVT, Sri Lankan Society of Interventional Radiology-2018, 26-28 October 2018, Sri Lanka
12. Image guided images in HT, Sri Lankan Society of Interventional Radiology-2018, 26-28 October 2018, Sri Lanka
13. Chest radiograph in CHD, Sri Lankan Society of Interventional Radiology-2018, 26-28 October 2018, Sri Lanka
14. Acute aortic syndrome—Current concepts of management, 5th Annual Conference of Society for Emergency Radiology, 2-4 November 2018, Hyderabad
15. Endovascular management of vascular complications in oncologic practice, 5th Tumor Minimally Invasive Interventional Therapy and Targeted Therapy International Forum, 7-9 December 2018, Beijing, China
16. Current status of stem cell therapy in the management of critical limb ischemia, 14th Annual Conference of Asia Pacific Society of Endovascular and Interventional Radiology, 21-24 February 2019, Bali, Indonesia
17. Imaging diagnosis and endovascular treatment in Takayasu's arteritis, Annual Meeting of Society of Interventional Radiology, 23-28 March 2019, Austin, USA

Gurpreet Singh Gulati

1. Basics of Thrombolysis, AIIMS Radiology Course IR Primer, 14 April 2018, Delhi
2. CT and MRI in CHD, Healing little hearts together, CME in Pediatric Cardiology and Pediatric Cardiac Surgery, 21-22 April 2018, Delhi
3. Cardiac CT-anatomy and acquisition protocol, Cardiac Imaging CME, 18 August 2018, Delhi
4. Cultural resources for residents, AIIMS Resident Wellness Programme, 9 August 2018, Delhi
5. Cardiac MRI in ischemic heart disease, Cardiac Imaging CME, 18 August 2018, Delhi
6. What mistakes I made in cardiac imaging, Annual Conference of IACI, 6 October 2018, Delhi
7. Catheter angiography for anaesthesiologists, Cardiac Anaesthesiology Postgraduate Assembly, 27 October 2018, Delhi
8. Image optimization in cardiac MRI, 72nd Annual Meeting of IRIA, 18 January 2019, Chandigarh
9. Chairperson: Live endovascular workshop, Endovascular Live, 7 March 2019, Delhi
10. Follow up imaging after proximal aorta repair, AIIMS Proximal Aorta CME, 17 March 2019, Delhi

Priya Jagia

1. CT in aorta, CVT Aorta India 2018 and the Structural Heart Workshop, 4-5 August 2018, Delhi
2. Basics of cardiac MRI function, perfusion and tissue characterization, Cardiac Imaging Council Cardiological Society of India, 30 September 2018, Jaipur
3. Who should have a coronary CT angiography, Cardiac Imaging Council Cardiological Society of India, 30 September 2018, Jaipur
4. Imaging post op CHD, Indian Association of Cardiac Imaging, 5-7 October 2018, Gurgaon
5. Ideal candidates for coronary CT angiography, Annual Meeting of Cardiology Society of India CSI, 25 November 2018, Mumbai
6. Cardiac MRI in patients with VT, Annual Meeting of Cardiology Society of India CSI, 25 November 2018, Mumbai
7. Cardiac MRI on heart failure, Heart Failure Association of India, 2 February 2019, Gurgaon
8. Chest Xray in CHD, Delhi Branch of CSI, 3 February 2019, Delhi
9. Acute aortic imaging on CT-Diagnosis and case selection for intervention, Delhi Imaging Update, 24 February 2019, Delhi

Sanjeev Kumar

1. Workshop on (i) Popliteal artery access for SFA revascularization; Technique and hardware (ii) Sub intimal angioplasty; technique and hardware, 2nd CME of 2018 Imaged Guided Therapies: From Basics to Advances, 18 May 2018, Peradeniya, Sri Lanka

2. (i) Challenges of external iliac artery angioplasty, (ii) Challenges; IVC filter placement, (iii) Evolving endovascular therapies: EVAR, 2nd CME of 2018 Imaged Guided Therapies: From Basics to Advances, 19 May 2018, Peradeniya, Sri Lanka
3. Conducted Quiz; Endovascular management strategies for various peripheral vascular problems, 2nd CME of 2018 Imaged Guided Therapies: From Basics to Advances, 20 May 2018, Peradeniya, Sri Lanka
4. Workshop on Ablation of varicose veins—Laser, RF, Microwave and chemical—A talk followed by how I do it with some discussion on handling the perforators, 1st NE-Emergency Radiology CME 2018, 21 June 2018, Guwahati
5. Imaging Algorithms in Type B Aortic Dissections and Aortic Aneurysms, 1st NE-Emergency Radiology CME 2018, 22 June 2018, Guwahati
6. Pre-operative planning in TEVAR, AORTA India 2018, 4-5 August 2018, New Delhi
7. Workshop on aortic intervention, Aortic Intervention Workshop, 7 August 2018, Jodhpur
8. Imaging and image guided therapy in venous malformations, SLFIR 2018 Congress, 27 October 2018, Colombo, Sri Lanka
9. Emergency room evaluation and imaging algorithms in acute aortic syndrome, SLFIR 2018 Congress, 27 October 2018, Colombo, Sri Lanka
10. Chest Pain Symposium: Case based discussion in Chest Pain, 5th Annual Conference of Society for Emergency Radiology (SERCON 2018), 2 November 2018, Hyderabad
11. ER Workshop: Advanced IR Hardware, 5th Annual Conference of Society for Emergency Radiology (SERCON 2018), 4 November 2018, Hyderabad
12. Preventing post thrombotic syndrome—What's the best strategy? 70th Annual Conference of Cardiological Society of India CSICON-2018, 22-25 November 2018, Mumbai
13. Varicose Veins: When to Intervene, 70th Annual Conference of Cardiological Society of India CSICON-2018, 22-25 November 2018, Mumbai
14. Screening for Aortic Aneurysm in high risk individual, 70th Annual Conference of Cardiological Society of India CSICON-2018, 22-25 November 2018, Mumbai
15. Role of chest radiograph in current era in evaluation of CHD, 72nd Annual Conference of IRIA, 18 January 2019, Chandigarh
16. Current applications of Orthogonal imaging techniques in heart diseases, 72nd Annual Conference of IRIA, 18 January 2019, Chandigarh
17. Imaging and intervention in aortoarterities, 72nd Annual Conference of IRIA, 18 January 2019, Chandigarh
18. Imaging CMP: Fibrosis—The final frontier, ISHR 2019, 16 February 2019, Jaipur
19. Moderated session on endovascular treatment in hemodialysis fistula, 21st Annual Conference of ISVIR, 7 March 2019, Goa
20. Varicose vein ablation workshop, 21st Annual Conference of ISVIR, 10 March 2019, Goa
21. Imaging in ascending aortic aneurysm, Proximal Aorta CME, 16 March 2019, Delhi
22. Imaging in type A aortic dissection and its variants, Proximal Aorta CME, 17 March 2019, Delhi

Oral papers/posters presented

1. Jagia P, Pandey N, Safety and Efficacy of Endovascular Revascularization of Single Patent Arch Artery in Patients with Takayasu Arteritis: Short Term Results, Pan Arab Interventional Radiology Society (PAIRS-2019), 2 March 2019, Dubai
2. Jagia P, Sharma S, Ganga K, Malhi AS, Feasibility, Safety, and Effectiveness of Endovascular Stent-graft Placement for Emergency Repair of Acute Descending Thoracic and Abdominal Aorta, Pan Arab Interventional Radiology Society (PAIRS-2019), 2 March 2019, Dubai
3. Malhi AS, Chandrashekhara SH, Gulati GS, Kumar S, Sharma A, Percutaneous intravascular foreign body retrieval: Experience from tertiary care centre, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna
4. Malhi AS, Chandrashekhara SH, Gulati GS, Kumar S, Sharma A, Submitral left ventricular aneurysms: Role of MDCT and cardiac MRI in the complete assessment and guiding their management, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna
5. Malhi AS, Chandrashekhara SH, Jagia P, Kumar S, Sharma A, Rengarajan R, CT in two way door ventricles: Double inlet and double outlet right and left ventricle, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna

6. Malhi AS, Chandrashekhara SH, Kumar S, Jagia P, Sharma A, Imaging of post operative cases of cyanotic congenital heart disease using CT and MRI: A pictorial review, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna
7. Malhi AS, Chandrashekhara SH, Kumar S, Jagia P, Sharma A, Role of cardiac MRI T1 and T2 mapping in the evaluation of cardiac masses, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna
8. Malhi AS, Chandrashekhara SH, Kumar S, Jagia P, Sharma A, Role of cardiac MRI T1 and T2 mapping in the assessment of infiltrative cardiomyopathies, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna
9. Malhi AS, Gulati GS, An unusual variant of single coronary artery with angina, IACI 2018, 5-7 October 2018, Delhi
10. Malhi AS, Jagia P, Computed tomography imaging of The Horrible Fifth Chambered Heart-Giant Aneurysms of Left Atrial Appendage, IACI 2018, 5-7 October 2018, Delhi
11. Malhi AS, Jagia P, Role of MDCT in diagnosing periannular abscess/ pseudoaneurysms occurring as complication of Infective Endocarditis, IACI 2018, 5-7 October 2018, Delhi
12. Ojha V, Gulati GS, Ganga K, Seth S, The inversion recovery scout sequence on cardiac MRI: An overview of the different patterns of nulling in cardiac amyloidosis, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna
13. Ojha V, Gulati GS, Shaw M, Ganga K, Jagia P, Kumar S, Sharma S, Gupta SK, Imaging of complications associated with post-operative cyanotic heart disease: A pictorial essay, Annual Meeting of European Congress of Radiology, 27 February-3 March 2019, Vienna
14. Ojha V, Gulati GS, Seth S, Prevalence of inversion recovery patterns in cardiac amyloidosis as identified on MRI, IACI 2018, 5-7 October 2018, Delhi **Awarded the 2nd prize in oral paper presentation**
15. Rengarajan R, Gulati GS, Department of cardiovascular radiology and endovascular interventions, Institute Day Celebrations titled: Next Generation Healthcare, 25 September 2018, Delhi **Awarded the 3rd prize for best poster**
16. Shaw M, Chandrashekhara SH, Jagia P, Unusual cardiac involvement in primary immunodeficiency, IACI 2018, 5-7 October 2018, Delhi **1st prize in Interesting cases category**
17. Shaw M, Ganga K, Kumar S, Embolization of pulmonary arterio-venous malformations: A single centre experience, Annual Meeting of ISVIR, 7-10 March 2019, Goa
18. Shaw M, Ganga K, Ojha V, Kumar S, Traumatic aortic injury: Imaging spectrum and the role of interventional radiologists, Annual Meeting of ISVIR, 7-10 March 2019, Goa
19. Shaw M, Jagia P, Pictorial review of RSOV focus on ECG gated CT, IACI 2018, 5-7 October 2018, Delhi
20. Shaw M, Malhi AS, Chandrashekhara SH, Kumar S, Dilated cardiomyopathy as the primary presentation of aortoarteritis: Diagnosis and interventional management, Annual Meeting of ISVIR, 7-10 March 2019, Goa
21. Shaw M, Ojha V, Jagia P, MR imaging of Post-op TOF repair, IACI 2018, 5-7 October 2018, Delhi

Stem Cell Facility

The department participates in PhD, DM and MD Programmes

S. No	Programme	Number of Students
1.	PhD	17
2.	DM and MD	8
3.	Training:	
	a. Short term	8
	b. Long term	4

CMEs/Workshop/Symposia/National and International Conference

1. A One Day Symposium on iPSCs technology: Current Progress and Future Scope, 1 May 2018, AIIMS, New Delhi
2. A One Day Symposium on Hypoxia Research: Current Progress and Future Scope, 25 January 2019, AIIMS, New Delhi

Lectures delivered

Sujata Mohanty

1. Exploring the wonders of stem cell therapy, One Day Symposium, 2 May 2018, New Delhi
2. Women leaders in science and technology, Women Scientist and Enterpreneur, 6-7 October 2018, Lucknow
3. Stem cell therapy: Recent advances, East Delhi Physicians' Association 2018, 9 December 2018, New Delhi
4. Functional nanomaterials in regenerative medicine, International Conference on Functional Nanomaterials, 22-25 February 2019, Banaras
5. Inspirational journeys: Never give up, BioCARE Conclave 2019, 8-9 March 2019, New Delhi

Oral papers/poster presented

1. Gupta S, Nayak B, Banerjee A, Mohanty S, Therapeutic role of stem cell derived exosomes in regenerative medicine: A cell free approach, 1st Institute Research Day, AIIMS, 26 March 2019, Delhi **2nd prize in Poster presentation**
2. Jain KG, Rawat S, Gupta D, Debnath D, Kalluri A, Kaushik N, Dharmadhikari B, Agrawal A, Jassal M, Patra P, Mohanty S, Enhanced differentiation of human MSCs into dopaminergic neurons on PCL-Graphene nanofiber scaffold, 2018 Biomedical Engineering Society Annual Meeting, 17-20 October 2018, Georgia, USA
3. Jain KG, Rawat S, Vig S, Gupta D, Agrawal A, Jassal M, Patra P, Mohanty S, Nanostructured biomaterials for enhancing the differentiation of hMSCs into Neurons and cardiomyocytes, 1st Institute Research Day, AIIMS, 26 March 2019, Delhi
4. Kaur A, Midha S, Mohanty S, Biofabrication of 3D In Vitro Skin Graft Substitutes using Functionalized Materials, 2018 Biomedical Engineering Society Annual Meeting, 17-20 October 2018, Georgia, USA
5. Kaur A, Midha S, Rajput B, Dutta M, Pinky, Mohanty S, Scaffolds for skin tissue engineering, 1st Institute Research Day, AIIMS, 26 March 2019, Delhi **2nd prize in oral presentation**
6. Midha S, Kaur A, Jain KG, Kaushik N, Mohanty S, Tissue-specific MSC-laden Biocomposites for Repair and Regeneration of load Bearing Bone Defects, 2018 Biomedical Engineering Society Annual Meeting, 17-20 October 2018, Georgia, USA
7. Midha S, Kaur A, Mohanty S, Silk-based Hybrids for fabrication of Dermal Skin NANOBIOTECK-2018 (3rd Annual Conference of Indian Society of Nanomedicine), 25-27 October 2018, Delhi
8. Rawat S, Das J, Mann Z, Gupta S, Mohanty S, Priming of tissue specific human mesenchymal stem cells with glucocorticoid: Implication in immunomodulation, 1st Institute Research Day, AIIMS, 26 March 2019, Delhi
9. Singh M, Arora V, Kumar V, Sharma R, Kumar M, Yadav PK, Halder A, Mohanty S, Coaxing of human mesenchymal stem cells into dopaminergic neuronal cells in vitro: A potential therapeutic approach for medicament of parkinsonism, International Society for Stem Cell Research Annual Meeting 2018, 20-23 June 2018, Melbourne, Australia

Blood Transfusion Services

Lectures delivered

Anjali Hazarika

1. Equipment maintenance and use, on going programme of Training of Trainers in Strengthening of Blood Services by NIB and NHM, GOI, 30 May 2018, 26 July 2018, 30 August 2018, 11 October 2018, 14 March 2019, NIB, Noida
2. CMV Transmission: Leucodepletion vs Sero-negative Donors, Recent Trends in Transfusion Medicine, 4 April 2018, Max Super Speciality Hospital, Saket, New Delhi
3. Infection Control Strategies in Blood Bank, Workshop on Quality Care and Infection Prevention Strategies, under Swachhta Action Plan, by Department of Neurosciences, AIIMS, 2 May 2018, AIIMS, New Delhi
4. Haemovigilance—Scope, Term and Definition, CME on Haemovigilance and Donorvigilance, 9-11 August 2018, BHU, Varanasi
5. Blood Bank Services—Safe blood: Management and administrative aspects, 3rd Foundation Training Programme of the Newly Recruited CHS Medical Officers in collaboration with MOHFW, 1 September 2018, NIHF, New Delhi
6. Panelist during CME on Haemovigilance at BHU, Varanasi, 9-10 August 2018

Gopal Kumar Patidar

1. Red Cell Allo-antibodies in Healthy Blood Donors, TRANSMEDCON 2018, 23-25 November 2018, Kochi, Kerala
2. Blood Group Discrepancy: Introduction and Resolution, HANDS-ON WORKSHOP Basics in Immunohematology, 2 February 2019, SSPH and PGTI, Noida

Oral papers/posters presented

1. Dhiman Y, Patidar G, Hazarika A, Family history during screening blood donors: Do we really give much importance? Transmedcon 2018, 24 November 2018, Kochi, Kerala
2. Patidar GK, Khan A, Khan AK, Hazarika A, Anti-MA antibody in MaN patient: A rare case report, International Symposium on Blood Safety, 30 November 2018, PGIMER, Chandigarh
3. Singh K, Khan AK, Patidar GK, Hazarika A, Audit of blood requisition and utilization in elective neurosurgical procedures, Transmedcon 2018, 23-25 November 2018, Kochi, Kerala

RESEARCH

Cardiology

Funded projects

Ongoing

1. To study the prevalence of rheumatic heart disease among adults 18-25 years age group in Ballabgarh Block of Haryana using echocardiography with Doppler, Anita Saxena, DHR, 3 years, 2016- 2019, Rs 38.83 lakhs
2. Study of biomarkers in acute heart failure, S Seth, DHR, 3 years, 2017-2020, Rs 80 lakhs
3. INVICTUS (*IN*vest/*g*ation of rheumat*ICAF* Treatment *U*sing vitamin K antagonists, rivaroxaban or aspirin Studies), G Karthikeyan, Population Health Research Institute, Canada, 4 years, 2016-2020, Rs 16.7 crores
4. Surgery compared to fibrinolytic therapy for left-sided valve thrombosis (SAFE-PVT), G Karthikeyan, ICMR, 2 years, 2017-2019, Rs 69 lakhs
5. Value of Gated-SPECT MPI for Ischemia-Guided PCI of non-culprit vessels in STEMI Patients with multivessel disease after primary PCI, G Karthikeyan, International Atomic Energy Agency, 2 years, 2018-2020, Rs 13.5 lakhs
6. Steering Committee Member and National Principal Investigator of G-CHF (Global Congestive Heart Failure) Registry, A large multinational registry of heart failure patients, Ambuj Roy, PHRI, Canada, 3 years, 2017- 2020, Rs 64.20 lakhs
7. Steering Committee Member and National Principal Investigator of the IVVE Trial (Influenza Vaccine To Prevent Adverse Vascular Events), A trial to study role of Influenza vaccine in preventing cardiovascular events in patients of heart failure, Ambuj Roy, PHRI, Canada, 4 years, 2016- 2020, Rs 144.77 lakhs
8. The National Heart Failure Registry, A ICMR sponsored heart failure registry, Ambuj Roy, ICMR, 3 years, 2018-2020, Rs 25.57 lakhs
9. Semaglutide Effects on Heart Disease and Stroke in Patients with Overweight or Obesity (SELECT) Trial an International Multicentric Trial sponsored by Novo Nordisk, Ambuj Roy, Novo Nordisk, 5 years, 2018- 2023, Rs 3.8 lakhs per patient (Total 20 patients)
10. Population Prevalence of Vitamin D deficiency in Urban and Rural Delhi and its Association with Cardiovascular Disease Risk factors, Department of Health Research, Government of India Funded Study, Ambuj Roy, DHR, 2 years, 2016- 2018, Rs 24.04 lakhs
11. Assessment of HDL quality in Healthy Adult Indians and Impact of High Altitude, Ambuj Roy, Defence Institute of Physiology and Allied Sciences, 2017-2019, Rs 51.23 lakhs
12. Yoga-CaRe Trial, Effects of a Yoga-based Cardiac Rehabilitation Programme (Yoga-CaRe) on cardiovascular health: A clinical trial (India) and mechanistic study (UK), Ambuj Roy, ICMR-MRC (UK), 2014-2018, Rs 24.06 lakhs
13. Childhood and young adult predictors of myocardial structure and function at age 45 years in the New Delhi and Vellore Birth Cohorts, India, Ambuj Roy, A British Heart Foundation funded study, 3 years, 2016-2019, Rs 20 lakhs

Completed

1. TEXTMEDS—TEXT Messages to Improve MEDication Adherence and Secondary prevention—An international randomized trial, National Health and Medical Research Council (NHMRC), Australia, 2 years, AUD 30,000

Departmental projects

Ongoing

1. Fibrillin gene mutation and markers of inflammation in RSOV Neurodevelopmental outcomes in children with cyanotic congenital heart disease following open heart surgery
2. Prevalence of asymptomatic myocardial ischemia among patients with chronic kidney disease
3. Streptococcal PCR in valve tissues of RHD
4. Worsening of PAH with lung infection in infants with VSD

Completed

1. Clinical and angiographic profile and six months outcomes of smoker's patients of ST elevation myocardial infarction patients undergoing primary PCI
2. Determinants of delay in STEMI presentation—A qualitative analysis
3. Does high dose statin therapy cause memory impairment?
4. FOCUS Ultrasound: Development of protocol to teach FOCUS ultrasound to intensivists
5. Incidence and predictors of left ventricular dysfunction in patients with right ventricular pacing

Collaborative projects

Ongoing

1. A population based prospective cohort study to unravel the causes of stroke and cognitive decline, Neurology

Cardiothoracic and Vascular Surgery

Funded projects

1. Evaluation of safety and efficacy of BACE (Basal Annuloplasty of Cardia Externally) Device in the treatment of functional Mitral Valve Regurgitation (FMR), SK Choudhary, Phoenix Cardiac Devices, 4 years, 2015-2019, Rs 30 lakhs
2. Randomized control study to evaluate the efficacy of Ayush Card tea Raj Yoga meditation versus conventional treatment on clinical recovery and post-operative outcomes following mitral valve open heart surgery, SK Choudhary, Ministry of AYUSH, 2 years, 2018-2019, Rs 45 lakhs
3. Dafodil-1: A prospective, multicenter, single arm clinical study to evaluate safety and performance of the Dafodil pericardial bioprosthesis in patients who require replacement of their natural or prosthetic aortic or mitral valve, SK Choudhary, Meril Life Sciences, 5 years, 2015-2019, Rs 20 lakhs

Departmental projects

Ongoing

1. Acute Type A dissection complicated by stroke: Optimum strategy?
2. Aneurysm of Sinus of Valsalva dissecting into interventricular septum
3. Coarctation of aorta in adults
4. Comparative study of exercise performance after total correction with Trans Annular Patch (TAP) versus Non Trans Annular Patch (Non-TAP) after repair of Tetralogy of Fallot
5. Comparison of Plasmalyte A based Del-Nido cardioplegia solution with plain ringer based Del-Nido cardioplegia solution in pediatric patients undergoing open heart surgeries: A prospective randomized trial
6. Comparison of pleural effusion between fenestrated and non fenestrated Fontan—A prospective randomized study
7. Delayed sternal closure in pediatric cardiac surgery
8. Demographic, clinical, and radiological profile of patients with Acute Type A dissection
9. Genetic screening in patients with Bicuspid Aortic Valve
10. Management of coarctation of aorta with ascending aortic aneurysm
11. Morphology of Sinus of Valsalva aneurysms in Indian patients
12. Mycobacterial Aortopathy: An institutional review of its presentation and management
13. Neurological outcome of aortic arch replacement surgery without hypothermic circulatory arrest
14. Non-invasive assessment of hepatic fibrosis in post Fontan surgery patients
15. Oral sildenafil administration in patients undergoing extra cardiac Fontan procedure—A double blinded randomized study

16. Outcome of post cardiac surgery patients with sepsis
17. Perfusion strategies in patients undergoing Coronary artery bypass grafting
18. Perfusion strategies in patients undergoing TOF repair in the first decade of life
19. Surgical audit and outcome of patients who underwent Bentall's procedure with hemiarach procedure
20. The satisfaction levels of heart transplant recipients seeking post transplant medical care at a tertiary care government hospital: A questionnaire-based study
21. Tracheostomy in Paediatric cardiac surgical patients
22. Unidirectional valved patch closure of septal defects in severe PAH: Hemodynamic outcomes

Completed

1. A comparative observational study to evaluate effect of hyperoncotic cardio-pulmonary bypass priming on extravascular lung water in adult patients undergoing coronary artery bypass grafting
2. Assessment of Circle of Willis in Indian population
3. Comparative analysis between two crystalloid balanced electrolyte priming solution (Plasmalyte-A and SterofundinIso) in adult patients undergoing cardiopulmonary bypass in the Cardiac Surgery
4. Development of a model for albumin priming in pediatric cardiopulmonary bypass circuits
5. Effect of Vitamin D supplementation on outcome in children undergoing open heart surgery: Randomized controlled trial
6. Efficiency of using mannitol according to weight in patients undergoing cardiopulmonary bypass
7. Genetic polymorphisms and dosing of Warfarin in Indian patients after heart valve surgery
8. Histopathological study of extent of degenerative changes in ascending aorta of patients with bicuspid aortic valve
9. Homograft Valve Banking
10. Prevalence of Bicuspid Aortic Valve (BAV) and ascending aortic dilatation in First Degree Relatives (FDR) of patients with BAV
11. The effect of negative pressures used during ultrafiltration on erythrocytes
12. The role of pre-cardiopulmonary bypass haemofiltration of blood prime in children with acyanotic congenital heart diseases undergoing cardiac surgery
13. Total anomalous pulmonary connection beyond the first decade of life
14. Trans-aortic mitral valve repair for functional MR in patients undergoing aortic root/valve procedure

Collaborative projects

Ongoing

1. Early enteral feeding with supplemented mother's milk in post-operative Paediatric cardiac surgical patients: A randomized controlled trial, Institute of Home Economics, Delhi University

Cardiac Anesthesiology

Funded projects

Ongoing

1. A single blind randomized controlled study to evaluate the effect of Rajyoga Meditation on Biochemical and cognitive co-relates of cardiac rehabilitation in patients of surgical repair of congenital heart disease, Usha Kiran, DST, 2 years, 2017-2019, Rs 23 lakhs
2. Evaluation of efficacy of the point-of-care guided hemostatic management in cyanotic congenital cardiac surgery patients using AIIMS algorithm: A prospective randomized study, Poonam Malhotra Kapoor, JCCC—TSS Research Grant, 2 years, 2017-2019, Rs 12 lakhs

Completed

1. Evaluation of coagulopathy on Venous-Arterial (VA) Extracorporeal Membrane Oxygenation (ECMO) using Platelet Aggregometry and Standard Tests, Poonam Malhotra Kapoor, JCCC—TSS Research Grant, 2 years, 2017-2018, Rs 8 lakhs
2. Comparison of bivalirudin to heparin with protamine reversal in acyanotic children undergoing open heart surgery, Suruchi Hasija, AIIMS, 2 years, 2015-2017, Rs 5 lakhs

Departmental projects

Ongoing

1. Comparison of RVOT gradient in different echocardiographic views in patients with Tetralogy of Fallot undergoing surgery
2. Comparison of Tricuspid Annular Plane Systolic Excursion (TAPSE) with modified TAPSE in coronary artery bypass patients
3. Correlation of echo guided with direct pulmonary artery pressure measurements in patients with acyanotic congenital heart disease with isolated ventricular septal defect
4. Evaluation of blood loss in menstruating women undergoing cardiac surgery
5. Right atrial speckle tracking echocardiographic indices as a method for assessing pulmonary arterial pressures in patients with left sided valvular heart disease

Completed

1. Comparison of grading of aortic stenosis between transthoracic and transesophageal echocardiography in adult patients undergoing elective aortic valve replacement surgeries: A prospective observational study
2. Randomized study comparing pre-operative glycemic profile in pediatric cardiac surgical patients administered oral carbohydrate solution preoperatively versus those kept fasting
3. Role of Echocardiography derived right ventricular function parameters as compared to PRV/LV ratio for evaluation of perioperative right ventricular function in children undergoing intracardiac repair for Tetralogy of Fallot

Collaborative projects

Ongoing

1. Intraoperatively comparing 2D and 3D TEE to assess the potential increment value of 3DTEE over 2DTEE, University of Alabama at Birmingham, Alabama, USA

Cardiac Biochemistry

Funded projects

Ongoing

1. Proposal for engagement of All India Institute for Medical Sciences to serve as qc lab for comprehensive national nutrition survey, R Lakshmy, UNICEF, 4 years, 2016-2020, Rs 233 lakhs
2. To study the association of tetrahydrobiopterin (BH4) levels in Endothelial Progenitor Cell (EPC) with the functional activity of EPC in Coronary Artery Disease (CAD) patients, R Lakshmy, ICMR, 2 years, 2017-2019, Rs 39 lakhs
3. Double blind randomized control trial to study the effects of probiotic supplement, bacillus coagulans unique is2 and bacillus clausii on protein absorption, body composition, muscular strength, and immunity in resistance trained adult males, R Lakshmy, Unique Biotech, 20 months, 2016-2019, Rs 37 lakhs
4. Estimating biomarkers in DBS for cardiovascular risk assessment in geriatric population, R Lakshmy, ICMR, 12 months, 2018-2019, Rs 28 lakhs
5. Childhood and young adult predictors of myocardial structure and function at age 45 in the New Delhi birth cohort and Vellore Birth Cohorts India: Biochemical component Delhi, R Lakshmy, BHF, 3 years, 2016-2019, Rs 20 lakhs
6. Deciphering the mechanism of alarmin induced necroptosis and its role in immune homeostasis and inflammation in atherosclerosis, Manoj K Tembhre, DST-SERB (Early Career Research Grant Award), 3 years, 2017-2020, Rs 50 lakhs
7. Defining the role of Neutrophil Extracellular Traps (NETs) in immune regulation and inflammation, Manoj K Tembhre, AIIMS, 2 years, 2017-2019, Rs 8.5 lakhs

Completed

1. Health survey of tribal population in Kashmir valley with special reference to magnitude and risk factors of non communicable diseases, R Lakshmy, DBT, 3 years, 2016-2019, Rs 171 lakhs

Departmental projects

Ongoing

1. Assessment of ABO antibody titer and coagulation factor level after mixing and dilution with normal saline of A and B group donor plasma

2. Optimizing blood inventory in a Blood Bank at a Super-speciality Centre in India
3. Outcome of leuco-reduced and non leuco-reduced blood components transfused in patients undergoing cardiac surgery
4. Study of Endothelial Progenitor Cell (EPC) tetrahydrobiopterin (BH4) levels and its association with EPC number and function in Coronary Artery Disease (CAD) patients

Collaborative projects

Ongoing

1. A randomized control trial to assess the effectiveness of Nurse-Led Structured Telephonic Heart Failure Management Programme on selected health related outcome variables at 3 months, College of Nursing
2. A single blinded randomized control study to evaluate the effect of Rajyoga meditation on biochemical and cognitive correlates of cardiac rehabilitation in patients of surgical repair for congenital heart disease, Cardiac Anaesthesia
3. Association of Common Mental Disorders with Diabetes Mellitus—A Community based Case-control Study in North India, CCM
4. Cellular and molecular heterogeneity of normal superior and inferior parathyroid glands at different ages, Pathology
5. Effect of Vitamin D supplementation on outcome in children undergoing open heart surgery: A randomized controlled trial, CTVS
6. Elucidating the role of TNIP1, IL2B and NFkBIA and their target micro RNA in regulating the inflammation and skin homeostasis in psoriasis, Dermatology and Venereology
7. Evaluation of Human Epididymis Protein 4 (HNE) in the diagnosis of ovarian cancer, Laboratory Oncology
8. Impact of supplementation of package of Iron and Folic Acid (IFA) with Vitamin B12 on Hemoglobin Levels amongst Adolescent Girls (12-19 years), Human Nutrition Unit
9. Intraoperative lung protective ventilation in peritonitis patients undergoing emergency laparotomy: A randomized controlled trial, Anesthesiology
10. Prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) and its association with cardio-metabolic disease risk factors in North India, Endocrinology
11. Study of inner ear protein Otolin-1, Vitamin D and ionized calcium in circulation as a biomarker in non-Meniere's Disease vertigo patients, Otorhinolaryngology
12. Th2/Th17 inflammation modulating filaggrin expression and disease severity in children with moderate atopic dermatitis, Dermatology
13. The modulation of insulin resistance and HDL quality by adipose tissue ABCA1 and metabolic status, Biochemistry

Completed

1. Assessment of nutritional, morbidity status and utilization of health care facilities in the elderly population aged 60 years and above, Human Nutrition Unit
2. Assessment of prevalence of Vitamin D deficiency and associated factors amongst children in the age group of 6-18 years from Three High Altitude Regions (1,000 meters and above) of Himachal Pradesh, India, Human Nutrition Unit
3. Association of Vitamin D and calcium with development of breast cancer: A case control study, Human Nutrition Unit
4. Defining miRNA signatures in vitiligo and skin pigmentation, Dermatology and Venereology
5. National NCD's monitoring survey, CCM
6. Population prevalence of Vitamin D deficiency in Urban and Rural Delhi and its Association with Cardiovascular Disease Risk Factor, Cardiology
7. Study of prevalence of overweight, obesity and pediatric metabolic syndrome and associated risk factors in children in the age group of 10-16 years belonging to HIG in district Shimla, Himachal Pradesh, Human Nutrition Unit

Cardiac Nuclear Medicine

Funded projects

Completed

1. Value of intraventricular synchronism assessment by Gated SPECT Myocardial Perfusion Imaging (MPI) in the management of heart failure patients submitted to cardiac resynchronization therapy, Chetan D Patel, International Atomic Energy Agency, Vienna, 5 years, 2013-2018, Rs 18 lakhs

Department projects

Ongoing

1. Comparison of 68Ga PSMA PET/CT and 18F Fluoride PET/CT in high risk prostate cancer
2. Comprehensive assessment of right ventricle function and pulmonary perfusion in patients with Eisenmenger syndrome using multi-modality imaging
3. Design and methods of the YOGICAD study—A probe trial to evaluate the efficacy of yoga based cardiac rehabilitation in Post PCI patients
4. Effect of dietary intervention in reducing interfering infra-cardiac activity in patients undergoing Tc99m-MIBI Myocardial Perfusion SPECT
5. Interim treatment response evaluation of high grade lymphoma using texture analysis on F-18 FDG PET-CT
6. Optimisation and validation of input parameters for scintigraphic image deionising using Wavelet Transform
7. Prevalence of asymptomatic stress induced myocardial ischemia in patients with advanced CKD by stress myocardial perfusion scintigraphy
8. Role of F-18 FDG PET-CT in staging and early treatment response evaluation in patients of soft tissue sarcoma
9. Role of Ga68-DOTANOC PET/CT in Cardiac Sarcoidosis; Comparison with Cardiac MRI
10. To assess the feasibility of Fluorine-18 Fluoro L-Dihydroxyphenylalanine (F-18 FDOPA) PET-CT for evaluation of cardiac sympathetic innervation in Heart Failure, Comparison with Carbon-11 Hydroxyephedrine (C-11 HED) PET-CT
11. To study the role of vascular function and pain sensitivity in microvascular angina

Completed

1. Comparison of Left Ventricular Ejection Fraction (LVEF) derived on OSEM and FBP reconstructed images in Tc99m-MIBI myocardial perfusion SPECT: Validation with LVEF derived on Equilibrium Gated Radionuclide Ventriculography (ERNA)
2. Evaluation of F-18 FDOPA in detection of Myocardial Sympathetic Denervation in patients with Advanced Parkinson's Disease
3. Image compression using principal component analysis
4. Image enhancement using stochastic resonance
5. Image segmentation using adaptive thresholding
6. PET-CT imaging of choroidomas in pediatric acute myeloid leukemia: A prospective study
7. Role of Cardiac MRI in diagnosis and prognosis in patients of cardiac sarcoidosis using T1 mapping, T2 mapping and late gadolinium enhancement
8. Role of Diuretic 18F-FDG PET/CT in patient of Renal Cell Carcinoma and Correlation of PET parameter with Histopathological subtype
9. Study of Cardiac Sympathetic Denervation by F-18 FDOPA PET- CT imaging in patients with Early Parkinson's Disease and Atypical Parkinsonism

Collaborative projects

Ongoing

1. Value of Gated-SPECT MPI for Ischemia-Guided PCI of non-culprit vessels in STEMI Patients with Multivessel Disease after primary PCI, Cardiology

Completed

1. International Study of Comparative Health Effectiveness with Medical and Invasive Approaches, (Ischemia Trial), Cardiology
2. Prevalence of symptomatic and asymptomatic coronary artery disease in patients with ischemic stroke and TIA, Neurology, Cardiology

Cardiac Pathology

Funded projects

Ongoing

1. Immunohistochemical characterization of four common viruses in a clinically suspected cases of viral myocarditis, Sudheer, AIIMS, 2 years, 2018-2019, Rs 10 lakhs

Departmental projects

Ongoing

1. Detection of streptococcal bacterial DNA with polymerase chain reaction in excised valvular tissue of RHD patients
2. Fibrillin 1 gene mutation and TGF beta in TAAA of non marfanoid individuals
3. Histopathological evaluation of surgically excises rheumatic heart valves

Completed

1. A comparative study of efficacy and composition of various cell populations of extracted hair follicle outer root sheath cell suspension prepared using a single enzyme (trypsin) and multiple enzymes (trypsin, collagenase and dispase) for transplantation in vitiligo
2. Expression of Matrix Metalloproteinase-2, Matrix Metalloproteinase-9, Tissue Inhibitor Metalloproteinase-1, Tissue Inhibitor Metalloproteinase-2, Collagen I and IV Expression in Thoracic Aortic Aneurysms

Collaborative projects

Ongoing

1. Autologous non cultured dermal cell suspension transplantation in treatment of facial volume loss, Dermatology
2. Comparative evaluation of MicroRNA profiling and cytokine profiling analysis in patients with Pulmonary Sarcoidosis and Mediastinal tuberculosis, Pulmonary Medicine
3. Detection of streptococcal bacterial DNA with polymerase chain reaction in excised valvular tissue of RHD patients, Cardiology
4. Development of a new formulation and packaging for reducing adverse effects and injection pain of Mycobacterium vaccine and its clinical trial in recalcitrant anogenital and extra-genital (common) warts, Dermatology
5. Exploring the phenotypic and functional role of $\gamma\delta$ T cell subsets along with Pattern Recognition Receptors (PRRs) in the immunopathogenesis of Pemphigus Vulgaris, Pharmacology
6. Finding the correlation of Toll Like Receptors (TLRs) with inflammation in patients with chronic heart failure, Cardiology, Safdarjung Hospital
7. Study of cardiac markers, gross findings and histopathological changes in heart in cases of suspected cardiac death, Forensic Medicine
8. Study of sesamol in bleomycin induced pulmonary toxicity in rat, Pharmacology

Cardiovascular Radiology and Endovascular Interventions

Funded projects

Ongoing

1. Utilization of intra arterial injections of autologous bone-marrow derived mononuclear cells for treatment of spinal injury, Priya Jagia, AIIMS, 2 years, 2016-ongoing, Rs 5 lakhs
2. Evaluation of therapeutic angiogenesis induced by intramuscular autologous platelet rich plasma in non revascularisable critical limb ischemia due to peripheral artery disease, Sanjeev kumar, AIIMS, 2 years, 2019-2021, Rs 4.9 lakhs.

Departmental projects

1. Assessment of image noise and image quality in Coronary CT Angiography (CCTA) using different strengths of ADMIRE (Advanced Modelled Iterative Reconstruction)
2. Comparative evaluation of drug eluting balloon angioplasty versus noncoated balloon angioplasty for endovascular interventions in patients of nonspecific aorto-arteritis: Prospective study
3. Comparison of non contrast MRA to contrast enhanced MRA in patient of PVD
4. Comparison of the outcomes of concomitant truncal laser ablation and tributary foam sclerotherapy versus truncal laser ablation alone in patients with lower extremity venous reflux—A single centre randomized controlled trial
5. Correlation of epicardial fat volume with severity of coronary artery disease and coronary plaque morphology
6. Derivation of nomograms for aortic and iliofemoral dimensions using multidetector computed tomography in the Indian population
7. Detection of cardiac allograft vasculopathy with dual source computed tomography in heart transplant recipients: A comparative study with conventional coronary angiography

8. Endovascular interventional complications: Feasibility and comparison between SIR, proposed new SIR and CIRSE reporting standards
9. Evaluation of 12-month evolution of the aortic volume in patients who undergo (TEVAR) with stent grafts for complicated type B aortic dissection
10. Measurement of myocardial native t1 and t2 mapping value in normal volunteers
11. Patterns of subvalvular involvement in patients with rheumatic mitral stenosis
12. Prognostic value of decrease in corrected coronary opacification in predicting major adverse cardiovascular events in patients of coronary artery disease
13. Quantification of aortic valve calcification on computed tomography angiography in patients of Aortic Stenosis
14. Renal morphological changes after successful renal angioplasty in young patients with uncontrolled hypertension due to Takayasu arteritis
15. Rheumatic heart disease with mitral stenosis: Incidence of LA, LAA thrombus and correlation with LAA morphology by DECT
16. Role of cardiac magnetic resonance imaging in identification of myocardial fibrosis and wall morphology in patients of nonischemic dilated cardiomyopathy
17. Role of cardiac MRI in diagnosis, prognosis and treatment response in patients of cardiac sarcoidosis using T1 mapping, T2 mapping and Late Gadolinium Enhancement (LGE)
18. Role of cardiac MRI in patients of Nonspecific Aorto-arteritis and its value in prognostication and assessment of treatment response
19. Role of CEUS in activity in NSAA
20. Role of dual energy CT in tissue iron identification quantification in iron overload syndrome
21. Role of dual energy CT pulmonary perfusion in evaluation of chronic obstructive pulmonary artery disease and its value in assessing treatment outcome
22. Role of MDCT in the evaluation of systemic and pulmonary venous anomalies in heterotaxy syndrome
23. Safety and efficacy of genicular artery embolization in patients with moderate knee pain

Collaborative projects

Ongoing

1. DE-CMR compared with FDG-PET for assessment of viability and prediction of functional improvement in patients with CAD and LV dysfunction, Cardiology
2. Impact of bariatric surgery in reduction of cardiovascular risk in morbid obesity 2017, Surgery
3. Preparation and study of radiochromic film as radiation dosimeter for medical applications, Radiation Physics Role of 68 Ga-DOTANOC PET/CT in cardiac sarcoidosis; comparison with cardiac MR, Nuclear Medicine

Completed

1. Role of cardiac magnetic resonance imaging in identification of myocardial fibrosis and wall morphology in patients of nonischemic dilated cardiomyopathy, Cardiology

Stem Cell Facility

Funded Projects

Ongoing

1. Bio fabrication of skin tissue substitutes using functionalized materials, Sujata Mohanty, DST, 2 years, 2018-2020, Rs 15 lakhs
2. DBT-Centre of Excellence for Stem Cell Research: Basic and Translational (Phase-II), Sujata Mohanty, DBT, 3 years, 2017-2020, Rs 298 lakhs
3. Development of a Carrier Dressing Capable of Supporting the Transfer of Melanocytes and Keratinocytes onto an in vitro Wound Bed Model, Sujata Mohanty, DBT, 3 years, 2017-2020, Rs 59.37 lakhs
4. Strategies to enhance stem cell delivery to the retina using iron oxide nanoparticle, Sujata Mohanty, DBT, 3 years, 2018-2021, Rs 82 lakhs
5. Immunomodulatory property of Human Mesenchymal Stem Cell: Assessment of their therapeutic potential in GvHD model, Sujata Mohanty, DST, 3 years, 2018-2021, Rs 42 lakhs
6. Understanding the therapeutic role of adult stem cell derived exosome in combating virus induced neurodegenerative disease, Sujata Mohanty, DBT, 3 years, 2018-2021, Rs 22 lakhs

7. Fabrication of Biocompatible Scaffolds for Delivery of Stem Cells in Myocardial
8. Infarct Model: In Search of an Ideal Cardiac Patch, Sujata Mohanty, NER-DBT, 3 years, 2018-2021, Rs 28 lakhs
9. Comparing the vascularization potential of MSCs and MAPCs in monoculture and coculture systems with human OECs under normoxia and hypoxia, Sujata Mohanty, DBT, 3 years, 2018-2021, Rs 46.26 lakhs
10. 3D Printed Tracheal Grafts for Regenerative Applications, Sujata Mohanty, AIIMS, 3 years, 2018-2021, Rs 5 lakhs

Completed

1. Targeting Telomerase Reverse Transcriptase (TERT) gene to immortalize Peripheral Blood Mononuclear Cells of patients with coronary artery disease, Sujata Mohanty, ICMR, 3 years, 2014-2017, Rs 56 lakhs
2. SOPs to Study Very Small Embryonic-Like Stem cells (VSELs) in Various Adult Tissues, Sujata Mohanty, ICMR, 1 year, 2017-2018, Rs 4 lakhs
3. 3D Bioprinting for patient-specific joint tissue constructs and in vitro model system Sujata Mohanty, DST, 3 years, 2017-2020, Rs 30 lakhs

Departmental projects

Ongoing

1. A comparative study for evaluation of outcome of end to end tendon repair with or without amniotic membrane
2. Autologous non-cultured dermal cell suspension transplantation for correction of volume loss
3. Comparative evaluation of cellular responses and osteogenic potential of Undifferentiated mesenchymal stem cells induced by calcium-silicate based cements—A histochemical study
4. Detection and quantification of circulating tumour cells in oral cavity squamous cell carcinoma
5. Evaluation of outcomes of end to end nerve repair with or without amniotic membrane—A comparative study
6. Imaging and molecular characterization of differentiated thyroid cancer
7. Immunomodulatory potential of tissue specific human MSC through HLA-G and other soluble factors
8. In vitro and in vivo stabilization of endothelial tubes from HUVEC micro tissues using human bone marrow derived hMSCs and its application in bone tissue engineering
9. In-vitro studies to explore strategies for extended utilization of donor corneal tissues by harnessing their full clinical potential
10. Optical characterization of breast cancer
11. Role of micro RNA as biomarker in hepato cellular carcinoma
12. To evaluate the role of tissue specific MSC derived exosomes in drug induced liver injury model

Completed

1. A comparative study to assess the efficacy, viability and composition of various cell populations of Extracted Hair Follicle Outer Root Sheath Cell Suspensions (EHF ORS CS) prepared using a single enzyme (trypsin) and multiple enzymes (trypsin, collagenase and dispase) for transplantation in vitiligo
2. T cells subsets and their functions in aplastic anemia
3. To explore differentiation potential of bone marrow derived Mesenchymal stem cells into functional cardiomyocytes
4. Molecular Characterization of Steve Johnson Syndrome; its Ocular Sequelae
5. Role of stem cell therapy to decrease pacing requirements in complete heart block

Collaborative projects

Ongoing

1. A double-blind randomized trial of transplantation of cultured melanocytes from outer root sheath of plucked hair follicles vs cultured melanocytes from epidermis, Dermatology
2. A multi-center, randomized, double-blind, placebo-controlled trial to evaluate the effects of intra erythrocytedexamethasone sodium phosphate on neurological symptoms in patients with Ataxia Telaniectasia, Paediatric Neurology
3. Assessment of the effect of various storage media on viability, proliferative ability and differentiation potential of human periodontal ligament stem cells (hpdscs): An in-vitro study, CDER
4. Comparative evaluation of efficacy of conjunctival stem cell transplantation with cultivated oral mucosal epithelial transplantation in patients with bilateral cicatrizing ocular surface diseases (i.e. Stevens Johnson syndrome and Chemical burns), RP Centre

5. Evaluations of efficacy of therapeutic angiogenesis induced by intramuscular autologous platelet rich plasma in non revascularisable critical limb ischemia due to peripheral artery diseases, Cardiac Radiology
6. IUSSTF Reducing cancer mortality through cancer prevention, Gastroenterology
7. Solid tumor targeting using homing peptide and plasmonic photothermal technique, Surgery
8. Study of paracrine mechanism of autologous stem cell transplantation in stroke using bifunctional markers, Neurology
9. To study efficacy of amniotic membrane as an alternative wound dressing in patients with post traumatic raw area admitted in trauma surgery unit, Trauma Surgery
10. Utilization of intra arterial injections of autologous bone-marrow derived mononuclear cells for treatment of spinal injury, Cardiac Radiology

Completed

1. Comparison of autologous cultured limbal stem cells on amniotic membrane transplant versus limbal lenticle transplantation alone in the management total limbal stem cell deficiency due to ocular burns: A randomized controlled clinical trial, RP Centre
2. Evaluation of autologous bone marrow derived stem cells in dry age related macular degeneration, RP Centre

Blood Transfusion Services

Collaborative projects

Ongoing

1. Comparing the Vascularising potential of MSCs and MAPCs in monoculture and coculture systems with human OECs under normoxia and hypoxia, Stem Cell Facility
2. CRISPR-mediated technologies for the development of new Therapeutics and Diagnostics, Biochemistry
3. Effect of Hyperglycaemia on macrophage function in pathophysiology of pulmonary TB, Biochemistry
4. Evaluation of Mesenchymal Stem Cell derived exosomes on neutrophil—Induced tissue damage in the animal models of liver and heart disease, Stem Cell Facility
5. Host-Parasite interaction in Malaria, Biochemistry
6. Regulation of HIV reservoirs through autophagy, Biochemistry
7. Study the potential role of HLA-G mediated immunomodulation by tissue specific human Mesenchymal Stem Cells, Stem Cell Facility
8. Targeting Telomerase Reverse Transcriptase (TERT) gene to immortalize Peripheral Blood Mononuclear Cells of patients with coronary artery disease, Stem Cell Facility

Completed

1. Generation and Characterisation of molecularly cloned HIV-1 Env Pseudoviruses from Indian HIV-1 infected children, Biochemistry

PUBLICATIONS

Cardiology

Journals: 80 Chapters in Books: 24 Books: 2

Cardiothoracic and Vascular Surgery

Journals: 22 Chapters in Books: 10

Cardiac Anaesthesiology

Journals: 29 Abstracts: 3 Chapters in books: 3 Book: 1

Cardiac Biochemistry

Journals: 12

Cardiac Nuclear Medicine

Journals: 2 Abstracts: 14 Chapters in book: 1

Cardiac Pathology

Journals: 15 Chapters in book: 1

Cardiovascular Radiology and Endovascular Interventions

Journals: 14 Chapters in books: 9

Stem Cell Facility

Journals: 13

Blood Transfusion Services

Journals: 2

PATIENT CARE

Cardiology

Total numbers

New OPD cases **38,220** Old Cardiology Cases **1,10,963**

Patient Services

• TMT	2,828	• ABP	96
• Holter	3,100	• TEE	55
• Echocardiography	34,158	• HUTT	198
• ECG	30,903		

Cath Lab Services

CART	2,063
Cath	819
Balloon Dilatation	93
PTMC	236
PDA	114
ASD Device	76
VSD Device	15
PTCA	1,165
Pacemakers/PGR	390 + 142
ICD	47
CRT	53
RFA	92
CARTO	12
DSA	305
Coil embolization	128
BAS	75
EM Biopsy	39

Cardiothoracic Vascular Surgery

Workload

At the Department of CTVS, one of the largest numbers of adult, aortic and paediatric cardiac surgery for congenital heart defects were performed in the country. Between 1 April 2018 and 31 March 2019, 3,961 surgeries were performed in the department. Along with Department of Cardiology, 38,220 new cases and 1,69,056 old cases were seen in the OPD.

The facilities and infrastructure

- a. **Operating Rooms (OR's):** There are 8 fully functional operating rooms in the Department of CTVS. Each of one of these is equipped with all the necessary equipment required for performing the entire range of adult, aortic and paediatric cardiac surgery. These include state of the art monitoring system and anesthesia station, NIRS, BIS, EEG, 3-D echocardiography, cell saver, CPB machines, vacuum assisted venous drainage, centrifugal pump, bronchoscope, and intra-operative neuromonitoring.
- b. **ICU Beds:** The department has 4 ICUs (54 beds) fully equipped with all advanced facilities for postoperative cardiovascular surgical care.
 - i. ICU-A: 16 Beds
 - ii. ICU-B: 18 Beds
 - iii. Neonatal ICU: 8 Beds
 - iv. CT-5 ICU: 12 Beds

However, the HDU also has 12 additional beds. Out of these, 20 beds are specifically earmarked for children. Besides this, the main ICU and HDU comprising of the remaining 46 beds (54+12-20=46) are fully equipped and all facilities for cardiac intensive care are available.

- c. **General Beds:** The department has 80 **general beds**:
 - i. CT-4 Ward: 44 Beds
 - ii. CT-5 Ward: 24 Beds
 - iii. CT-6 Ward: 12 Beds
- d. **CN Tower (Private Ward): Thirty-two (32) beds in private/paying ward**, shared with Department of Cardiology
- e. **Homograft Valve Bank:** The department runs the most successful valve bank of the country. This ensures adequate supply of homografts to manage complex paediatric cardiac surgical problems
- f. **Supportive services:** Five cardiac catheterization labs including, advanced CT scan, MRI, nuclear medicine, ultrasound, and echocardiography lab, state of the art blood bank, and laboratory services

Cardiac Anesthesiology

1. Advanced monitoring facilities (TEE, TTE, NIRS, NICO monitoring) for management of routine, emergency and high risk cardiac surgical patients belongs to all spectrum
2. Specialized cognitive rehabilitation programme for heart failure, heart transplant and LVAD patients
3. Routine stress management programme both for pre and post operative patients
4. Different community programme by the faculties
5. Team member of heart failure treatment like heart transplant and LVAD
6. Transesophageal Echocardiography
7. Community service—Charitable health camps and health education
8. Special involvement with anesthesia for complex congenital heart surgery and OPCAB

Cardiac Biochemistry

The Cardiac Biochemistry laboratory caters to outpatients and inpatients of cardiothoracic center and for some of the diagnostic tests to patients from other departments as well as from other hospitals. This year we introduced the testing of renin and aldosterone.

Tests done in Centralised Lab CNC in the year of April 2018-March 2019.

S. No.	Description	No. of Tests (Ward)	No. of Tests (OPD)
Clinical Chemistry			
1.	Glucose	31,433	46,840
2.	Urea	57,478	45,810
3.	Creatinine	57,478	45,750
4.	Calcium	56,120	44,105
5.	Phosphorous	56,130	43,990
6.	Uric Acid	57,115	44,220
7.	Sodium	57,300	44,550
8.	Potassium	67,128	44,840
9.	Bilirubin	56,390	45,450
10.	Direct Bilirubin	55,540	45,340
11.	Total Protein	58,160	45,110
12.	Albumin	56,890	45,110
13.	AST	60,140	45,220
14.	ALT	60,140	44,740
15.	ALP	58,140	44,700
16.	Cholestrol	36,180	7,115
17.	Amylase	26,110	7,101
18.	Cyclosporin	215	NA
19.	Tacrolimus	476	NA

Haematology and coagulation			
1.	Hb, TLC, DLC, Platelets, ESR	60,706	35,696
2.	PT	13,000	57,968
3.	APTT	1,250	6,586
Hormones			
1.	T3	12,700	7,000
2.	T4	12,700	7,000
3.	TSH	13,700	9,000
4.	Prolactin	1,660	1,170
5.	Cortisol	1,690	1,700
6.	Vitamin B12	8,200	3,700
7.	Folate	2,500	2,200
8.	Homocysteine	1,700	1,200
9.	Ferritin	1,350	200
10.	Iron	1,350	200
11.	UIBC	1,350	200
Catecholamines/VMA			
1.	Adrenaline/Nor adrenaline	370	120
2.	VMA	370	120
PTH/Vitamin D			
1.	Vitamin D	3,320	1,000
2.	PTH	50	0
Lipids/Cardiac Enzymes/HbA1c			
1.	Lipid Profile	46,300	51,000
2.	CK-NAC	13,000	3,990
3.	CK-MB	3,700	2,450
4.	LDH	10,200	9,940
5.	ASLO	1,230	3,670
6.	CRP	34,500	26,790
7.	Digoxin	470	302

Cardiac Nuclear Medicine

Nuclear Cardiology Unit in CNC is equipped with a dual head SPECT-CT Gamma Camera. The nuclear cardiology unit caters to patients referred for cardiac studies from CN center and other departments of the hospital.

The department routinely performs myocardial perfusion SPECT imaging which is an integral investigation in the diagnosis and management of patients with coronary artery disease. We also perform cardiac PET imaging with PET perfusion tracer N-13 NH₃ and metabolic tracer F-18 FDG for assessment of myocardial viability. New diagnostic imaging for non CAD indications are now performed like Gallium-68 DOTANOC for cardiac sarcoidosis, cardiac infective and inflammatory pathologies. We have also assessed the feasibility of F-18 FDOPA for evaluation of cardiac sympathetic innervations. The department also performs radionuclide ventriculography for assessment of left ventricular function in CAD patients referred from the center and from IRCH for cardiac evaluation in patients receiving chemotherapy.

Total number of patients investigated in Nuclear Cardiology

Myocardial perfusion study:	1,859	RNV study:	562
Cardiac PET:	156	Misc. (V/Q scan, 1st pass):	147
Total number of studies performed:	2,724		

Cardiac Pathology

Specimens

Routine:	460	Research:	176
----------	-----	-----------	-----

Others

Immunohistochemistry:	48 slides	H&E stain:	327 slides
Special stains:	107 slides		
Manual processing of post-transplant biopsies:	44 cases		
Cutting of blocks (unstained sections):	498 slides		

Cardiovascular Radiology and Endovascular Interventions

Facility	Number of procedures		
CT	5,184 (CT head - 262, Chest - 198, Abdominal - 4,724)		
MRI	759	DSA	663
Doppler and Ultrasound	7,511	Catheter angiographies	4,662

Stem Cell Facility

S. No.	Service Provided	Number of samples
1.	Stem Cell Isolation from Bone Marrow	41
2.	Stem Cell Isolation from Adipose Tissue	17
3.	Stem Cell Isolation from Wharton's Jelly	23
4.	Stem Cell Isolation from Dental Pulp	11
5.	Cryopreservation of Apheresis sample	17
6.	Umbilical cord blood cryopreservation	4
7.	Cultured Oral Mucosa Epithelial Transplantation	2
8.	Culture Limbal Epithelial Transplant	8
9.	Amniotic Membrane preparation for grafting	30 batches
10.	Hair Follicle stem cells	22
11.	Viability of stem cells (pre and post transplantation/ infusion)	21
12.	Stem Cell Enumeration (CD34+ count)	21

Blood Transfusion Services

Blood	Units collected
Replacement donors	12,552
Voluntary donors in the department	359
Voluntary through blood mobile	590
Family voluntary donors	8,365
Blood received from IRCS	52
Blood received from Hospital Blood Bank, AIIMS	345
Blood received from JPNATC, AIIMS	152
Blood received from other hospital	99
Total no. of blood units collected	22,514
Blood Units Issued	
Blood units issued to CTVS/NS	28,119
Blood issued to Hospital Blood Bank, AIIMS	713
Blood issued to JPNATC	180
Blood issued to other hospitals	1,020
HIV/HBsAg/HCV reactive units discard	521
Total No. of blood units issued	30,032
Lab Procedures	
Total no. of Blood grouping (ABO)	93,188

Total no. of Blood grouping (RH)	70,674
Total no. of Cross matching done	1,39,708
Infectious Markers	
HIV	25,824
HBV	25,968
HCV	25,840
VDRL	24,250
MP	24,250
Total	1,26,132
No. of Blood Components Issued	
Fresh Frozen Plasma (FFP)	20,912
Platelet Concentrate	15,879
Cryoprecipitate	2,008
Packed Red Cells	30,032
Single Donor Plateletpheresis	34
Total	68,865

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Cardiology

Professor VK Bahl received Excellence in Cardiology by TV News X Health Awards, 2018; PL Wahi Oration by International Society of Heart research (2018); Life Time Achievement Award CSI, Delhi Branch, (2018); AK Thakur Memorial Oration, CSI, Bihar; Course director, India Live; Chair, India Live Session Euro PCR 2018, 22-25 May 2018, France.

Professor Anita Saxena was President of National Rheumatic Heart Consortium.

Professor SS Kothari was member of Ethics Sub-Committee of Medical Council of India (MCI); Member (Expert), Drug Controller, Government of India (DCGI), 2018-2019.

Professor Balram Bhargava: DG, ICMR; Secretary, DHR; President, SLIM (Society for Less Investigative Medicine).

Professor KC Goswami was President, Cardiological Society of India; Chairman of Scientific Committee of Annual Conference of CSI 2018, which was held at Mumbai. The conference was one of the biggest international cardiology conferences of South East Asia and Asia Pacific Region and was a big success. It was attended by more than 4,000 delegates across the globe.

Professor Sandeep Seth was Editor in Chief, JPCS.

Professor Sundeep Mishra was member of Board of Trustees SCAI; Member International adaptation of SCAI Clinical Guidance Documents Sub-group; International Editor, Sri Lanka Journal of Cardiology; India Session Coordinator, K Imaging, Korea; India Session Coordinator, IC MED, Turkey.

Professor Rakesh Yadav was Treasurer, CSI Delhi Branch; Editor, Indian Heart Journal.

Professor G Karthikeyan was Editor-in-Chief of *Heart Asia* which is one of the three heart journals published by the BMJ Group; Member of the Rheumatic Heart Disease (RHD) Expert Group of the Global Burden of Disease Study, coordinated by the Institute of Health Metrics and Evaluation (IHME); Board member of Rheumatic Heart Disease, Evidence, Advocacy, Communication, Hope (RhEACH) which is an international collaboration with a mandate to identify, describe and disseminate solutions for this neglected disease and to reduce the burden on vulnerable populations around the world; Member of the Health Technology Assessment Board of the Government of India.

Professor Ambuj Roy: American Heart Association certified BLS/ACLS Instructor; Collaborator, Global Burden of Disease; Member of the GBD India CVD Expert Group; Member, Expert Committee, MOHFW for National CVD Programme-

NPCDCS; Member of the Task Group on Health Services for Haryana Governance Reforms Authority.

Professor S Ramakrishnan was Assistant Editor of Annals of Pediatric Cardiology; Treasurer of National Rheumatic Heart Consortium; Associate editor of JPCS; Secretary, SLIM.

Dr Saurabh K Gupta was Treasurer, PCSI; received Young Investigator Award PCSI 2018; was Runner up IHJ-AV Gandhi Award for Excellence in Cardiology Award 2018; DP Basu Award in CSI 2018.

Cardiothoracic and Vascular Surgery

Professor SK Choudhary was nominated as Visiting professor by All India Institute of Medical Sciences, Rishikesh; Recipient of Best Reviewer Award for the year 2018-2019, instituted by Indian Journal of Thoracic and Cardiovascular Surgery; Nominated as Chairperson of Experts groups for development of Standard Treatment Workflows (STWs) in CTVS, Government of India, Ministry of Health and Family Welfare (Department of Health Research), New Delhi; Nominated as Section Editor 'Aorta' for Indian Journal of Thoracic and Cardiovascular Surgery; Nominated as expert to the selection committee for selection and assessment promotion of faculty members in CTVS on 4 May 2018 at SGPGIMS, Lucknow; Nominated as expert to the selection committee for selection of MS, Associate Professor, Assistant Professor and Medical Officer on 17 July 2018 at Rajeev Gandhi Super Specialty Hospital, New Delhi; Nominated as expert to the selection committee for selection of Associate Professor, Assistant Professor on 2 August 2018 at Rajeev Gandhi Super Specialty Hospital, New Delhi; Nominated as an external examiner for MCh (CTVS) held on 18 August 2018 at LPS Institute of Cardiology, GSVM Medical College, Kanpur; Nominated as expert to the Standing Selection Committee for the post of Assistant Professor in CTVS on 26 October 2018 at IGMS, Patna; Nominated as Chairperson to conduct inspection at PGIMER, Chandigarh for Heart and Lung Transplantation facilities under Transplantation of Human Organs Act, 1995 by the DGHS, New Delhi on 26 November 2018; Nominated as Chairperson to conduct inspection at Dr Ram Manohar Lohia Hospital, New Delhi for Heart Transplantation facilities under Transplantation of Human Organs Act, 1995 by the DGHS, New Delhi on 14 December 2018; Nominated as an external examiner for MCh (CTVS) from 11-12 January 2019 at Institute of Medicine, Tribhuvan University, Kathmandu, Nepal; Nominated as Expert to the Standing Selection Committee for the post of Assistant Professor, Associate Professor in CTVS on 23 January 2019 at AIIMS, Rishikesh; Nominated as Chairperson of Experts groups for development of Standard Treatment Workflows (STWs) in CTVS, Government of India, Ministry of Health and Family Welfare (Department of Health Research), New Delhi; Nominated as Visiting Professor, AIIMS, Rishikesh; Nominated as Expert to the selection committee for the post of Associate Professor, and Professor in CTVS on 14 February 2019 at BHU, Varanasi; Nominated as Expert to the Standing Selection Committee for the post of Assistant Professor and Associate Professor in CTVS on 18 February at IGIMS, Patna; Nominated in Specialists Board in specialty of Cardiothoracic Surgery, National Board of Examinations.

Professor Sachin Talwar was nominated as the external examiner for DNB (CTVS) by the National Board of Examinations at National Heart Institute, New Delhi, 18-20 April 2018; Nominated as Expert to the standing selection committee for the post of Assistant Professor and Assessment Promotion Scheme to the post of Professors, PGI, Chandigarh for selection 18 June 2018; External examiner for MCh (CTVS) at Dayanand Medical College, Ludhiana, 23 September 2018; Nominated by the National Board of Examinations as an external expert to inspect the physical infrastructure of Dr Ramesh Cardiac and Multispecialty Hospital, Guntur, Andhra Pradesh.

Dr Sarvesh Pal Singh received Best Case Report Award for 2018 for the best case report published in the Indian Journal of Thoracic and Cardiovascular Surgery. Singh SP, Bansal A, Parakh N, Sahu MK, Hote MP, Seth S, Airan B. First successful experience of ECPR to heart transplant at a tertiary care institute. Indian J Thorac Cardiovasc Surg; 2018, 34(2):150-53; Best paper Award to Dr Shamayal Rabbani for the paper Rabbani S, Singh SP, Hote MP. Heart Transplant at a Tertiary Care Institute—An Experience of Past 3 years presented at 6th Annual Conference of Society for Heart Failure and Transplantation on 15 and 16 September 2018 at Coimbatore.

Cardiac Anesthesiology

Professor Neeti Makhija chaired the session on the State of the Art: Evaluation of Aortic Valve and Aorta which included the following lectures (From 3:00 PM-5:15 PM) in the 7th Comprehensive Preoperative Echo Workshop from 1 to 2 December 2018 at Gurgaon: Assessing Aortic Stenosis—When AVR? Aortic Regurgitation: Pitfalls in Assessment, State of the Art Imaging Evaluation of Acute Aortic Syndrome, Prosthetic Heart Valve Evaluation; **Mentored** the delegates in: WET LAB: Hands-on Porcine Heart Dissection with Echo Anatomic Correlation in the workshop and also attended the other sessions (5.30 PM-7.15 PM) in the 7th Comprehensive Preoperative Echo Workshop from 1 to 2 December, 2018 at Gurgaon; **Chaired** the session on Paediatric Imaging on 2 March 2019 in the 13th Annual Echocardiography Workshop at PGIMER, Chandigarh that consisted of the following lectures: Echo assessment of patient with TGA: Decision making for regressed, LV: Will this ventricle take up the stress? Preop ECHO in patients with severe PAH—What to

look for—Can we avoid cath study; Evaluation of Ventricular septal Defects and AV canal defect; **Chaired** a session on Recent advances on Echocardiography on 3 March 2019 that included the following lectures: 3D imaging —Basics in 3D TEE, TEE assessment of ventricular assist devices, Role of strain imaging in TEE; **Chaired** the session on ECMO and Beyond that included the following lectures: ECMO management in the ICU, Role of echocardiography in ECMO, ECLS Ethical Dilemmas.

Professor Poonam Malhotra Kapoor has become the President of IACTA (non elected); Continuing as the President of SCA-Delhi and NCR Branch (non elected); Continuing as Founding Secretary and Chairman Academics of The Simulation Society; Dr Poonam Malhotra has become the Past President of ECMO Society of India (non elected); Editor-In-Chief, Journal of Cardiac Critical Care, 1st and 2nd issues of JCCC 2018; 7 national conferences organized as PG Assembly and CME; Examiner: Was Examiner for FIACTA, FTEE examination conducted by IACTA at Bangalore; Content provider for online Fellowship in Cardiac Critical Care (FICCC), Fellowship in Advanced Echocardiography (FIAE) and Fellowship in Basic Echocardiography (FIBE) online Examination, conducted by The Simulation Society (TSS) and Journal of Cardiac Critical Care (JCCC); The Exams were online conducted by Tata Consultancy Services. **Chaired** a session on MICS, SMICTSI 3rd Annual Conference of SMICTSI, 9 September 2018, Bengaluru

Professor Arindam Choudhury was re-elected as the North Zone representative of **National Executive Committee** of All India Difficult Airway Association (AIDAA) during National Airway Conference 2018 of AIDAA at Bishwa Bangla Convention center, Salt Lake, Kolkata.

Cardiac Biochemistry

Professor Lakshmy Ramakrishnan was member of Technical Advisory Group constituted by Ministry of Health and Family Welfare for conducting Comprehensive National Nutrition Survey (CNNS); Expert member of Project Review Committee of Indian Council of Medical Research in the area of Obesity and Metabolic Syndrome; Also an expert member of ICMR in the area of Non Communicable Diseases; Expert member for the Task Force Project on ICMR-India Diabetes [INDIAB] study for estimating prevalence of Diabetes and Pre-Diabetes in different states of India; Member of CKD Project Monitoring Technical Advisory Committee constituted by Health and Family Welfare Ministry, Government of AP; Advisor for center of advanced research of ICMR on mechanism leading to preeclampsia in IRSHA, Pune; National editor, J of Practice of Cardiovascular Sciences; Member of subcommittee for review of call for proposals in the area of Vitamin D by DBT; Reviewed projects for imprint 2 scheme under DST; Member of technical specification committee for purchase of equipment in Biochemistry Department, RML.

Cardiac Nuclear Medicine

Professor Chetan D Patel was external expert in Technical Specification Committee for purchase of solid state detector SPECT camera at PGIMER, Chandigarh; Reviewer for national and international academic journals; Member of Executive Committee, Society of Nuclear Medicine, India; Member of Executive Committee, Association of Nuclear Medicine Physicians of India; Member of Executive Committee, Nuclear Cardiological Society of India; Reviewed thesis of MD Nuclear Medicine students, Amrita Institute of Medical Sciences, Kochi; External Examiner for MD Nuclear Medicine Exam, Amrita Institute of Medical Sciences, Kochi; Internal Examiner for MD Nuclear Medicine and MSc Nuclear Medicine Technology Practical Examinations held in May 2017; Reviewer of Adhoc Extramural Proposal of ICMR; Member Store Purchase Committee of Center for Integrative Medicine and Research (CIMR); Chairman, Selection Committee for recruitments in research projects at CIMR; Member of Selection Committee for recruitment of core staff at CIMR under COE Scheme, AYUSH; DM cardiology students: Dr Rondeep Kumar Nath Sivam and Dr Synrang Batngen Warjri, NEIGRIHMS, Shillong-One month experience in Nuclear Cardiology, AIIMS.

Cardiac Pathology

Dr Sudheer A was Chairperson, Pulmocrit AIIMS 2019, 2-3 March 2019, AIIMS, New Delhi; Chairperson and judge for poster session, CME: Paediatric pathology: Current trends and perspective, 16 March 2019, SSPH and PGTI, Noida

Cardiovascular Radiology and Endovascular Interventions

Professor Sanjiv Sharma was external examiner for the practical examinations of MD (Radio-Diagnosis), 30 June 2018, IGMC, Shimla; Expert for the Standing Senior Selection Committee of SCTIMS, 5 June 2018 Trivandrum; External expert for Senior Staff Selection Committee Meeting, 21 January 2019, Trivandrum; Chairperson, moderation of cases, CSI-NIC Conference - 2018, 11 May 2018, Hyderabad; Reviewer for many national and international radiology and cardiology journals.

Professor Gurpreet Singh Gulati was founding member, AIIMS, KALA SANGAM; Organizing Committee, AIIMS GOT TALENT. A first of its kind event for showcasing talent in performing arts among all cadres of AIIMS staff and students.

There were over 160 entries in various categories of music and dance, screening held through 2 auditions, and culminating in the finale on 27 January 2019; Reviewer for many national and international radiology and cardiology journals.

Professor Priya Jagia was reviewer for many national and international radiology and cardiology journals; Organizing Secretary of Annual Conference of Indian Association of Cardiac Imaging held at Medanta, Hospital, Gurgaon on 5-7 October 2017; National editor of Book on Cardiac Imaging, Advances in Clinical cardiovascular imaging, 1st Edition, edited by Dr HK Chopra, published by Jaypee Brothers.

Dr Sanjeev Kumar was reviewer for many national and international radiology and cardiology journals.

Residents

Dr Niraj Pandey was awarded Best Fellow in Interventional Radiology at the 21st Annual Conference of Indian Society of Vascular and Interventional Radiology at Goa (7-10 March 2019).

Stem Cell Facility

Professor Sujata Mohanty received 2nd Prize in Oral Presentation for the talk entitled Scaffolds for Skin Tissue Engineering by Amtoj Kaur at the First Institute Research Day (AIIMS) on 26 March 2019; 2nd Prize in Poster Presentation for the poster entitled Therapeutic role of stem cell derived exosomes in regenerative medicine: A cell free approach by Suchi Gupta, Baibaswata Nayak, Arup Banerjee, Sujata Mohanty at the First Institute Research Day (AIIMS) on 26 March 2019; was Nominated as Member of Institutional Committee for Stem Cell Research in National Institute of Immunology, New Delhi; Institute of Liver and Biliary Sciences, New Delhi; National Brain Research Centre, Manesar; THSTI, Faridabad; IIT, Indore; University of Delhi; CSIR-Institute of Genomics and Integrative Biology (IGIB); Indian Spinal Injuries Centre, New Delhi; Kavikrishna Lab IIT, Guwahati; Jamia Hamdard University, New Delhi; Nominated as Member of various International Bodies like International Society for Cellular Therapy (ISCT); International Society for Stem Cell Research (ISSCR); Society of Biological Chemists (SBC); Indian Immunology Society; Indian Society of Nanomedicine; Indian Science Congress Association; Stem Cell Research Foundation of India; The Cytometry Society, India; Indian Society for Translational Research; The Biomedical Engineering Society (BMES); Nominated as member of various Advisory Bodies like Core Committee for Stem Cell Donor Registry for Bone Marrow Transplant in India; Stem Cell Donor Registry, Ministry of Science and Family Welfare, Government of India; High Powered Committee by Ministry of Health and Family Welfare, Government of India; Brainstorming meeting on Biofabrication and 3D Bioprinting; Expert Group Committee - Limbal Stem Cell Transplantation - ICMR; Centre for induced pluripotent Stem Cell Research and Application (CiRA)—For collaboration; Investigating team of CDSCO - Dendritic Cell Vaccine Scandal; Department of Biotechnology Task Force on Bioengineering; DBT Expert Committee for Indo-Australian Career Boosting Gold Fellowships (IACBG-Fellowships); Technology Development Board, DST; Internal Committee for Sexual Harassment Cell: Redressal of Complaints NII; Institute of Life Sciences, Bhubaneswar; National Centre for Cell Science; Nominated as member of various Research Grant Review Committee Project Monitoring Committee (BIRAC), DBT; Biotechnology Career Advancement and Reorientation Programme for Women Scientists (BioCare), DBT; Biotechnology Industry Research Assistance Council (BIRAC); Indian Council of Medical Research, New Delhi; Department of Science and Technology, New Delhi; Council of Scientific and Industrial Research, New Delhi; Peer Review Committee - DRDO - Apollo Hospital, Hyderabad; SPARC (Scheme for Promotion of Academic and Research Collaboration), Ministry of Human Resource Development, Government of India at IIT, Kharagpur; As a member in various Editorial Committees Journal—Current Trends in Stem Cells and Regenerative Medicine (CTSR); Jacobs Journal of Bone Marrow and Stem Cell Research; Scientific Reports, Nature Publishing House; Stroke Research and Treatment; Indian Paediatrics; Cytotherapy; Translational Surgery; As a member in various Journal Review Committee Stem Cell Research Open Library (SCROL); Life Science; Journal of Biosciences; Biomedical Research Journal; Insights in Stem Cells; World Journal of Stem Cells; CEINCIA Publishing Group; Translational Surgery; Molecular and Cellular Biochemistry; Indian Heart Journal; BMC Ophthalmology; Regenerative Medicine; Bioscience Reports; Current Stem Cell Research and Therapy.

Blood Transfusion Services

Dr Anjali Hazarika enrolled for PhD since 2015; chaired scientific sessions on Paediatric Bone marrow Transplant during CME on Recent Advances in apheresis Technology in FMRI Fortis, Gurgaon, Haryana, 23 June 2018; Chaired scientific sessions during CME cum workshop on Advanced immunohaematology in Transfusion Medicine in ILBS, New Delhi, 15 and 16 February 2019; As a member of Core Committee of National Blood Cell, NHM, participated as resource person in Restructuring of Guidelines of Blood Storage Centres in India and also preparing the Model SOPs for BSUs in India; As External Technical Expert in procurement team of CMSS, participated in technical evaluation of Blood Bags for NACO; Resource person in Content development of Training Module for Strengthening of Blood Services and E-Raktkosh by NIB and NHM, 2 April 2018, 17 April 2018, 20 June 2018, 18 July 2018, 30 August 2018, 16 October 2018 and 18 December 2018; Inhouse CME on ID-NAT testing in Blood Donors, 5 July 2018; Inhouse CME on MP-NAT testing in Blood Donors, 20 July 2018.

VISITING SCIENTISTS

Cardiac Thoracic Vascular Surgery

1. TK Susheel Kumar, Le Bonheur Childrens' Hospital, Memphis, United States of America
2. Dr Klaus Goerlinger, TEM International GmbH, Munich, Germany
3. Dr Jignesh K Patel, Cedars-Sinai, Los Angeles, United States of America
4. Dr Peter Zilla, University of Cape Town, Cape Town, South Africa

Cardiovascular Radiology and Endovascular Interventions

1. Dr Erdenesuren, The Third State, Central Hospital, Ulaanbaatar, Mongolia
2. Dr Batgerel, The Third State, Central Hospital, Ulaanbaatar, Mongolia
3. Dr Delgermaa, The Third State, Central Hospital, Ulaanbaatar, Mongolia
4. Dr Tsogjavkhlán, The Third State, Central Hospital, Ulaanbaatar, Mongolia
5. Dr Reeta Kanaujiya, Safdarjung Hospital, Delhi, India
6. Dr Puneet Garg, Safdarjung Hospital, Delhi, India
7. Dr Haruna Salihu Musa, Federal Medical Centre, Birnin Kebbi, Nigeria
8. Dr Kabiru Isyaku, Radiology Department Aminukano Teaching Hospital, Kano, Nigeria
9. Dr Soy Htay Hlaing, Defence Services General Hospital No. (1), Yangon, Myanmar
10. Dr Thet Zaw, Defence Services General Hospital No. (1), Yangon, Myanmar
11. Dr Htet Thura, Defence Services General Hospital No. (1), Yangon, Myanmar
12. Dr Htun Htun Naing, Defence Services General Hospital No. (1), Yangon, Myanmar
13. Dr Lwin Myo Thant, Defence Services General Hospital No. (1), Yangon, Myanmar
14. Dr Nay Htet, Defence Services General Hospital No. (1), Yangon, Myanmar
15. Dr Pawan Kumar, Maulana Azad Medical College, Delhi, India
16. Dr Raghvendra, Maulana Azad Medical College, Delhi, India
17. Dr Rajesh V, Maulana Azad Medical College, Delhi, India
18. Dr Malvika Gulati, Maulana Azad Medical College, Delhi, India
19. Dr Shurenchimeg Sainbayar, The Third State, Central Hospital, Ulaanbaatar, Mongolia
20. Dr Molor Erdene Demchigsuren, The Third State, Central Hospital, Ulaanbaatar, Mongolia
21. Dr Jargalsaikhan Sodnombaljir, The Third State, Central Hospital, Ulaanbaatar, Mongolia
22. Dr Kyaw Zaya, Defence Services General Hospital No. (1), Yangon, Myanmar
23. Dr Aung Zaw Htun, Defence Services General Hospital No. (1), Yangon, Myanmar
24. Mr Chan Nyein Lu, Defence Services General Hospital No. (1), Yangon, Myanmar
25. Mr Ye Nazing Tun, Defence Services General Hospital No. (1), Yangon, Myanmar
26. Mr Tunaungkyaw, Defence Services General Hospital No. (1), Yangon, Myanmar
27. Mr Pyae Phyo Oo, Defence Services General Hospital No. (1), Yangon, Myanmar
28. Dr Athukoralalage Dilsha Praneeth Athukorala, Interventional Radiology National Hospital, Colombo, Sri Lanka
29. Dr Sathiyaseelan Maniheran, Interventional Radiology National Hospital, Colombo, Sri Lanka

Stem Cell Facility

1. Dr Dean Brenner, University of Michigan, Michigan, USA
2. Dr Justin Colacino, University of Michigan, Michigan, USA
3. Dr Jennifer Christen, University of Michigan, Michigan, USA
4. Dr Veena Sangwan, McGill University, Montreal, Canada

10.2. Centre for Dental Education and Research

Chief

OP Kharbanda
(Orthodontics and Dentofacial Deformities)

Professors

Ritu Duggal
(Orthodontics and Dentofacial Deformities)

Veena Jain
(Prosthodontics)

Ajoy Roychoudhury
(Oral and Maxillofacial Surgery)

Ongkila Bhutia
(Oral and Maxillofacial Surgery)

Additional Professors

Vijay Prakash Mathur
(Pedodontics)

Ajay Logani
(Endodontics and Conservative Dentistry)

Associate Professors

Dalim Kumar Baidya
(Anaesthesia)

Devlina Goswami
(Anaesthesia)

Assistant Professors

Amrita Chawla
(Endodontics and Conservative Dentistry)

Rahul Yadav
(Oral and Maxillofacial Surgery)

Prabhat Kumar Chaudhari
(Orthodontics and Dentofacial Deformities)

Nitesh Tewari
(Pedodontics)

Dheeraj Kumar Koli
(Prosthodontics)

Vikender Singh
(Periodontics)

Vijay Kumar
(Endodontics and Conservative Dentistry)

Vilas Samrit
(Orthodontics and Dentofacial Deformities)

Kunaal Dhingra
(Periodontics)

Kalpna Bansal
(Pedodontics)

Shalini Gupta
(Oral Medicine)

Deepika Mishra
(Oral Pathology and Microbiology)

Harsh Priya
(Public Health Dentistry)

HIGHLIGHTS

Orthodontics

It has provided quality orthodontic care to patients with malocclusion, dentofacial deformities and cleft lip and palate. We have initiated and now established a new combined clinic 'Orthognathic Surgery' for correcting facial deformities. It has provided leadership in the field at national and international levels. Dr Kharbanda was an invited speaker to twelve national and seven international events in the reporting year. In addition, the professional and academic expertise was also extended to various government/research organizations such as ICMR and Ministry of Health and Family Welfare and other institutions. Dr Kharbanda gave significant inputs to important international journals in the field of Orthodontics in the capacity of International Editorial Board/Peer Review Board.

Oral and Maxillofacial Surgery

It is involved in providing high quality surgical care in Trauma, Facial esthetics, temporomandibular joint, craniosynostosis etc. It has the distinction of being in the forefront of maxillofacial trauma treatment. In this context a two-day live surgical

workshop on orthognathic surgery was conducted in the month of November 2018. It involved lectures, live surgery and hands on skill training on 3D-printed facial models and live orthognathic surgery patient. Delegates from all over India attended this.

Pedodontics and Preventive Dentistry

It has shown leadership in the profession by organizing the inaugural national conference of Indian Society of Dental Traumatology and also first South Asian Association of Paediatric Dentistry Conference in New Delhi. It also conducted a National Symposium and three other scientific programs in different parts of the country. Our faculty and students have received best papers and academic honors and professional distinction in various national and international professional associations.

Periodontics

It deals with prevention, diagnosis and treatment of periodontal diseases. It provides optimum care to a large number of patients daily for periodontal treatment and also those referred from other departments. Various types of treatment procedures such as conventional non-surgical and surgical periodontal therapy, periodontal plastic surgery, soft and hard tissue regenerative procedures and diode LASER-assisted soft tissue excision and adjunctive pocket debridement procedures are being carried out in the division. The dental hygienists of the division are trained to provide basic periodontal care under specialist supervision.

Oral Pathology and Microbiology

Professor Randeep Guleria, Director, AIIMS, New Delhi with Professor OP Kharbanda, Chief, CDER, and AIIMS inaugurated the Oral Histopathology Lab, CDER on 17 January 2018. The Oral Histopathology laboratory at Room No. 503, fifth floor, CDER, AIIMS is now functional and is well-equipped to process and provide Histopathology and Cytopathology reporting on various hard and soft tissue pathologies of oral and maxillofacial region. This includes the reporting of potentially malignant disorders, benign and malignant lesions of oral cavity, odontogenic and maxillofacial cysts and bone tumors, tumors of oral cavity, tongue and salivary glands and other pathologies affecting oral and maxillofacial region.

Public Health Dentistry

Ministry of Health and Family Welfare has designated Centre for Dental Education and Research as the National Centre of Excellence for the implementation of National Oral Health Programme and it works under the guidance of the Chief and Director of the programme works for the execution of NOHP.

EDUCATION

Orthodontics

Postgraduate

At present Centre is conducting full time postgraduate programme in Orthodontics, PhD and fellowship. First fellowship in cleft and craniofacial orthodontics has been awarded in December 2018.

Oral and Maxillofacial surgery

It is imparting postgraduate in Oral and Maxillofacial surgery education for the past 10 years. The teaching includes Post-graduate seminars, journal clubs, bed side case discussions and surgical training.

- Problem based learning
- “Tell-show-do-review” model in teaching
- Log book and record keeping
- What went right? What could have been better? Model in seminars

Prosthodontics

Under graduates: Clinical teaching of 7th semester MBBS students

Postgraduates course in Prosthodontics.

Pedodontics and Preventive Dentistry

The Postgraduate course in Pedodontics and Preventive Dentistry was started in January 2017 (Master in Dental Surgery). It also participates in interdisciplinary training within CDER.

Periodontics

Clinical teaching of MBBS students as per their dental curriculum. Seminars for non-academic Junior residents. Joint academic sessions and classes for BSc Dental Hygiene students.

Oral Pathology and Microbiology

Clinical teaching of 7th semester MBBS students (4 batches). Teaching in the form of taking seminars of Non-Academic Junior residents (BDS) at CDER.

Oral Medicine

Classes for Non-Academic junior residents, MBBS, DORA Students, Dental Hygienist and Nursing Students.

CMEs/Workshops/Symposia/National and International Conferences conducted by Faculty Members of CDER

1. NOHP National Review Workshop, 12-13 April 2018, CDER AIIMS, New Delhi
2. Clinical and Biological Research in Orthodontics Workshop, 21-23 April 2018, CDER AIIMS, New Delhi
3. National Typodont Skill Workshop 2018, 5-7 October 2018, Ramalingaswami Board Room and CDER AIIMS, New Delhi
4. CME on “Current Trends in Space Closure in Extraction Cases”, 17 December 2018, CDER AIIMS, New Delhi
5. CME on “Digital Dentistry”, 18 December 2018, CDER AIIMS, New Delhi
6. Resident Orientation Programme, 13-14 August 2018, New Delhi
7. Clinical and Biological Research in Orthodontics (Organizing Secretary), 22-24 April 2018, New Delhi
8. AIIMS-Oregon Joint Symposium on Oral Health, 12 December 2018, New Delhi
9. CBCT in Endodontics—The third dimension, 3 August 2018, New Delhi
10. 1st National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi
11. 1st workshop on “Infection Prevention, decontamination in Oral Health Care”, 10 April 2018, CDER, AIIMS
12. Organized activities on the skill station (poster, education materials) on World Hand Hygiene Day SAVED LIVES: CLEAN YOUR HAND, 5 May 2018, CDER, AIIMS
13. 30th Indian Society for Dental Research Annual Conference, 30 September-2 October 2018, New Delhi
14. 1st Conference of South Asian Association of Paediatric Dentistry, 4-6 May 2018, New Delhi
15. 1st National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi
16. 2nd National Symposium of Indian Society of Dental Traumatology, 15 July 2018, Panaji, Goa
17. 3rd National Symposium of Indian Society of Dental Traumatology, 3 March 2019, Kannur, Kerala
18. Computer guided implant treatment planning, 12 December 2018, CMET, AIIMS, Delhi
19. Hands on workshop on oral cancer screening in association with CDER AIIMS, 10 April 2019, National Institute of Cancer Prevention and Research, Noida
20. Hands-on Training Programme on Pit and Fissure Sealants Application for Dentists under School Health Programme in South Delhi Municipal Corporation, 12 January 2018, Delhi

Lectures delivered

OP Kharbanda

1. Opportunities and Avenues in Dental Research in India and Abroad, CDE on “Promoting Research among Dental and Medical Students”, 18 May 2018, ESIC Dental College and Hospital, Rohini, New Delhi
2. Management of malocclusion in CLCP patients during mixed dentition, National Training Programme in Cleft and Craniofacial Orthodontics-2018, 17 August 2018, Kalinga Institute of Dental Sciences, Bhubaneswar
3. Transforming faces: Transforming lives, Professor Amrit Tewari Memorial CME, 5 September 2018, PGIMER, Chandigarh
4. Orthodontic wires and biomechanics, Indian Orthodontic Society Postgraduate Convention, 21-23 September 2018, Subharti Medical College, Meerut
5. Cleft Lip and Palate Clinical Care and Research in India, 31st ISDR International Conference, 27-30 September 2018, Dr DY Patil University, Mumbai
6. National Oral Health Programme Workshop, Regional Review Workshop under NOHP, 23 October 2018, Chennai
7. Pre-Surgical Orthognathic Surgery (POGS), 53rd Indian Orthodontic Conference, 6-9 December 2018, Kochi
8. Interdisciplinary management of cleft lip and palate, ICD Conference 2018 (Annual Convocation and Award Function), 14-16 December 2018, Hyderabad
9. Non Extraction Treatment with Non-Compliance Molar Distalisation, 23rd IOS PG Convention, 21-23 February 2019, ITS Dental College and Hospital, Noida
10. Management of severe malocclusion with implant supported orthodontics, Principles of pre-Graduate education in India, 11th International Scientific Conference, 18-21 April 2018, Lublin University, Poland
11. Achieving the UN Sustainable Development Goals through Nutrition and Oral Health, WHO Symposium, 23 July 2018, London, UK

12. Palatal volume in operated UCLP-Versus-BCLP subjects using digital models, 96th IADR/PER General Session and Exhibition, 23-28 July 2018, ExCeL London Convention Center, London, UK
13. Interdisciplinary collaborations at Centre for Dental Education and Research, AIIMS, 2018
14. International Conference on Future Healthcare and Economic Development in Southeast Asia, 5-9 August 2018, National Cheng Kung University, Taiwan
15. A Critical Appraisal Review of 140 Patients Treated with MSI, 10th World Implant Orthodontic Conference, 6-8 September 2018, Bali, Indonesia
16. WHO meeting, Oral Health Global Workshop, 10-12 October 2018, Montpellier University, France
17. Our clinical protocol of use in miniscrews in the treatment of complex cases of malocclusion, 13th World Microimplant Anchorage Congress, 24-25 November 2018, Kyungpook National University, Daegu, Korea
18. Cancer: Its epidemiology and approach to screening, Regional meeting for NCD Programme, 28-30 November 2018, Jakarta, Indonesia

Ritu Duggal

1. Orthodontic pain nature and assessment tooth movement, Attended workshop on “Pain and Somatosensory Assessment in Humans”, 12 April 2018, New Delhi
2. Orthodontic Consideration in Traumatized teeth KeyNote Speaker during First National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi
3. Contemporary Edgewise National Typodont skill workshop, 5 October 2018, New Delhi
4. Pre-Surgical “Why and When” 1st AIIMS Orthognathic Workshop, 25 November 2018, New Delhi
5. Treatment modalities—An endless Dilemmas in Orthodontic Keynote Lecture at 53rd Indian Orthodontic Conference, 7-9 December 2018, Kochi
6. Overcoming challenges in class III treatment, Guest Speaker at 23rd IOS PG Students Convention, 21-24 February 2019, Noida

Ajoy Roychoudhury

1. Lefort III Osteotomy How to do? 1st AIIMS Orthognathic Workshop, 25 November 2018, AIIMS, Delhi
2. TMJ replacement reconstruction, 43rd AOMSI 1st Indo Japanese oral and Maxillofacial Conference, 12 October 2018, Chennai Convention Center, Chennai
3. Orbital Fractures, AOCMF Maxillofacial Trauma Conference, 3 March 2019, Riyadh
4. Panel discussion on mandibular fractures, AOCMF Maxillofacial Trauma Conference, 3 March 2019, Riyadh
5. Panel discussion on midface fractures, AOCMF Maxillofacial Trauma Conference, 3 March 2019, Riyadh
6. Concomittant orthognathic surgery and TMJ surgery, AOCMF: Advances in Orthognathic Surgery, 4 March 2019, Riyadh
7. Treatment of facial asymmetry, AOCMF: Advances in Orthognathic Surgery, 4 March 2019, Riyadh
8. Scope of TMJ arthrocentesis, Advances in TMJ Arthroscopy and Open Surgery with Anatomical Specimens, 25 May 2018, Prince Phillip University, Hong Kong
9. Protocols for pediatric TMJ ankylosis management, Advances in TMJ Arthroscopy and Open Surgery with Anatomical Specimens, 25 May 2018, Prince Phillip University, Hong Kong
10. Surgical management of condylar fracture, Advances in TMJ Arthroscopy and Open Surgery with Anatomical Specimens, 25 May 2018, Prince Phillip University, Hong Kong

Veena Jain

1. Full mouth rehabilitation, Workshop on “Full Mouth Rehabilitation”, 4 August 2018, Kathmandu, Nepal
2. Implants roll in the rehabilitation of maxillofacial defects secondary to traumatic injuries, 1st National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi
3. Implants in rehabilitation of cases with facial defects, 2nd National Conference of Clinical Society of Prosthodontics and Dental Implantology, 1-2 December 2018, New Delhi
4. Implants in rehabilitation of mandibular defects—A clinical experience, 5th Global American Academy Implant Dentistry Conference-2019, 28 February-3 March 2019, New Delhi

Ongkila Bhutia

1. Maxillary Osteotomy, 1st AIIMS Orthognathic Surgery Workshop, 26 November 2018, AIIMS, New Delhi
2. Patient Referral System AIIMS, Resident Orientation Programme, 28 January 2019, AIIMS, New Delhi

3. Management of Post Extraction Bleeding, CDER Joint Academic Session, 5 March 2019, CDER, AIIMS, New Delhi
4. CDER Inter Departmental Patient Referral, Orientation Programme MDS residents, 14 August 2018, CDER, AIIMS, New Delhi

Ajay Logani

1. Optimal Apical Extent of Mineral Trioxide Aggregate (MTA) Barrier, 20th World Congress on Dental Traumatology, 15-18 August 2018, San Diego, USA
2. Research methodologies, 31st Indian Society of dental research, 27-30 September 2018, DY Patil University, School of Dentistry, Navi Mumbai
3. Cracked tooth syndrome, Professor Amrit Tewari Memorial CME, 5 September 2018, PGIMER, Chandigarh
4. Management of traumatic dental injuries, 2nd Indian Society for Dental Traumatology National Symposium, 15 July 2018, Panjim, Goa
5. Regenerative endodontics, 1st IACDE North Zonal Conference, 20-22 September 2018, ITS, Greater Noida, Uttar Pradesh
6. Management of non-vital immature teeth, 1st National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi
7. Splinting of traumatized teeth, 3rd Indian Society for Dental Traumatology National Symposium, 3 March 2019, Kannur, Kerala
8. Regenerative endodontics: What have we achieved in the last fourteen years, 26th IES National Congress, 8-9 December 2018, New Delhi
9. MTA Barrier, Symposium on advancements in endodontics, 18 December 2018, Manav Rachna Dental College and Hospital, Faridabad
10. Diagnostic dilemmas in endodontics, Endodontic update, 13 March 2019, Subharti Dental College, Meerut
11. Evidence based management of traumatic dental injuries, CDE IDA East Delhi, 20 May 2018, New Delhi

Vijay Prakash Mathur

1. Dental laser applications, Dental College and Hospital in Collaboration with the Indian Dental Association—Goa State Branch, 7 April 2018, Goa
2. Capacity Building in Tobacco Cessation in SEAR, Regional Workshop for Capacity Building in Tobacco Cessation in SEAR, 23-24 April 2018, New Delhi
3. Handling primary teeth pulp with soft tissue lasers, American Academy of Paediatric Dentistry Annual Session at Honolulu, 24-27 May 2018, Hawaii, USA
4. Scientific Social Responsibility for Health Professionals, Brain Storming Meeting on Scientific Social Responsibility (SSR) Organized by Department of Science and Technology, 13-14 July 2018, Udaipur
5. Practical tips for using Dental Trauma Guidelines, APPs and Decision Matrices, Guest Lecture at the 2nd ISDT National Symposium of Indian Society of Dental Traumatology, 15 July 2018, Goa
6. Panel Discussion: Paediatric Dental Trauma, 20th World Congress on Dental Traumatology, 15-18 August 2018, San Diego, California, USA
7. Early Childhood caries, Prevention and control: Where do we stand, 31st Indian Society for Dental Research Conference, 27-30 September 2018, Mumbai
8. Dental Trauma Symposium, 40th ISPPD Conference, 24-26 October 2018, Nagpur
9. Oral Health related Quality of Life tools for Early Childhood, “IAPD Global Summit 2018 on Early Childhood Caries”, 2-4 November 2018, Bangkok, Thailand
10. When Trauma Arrives: Critical Decision Making, 3rd National Symposium of ISDT, 3 March 2019, Kannur, Kerala

Devalina Goswami

For details please see 9.1 Anaesthesiology.

Dalim Kumar Baidya

For details please see 9.1 Anaesthesiology.

Prabhat Kumar Choudhari

1. Appointment management, Resident Orientation Programme, 14 August 2018, CDER, AIIMS, New Delhi
2. Non-invasive 3D imaging: Unraveling the conventional path of orthodontics, 53rd Indian Orthodontic Conference, 7-9 December 2018, Kochi

3. Appointment management, Resident Orientation Programme, 28-29 January 2019, CDER, AIIMS, New Delhi
4. Malocclusion, Cleft Lip and Palate and Dental Trauma, Training of Ayush (System of Traditional Indian Medicine) Health Professional
5. Professionals on the Oral Health Promotion, 26 February 2019, CDER, AIIMS, New Delhi

Nitesh Tewari

1. Regenerative Approach in Management of Traumatic Dental Injuries in Growing Children, 2nd Annual Conference of Nepalese Association of Paediatric Dentistry at BP Koirala Institute of Health Sciences, 5 April 2018, Dharan, Nepal
2. Myths and Realities of Long Term Sequelae to primary tooth trauma, Dental Traumatology Symposium in 1st Biennial Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi
3. Management of Tooth Avulsion: Strategies for Predictability, 2nd Indian Society of Dental Traumatology, 15 July 2018, Panaji, Goa
4. hPDLSC viability and differentiation potential in avulsed tooth storage media, 20th World Congress of Dental Raumatology, 16 August 2018, San Diego, USA
5. Splinting of teeth in luxtion injuries, Pre-conference workshop on 1st National Conference of Indian Society of Dental Traumatology, 16 October 2018, New Delhi
6. Adverse consequences of traumatic dental injuries of permanent teeth: What are we doing wrong? Symposium on traumatic dental injuries in 40th National Conference of Indian Society of Pedodontics and Preventive Dentistry, 25 October 2018, Nagpur, Maharashtra
7. Oral cavity as a window of celiac disease, 1st Celiac disease summit organized by Department of Paediatrics, AIIMS, 28 October 2018, New Delhi
8. Management of traumatic dental injuries in young children: Are we doing it right? 4th International Craniofacial and Dental Summit 2018, 13 December 2018, Kandy, Sri Lanka
9. Regenerative approach in management of traumatic dental injuries in growing children, Facets of Paediatric Dental Practice, Shri Ramakrishna Dental College, 5 January 2019, Navi Mumbai, Maharashtra
10. Orthodontic treatment of traumatized teeth: Critical determinants and guidelines, 16th Post Graduate National Symposium of Indian Society of Pedodontics and Preventive Dentistry, 15 January 2019, Meerut, UP
11. Dental Traumatology: How to tackle the trauma of dental trauma in MDS examinations, Pedo-Vista- Rapid Revision Program, Terna Dental College, 24 January 2019, Navi Mumbai, Maharashtra
12. Intricacies in management of crown and crown root fractures in young permanent teeth, 3rd National Symposium of Indian Society of Dental Traumatology, 3 March 2019, Kannur, Kerala

Kalpana Bansal

1. Changing concepts in caries microbiology, 1st Biennial Conference of SAAPD, 5 May 2018, Delhi
2. Traumatic dental injuries in children—An overview, 1st National Conference of Indian Society of Dental Traumatology, 18 October 2018, Delhi
3. Effect of oral health promotion programme on knowledge of pregnant women, 96th IADR General Session, 27 July 2018, London, UK
4. Oral micro-flora estimation in caries active and caries inactive children using culture techniques and PCR analysis—A preliminary study, IAPD Global Summit on Early Childhood Caries, 2 November 2018, Bangkok, Thailand

Dheeraj Kumar Koli

1. Full mouth rehabilitation, Workshop on “Full Mouth Rehabilitation”, 4 August 2018, Kathmandu, Nepal
2. Management of dental trauma in anterior jaws with dental implants, 1st National Conference of Indian Society of Dental Traumatology, 17-18 October 2018, New Delhi

Shalini Gupta

1. Screening of oral cancer and precancers, Training of Trainers for ASHA workers organized by NHSRC, 24 July 2018, NIHFWS, New Delhi
2. Screening of oral cancer and precancers, Training of Trainers for ASHA workers organized by NHSRC, 27 July 2018, NIHFWS, New Delhi
3. Basics and beyond, CDER CDE 2018 Symposium on CBCT in Endodontics the Third Dimension, 8 March 2019, AIIMS Ramalingaswami Board Room, New Delhi

4. Oral Potentially Malignant Disorders (OPMDs): Pathophysiology, diagnosis and various types of OPMDs, NICPR-ECHO, Advanced Cancer Screening Training Programme in Oral cancer (ACSTP-O) for dentists and oral surgeons, 30 August 2018, NICPR, Noida
5. Common abnormalities of the oral cavity, NICPR- ECHO Cancer Screening Training Programme for Medical Officers (CSTP-MO), 18 December 2018, NICPR, Noida
6. Common abnormalities of the oral cavity, NICPR-ECHO Cancer Screening Training Programme for Medical Officers (CSTP-MO2), 13 February 2019, NICPR, Noida
7. Oral pre Cancer and Cancer—An overview, Training of AYUSH professionals, 28 February 2019, Board Room CDER, New Delhi
8. Communication skills and behavior, Orientation Programme CDER, 18 July 2018 and 28 January 2019, Board Room CDER, New Delhi
9. Radiation Safety, Orientation Programme CDER, 18 July 2018 and 28 January 2019, Board Room CDER, New Delhi
10. Single nucleotide polymorphisms of VEGF and HIF-1 alpha in Oral Submucous Fibrosis—A pilot study, American Academy of Oral Medicine Annual Conference 2018, 10-14 April 2018, San Antonio, USA
11. The role of Hypoxia and Angiogenesis in malignant transformation of oral submucous fibrosis, CDER Joint Academic Session, 7 August 2018, CDER Board Room, New Delhi
12. Serological levels and Single nucleotide polymorphisms of VEGF A, VEGF C and HIF-1 α in OSCC with a background of OSMF, Indian Society for Dental Research 2018, 27-30 September 2018, DY Patil Dental College and Hospital, Navi Mumbai
13. An unusual pre-auricular cystic swelling, Indian Academy of Oral Medicine Annual Conference 2018, 23-25 November 2018, Pacific Dental College Udaipur, Rajasthan
14. Image Gently Image Wisely, CDER Joint Academic Session, 26 February 2019, CDER Board Room, New Delhi
15. The case of the vanishing teeth, Triple O Symposium 2019, 15-17 March 2019, Nair Dental College and Hospital, Mumbai
16. Development of radiation dose reduction protocol for various CBCT applications in CDER: An institutional based study, AIIMS Research Day, 26 March 2019, AIIMS, New Delhi

Kunal Dhingra

1. Sterilization and disinfection in dental operator, Resident Orientation Programme, 14 August 2018, CDER, AIIMS, New Delhi
2. Artificial intelligence applications in Dentistry, Indo-Taiwan Workshop, 1-2 November 2018, IIT (Chennai)
3. Sterilization and disinfection in dental operator, Resident Orientation Programme, 28-29 January 2019, CDER, AIIMS, New Delhi
4. Periodontal diseases, Training of Ayush (System of Traditional Indian Medicine) Health Professionals on the Oral Health Promotion, 26 February 2019, CDER, AIIMS, New Delhi
5. Periodontal disease and systemic health, Oral Health and Systemic Disorders, 27 March 2019, Regional Research Institute of Unani Medicine, New Delhi

Vikender Singh

1. Periodontics in general dental practice, CDE Programme of Indian Dental Association, 5 January 2019, Ferozepur, Punjab, India
2. Splinting: A healing touch to periodontium, 1st National Conference of Indian Society of Dental Traumatology, 16 October 2018, New Delhi, India
3. New vistas in clinical periodontics and mucogingival esthetics: A roadmap for dental practitioners, 11th International Dental Students and 5th Dental Surgeons Conference, 13 October 2018, New Delhi, India
4. Maximizing success in root coverage procedures: Strategic predictable approach, 43rd Annual Conference of Indian Society of Periodontology, 6 October 2018, Chandigarh, India

Deepika Mishra

1. Oral cancer, Training for ASHA workers for Oral cancer screening, 26 July 2018, Committee Room, Teaching Block, National Institute of Health and Family Welfare, Delhi
2. Potentially Malignant and Malignant lesions of the oral cavity What next? Beginner's Course in Cancer Screening Training, 31 July 2018, National Institute of Cancer Prevention and Research, Noida

3. Epidemiology, Etiology and Risk Factors of Oral Cancer (with focus on Tobacco and Arecanut), Advanced Cancer Screening Training Programme in Oral cancer (ACSTP-O) for dentists and oral surgeons, 23 August 2018, National Institute of Cancer Prevention and Research, Noida
4. Histological changes in periodontium in dental trauma, National Conference of Indian Society for Dental Traumatology, 16 October 2018, AIIMS, Delhi
5. Salivary Gland Symposium, CDE programme on “Deciphering Salivary Gland Pathology”, 15 March 2019, ESIC Dental College and Hospital, Rohini, Delhi

Harsh Priya

1. National Oral Health Policy 1995—A review, First drafting of the Workshop on National Oral Health Policy, 24 August 2018, Maulana Azad Institute of Dental Sciences, New Delhi
2. Effects of tobacco on health and the benefits of quitting, NICPR-ECHO: Advanced Cancer Screening Training Programme-Oral (ACSTP-O), 13 September 2018, NICPR, Noida
3. Joining Hands for Compiling Government Dental Manpower, Regional Review Meetings of the State Nodal Officers of National Oral Health Programme—South Zone, 23 October 2018, Chennai
4. E Dant Seva, Regional Review Meetings of the State Nodal Officers of National Oral Health Programme—West Zone, 10 December 2018, Ahmedabad
5. Digital initiative in Oral Health, International College of Dentists Conference, 15-16 December 2018, Hyderabad
6. Situational Analysis—E Dant Seva, Regional Review Meetings of the State Nodal Officers of National Oral Health Programme—East Zone, 31 January 2019, Shillong
7. Orienting SNOs for Dental Facility in E Dant Seva, Regional Review Meetings of the State Nodal Officers of National Oral Health Programme—North Zone, 15 February 2018, Chandigarh
8. Behavioral and NRT and Pharmacotherapy for Tobacco De Addiction, Hands on Workshop for Screening for Common Cancers, 18-20 February 2019, ICMR-NICPR, Noida
9. Healthy Mouth, Training of AYUSH Professionals on Oral Health Promotion, 28 February 2019, CDER, AIIMS, New Delhi
10. Pre Malignant Lesion and Tobacco Cessation, Oral Health and Systemic Disorders, 27 March 2019, Regional Research Institute of Unani Medicine, Jamia Nagar, New Delhi

Rahul Yadav

1. Transpost disc distraction osteogenesis for RCU reconstruction, 1st AIIMS Orthognathic Workshop, 25 November 2018, AIIMS, Delhi

Oral papers/posters presented

1. Jaiswal A, Kharbanda OP*, Case presentation*, 8th Insight into Orthodontics Postgraduate Examinations, 25 January 2019, Jamia Milia Islamia, Delhi
2. Anju R, Tewari N, Yadav V, Plasma cell gingivitis: A case report, 1st Biannual Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi
3. Atif M, Mathur VP, Tewari N, Bansal K, Effect of 940 nm diode laser irradiation and dentin bonding agent on dye penetration of furcation area in primary molars: An in vitro study, 40th National Conference of Indian Society of Pedodontics and Preventive Dentistry, 25 October 2018, Nagpur
4. Atif M, Mathur VP, Tewari N, Bansal K, Method of development and validation of research tool in qualitative research: A pragmatic review, 1st Biannual Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi, **Awarded First Prize**
5. Atif M, Mathur VP, Tewari N, Bansal K, The effect of inciso-cervical position of wire-composite splint on the mobility of the avulsed permanent tooth: A cadaveric model study (Paper Presentation), 1st National Conference of Indian Society of Dental Traumatology, New Delhi, 17 October 2018, New Delhi
6. Azam I, Mathur VP, Tewari N, Bansal K, International Caries Classification and Management System (ICCMS) protocol for North Indian Pre-school children: A hospital-based modification, IAPD Global Summit on Early Childhood Caries, 2-4 November 2018, Bangkok, Thailand
7. Azam I, Mathur VP, Tewari N, Bansal K, The International Caries Classification and Management System (ICCMS) protocol in Indian scenario 1st Biannual Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi
8. Azam I, Tewari N, Mathur VP, Bansal K, Prevalence of traumatic dental injuries in special health care need population in India: A systematic review, 1st National Conference of Indian Society of Dental Traumatology, 18 October 2018, New Delhi

9. Bhadauria U, Child psychology in Public Health Dentistry! An unexplored horizon, 25th IAPHD National Conference, 30 November-2 December 2018, Divya Jyoti Dental College, Modinagar
10. Bhadauria U, Digital initiative in Oral Health, International College of Dentists Conference, 14-16 December 2018, Hyderabad
11. Bhadauria U, Samiksha—An evaluation of opportunities after dental graduation, 72nd Indian Dental Conference, 18-20 January 2019, Indore
12. Bhadauria U, Severity of periodontal diseases in past cigarette smokers suffering from rheumatoid arthritis, 4th National Conference on Tobacco or Health, 10 February 2019, Mumbai
13. Bhusan U, Koli D, Jain V, Dentinogenesis imperfecta—Clinical considerations and various prosthetic options, 20th IPS PG convention, 6-8 July 2018, Chennai
14. Bhusan U, Koli D, Jain V, Rehabilitation of hemimandibulectomy patient reconstructed with free fibula graft using dental implants—A case report, 2nd National Conference of Clinical Society of Prosthodontics and Dental Implantology, 1-2 December 2018, New Delhi
15. Chandulal J, Koli D, Jain V, Multidisciplinary approach in Trauma dentistry, 1st national conference of Indian Society for Dental Traumatology, 17-18 October 2018, New Delhi
16. Chandulal J, Koli D, Jain V, Prosthodontic rehabilitation of mandibulectomy patients, 20th IPS PG Convention, 6-8 July 2018, Chennai
17. Chaudhari PK, Kharbanda OP, Chaudhary R, Pandey RM, Bansal K, Chauhan S, Dhingra K, Factors associated with caries severity prevalence in Cleft-Lip/Palate (CL/P) children, 96th IADR General Session-2018, 25-28 July 2018, London, England
18. Chaudhary A, Mathur VP, Tewari N, Bansal K, Knowledge and awareness of nursing professionals posted in pediatric wards about early childhood caries and prevention, IAPD Global Summit on Early Childhood Caries, 2-4 November 2018, Bangkok, Thailand
19. Chaudhary A, Mathur VP, Tewari N, Bansal K, Root-surface biomodification: Mechanism and clinical application in Paediatric Dentistry, 1st Biannual Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi
20. Chawhan G, Baidya DK, Maitra S, Subramaniam R, Trikha A, Batra RK, Arora MK, Efficacy of Left ventricular outflow tract velocity time integral (LVOT VTI) and carotid artery VTI as predictor of volume responsiveness to passive leg raising (PLR) in sepsis and septic shock patients by correlation with Echocardiography guided stroke volume change (delta SV%) to PLR, SG-ANZICS (Singapore—Australia and New Zealand Intensive Care Society), 10 May 2018, Singapore
21. Das D, eDantSeva, International College of Dentists Conference, 14-16 December 2018, Hyderabad
22. Das D, Oral hygiene status and provision of basic oral health care among visually impaired children of Bhubaneswar, 72nd Indian Dental Conference, 18-20 January 2019, Indore
23. Das D, Prevalence of tobacco use among the Juang tribe—a particularly vulnerable tribal group residing in Northern Odisha, 4th National Conference on Tobacco or Health, 8-10 February 2019, Mumbai
24. Dhingra K, Vandana KL, Concentrated growth factor for treating periodontal osseous defects and gingival recession: A systematic review, EuroPerio9, 20-23 June 2018, Amsterdam, Netherlands
25. Gill S, A prospective study to observe the influence of co-existing traumatic overbite on the outcome of Non-Surgical Endodontic Therapy (NSET) performed on anterior teeth with periapical pathosis, 1st IACDE Zonal Conference 2018, 20-22 September 2018, Greater Noida
26. Gill S, Influence of co-existing traumatic overbite on the outcome of Non-Surgical Endodontic Therapy (NSET), 26th IES National Congress, 8-9 December 2018, New Delhi
27. Gill S, Multidisciplinary management of crown root fracture, 1st National Conference ISDT, 17-18 October 2018, New Delhi
28. Indu S, Mishra D, Hybrid Odontogenic tumor masquerading as a salivary gland lesion: A diagnostic predicament, 27th National conference of Indian Association of Oral and Maxillofacial Pathology at Amritsar, 17 November 2018, Amritsar
29. Ishrat S, Mathur VP, Tewari N, Epidemiology of traumatic dental injuries in India: A systematic review, 40th National Conference of Indian Society of Pedodontics and Preventive Dentistry, 25 October 2018, Nagpur
30. Ishrat S, Mathur VP, Tewari N, Prevent the injuries of teeth: Awareness poster for Pro-Kabaddi League, 1st National Conference of Indian Society of Dental Traumatology, 18 October 2018, New Delhi, **Awarded First Prize**
31. Ivaturi A, Digitizing oral health for enhanced access: The policy-perception gap, National Conference of the IAPHD, 30 November 2018, DJ Dental College, Modinagar

32. Ivaturi A, Influences of tobacco cessation in a tertiary dental hospital: A study on adjuncts to behavioural intervention, First AIIMS Research Day, 25 March 2019, JLN Auditorium, AIIMS, New Delhi
33. Ivaturi A, Picture the mouth: Galvanising tobacco cessation efforts using photographs of oral lesions, 96th General Session of the International Association of Dental Research, London, UK, 25-28 July 2018, London, United Kingdom
34. Ivaturi A, Tobacco cessation counselling, hands on workshop on oral cancer screening for dentists and medical officers, 20 September 2018, ICMR, NICPR, Noida
35. Ivaturi A, Tobacco cessation-behavioural and pharmacological efforts, ECHO-for Medical Officers on Common Cancer Screening, 1 January 2019, ICMR, ICPR, Noida
36. Kaur A, Anterior tooth vital bleaching for trauma induced calcific metamorphosis, 26th IES National Congress, 8-9 December 2018, New Delhi
37. Kaur A, Assessment of radicular morphology of mandibular molars in Indian population—A retrospective CBCT analysis, IFEA 11th World Endodontic Congress, 4-7 October 2018, Seoul, Korea
38. Kaur A, Comparative bioactivity of two bio ceramic indirect pulp capping materials—An ex-vivo study, IFEA 11th World Endodontic Congress, 4-7 October 2018, Seoul, Korea
39. Khanna P, Narasimhan P, Goswami D, Kumar S, Kundu R, Nisa N, Onset time of Spinal Anaesthesia in pregnant females in knee-chest position: A pilot study, 9th Annual Whistler Anesthesiology Summit, 28 February-3 March 2019, AIIMS, New Delhi
40. Khurana C, eDantSeva, International College of Dentists Conference, 14-16 December 2018, Hyderabad
41. Khurana C, Evaluation of oral health status and utilization of dental services in Gurugram District, Haryana, 25th IAPHD National Conference, 30 November-2 December 2018, Divya Jyoti Dental College, Modinagar
42. Khurana C, Exploring behavioral factors and perception towards Hookah smoking among Youth Smokers, 4th National Conference on Tobacco or Health, 10 February 2019, Mumbai
43. Khurana C, Exploring newer avenues: A shot to oral health care challenges, 72nd Indian Dental Conference, 18-20 January 2019, Indore
44. Koli B, Orthograde root end filling with MTA followed by root end resection: An alternative treatment protocol to conventional periapical surgery—A case report, IACDE 20th PG Convention, 8-10 March 2019, Chandigarh
45. Koli B, Vital pulp therapy—Is it the way forward? 1st IACDE Zonal Conference 2018, 20-22 September 2018, Greater Noida
46. Koli D, Jain V, Management of dental trauma in anterior jaws with dental implants, 20th World Congress on Dental Traumatology, 15-18 August 2018, San Diego, California, USA
47. Koli D, Jain V, Prosthodontic rehabilitation of acquired mandibular defects—From inability to ability, 46th IPS National Conference, 15-18 November 2018, Mangalore
48. Koli D, Jain V, Socket shielding technique—Evidence based approach, 5th Global American Academy Implant Dentistry Conference-2019, 28 February-3 March 2019, New Delhi
49. Kumar A, Autotransplantation: A treatment option for multiple crown root fracture in mandibular molar teeth, 1st National Conference ISDT, 17-18 October 2018, New Delhi
50. Kumar A, Two rooted maxillary central incisor with labial groove—An endodontic oddity managed with the aid of CBCT, 26th IES National Congress, 8-9 December 2018, New Delhi
51. Kumar V, A volume-based CBCT index for grading of apical periodontitis, 96th IADR/PER General Session and Exhibition, 25-28 July 2018, London, UK
52. Madhubala A, Mathur VP, Tewari N, Bansal K, Comparative evaluation of color change in esthetic restorative materials by commonly consumed eatables and medicinal supplements by Indian children; An in vitro study, 1st Biannual Conference of South Asian Association of Paediatric Dentistry, 6 May 2018, New Delhi
53. Madhubala A, Tewari N, Mathur VP, N, Bansal K, Comparative evaluation of Simvastatin gel and Diode laser in pulpotomy of primary molars; A randomized clinical trial, 40th National Conference of Indian Society of Pedodontics and Preventive Dentistry, 25 October 2018, Nagpur, **Awarded First Prize**
54. Marina S, Koli D, Jain V, Different methods for fabrication of definitive hollow bulb obturator to rehabilitate maxillectomy patients, 20th IPS PG convention, 6-8 July 2018, Chennai
55. Merina S, Koli D, Jain V, Implant supported overdenture—Paper, 2nd National Conference of Clinical Society of Prosthodontics and Dental Implantology, 1-2 December 2018, New Delhi
56. Merina S, Koli D, Jain V, Lasers in Prosthodontics—Poster, 46th IPS National Conference, 15-18 November 2018, Mangalore
57. Merina S, Koli D, Jain V, Ocular prosthesis—Techniques, clinical considerations and case report, 46th IPS National Conference, 15-18 November 2018, Mangalore

58. Mishra D, Giant cell lesions of the jaws and emphasis on differential diagnosis, 27th National conference of Indian Association of Oral and Maxillofacial Pathology at Amritsar, 17 November 2018, Amritsar
59. Mishra D, Kharbanda, OP Shrivastava A, Dattagupta S, Qaiser D, Yadav R, Bhatt K, Sood A, Use of fluorescein dye in detection of oral dysplasia and oral cancer, American Association of Oral and Maxillofacial Pathology / International association of Oral and Maxillofacial Pathology Joint Meeting, 23 June 2018, Westin Bayshore Vancouver
60. Navas M, Artificial intelligence—Can it change the way we practice endodontic? 1st IACDE Zonal Conference 2018, 20-22 September 2018, Greater Noida
61. Navas M, Sandwich technique for wire-splinting of traumatized teeth: Preliminary clinical experience, IACDE 20th PG Convention, 8-10 March 2019, Chandigarh
62. Paulose P, Cone beam computed tomographic characterization of periapical lesion that are evident on IOPA radiographs: A retrospective analysis, 1st IACDE Zonal Conference 2018, 20-22 September 2018, Greater Noida
63. Paulose P, Cone beam computed tomographic characterization of periapical lesion that are evident on IOPA radiographs: A retrospective analysis, 33rd National Conference IACDE, 16-18 November 2018, Vijayawada
64. Pinki, Kharbanda OP, Autoceph Table Clinic, ICD Conference 2018, 14-16 December 2018, Hyderabad
65. Prakash M, Kharbanda OP, Autoceph Table Clinic, ICD Conference 2018, 14-16 December 2018, Hyderabad
66. Priya H, Effectiveness of a web based learning module on the oral health promotion for nursing professionals, 23rd Annual Conference, Indian Association of Public Health Dentistry, 30 November-2 December 2018, Divya Jyoti Dental College, Modinagar
67. Priya H, Improving proficiency among health care para professionals in early detection of oral cancer, 96th General Session of the International Association of Dental Research, 25-28 July 2018, London, United Kingdom
68. Qureshi T, Kharbanda OP, Duggal R, Poster—TADs—A paragon in orthodontic treatment, ICD Conference 2018, 14-16 December 2018, Hyderabad
69. Rao TN, Goswami D, Narayanan S, Venkateshwaran V, A novel technique to use Arndt endobronchial blocker in paediatric one lung ventilation, 11th Annual Conference of the Indian Association of Paediatric Anaesthesiologist, 9 February 2019, AIIMS, New Delhi
70. Rao TN, Goswami D, Roychoudhury A, Bhutia O, Baidya DK, Trikha A, To compare the efficacy of local anaesthetic wound infiltrations in temporomandibular joint ankylosis surgery for control of postoperative pain, 17th World Congress on Pain, 14 September 2018, Boston, USA
71. Rao TN, Goswami D, Roychoudhury A, Bhutia O, Baidya DK, Trikha A, To compare the efficacy of local anaesthetic wound infiltrations in temporomandibular joint ankylosis surgery for control of postoperative pain, First AIIMS Annual research Day, 26 March 2019, AIIMS, New Delhi
72. Ravi P, Analysis of the existing mobile applications in oral health promotion in India, First AIIMS Research Day, 25 March 2019, JLN Auditorium, AIIMS, New Delhi
73. Ravi P, Content analysis of the Existing Mobile Applications in Oral Health Promotion in India, XXIII National Conference of IAPHD, 30 November-2 December 2018, Divya Jyoti Dental College, Modinagar
74. Ravi P, How to set up a tobacco cessation centre at your facility? Extension for Community Healthcare Outcomes (ECHO), Common cancer screening, 20 August 2018, National Institute of Cancer Prevention and Research, Noida
75. Ravi P, Relationship between smokeless tobacco and cervical pre-malignant and malignant lesions among the patients screened for cervical cancer in the Health Promotion Clinic, Noida, World Cancer Congress, 2018, 1-4 October 2018, Kuala Lumpur, Malaysia
76. Ravi P, Training of master trainers for common cancer screening at Hanumangarh, Rajasthan, State Cancer Screening Training Programme, 11-13 December 2018, District Hospital Hanumangarh, Rajasthan
77. Roychoudhury A, Cluster randomized controlled clinical trial to evaluate fate and volumetric shrinkage of interposed pedicled buccal pad of fat and abdominal fat in the treatment of TMJ ankylosis, TMJ Section, 25-26 November 2018, AIIMS, New Delhi, **Awarded First Prize**
78. Saini A, A preliminary case series—Low intensity pulsed ultrasound (LIPUS)/Low Level Laser Therapy (LLLT) as an adjunct for healing of large periapical lesions, 33rd National Conference IACDE, 16-18 November 2018, Vijayawada
79. Sara Angel L, Kharbanda OP, Autoceph Table Clinic, ICD Conference 2018, 14-16 December 2018, Hyderabad
80. Sharma R, 3D imaging as an advanced diagnostic modality for a case with complex anatomical variation, 1st IACDE Zonal Conference 2018, 20-22 September 2018, Greater Noida
81. Sharma R, Effect of gravity on periapical extrusion of irrigant in immature permanent teeth, IACDE 20th PG Convention, 8-10 March 2019, Chandigarh

82. Singh A, Iyer KV, Goswami D, Non-Operating Room anaesthesia for a child with Cri-du- Chat syndrome, 11th Annual Conference of the Indian association of Paediatric Anaesthesiologist, 9 February 2019, AIIMS, New Delhi
83. Singh B, Mathur VP, Tewari N, Bansal K, An Ounce of Prevention is worth a Pound of Cure, 1st National Conference of Indian Society of Dental Traumatology, 18 October 2018, New Delhi
84. Singh GK, A CBCT guided template technique for minimally invasive endodontics in a calcified anterior tooth, 1st National Conference ISDT, 17-18 October 2018, New Delhi
85. Singh V, Multiple implant placement with simultaneous soft tissue augmentation, 10th International Congress of Academy of Oral Implantology New Delhi, 3-5 August 2018, New Delhi
86. Singh V, Soft tissue augmentation around dental implants: Case series, 5th Global American Academy of Implant Dentistry Conference, 3 March 2019, New Delhi
87. Sood A, Mishra D, Kharbanda OP, Shrivastava A, Chauhan SS, Dutta S, SVS Deo, Ralhan R, A Biomarker for Early Detection of Oral Cancer in Young Indian Population, Research Day, 25 March 2019, AIIMS, Delhi
88. Tabiyar K, 3D management of external cervical root resorption, 1st National Conference ISDT, 17-18 October 2018, New Delhi
89. Tamchos R, Mathur VP, Tewari N, Bansal K, School teachers be prepared: Dental Trauma does occur, 1st National Conference of Indian Society of Dental Traumatology, 18 October 2018, New Delhi
90. Urvashi V, Koli D, Jain V, Management of a hemimandibulectomy patient with free fibula graft using dental implants—A case report, 46th IPS National Conference, 15-18 November 2018, Mangalore
91. Venkat N Koli D, Jain V, Socket shield technique—poster, 1st national conference of Indian society for Dental Traumatology, 17-18 October 2018, New Delhi
92. Verma A, Mathur VP, Tewari N, Bansal K, Emergency dental trauma management by traffic police, 1st National Conference of Indian Society of Dental Traumatology, 18 October 2018, New Delhi, **Awarded First Prize**
93. Yadav V, Koli D, Jain V, Various retentive aids for orbital prosthesis, 46th IPS National Conference, 15-18 November 2018, Mangalore

RESEARCH

Funded projects

Ongoing

1. A prospective pilot study to evaluate the clinical success of a Tooth Colored metal free Self-Curing Resin-based material as an alternate to silver amalgam for Class-II posterior restoration, Amrita Chawla, AIIMS, 2 years, 2017-2019, Rs 3.72 lakhs
2. A study validating the efficacy of a herbal mouthwash in reduction of plaque and gingivitis: An *in vitro* evaluation and a randomized controlled clinical trial, OP Kharbanda, National Innovation Foundation, DST, Government of India, 2 years, 2019, Rs 30.47 lakhs
3. Association of Candida and antifungal therapy with pro-inflammatory cytokines in oral leukoplakia—A pilot study, Shalini Gupta, AIIMS, 2 years, 2018-2020, Rs 5 lakhs
4. Automatic diagnosis and monitoring for orthodontic invisible appliance cases using Artificial Neural Network (ANN), OP Kharbanda, India-Taiwan S&T Cooperation Programme—Global Innovation and Technology Alliance (GITA), 2 years 10 months, July 2018 to May 2021, Rs 16.6 lakhs (India), NT\$ 600,000 (Taiwan)
5. Cleft Lip and Palate anomaly in India: Clinical profile Risk factors and current status of treatment: A hospital-based study—Main phase, OP Kharbanda, ICMR, 3 years, 2017-2020, Rs 316 lakhs
6. Cluster randomized controlled superiority trial to evaluate the growth outcomes and jaw functions after interposition arthroplasty with constochondral graft versus gap arthroplasty in the management of temporomandibular ankylosis, Ajoy Roychoudhury, ICMR, 3 years, 2018-2020, Rs 15.46 lakhs
7. Cone Beam Computed Tomographic evaluation of two novel techniques as adjuncts for non surgical management of large periapical lesions of endodontic origin—Prospective randomized double blind controlled trial, Ajay Logani, ICMR, 3 years, 2016-2019, Rs 30 lakhs
8. Effect of systemic and local antibiotic therapies on clinical and patient reported outcomes in healthy, partially dentate patients undergoing dental implant placement—A preliminary study, Veena Jain, AIIMS, 2 years, 2016-2018, Rs 3.98 lakhs
9. Effect of various tooth storage media on viability, proliferative ability and differentiation of human periodontal ligament stem cells—An in-vitro preliminary study, Nitesh Tewari, AIIMS, 1 year, 2016-2017, Rs 18 lakhs
10. Effectiveness of an Oral Health Toolkit for Paediatric Oncology Patient against standard of care in the improvement of oral health status in 2-14 year old pediatric cancer patients, Harsh Priya, AIIMS, 2 years, 2018-2020, Rs 5 lakhs

11. Evaluation of inflammatory markers metalloproteinase-8 (MMP-8) and cathepsin-k (CTSK) levels in immediate loaded and delayed loaded dental implants: A randomized controlled trial and pilot study, Dheeraj Kumar Koli, AIIMS, 2 years, 2017-2019, Rs 7.5 lakhs
12. Evaluation of Success of Silver Modified Atraumatic Restorative technique with Conventional Restorative technique on Carious Primary molars—A Randomized Controlled Trial, Kalpana Bansal, AIIMS, 2 years, 2016-2018, Rs 1.21 lakhs
13. Evaluation of the effects of miniplate anchored hybrid fixed functional appliance in post-adolescent and young adults with Class II malocclusion, Vilas Samrit, AIIMS, 2 years, 2016-Ongoing, Rs 3.67 lakhs
14. Functional collagen nanoparticle impregnated silk Nano-ceramic composite 3D matrices for flat bone regeneration, OP Kharbanda, DBT, 3 years, 2018-2021, Rs 9.86 lakhs
15. Maxillofacial planning and simulation system, Ajoy Roychoudhury, Ministry of Electronics and Information Technology, 3 years, 2016-2019, Rs 131.93 lakhs
16. Oral and Mxillofacial region, Deepika Mishra, AIIMS, 1 year, 2018-ongoing, Rs 5 lakhs
17. The levels of Matrix Metalloproteinase-9 (MMP-9) as a prognostic biomarker for the outcome of pulpotomy in mature permanent teeth with symptomatic irreversible pulpitis—A clinical prospective study, Vijay Kumar, ICMR, 2 years, 2018-2020, Rs 0.5 lakhs

Completed

1. Building research capacity in India: Identifying barriers and enablers to oral health research, OP Kharbanda, International Association of Dental Research (IADR) USA in collaboration with Indian Society for Dental Research (ISDR), 2 years 6 months, 2016–ongoing, USD 39,960
2. Assessment of microflora of severe dental caries in Indian children using anaerobic culture and molecular techniques, Kalpana Bansal, AIIMS, 2 years, 2016-2018, Rs 9.3 lakhs
3. Association between serological levels and genetic polymorphisms of VEGF A and C with clinicopathological characteristics in oral squamous cell carcinoma and oral submucous fibrosis—A pilot study, Shalini Gupta, AIIMS, 2 years, 2016-2018, Rs 9.99 lakhs

Departmental projects

Ongoing

1. A 3D study of treatment changes following maxillary protraction protocol in growing class III patients using digital models
2. A preliminary study to evaluate the outcome of combination of non-surgical endodontics and vital pulp therapy for management of mature permanent molar teeth with symptomatic irreversible pulpitis and periapical rarefaction
3. A prospective study to evaluate improvement in posterior airway volume and lengthening of mandible in simultaneous release of Ankylosis and mandibular distraction
4. A prospective study to observe the influence of immediate functional vs nonfunctional loading of full coverage prosthesis in the outcome of non-surgical endodontic therapy performed in posterior teeth with periapical pathology
5. Ambispective study to evaluate the fate of Costochondral Graft in TMJ ankylosis patients from January 2014 to April 2018
6. An observational analytical study to evaluate the effects of Anti-cancer therapy on developing dentition in long term survivors of childhood cancers
7. Analgesic efficacy of ultrasound guided erector spinae block versus intrathecal morphine in patients undergoing percutaneous nephrolithotomy surgery: A prospective randomised comparative pilot study
8. Analysing the long term effects of primary tooth trauma on permanent dentition
9. Analysis of the existing anti spitting laws in various geographical locations and implementing sectors in India
10. Assessment of Inferior Vena Cava Collapsibility Index (IVCCI) and variation of Carotid Artery Peak Velocity (CAPV) as predictor of post-spinal hypotension
11. Assessment of single versus subsequent Micro osteoperforation stimulated expression of IL-1 β levels during Orthodontic Tooth Movement—A pilot study
12. Association of intraoperative blood glucose variability with postoperative outcomes in emergency laparotomy
13. Comparative evaluation of different root surface bio-modification methods in teeth with extra oral dry times more than 60 minutes
14. Comparative evaluation of Diode Lasers and conventional surgical technique in soft tissue procedures
15. Comparative evaluation of directly placed composites and direct composites inlays in primary teeth

16. Comparative evaluation of Simvastatin Gel and Diode Laser for pulpotomy in primary molars: Single blind Phase 2 randomized trial
17. Comparative evaluation of success of silver modified atraumatic restorative technique with conventional restorative technique on carious primary molars—A randomized controlled trial
18. Comparing the level of biomarker post immediate and delayed indirect loading of mini-screw implants—A preliminary study
19. Comparison of clinical efficacy of Intrahecal 0.75% isobaric ropivacaine with fentanyl versus clonidine as adjuvant in caesarean section: A prospective randomised controlled trial
20. Comparison of lactate clearance and neutrophil lymphocyte ratio as predictor of mortality in patients with sepsis
21. Comparison of opioid based anesthesia technique and opioid free anesthesia technique in patients undergoing laparotomy for gynaecological malignancy: Randomized controlled trial
22. Comparison of treatment outcomes subcondyle fracture of mandible, managed using one trapezoidal plate vs two nonparallel straight miniplate
23. Early administration of Vitamin D to reduce ICU length of stay in critically ill sepsis patients: Randomized controlled trial
24. Effect of addition of dexamethasone to ropivacaine for extraoral mandibular nerve block in patients undergoing mandibular surgeries under general anaesthesia
25. Effect of Rapid maxillary expansion on hearing in patients having Cleft Palate with conductive hearing loss—A pilot study
26. Emergency laparotomy for perforation peritonitis: Prospective observational study
27. Evaluation and analysis of an oral health promoting website and mobile application—E Dant Seva
28. Evaluation of fit feasibility of TJR standard stock prosthesis in TMJ ankylosis patients of Indian population—Ambispective observational study investigator
29. Evaluation of rank1 in GCF and rate of tooth movement during canine retraction assisted with low level laser therapy—A randomized control trial
30. Evaluation of the success rate of one piece yttrium—Stabilized zirconia root analogue (RAI) Dental Implants—A pilot study
31. Feasibility of anterior temporalis muscle ultrasound as a method to assess muscle wasting in ICU
32. Feasibility of the International Caries Classification and Management System protocol in a hospital-based setting
33. Fentanyl versus Dexmedetomidine infusion in head and neck free flap surgery for comparison of hemodynamics and anesthetic requirements
34. Interleukin 1B levels around orthodontic mini implants during direct loading
35. Orthodontic white spot lesion Index: A novel tool for assessment of white spot lesion induced in orthodontic patients
36. Outcome of full pulpotomy performed with or without calcium silicate based cement in mature permanent teeth with mechanical pulp exposure—A split mouth study
37. Predictors of Intensive Care Unit Admission And Mortality In Acute Febrile Illness: A Prospective Observational Study
38. Predictors of tobacco cessation in individuals attending a tobacco cessation clinic at tertiary care centre for dental education and research in India
39. Prevalence of early childhood caries in pre-school children of Ladakh region Jammu and Kashmir
40. Prognostic significance of preoperative blood lactate and lactate clearance in patients undergoing emergency laparotomy for perforation peritonitis: A prospective observational study
41. Prognostic significance of red blood cell transfusion trigger in critically ill patients with sepsis and septic shock: Prospective observational study
42. Prospective study for the evaluation of change in 3D airway volume and improvement in quality of life after distraction osteogenesis of mandible in Obstructive Sleep Apnoea (OSA) patients secondary to retrognathia in TMJ ankylosis
43. Prospective study to evaluate the stability after zygomatic osteotomy in patients with post traumatic residual deformity of Zygomatico Maxillary Complex
44. Randomized control trial: Comparative analysis of orbital volume in 3D model assisted mesh adaptation versus conventional technique in reconstruction of orbital floor fracture
45. Randomized controlled trial to evaluate the treatment outcomes of transparotid and transmasseteric anterior parotid approached to treat mandibular subcondylar fractures

46. Role of spot urine sodium in furosemide stress test in volume overloaded critically ill patients with acute kidney injury—A prospective study
47. Severity and Pattern of Early Childhood Caries among Pre-school Children and its Association with Various Behavioral Factors—A hospital based study
48. Sternocleidomastoid and trapezius muscle activity before and after Twin block therapy in skeletal class II growing patients
49. Stress distribution pattern in two different types of removable partial dentures on the supporting structures—A 3D finite element analysis and a clinical study
50. The effect of locally injected platelet rich plasma on the rate of tooth movement during maxillary canine retraction—A pilot study
51. The effect of mandibular single implant supported over denture on residual ridge resorption
52. The effect of prosthodontic rehabilitation of completely edentulous geriatric patients with mild cognitive impairment on their memory process—A functional MRI-based pilot study
53. The influence of the severity of periodontal disease on periapical healing after non-surgical endodontic therapy in teeth with concomitant endodontic periodontal lesions without communication—A prospective study
54. The levels of Matrix Metalloproteinase-9 (MMP-9) as a prognostic biomarker for the outcome of pulpotomy in mature permanent teeth with symptomatic irreversible pulpitis—A clinical prospective study
55. To compare the effect of I-PRF or alloplastic graft material on crestal bone levels around immediate implant placed in mandibular molar region
56. To evaluate and compare bite force and chewing efficiency in patients of TMJ ankylosis treated with alloplastic total joint replacement gap arthroplasty with normal individuals
57. To evaluate neck muscle activity after mandibular postural changes in growing class II high angle patients with Twin Block therapy—An EMG study
58. To evaluate the applicability Artificial Intelligence (AI) for categorizing the radiographic peri apical lesions based on the Peri Apical Index (PAI) scoring system—A method comparison study
59. Treatment outcome of composite restoration performed with either indirect pulp therapy or full pulpotomy in deep proximal carious lesion—A clinical study
60. Ultrasonographic assessment of brachial artery reactivity as predictor of adverse outcome in patients undergoing

Completed

1. A comparative study to evaluate the soft tissue and volumetric changes around immediate implants placed using socket shield technique and conventional technique—A pilot study
2. A Prospective Study to Observe the Influence of Co-existing Traumatic Overbite on the Outcome of Non-Surgical Endodontic Therapy (NSET) Performed on Anterior Teeth with Periapical Pathosis
3. An ex-vivo study to explore the strategies for enhancing the micro-tensile bond strength of composite resin in cavity previously restored with amalgam
4. Analysing the proficiency of a routine module in early detection of oral cancer among oral health care para professionals
5. Carotid artery corrected flow time and respiratory variations of peak blood flow velocity for prediction of hypotension after induction of general anaesthesia in adult patients undergoing elective surgery: A prospective observational study
6. Compararive evaluation of the wear of glazed zirconia crown, polished zirconia crown and opposing natural enamel: An in vivo study
7. Comparison of intraocular pressure change with facemask vs laryngeal mask airway in anaesthetised children
8. Comparison of Opioid based and Opioid free TIVA I laparoscopic gynaecological surgery: A randomized controlled trial
9. Comparison of post extraction bleeding complication in patients taking oral anticoagulants, with and without bridging therapy: A pilot study
10. Cone beam computed tomographic characterization of periapical lesions that are evident on intraoral periapical radiographs: a retrospective analysis
11. Effect of addition of dexamethasone to ropivacaine for extraoral mandibular nerve block in patients undergoing mandibular surgeries under general anaesthesia
12. Effect of dexmedetomidine on emergence delirium and recovery parameters after desflurane or sevoflurane anesthesia in children: A prospective double randomized study

13. Effect of prosthodontic rehabilitation on functional and esthetic outcomes in non-reconstructed mandibulectomy patient—A preliminary study
14. Effect of prosthodontic rehabilitation on the nutritional status of maxillectomy patients using blood biochemistry, bca and pg-sga—A preliminary study
15. Effect of two-time micro-osteoperforations on rate of orthodontic tooth movement—A pilot study
16. Effectiveness of a Web based Learning Module on Oral Health Promotion for Nursing Professionals
17. Efficacy of decremental PEEP trial on postoperative oxygenation status in adult patients undergoing emergency laparotomy: A pilot randomized controlled trial
18. Efficacy of Left ventricular outflow tract velocity time integral (LVOT VTI) and carotid artery VTI as predictor of volume responsiveness to passive leg raising (PLR) in sepsis and septic shock patients by correlation with Echocardiography guided stroke volume change (delta SV%) to PLR
19. Epidemiology and prognostic utility of cellular components of hematological system in sepsis
20. Evaluation of diaphragmatic muscle mass in patients receiving pressure regulated volume controlled ventilation and synchronized intermittent mandatory ventilation for acute respiratory failure: A randomized controlled trial
21. Evaluation of the effect of prosthodontic rehabilitation on quality of life and psychological distress in maxillectomy patients: A preliminary study
22. Integrated Ultrasound Protocol in predicting Weaning Success and Estuation Failure: A Prospective Observational Study
23. Reliability and validity of cephalometric superimposition measurements: A comparison of conventional and computerized cephalometric softwares—Using Rickett's Superimposition Methods
24. School Based Pit and Fissure Sealant Project
25. To assess the efficacy of local anesthetic wound infiltration in temporomandibular joint ankylosis surgery for control of post-operative pain: Randomized controlled trial
26. To determine whether implementation of a new ICU delirium prevention bundle will reduce the incidence of delirium compared to standard of care protocol in mechanically ventilated patients
27. To study the efficacy of clonidine as an adjuvant to ropivacaine in ultrasound guided transversus abdominis plane block in adult renal transplant recipients—A double blinded randomised controlled trial

Collaborative projects

Ongoing

1. A population based prospective cohort study to unravel the causes of stroke and cognitive decline: A cross cultural perspective, Neurology
2. A study of offset analgesia in Trigeminal Neuralgia, Physiology
3. Assessment of microflora of severe dental caries in Indian children using anaerobic culture and molecular techniques, Microbiology
4. Cleft Lip and Palate anomaly in India: Clinical profile risk factors and current status of treatment: A hospital based study—Main Phase, Genetics and CSIR-IGIB
5. Design and testing of orthodontic miniscrew embedded with sensors to detect inflammation—Phase I, Department of Biomedical Engg, Indian Institute of Technology, New Delhi
6. Development of MOOCs on Oral Health and Oral Cancer, WHO
7. Effect of various tooth storage media on viability, proliferative ability and differentiation of human periodontal ligament stem cells—An in-vitro preliminary study, Stem Cell Facility
8. Empowering AYUSH health professionals for oral health promotion, Ministry of Health and Family Welfare
9. Evaluation of a single pre-operative preemptive dose of Etoricoxib for postoperative pain relief in dental surgeries under general anaesthesia: A randomized, prospective double blinded placebo controlled trial, Anaesthesia
10. Functional collagen nanoparticle impregnated silk nano-ceramic composite 3D matrices for flat bone regeneration, IIT, Guwahati
11. Impact of oral health promotion training among nursing professionals in India—An interventional study, Ministry of Health and Family Welfare
12. Impact of training package on oral health promotion among school teachers in India: An interventional study, Ministry of Health and Family Welfare
13. Incidence and risk factors of back pain after cesarean section: A prospective observational study, Gynaecology and Obstetrics

14. Pilot Implementation of Collaborative Digital Diagnosis System (Collards) using Medical Imaging, National Informatics Centre (NIC), New Delhi, Central Scientific Instruments Organisation, Chandigarh, Indian Institute of Technology, Mumbai, Radiodiagnosis, AIIMS, New Delhi
15. Role of human Heterogeneous Nuclear Ribonucleoprotein D (hnRNPD) in oral cancer, Biochemistry
16. Role of Negative Regulators of EGFR in Malignant Transformations of Oral Dysplasia, Biochemistry
17. Systematic Review and Meta-analysis: Knowledge, Attitude, Awareness and Practice for prevention and emergency management of traumatic dental injuries among school teachers of the world, Biostatistics, Centre for Community Medicine
18. To assess the potential ability of Cathepsin L and Cathepsin B as universal biomarkers of cancer, Biochemistry

Completed

1. A study to assess the effectiveness of a planned simulation teaching on the knowledge and skill of nurses working in critical care unit of AIIMS, College of Nursing
2. An exploratory study to assess the association between Nicotine Metabolite Ratio (NMR) and Smokeless Tobacco Use parameters, Psychiatry and NDDTC
3. Analysing the long term effects of primary tooth trauma on permanent dentition Department of Pedodontics and Preventive Dentistry, FODS, KGMU, Lucknow and BBDCODS
4. Assessment of peri-natal oral health and Implementation of Oral Health promotion programme in Indian pregnant women, Gynecology and Obstetrics
5. Association between serological levels and genetic polymorphisms of VEGF A and C with clinicopathological characteristics in oral squamous cell carcinoma and oral submucous fibrosis—A pilot study, Biochemistry
6. Automatic segmentation of upper airway using CBCT scans data, Central Scientific Instruments Organisation (CSIO), Chandigarh
7. Effect of repetitive Trans cranial Magnetic Stimulation on pain status, thermal sensitivity and motor activity in Myofascial Pain Dysfunction Syndrome, Physiology
8. Estimate the oral cancer conversion risk with long term follow up (10-15 years) of patients with precancerous lesions—Leukoplakia, submucous fibrosis, lichen planus among patients included in a ICMR tobacco task force project, General Surgery, and NICPR, Noida
9. Interdisciplinary variations in spectrum of oral mucosal lesions, Dermatology
10. Systematic review and meta-analysis: Prevalence of traumatic dental injuries in India, Biostatistics

PUBLICATIONS

Journals: 41 Abstracts: 12 Chapters in books: 3

PATIENT CARE

Orthodontics and Dentofacial Deformities

During the year under review we have provided greater emphasis on Interdisciplinary treatment of patients with Cleft Lip and Palate and initiated combined orthognathic surgery patients suffering from facial deformities. 48 patients are running so far.

Oral and Maxillofacial Surgery

More than 1,000 major cases operated in department. First in country to achieve 50 TMJ replacement surgeries.

Oral and maxillofacial Surgery OPD and Inpatient services

- | | |
|---|--|
| 1. Exodontia, simple and complicated | 6. Maxillofacial Infections |
| 2. Temporomandibular Joint Surgery | 7. Surgery for Obstructive sleep apnea |
| 3. Cranio-facial trauma | 8. Trigeminal neuralgia Clinic |
| 4. Orthognathic and Aesthetic Surgery of face | 9. Oste-odontokeratoplasty |
| 5. Oral and Maxillofacial Pathology | |

Prosthodontics

Dental rehabilitation of complete and partially edentulous patients. Specialty clinic on Oral and Maxillofacial Prosthodontics, implant dentistry and temporomandibular disorders. Different types of prosthesis which we are fabricating for the patients are Complete denture, Removable Partial Denture, Crown and Bridge work, Laminates, Occlusal splints, Implant supported Prosthesis (Removable and Fixed), and Maxillofacial Prosthesis (Extra oral/Facial and Intra oral). Two labs to fabricate removable and fixed Prosthodontic appliances.

Conservative Dentistry and Endodontics

Specialty clinic of Conservative Dentistry and Endodontics is held twice a week. A non-surgical and surgical endodontic Retreatment clinic has been initiated and is held once a week.

Pedodontics and Preventive Dentistry

It provides state of the art preventive, diagnostic and treatment facilities to the children reporting with oral health problems. In addition to the routine procedures, we excel as one of the best centers for Paediatric Soft tissue Laser dentistry in India with a dedicated Minor OT for the same. Special Care Dentistry is an integral part of our work spectrum with large number of referrals from pediatric nephrology, oncology, gastroenterology, neurology, cardio-thoracic surgery and hematology. Dental caries preventive protocol is strictly followed as per the international guidelines with ultra-modern strategies. Traumatic Dental injuries reporting in primary and permanent dentition are all managed on emergent.

Oral Medicine and Radiology

Specialty Clinic: Oral Ulcers Clinic (Wednesday 2.00 PM)

Cone Beam Computed Tomography facility in Oral Medicine and Radiology CDER

Development of registry for Oral Potentially Premalignant lesions in CDER

Periodontics

Various treatment procedures carried out in department are:

- Conventional non-surgical and surgical periodontal therapy, Periodontal plastic surgery, Soft and hard tissue regenerative procedures, Diode laser assisted soft tissue excision and adjunctive pocket debridement procedures

Public Health Dentistry

1. Tobacco Cessation Counselling at the CDER AIIMS, New Delhi OPD
2. School Based Pit and Fissure Sealant Programme, MoHFW
3. Oral Health Promotion Drive on the occasion of International Childhood Cancer Day on 27 February 2019 at the JawaharlalNehru Auditorium at AIIMS, New Delhi and monthly intervention at the Day Care for the newly diagnosed Paediatric Oncology Patients.

Oral Pathology and Microbiology

Oral Cytopathology and Histopathology Laboratory at CDER.

AWARDS, HONORS AND SIGNIFICANT EVENTS

Honours—Centre for Dental Education and Research, AIIMS for Community Work

1. Best Exhibit was awarded to the Centre for Dental Education and Research, AIIMS at the 63rd Institute Day 2018 on 25 September 2018 at the JLN Auditorium, AIIMS, New Delhi
2. Dr DN Kapoor Award was presented to the Centre for Dental Education and Research, AIIMS, New Delhi for the best Community Dentistry project taken by the institution for the year 2018 at the International College of Dentists Conference on 15-16 December 2018, Hyderabad.

Professor OP Kharbanda was unanimously nominated as “Asia Representative” to “Orthodontic Research Group” (ORG) of International Association for Dental Research (IADR); received outstanding Professor Award of the Indian Orthodontic Society; appointed by the Chairman, Defence Research and Development Organisation (DRDO), Ministry of Defence, a member of the Armed Forces Medical Research Committee (AFMRC); attended ORMCO course on 13 May 2018, New Delhi; Chief Guest to “5th Award Ceremony of Heal Talk Award 2018” on 27 May 2018 at Bravura Gold Resort, Meerut; attended Pierre Fauchard Academy CDE and 32nd Annual Convocation and Awards Ceremony on 22 December 2018 at Maulana Azad Institute of Dental Sciences, Delhi; appointed Honorary Advisor to Medical Advisory Council Mission Smile, New Delhi; continuing on the International Editorial Board of British Journal of Orthodontics and Australian Orthodontic Journal; Chief Resource Faculty at “8th Insight into Orthodontic Postgraduate Examination” at Jamia Millia Islamia, New Delhi; attended meeting of Board of Research Study of the Dr DY Patil Vidyapeeth University, Pune; attended the meeting at Banaras Hindu University, Varanasi on 12 July 2018; delivered guest lecture at AIIMS Bhopal on 29 June 2018; invited by UGC team to visit Manav Rachna Dental College (MRDC) regarding inclusion of the college under the ambit of the Manav Rachna International Institute of Research Studies, Faridabad (Haryana); Expert to ICMR to review the research projects in the field of Oral Health and postgraduate research grants; invited by Doordarshan to participate in “Oral Health” programme; made significant contribution to WHO, National Oral Health Programme and as advisor to government of India on National Oral Health Policy; Under National Oral Health Programme, the following activities were done: (i) Renewal of the MoU between AIIMS, New Delhi and Ministry of Health and Family Welfare with revised activities under the National Oral Health Programme; (ii) Supervised the Edant Seva-Content upload, designing, review, validation and feedback collection from May to December 2018; (iii) Supervised the team for the School Based Sealant Programme

from May 2018 to present; (iv) Lead the team for recruitment of Research manpower under NOHP; (v) Supervised the development of mobile app under NOHP October 2018 to present; (vi) Lead the team for organising and setting up of oral health booth during the 63rd Institute Day of AIIMS New Delhi and was awarded “Best Exhibit”; (vii) Supervised the development of New IECs for risk groups- Pregnant women, infants and Populations with Special Health needs; (viii) Lead the team for the scientific presentation on IEC and Innovation in NOHP in the 23rd National Conference of Indian Association of Public Health Dentistry in November 2018 and was awarded “Second Best Innovation” for Oral Health Promotion; (ix) Awarded Best Outreach Programme to CDER AIIMS, New Delhi for activities under NOHP at the Annual Conference of International College of Dentists Section VI, December 2018; (x) Lead the team for Training the Medical Officers of NCD Cell Rajasthan on oral Cancer Screening and Tobacco Counselling in December 2018.

Professor Ritu Duggal was Member of Project Review Committee in the field of Oral Health is scheduled to be held on 20 March 2019 at 10.00 AM at CG Pandit Board Room, ICMR Hq, New Delhi; Panelist for CME in Orthodontics at Jamia Milia Islamia, Maulana Mohammad Ali Jauhar Marg, New Delhi on 25 January 2019; Expert for Post Graduate Board of Studies in Orthodontics to be held in Department of Orthodontics, PGIDS on 27 December 2018; Expert for the Commission in the Interview Board for the Post of Public Health Dentist to be held in UPSC, Dholpur House, Shahjahan Road, New Delhi on 26 October 2018; Expert Member of the Selection committee on 30 October 2018 at IIT-Delhi Hospital; Appointed as Council’s Inspector for MDS-Renewal 2nd year in the Department of Orthodontics and Dentofacial Orthopedics at Ludhiana (Punjab) on 5-6 September 2018.

Professor Ajoy Roychoudhury was conferred fellowship of National academy of Medical Sciences, India; Reviewer for following indexed journal British Journal of Oral and Maxillofacial Surgery, National Medical Journal of India, Dental Traumatology and National Journal of Oral and Maxillofacial Surgery; Dental Council Inspector to verify the teaching, infrastructure facility of various dental college in India providing postgraduate education; Also has been in the committee of MOHFW to review the decisions of Dental Council of India pertaining to recognition to various Dental Colleges in India; served as an expert at selection committee at SGPGI Lucknow.

Professor Ongkila Bhutia has been appointed as Chairperson HICC (Hospital infection control committee) CDER; was nominated as member in the committee (Dental Expert) for Hon’ble Supreme Court case trial, 2018; Has been in the committee of MOH&FW to review the decisions of Dental Council of India pertaining to recognition to various Dental Colleges in India; was appointed as inspector for starting MDS course (Oral and Maxillofacial) in Patna AIIMS, 25 October 2018; Member of Organizing Committees and course Faculty at AIIMS Orthonagthic Surgery Workshop on 26 November 2018.

Dr Ajay Logani was President of the Indian Society of Traumatology (2017-2020).

Dr Vijay Prakash Mathur received Founder President M Rahmatullah Award for outstanding contribution to the progress of Indian Society for Dental Research and distinct contributions in the field of Dental Research; Professor Hari Parkash Oration Lecture for the year 2018-2019 at ITS Centre for Dental Studies and Research, 7 December 2018, Ghaziabad; Vice President- Indian Society for Dental Research (IADR-India Division) (2017-2019); Vice President, Indian Society for Dental Traumatology (2018-2020); Hon. Treasurer, Indian Society of Pedodontics and Preventive Dentistry (2019-2020); Scientific Editor, Journal of International College of Dentists (Section VI) (2019-2020); Editor in Chief, Journal of South Asian Association of Paediatric Dentistry (2018-2021).

Dr Dalim Kumar Baidya: For details please see 9.1 Anaesthesiology.

Dr Devlina Goswami: For details please see 9.1 Anaesthesiology.

Dr Prabhat Kumar Chaudhari was appointed as a member of the IADR Membership and Recruitment Committee for a three-year term (2018-2021) by The IADR Board Operations Committee, International and American Associations for Dental Research, USA; Working as Assistant Editor of Journal Pierre Fauchard Academy-India Section published Elsevier India; Fellow-Member of World Federation of Orthodontists (Membership ID: 14016802); Fellow of Pierre Fauchard Academy-India section (2018); International Fellow, Italian Orthodontic Society (SIDO) (2019); International member of American Cleft Palate and Craniofacial Association (ID-94260).

Dr Nitesh Tewari was awarded Best Original Research Award (Third Place) at World Congress of Dental Traumatology, 15-18 October 2018 San Diego, USA; Awarded Fellowship of Academy of Dentistry International, USA; Outstanding Pedodontist Award 2018 by Craniofacial and Dental Research Foundation, India at 4th International Craniofacial and Dental Summit in Kandy, Sri Lanka on 12 December 2018; Fellowship of Japan Dental Association for the year 2019; Appointed as Standing Committee Member for Information and Newsletter Committee of International Association of Dental Traumatology Elected as Executive Committee Member of Craniofacial and Dental Research Foundation in December 2018; Appointed as Assistant Editor, Restorative and Paediatric Dentistry section in Journal of Oral Biology and Craniofacial

Research in December 2018; Appointed as Editor of Smile Times-Pedo Official newsletter of Indian Society of Pedodontics and Preventive Dentistry.

Dr Shalini Gupta was Member Project Advisory Committee (PAC) of the ICMR Task Force study titled “Screening and early detection of cervical, breast and oral cancer” in the Dibrugarh, Assam: A demonstration project in TATA Tea gardens by ICMR New Delhi; Technical expert “Oral cancer Screening APP development” by Ministry of Health and Family Welfare (MoHFW) a Non-Communicable Disease; Technical Advisory Group (NCD TAG); Technical Expert “E Dant Seva app development” by CDER for by Ministry of Health and Family Welfare (MoHFW); Technical expert “Oral cancer screening online training module ECHO” conducted by NICPR; Technical expert for development of MOOCS for oral health promotion by WHO.

Dr Kunal Dhingra was awarded Membership of prestigious Constitution Committee of American/International Association for Dental Research (USA); Awarded Fellowship of prestigious Pierre Fauchard Academy-India Section, Awarded Membership of Education Research and Evidence based dentistry groups of the American/International Association for Dental Research (USA)

Dr Vikender Singh was appointed as Secretary of Dental Surgeons Association of India, Gurugram Branch in April 2018.

Dr Harsh Priya was awarded best Scientific Paper on the study entitled “Effectiveness of a Web Based Learning Module on the Oral Health Promotion for Nursing Professionals” at the 23rd Annual Conference, Indian Association of Public Health Dentistry on 30 November-2 December 2018 at Divya Jyoti Dental College, Modinagar; Second Prize, Best innovation at the 23rd Annual Conference, Indian Association of Public Health Dentistry on 30 November-2 December 2018 at Divya Jyoti Dental College, Modinagar; Awarded membership of National Academy of Medical Sciences; Organised and Coordinated for an Five Day Observer ship Programme with the Sri Lankan Dentists for Screening for the Potentially Malignant Disorders and Oral Cancers from 3 to 5 December 2018 at CDER, AIIMS, New Delhi and NICPR, NDDTC, IRCH and WHO Country Office; Regional Review Meetings of the State Nodal Officers of National Oral Health Programme of South Zone in Chennai (23 October 2018), West Zone in Ahmedabad (10 December 2018), East Zone in Shillong (31 January 2019) and North Zone in Chandigarh (15 February 2019); Technical inputs for eDant Seva were presented in all the meetings; Member of the committee for the drafting of the National Oral Health Policy 2018; Coordinated with Professor Zohoori Vida, Professor in Public Health and Nutrition from Teesside University for Collaboration on Fluoride Research thorough Chief Medical Officer of NPPCF, Department of Anatomy, AIIMS and Dr AK Susheela, Director, Fluorosis Research and Rural Development Foundation, New Delhi; Technical expert for developing an oral health website and mobile application named eDant Seva.

Dr Deepika Mishra was Reviewer in Journal of Oral Pathology and Medicine and Tumor Biology; Invited as a resource person in the Oral Cancer screening programmes at National Institute of Cancer Prevention and Research, Noida and National Institute of Health and Family Welfare, Delhi several times 2018-2019; Chaired scientific session and judged poster presentations in 27th National conference of Indian Association of Oral and Maxillofacial Pathology at Amritsar on 17 November 2018; I was also a resource person in Hands on workshop on oral cancer screening in association with CDER AIIMS at NICPR, Noida; Appointed as member of medical board of AIIMS for medical examination (Age estimation) as an expert in forensic odontology several times.

VISITING SCIENTISTS

1. Dr Stephen Chu, Associate Clinical Professor, Department of Orthodontics, College of Dentistry, Dallas, Texas, USA, Interactive lecture, 7 August 2018, CDER AIIMS, New Delhi
2. Dr Varun Kalra, Clinical Associate Professor, School of Dental Medicine, Pitiburgh, USA
3. Dr Alexander Rendayan, Clinical Associate Professor of Restorative Sciences and Biomaterials, Boston University, USA
4. Dr Rajeev Agarwal MD, DM (Nephrology) Paediatrics Consultant, Agave Paediatrics, Arizona, USA
5. Dr Yasutaka Yawaka, DDS, PhD Professor and Head, Dentistry for Children and Disabled Persons, Department of Oral Functional Science, Hokkaido University Faculty of Dental Medicine, Sapporo/Hokkaido, Japan
6. Dr Aws Alani Consultant and Programme Director, Restorative Dentistry, King’s College Hospital (NHS Foundation Trust), London, UK
7. Dr Ujjal Kumar Bhawal, Assistant Professor, Department of Biochemistry and Molecular Biology, Nihon University Dental School, Matsudo, Japan.
8. Dr Anoop Sondhi, Guest Lecture, 8 October 2018, CDER AIIMS, New Delhi

10.3. Dr BR Ambedkar Institute Rotary Cancer Hospital

Professor and Chief

GK Rath
(Radiation Oncology)

Professors

Subhash Chander (Radiation Oncology)	Lalit Kumar (Medical Oncology)	Sidhartha Satpathy (Hospital Administration)	SVS Deo (Surgical Oncology)
Sanjay Thulkar (Radiodiagnosis)	Sushma Bhatnagar (Anaesthesiology)	Atul Sharma (Medical Oncology)	Sameer Bakshi (Medical Oncology)
Seema Mishra (Anaesthesiology)	DN Sharma (Radiation Oncology)	Suman Bhaskar (Radiation Oncology)	Pratik Kumar (Medical Physics)
	Sushmita Pathy (Radiation Oncology)	Ritu Gupta (Laboratory Oncology)	

Associate Professors

Haresh KP (Radiation Oncology)	Subhash Gupta (Radiation Oncology)	Anita Chopra (Laboratory Oncology)	Pranay Tanwar (Laboratory Oncology)
Sanjeev Kumar Gupta (Laboratory Oncology)	Rakesh Garg (Anaesthesiology)	Nishkarsh Gupta (Anaesthesiology)	Vinod Kumar (Anaesthesiology)
Sachitanand Jee Bharti (Anaesthesiology)	Chandershekhara SH (Radiodiagnosis)	Sunil Kumar (Surgical Oncology)	Major MD Ray (Surgical Oncology)

Assistant Professors

Amar Ranjan Singh (Laboratory Oncology)	Ajay Kumar Gogia (Medical Oncology)	Ranjit Kumar Sahoo (Medical Oncology)	Prabhat Singh Malik (Medical Oncology)
Sameer Rastogi (Medical Oncology)	Raja Pramanik (Medical Oncology)	Atul Batra (Medical Oncology)	Ahitagni Biswas (Radiation Oncology)
Ritesh Kumar (Radiation Oncology)	Rambha Pandey (Radiation Oncology)	Mayank Singh (Medical Oncology)	Mukesh Kumar Yadav (Radiodiagnosis)
Ekta Dhamija (Radiodiagnosis)	Thoudam Debraj Singh (Medical Oncology)	Chandra Prakash Prasad (Medical Oncology)	Sachin Khurana (Medical Oncology)

Administrative Officer

Satish Kumar Singh

Accounts Officer

Padam Singh

Stores Officer

Arvind Kumar Sharma

Total staff

Faculty Members	44	Resident doctors	107
Group 'A' Official	36	Group 'B' Official	438

Group 'C' Official	130	Part Time Social Guide	06
Outsourced House Keeping Staff	156	Outsourced Security Staff	77
Outsourced Data Entry Operators	36	Outsourced Sanitation Staff	77

HIGHLIGHTS

Onco-Anaesthesia and Palliative Medicine

The Unit of Anaesthesiology was upgraded to Department of Onco-Anaesthesia and Palliative Medicine in June 2015. The department has six well trained faculties (Dr Sushma Bhatnagar, Dr Seema Mishra, Dr Rakesh Garg, Dr Nishkarsh Gupta, Dr Vinod Kumar, Dr Sachidanand Jee Bharati) and provide services to anesthesiology, critical care, pain and palliative medicine. All of them are professionally qualified anesthesiologists and critical care physicians and have gained experience as palliative care personnel in the advanced cancer patients referred for pain and other symptom management.

The mission of the department is to provide state-of-art and comprehensive care for patients with cancer with both curative and palliative intent. It includes services for various diagnostic interventions, surgical procedures, pain and palliative procedures. The department provides round the clock services for acute and chronic pain management. The department has six bedded intensive care unit which provides care for critically ill patients and six bedded palliative care ward for palliative care of oncology patients. The department has its regular academic activities and also pursuing various research activities in the fields of Cancer Pain, Palliative Care and Perioperative Medicine for proposed benefits for the patient. The department has developed protocol and has structured SOPs for better patient management. The department organizes CMEs, conferences and workshops on regular basis. The department provides its services at National Cancer Institute-AIIMS as well and formulated various protocols for it.

Delhi Cancer Registry

The Delhi Cancer Registry is a Population Based Cancer Registry which collects cancer patient's data from more than 172 government or private hospitals/centers and 250 nursing homes and vital statistics division of MCD and NDMC and reports the incidence of various cancers among Delhi Urban residents. When the registry was established in 1988 it has registered 5,854 new cancer cases and over the years the new cancer incidence has been increasing and in 2014 the registered incidence was 20,446 cases. The common sites of cancer among Delhi males are lung, mouth, prostate, tongue and larynx and in females the common sites of cancer are breast, cervix, ovary, gallbladder and corpus uteri. The reports prepared by registry are being widely used by researchers, government organization etc.

Laboratory Oncology

Laboratory Oncology Unit, Dr BRA IRCH, AIIMS, New Delhi had organized the 11th TCS (The Cytometry Society-India) annual conference and workshop from 29-30 October 2018. In addition, a 2 day workshop was organized from 31 October to 1 November 2018 in MRD analysis, Transplant Immunology, multi-parametric flow cytometry and cell sorting.

Medical Oncology

The Department of Medical Oncology have been able to maintain a high-level academic programme and good clinical services—Both 'in patients' and 'outpatients'. In addition to DM (25 students) and PhD (7 students) programme, department attracts students from National Science Academies and other national universities for summer training programme. We have been able to motivate recently joined faculty members to write research grant proposals; two such grants from ICMR and DST have been awarded in the current year for rupees worth one crore. In addition to academic presence of colleagues in various national and international meetings, department (they) have contributed to provide expert opinions in various government agencies projects meetings, served as member of expert panels for faculty selection and as examiners for PhDs and DM in various universities. Department has also started new services-serum LDH estimation, quantitative RT-PCR for BCR-ABL estimation to define molecular remission in patients of chronic myeloid leukemia. We are making efforts to expand lab services for patients care as well. Department also conducted a second national meeting (CME) on 'Lung Cancer' from 19-20 November 2018. All this was possible with hard work, and sincere efforts put up by all the members of the department. Space crunch continues to be a limitation for clinical research staff and for the lab.

There is a significant increase in the no. of patients treated in our department.

S. No.	Item	2017-2018	2018-2019	% increase
1.	Patients treated as in-patient	9,194	11,965	30.1
2.	Patients treated in day care facility	29,801	34,440	15.6
3.	Medical procedures	5,972	6,830	14.4
4.	Outpatient chemotherapy	14,574	15,943	9.4
5.	Outpatient IV antibiotics	25,303	32,541	28.6
6.	Hematopoietic Stem Cell Transplantation	105	115	9.5

Aphaeresis lab (2018-2019)

- | | |
|-------------------------|-------------------------------|
| a. PBSC harvests: 231 | c. Granulocyte aphaeresis: 62 |
| b. SDP apheresis: 2,600 | d. Haemogram testing: 24,002 |

Medical Physics

Medical Physics Unit, Dr BRA IRCH undertakes registration of radiation emitting diagnostic and therapeutic x-ray machines used in various departments of AIIMS including Departments of Radiodiagnosis, Cardiac-radiology and Neuro-radiology. In addition, we perform radiation safety survey, quality assurance tests of x-ray imaging devices, accessories and gadgets and train the personnel in safe use of radiation in medicine. We also give services to the departments using radioactivity for laboratory investigations, research and patient care by providing consultation regarding radiation safety of staff and public. We give consultation in case of inadvertent exposure to pregnancy during x-ray investigations. During 2018-2019 we carried out 4,017 measurements, tests, experiments and radiation sterilization of blood bags for blood transfusion.

Radiodiagnosis

Department took keen interest in formulating the protocols for radiology department functioning of National Cancer Institute, Jhajjar. Numerous meetings and physical on-site inspection was done at Jhajjar for inspecting the installation of Ultrasonography, Fluoroscopy machines as well as CT and MRI machines at NCI Jhajjar. The department held multidisciplinary discussions/tumor boards specifically addressing gastrointestinal malignancies, lung cancer and sarcoma on Saturday and Wednesday (forenoon and afternoon), respectively. In addition, there was active participation in organizing workshops with other departments of national and international conference during this year.

Surgical Oncology

All the faculty members participated in the under/post graduate teaching and structured training of 27 senior residents including 16 MCh student and 11 non-academic senior residents along with MCh teaching / training and thesis work. The faculty acts as co-guide in thesis work of various department including Radiation Oncology, Medical Oncology, Biochemistry and Biotechnology Geriatric medicine etc. The Department organized a Cadaver workshop on breast oncoplasty in collaboration with University Hospital North Midland (UK) and the Annual Conference of the Association of Breast Surgeons of India (ABSICON 2018). The faculty participated in National and International conferences by giving lecture, panel discussion and educational videos. The department have presented 20 papers in National and International conferences and involved in 13 funded research projects, 15 departmental projects and 11 collaborative research projects. A total of 25 original articles were published. The department runs special cancer clinics for breast cancer, gastrointestinal cancer, head and neck cancer, gynecological cancer, bone and soft tissue tumors, thoracic cancer, hepatobiliary-pancreatic cancer and genitourinary cancer. A total of 1,592 complex major operations and 10,477 minor operation and various diagnostic and therapeutic endoscopy procedures were performed during the year. Faculty participated in community services by giving advice to ostomates, giving talk in All India Radio, television and participating in cancer awareness camps. The faculty members were involved as members of editorial boards, reviewer and members of national and international bodies. The faculty members acted as examiner for MCh Surgical Oncology and MS Surgery examinations of various medical colleges and institutions.

EDUCATION

Onco-Anaesthesia and Palliative Medicine

The department is running successfully runs two academic courses: DM and MD. First batch was admitted in January 2016 The department also organizes certificate course in Palliative Care twice a year in the month of June and November and Foundation course on Palliative care once in a year in the month of March. The department started 'Pain Policy' at IRCH, AIIMS. The aim of the policy is its commitment to treat pain of all registered patients. Department is Nodal Center for conducting Indian Association of Palliative Care's Certificate Course in Palliative Care twice in a year.

Laboratory Oncology

Laboratory Oncology provides morphology, myeloma and flow cytometry training to junior and senior residents from Pathology, Paediatrics, Lab Medicine, Hematology and Medical Oncology. Short-term training is given to Middle and Younger level faculty and academic students from various colleges all over India.

Medical Oncology

The department is involved in teaching and training of DM students. Department participates in teaching other postgraduates student of other specialties as well. 2 PhD students (Mohsin Maqbool and Anudishi Tyagi) have been awarded doctoral degree.

Medical Physics

Medical Physics Unit imparted training and education regarding Physics of medical imaging, radiation protection, radiation dosimetry and quality assurance in medical imaging to the students of MD Radiology, MD Radiotherapy, MBBS, and BSc (Hons.) in Radiography and Nursing. At present department is providing training to 3 PhD students.

Radiodiagnosis

Faculty participated in undergraduate, postgraduate and super specialty teaching, radio-conferences, tumor board meeting, Clinical Combined Rounds, Clinical Grand Round. Faculty had also participated in the various symposiums and CMEs held in IRCH and institute.

Surgical Oncology

The faculty was involved in undergraduate teaching by giving didactic lectures and by participating/moderating seminars on oncological topics. The faculty was involved in teaching and training of 16 MCh surgical oncology students and 11 surgical oncology senior residents, DM medical oncology residents and MD radiotherapy junior residents by giving didactic lectures, moderating seminars, journal clubs etc. and clinical teaching during ward rounds and in special cancer clinics of IRCH. Faculty acted as chief guides and Co- guides in the thesis of MCh surgical oncology students. They also acted as Co-guide and Co-supervisors in DM medical oncology thesis, MD radio diagnosis MD radiation oncology thesis and PhD students from different dept. of BRA IRCH and AIIMS. The faculty was also involved in teaching and training of dental surgery residents and MCh students from RCC, Thiruananthapuram who are posted on one month rotation and rotation of MCh Gynecology Oncology trainee from Department of Obstetrics and Gynecology. The faculty was involved in the teaching of the MSc nursing oncology students. Dr Jagjit Pandey Assistant Professor, AIIMS, Patna visited the Department of Surgical Oncology, AIIMS, New Delhi as visiting faculty. Seven Maxillofacial Surgeons from Sri Lanka underwent observership programme at Department of Surgical oncology, AIIMS.

CME /Workshop/Symposia/National and International Conference

Onco-Anaesthesia and Palliative Medicine

1. 16th Foundation Course on Palliative Care, March and November 2018, AIIMS, New Delhi
2. IAPC certificate course in Palliative Care, June and November 2018, Dr BRA IRCH, AIIMS
3. Palliative Care Training Programme for Cancer Treatment Centers in India, 16-20 January 2018, 12-16 January 2019, Delhi
4. World Hospice Day, 8 October 2018, Dr BRA IRCH, AIIMS
5. Training Course on IASP Advanced Certificate Programme in Evidence Based Pain Management, AIIMS
6. IASP Ultrasound Workshop 2018, Ultrasound Guided Interventions-Diagnostic and Therapeutics, World Congress on Pain-2018, 15 September 2018, MICROSOFT Boston, USA

Delhi Cancer Registry

1. Workshop on Cancer Registration System, 2 May 2016, New Delhi

Radiation Oncology

1. National Conference on “Lung Cancer update: An AIIMS-NCI Initiative” on 12 and 13 May 2018 at AIIMS
2. International Conference on Translational research-Recent development in Human Health and Agricultural research, 11-13 October 2018 at Goa

Surgical Oncology

1. Delhi Cancer Registry—NCDIR workshop on Cancer Registration, 2 May 2018, AIIMS, New Delhi
2. ABSICON 2018—Annual Conference of Association of Breast Surgeon of India, 9-11 November 2018, AIIMS, New Delhi
3. AIIMS-UK Breast Oncoplasty Workshop and cadaver Course, 12 November 2018, AIIMS, New Delhi

Laboratory Oncology

1. 11th TCS Annual Conference and Flow Cytometry Workshop-2018 from 29 October to 1 November 2018 at AIIMS, New Delhi

Lectures delivered

Onco-Anaesthesia and Palliative Medicine

Sushma Bhatnagar

1. MEDINSPIRE, 14-17 February 2019, Mumbai
2. Plenary Speaker, 34th Annual Conference of Indian Society for Study of Pain, 1-3 February 2019, Bengaluru
3. IAPC Course, 27 January 2019, AIIMS, Rishikesh
4. 70th Indian Pharmaceutical Congress to be held at Amity University Campus, 21-23 December 2018, Delhi NCR
5. IASP Council meeting and PA South African Pain Academy Meeting, 28 November to 1 December 2018, Cape Town, South Africa
6. IAPC Course, 17-19 November 2018, AIIMS, Patna
7. ISMPOCON 2018, 16 November 2018, Jaipur
8. IAPC Course, 12-13 November 2018, AIIMS, Rishikesh
9. CME of Pain and Palliative Care, 3 November 2018, Lucknow
10. International Conference and workshop on recent advances in pain (ICRA-Pain 2018), 29 September 2018, Jammu
11. 20th ISACON, 22-23 September 2018, Rajasthan
12. Annual Conference of Association of Radiation Oncologist of India, 19 August 2018, Bikaner
13. 1st National Conference of the Society of Onco Anaesthesia and Peri-Operative Care (SOAPCCON), 17-19 August 2018, Mumbai
14. Lead Mentor, 2nd Palliative Care Training Programme for Cancer Treatment, 13 August 2018, Bhopal
15. Lead Mentor, 2nd Palliative Care Training Programme for Cancer Treatment, 24-25 July 2018, AIIMS, Jodhpur
16. Lead Mentor, 2nd Palliative Care Training Programme for Cancer Treatment, 28 July 2018, Gwalior, Bhopal
17. Visit for planning discussions related to the Palliative Care Programme for cancer treatment centre-APHN and AIIMS, 18-20 May 2018, Singapore
18. Workshop on Palliative Care Implementation, Launch Symposium of the Lancet Commission on Palliative Care, 5-6 April 2018, Miami, USA
19. 6th Training of Trainers in Palliative Care Programme, 22-28 March 2018, Bangladesh
20. 6th Biennial Scientific Meeting, 17-18 March 2018, Putrajaya, Malaysia
21. IASP meeting, International Association for the Study of Pain Meeting (IASP), 25-27 February 2018, Lisbon, Portugal
22. 22nd International Conference on Frontiers in Yoga Research and its application (INCOFYRA) at Vivekananda Yoga Anusandhana Samsthana (VYASA) (IAPC), 5-8 January 2018, Bengaluru

Seema Mishra

1. EOL and terminal sedation, IACA Course, 17 September 2018, IRCH, AIIMS, New Delhi
2. Panel discussion on Safe use of opioids, ICRA-PAIN 2018, 28-30 September 2018, Jammu
3. Postoperative pain management in Head and Neck Cancer Surgery, ICPM 2018, 7th Annual Conference of the Society for Ultrasound in Anaesthesia, 27-31 October 2018, Jodhpur
4. Lymphedema Management, 18th Annual Foundation Course in Palliative Care will, 20-21 November 2018, JLN AIIMS, New Delhi
5. Ethical issues in palliative care, Indian Association of Palliative Care Certificate Course Programme, 10-11 November 2018, IRCH, AIIMS, New Delhi
6. Paediatric palliative care, Indian Association of Palliative Care Certificate Course Programme, 10-11 November 2018, IRCH, AIIMS, New Delhi
7. Cancer pain Syndromes, ISSPCON 2019, 31 January-3 February 2019, Bangalore
8. Communication session, 26th International Conference of Indian Association of Palliative Care and Pre-Conference Workshop, 7-10 February 2019, Kochi, Ernakulum, Kerala
9. Breaking bad news, Workshop "Palliative Care: A Promise of Quality Life", 22 February 2019, AIIMS, New Delhi
10. Cancer pain assessment and management, Workshop "Palliative Care: A Promise of Quality Life", 22 February 2019, AIIMS, New Delhi
11. Breaking bad news, Nursing update, 22 March 2019, AIIMS, New Delhi

Rakesh Garg

1. Ultrasound for difficult airway, 20th Annual Conference of Society of Anesthesiologist of Nepal (SANCON 2019), 15-17 March 2019, Kathmandu, Nepal
2. Ketamine: Old kind with a new role, 34th Annual Conference of Indian Society for Study of Pain - ISSPCON 2019, 1-3 February 2019, Bengaluru
3. Panel: Meet the editors, ISACON 2018: 66th Annual Conference of Indian Society of Anaesthesiologists, 26-29 November 2018, Agra
4. Nutrition in Cancer Patients; Final Days and Last Hours of Living, 18th Annual Foundation Course in Palliative Care, 20-21 November 2018, Delhi
5. Extubation Guidelines of ADAAA; Airway management of Laryngo-tracheal Surgery, NAC 2018: 9th Annual National Airway Conference of All India Difficult Airway Association (AIDAA), 7-9 September 2018, Delhi
6. Moderator: Dr Rakesh Garg; Strategies for opioid sparing and Oncoanaesthesia, 1st National Conference of Society of Oncoanaesthesia and Perioperative Care (SOAPCCON 2018), 17-19 August 2018, Mumbai
7. Workshop on Basics of Research Methodology and Publication, ISACON Karnataka 2018, 9-12 August 2018, Karnataka

Nishkarsh Gupta

1. ERAS in oncology surgeries, SANCON 2019, 14-17 March 2019, Society of Anaesthesia, Kathmandu, Nepal
2. Workshop on difficult airway, SANCON 2019, 17 March 2019, Society of Anaesthesia, Kathmandu, Nepal
3. National Consensus Position Statement on Bronchial Thermoplasty, AIIMS Pulmocrit, 1-3 March 2019, AIIMS, New Delhi
4. Palliative care for GI symptoms, Palliative Care: A Promise of Quality Life, 22 February 2019, AIIMS, New Delhi
5. Moderated a panel on Onco-Anaesthesia, ISACON 2018, 24-29 November 2019, ISACON, Agra
6. Airway workshop, ISACON 2018, 24-29 November 2019, ISACON, Agra
7. Faculty for USG guided regional workshop, CAUPRA US Workshop, 11-13 January 2019, Safdarjung Hospital, Delhi
8. ACLS workshop, 2nd International Conference on Medical and Health Sciences, 9-11 November 2019, Khesar Gyalpo University of Medical Sciences, Bhutan
9. Moderated a panel on Palliative Care, International Conference on Pain Management, 27-31 October 2018, AIIMS, Jodhpur
10. USG guided workshop, International Conference on Pain Management, 27-31 October 2018, AIIMS, Jodhpur
11. Pharmacological approach to cancer pain management—Newer advances, RSACPCON 2018, 6-8 April 2018, Jaipur
12. Palliative care for GI symptoms, 18th Annual Foundation Course in Palliative Care, 20-21 November 2018 AIIMS, New Delhi

Vinod Kumar

1. Role of CPET in Oncosurgery, SANCON 2019, 14-17 March, 2019, Kathmandu, Nepal
2. Workshop on difficult airway, SANCON 2019, 17 March 2019, Kathmandu, Nepal
3. National Consensus Position Statement on Bronchial Thermoplasty, AIIMS PULMOCRIT, 1-3 March 2019, AIIMS, New Delhi
4. Palliative care for respiratory symptoms, Palliative Care: A Promise of Quality Life, 22 February 2019, AIIMS, New Delhi
5. Chaired a session on Pudendal Nerve: Clinical Anatomy and Features of Compression, International Conference on Pain Management, 27-31 October 2018, AIIMS, Jodhpur

Sachidanand Jee Bharati

1. Alternative Medicine in Palliative Care, Pain and Palliative CME cum Workshop, 29 April 2018, GMC Haldwani
2. Palliative Care in Advanced Lung Cancer, Lung Cancer Update, 12-13 May 2018, AIIMS, New Delhi
3. Panel Discussion: Environmental Determinants of Cancer, 1st Conference on Environmental and Occupational Determinants of Cancer Interventions for Primary Prevention, 26-27 May 2018, AIIMS, New Delhi
4. Three Selected Papers in Palliative and Supportive Care, Best of ASCO, 28-29 July 2018, AIIMS, New Delhi

5. Opioid Rotation and Methadone, Indo American Cancer Association Course, 26 September 2018, CanSupport, New Delhi
6. Workshop on USG guided Blocks and Cannulation, ISACONUK, 12-14 August 2018, AIIMS, Rishikesh
7. Oncological Emergencies, IAPC Course, 10-11 November 2018, IRCH AIIMS, New Delhi
8. Regional Anaesthesia for Breast Surgery, ABSICON 2018, 9-11 November 2018, AIIMS, New Delhi
9. Defibrillator in Basic Life Support, INCPT 2018, 20 December 2018, CMET AIIMS, New Delhi
10. Moderated panel on Practice Changing Publication in Pulmonary, Critical Care and Sleep Medicine, AIIMS PULMOCRIT, 2-3 March 2018, AIIMS, New Delhi

Delhi Cancer Registry

N Manoharan

1. Delhi Population Based Cancer Registry, Workshop on Cancer Registration System, 2 May 2018, New Delhi
2. Cancer Registry Programme in India, Principles and Practice of Cancer Control and Prevention for North Eastern States, 17 September 2018, New Delhi

Laboratory Oncology

Ritu Gupta

1. Minimal Residual Disease in B-Lineage Acute Lymphoblastic Leukemia, 15th advanced clinical flow cytometry workshop, 1-3 August 2018, ACTREC, TMC, Mumbai
2. (A) Minimal residual disease in Myeloma: A case based approach, (B) Advances in Clinical Flow cytometry: A user perspective, Session chair, Sir Ganga Ram Hospital, 24 August 2018, New Delhi
3. Molecular methods for Ig&TCR gene rearrangements and flow cytometry for MRD were discussed by leading International and National faculty, International update on Multiple Myeloma and plasma cell related disorders, 13-14 September 2018, Tata Medical Center, Kolkata
4. Association of Epigenetic alteration of Myosin Light Chain Kinase (MYLK) with Aggressive Clinical Course in Chronic Lymphocytic Leukemia, 34th Ernst—Klenk Symposium, Center for Molecular Medicine, University of Cologne, 4-6 October 2018, Cologne, Germany
5. Challenges in Myeloma MRD Reporting in Indian Setting: Consensus Building, 11th TCS Annual Conference and Flow Cytometry Workshop—2018, 29 October to 1 November 2018, AIIMS, New Delhi
6. Molecular Monitoring in CML, 2nd Annual Conference of Research and Education Society of Medical Oncology, AIIMS, November 2018, New Delhi
7. Molecular aberrations in Multiple Myeloma, Sunpharma Science Foundation's International Symposia, 30 January 2019, New Delhi

Sanjeev Kumar Gupta

1. Ph-like ALL: How much to investigate? National Hematology Update—XI and 3rd Hematology Alumni Scientific Meeting, 14 April 2018, New Delhi
2. Flow cytometry in oncology, Lectures of radiotherapy and allied subjects-(Radiation Oncology Department), 4 September 2018, New Delhi
3. MRD interesting case presentation, 11th Annual the Cytometry Society Meeting and Workshops, 29 October-1 November 2018, New Delhi
4. Ethical Dilemma in health research in low income countries, in workshop on Ethics in research, 4th International Conference on Medical and Health Sciences 2018, 9-11 November 2018, Thimphu, Bhutan
5. 'Emergence of Cancer as Public Health Issue'—Moderated the panel discussion, 4th International Conference on Medical and Health Sciences 2018, 9-11 November 2018, Thimphu, Bhutan
6. CLL-way forward in 2018—Panelist in panel discussion, Hematology Update "Year In Review-2018", 15-16 February 2019, New Delhi
7. Molecular testing in ALL, Delhi Hematology Group Meeting, 5 March 2019, New Delhi

Anita Chopra

1. Panel discussion on Mixed Phenotype Acute Leukemia, NIPOF, 25 February 2019, New Delhi
2. The evolving role of MRD in the management of Paediatric AML, NIPOF, 25 February 2019, New Delhi

3. Comprehensive transcriptome analysis in T-ALL, Clinical Genomics in Molecular Haemato-Oncology, 1-2 March 2019, New Delhi
4. Peripheral blood involvement in AITL, T-NK Cell Workshop, 12 February 2019, Hyderabad

Pranay Tanwar

1. Cancer Cervix: Prevention, Cancer Awareness Meeting, CSOI, 8 April 2018, New Delhi
2. Prevention of cervical cancer: Screening and Vaccine, Rotary Cancer Awareness Seminar, Sonipat, 3 November 2018, Sonipat
3. Prevention of Cervical Cancer, District Cancer Awareness Seminar, 9 February 2019, Ghaziabad
4. An update Cervical Cancer Vaccine, Sant Parmanand Hospital, 14 February 2019, New Delhi
5. Mutational Burden of Indian Breast Cancer, First Mayo-NCI-AIIMS, New Delhi Meeting, 26 March 2019, New Delhi

Gurvinder Kaur

1. Flow cytometry in transplantation Immunology workshop, The Cytometry Society (TCS) Annual Meeting 2018, 31 October-1 November 2018, New Delhi
2. Implications of dysregulation of miRs in CLL, Sun Pharma Science Foundation's International Symposium on Advances in Immunomics and Immune Oncology Immunomic, 30 January 2019, New Delhi

Deepshi Thakral

1. Basic Session: Evaluating Cellular Subsets—Easy Yet Challenging? (Moderator), 11th TCS Annual Conference and Workshop, 30 October 2018, Conference Hall, AIIMS, New Delhi
2. Evolving landscape of bio-medical research in india (Moderator), 1st Annual Meeting and Symposium—AIIMS Scientists Association (ASA), 19 January 2019, Board Room, AIIMS, New Delhi

Medical Oncology

Lalit Kumar

1. International Academy of Haematology at Paris (France), 27-29 September 2018, Paris, France
2. Myeloma Meet'—By Tata Medical Centre, 16 September 2018, Kolkata
3. 59th Annual Conference of the Indian Society of Haematology and Blood Transfusion, 26-27 October 2018, Kochi, Kerala

Atul Sharma

1. Conducted a panel discussion on GI Cancer, Best of ASCO, 6 July 2018, Coimbatore
2. Panel discussion on best of ASCO abstracts in GI Cancer (Non CRC), ISCO (Indian Society of Clinical Oncology), 28 July 2018, Delhi
3. Panel discussion on Best of ASCO abstracts in Head and Neck Cancer, ISCO (Indian Society of Clinical Oncology), 28 July 2018, Delhi
4. Panel discussion on Anti VEGF: Works irrespective of sidedness and mutational status in mCRC, Symposium and Round Table Meeting, 3 July 2018, Delhi
5. Second Line Systematic Chemotherapy Gastric Cancer, Update on Gastric Cancer, 25 August 2018, Kolkata
6. Current state of adjuvant therapies in Biliary Tract Cancer, 1st Midyear Gastrointestinal Oncology Conference, 1 September 2018, Ahmedabad
7. Case Based discussion—Multiple Myeloma: Unique Presentation and their Management Challenges, Indian B-Cell Malignancies Conclave, 2 September 2018, Mumbai
8. Prevention of Chemotherapy induced cardiotoxicity, Cardiovascular Research Convergence 2018, 14 October 2018, Delhi
9. Nasopharyngeal cancer and optimal placement of chemotherapy in adult, 18th NATIONAL Meet of the Foundation of Head and Neck Oncology (FHNO) and International Federation of Head and Neck Oncologic Societies (IFNOS) World Tour 2018, 26-28 October 2018, Kolkata
10. All patients should receive adjuvant therapy in stage 2 colon cancer, Panel Discussion—HCC, Indian Society of Medical and Paediatric Oncology—ISMPOCON-2018, 16-17 November 2018, Jaipur
11. Choosing Patients for Chemotherapy in Biliary Malignancies/Panel Discussion Integration of Medical, Surgical, Oncology Carcinoma Gallbladder, 59th Annual Conference of Indian Society of Gastroenterology, 30 November-1 December 2018, Kochi, Kerala

12. Metastatic Colon Cancers, 4th Edition of Innovations in Oncology Conference, 9 December 2018, Mumbai
13. Chemotherapy induce diarrhea, Multi-Disciplinary Approach to Cancer, 5 December 2018, Chennai
14. Immuno-Oncology in Melanoma and HCC: Panel Discussion, Immuno Oncology National Advisory Forum 2018, 22 December 2018, Mumbai
15. Current Status and Success of Immuno-Oncology in Solid Cancers, Sun Pharma Science Foundation, 30 January 2019, Delhi
16. Locally advance/High risk Gall Bladder Cancer—Debate, Evidence based management of Cancers in India EBM 2019 (TMC), 28 February-3 March 2019, Mumbai
17. Debate High risk Gallbladder cancer v/s Neoadjuvant therapy, Evidence based management of Cancers in India EBM 2019, 2 March 2019, Mumbai
18. Moderated panel discussion on Colorectal Cancer, 2nd Annual International Review in Gastrointestinal Cancers 2019, 9 and 10 March 2019, Mumbai
19. Immunotherapy in hepatocellular Carcinoma and Hematolymphoid Malignancies (Leukemia), 1st Immuno-Oncology India Congress—2019 Tata Memorial Center (Mumbai), 14-17 March 2019, Mumbai

Sameer Bakhshi

1. Imaging in Oncology, MedImg: 4th Annual Workshop on Medical Imaging Techniques, Post Processing and Clinical Applications, 15 April 2018, New Delhi
2. Ethical Considerations in Alternative Therapy, Institute Celebrations for the Fourth International Day of Yoga (IDY-2018), 18 June 2018, New Delhi
3. Advances in Cancer Medicines, 110th Orientation Programme of UGC-Human Resource Development Centre, Jawaharlal Nehru University, 31 July 2018, New Delhi
4. Epidemiology of Soft Tissue Sarcoma in India, Soft Tissue Sarcoma Symposium, 18 August 2018, New Delhi
5. Clinical trials in TYA patients-unique challenges, 7th Annual Conference of the Teenage and Young Adult Cancer, 1 and 2 September 2018, Chennai
6. IIMS data presentation on Sarcoma in Teen and Young Adults, 7th Annual Conference of the Teenage and Young Adult Cancer, 1 and 2 September 2018, Chennai
7. Conducting Drug Trials: Guide for Clinicians Ethics in Clinical Practice/Trials, Emerging Trends and Advances in Diagnostics and Therapeutics in Paediatric Neurology, 8 September 2018, New Delhi
8. Advancements in cancer therapeutics in the last decade, 45th National Conference of Association of Clinical Biochemists of India, 26 to 27 October 2018, Goa
9. Treatment options and outcome in relapsed Ewing's sarcoma, 22nd Annual PaediatricHaematology Oncology Conference, 30 November to 1 December 2018, Bangalore
10. Germ Cell Tumours: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
11. Thoracic Tumors: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
12. Chemotherapy, Immunotherapy and New Treatments in Oncology, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
13. Renal Tumours: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
14. Neuroblastoma: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
15. Non-Genitourinary RMS: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
16. Liver Tumours: Chemotherapy, Paediatric Surgical Oncology Masterclass, 11-12 January 2019, Bhubaneswar
17. Change of Nutritional Status During Chemotherapy and Factors Predicting Nutritional Status at 6 Month Interval, 11th International SIOP PODC Workshop on Nutrition in Children with Cancer, 18-19 January 2019, Chennai
18. Nutrition related toxicities in pediatric oncology in limited resources setting, 11th International SIOP PODC Workshop on Nutrition in Children with Cancer, 18-19 January 2019, Chennai
19. QOL and Long Term Effects in Paediatric Cancers, Apollo Cancer Conclave-2019, 27 January 2019, Chennai
20. Treatment and Prevention of Cancer: A Clinician's Perspective, World Cancer Day (Delhi Chapter of the Indian National Science Academy (INSA), 4 February 2019, New Delhi
21. Advances in Cancer Therapeutics: What has Emerged in Last Decade? Cellular and Molecular Basis of Cancer: Molecules to Mechanisms Conference, 8 February 2019, Pune
22. Case based practical discussion for Paediatric Hematologists and Oncologists, 56th National Conference of India Academy of Paediatrics, 10 February 2019, Mumbai

23. Ethics in Biomedical Research, Workshop on Research Methodology, Writing and Communication for the residents, 5 March 2019, New Delhi
24. Role of stem cell therapy and immunotherapy in pediatric surgery, 12th Paediatric Surgery Update, 7 March 2019, New Delhi
25. Prognostic factors affecting local and distant failures in Osteosarcomas, 5th Annual National Conference of Indian Musculoskeletal Oncology Society (IMSOS) 2019, 8-10 March 2019, Kolkata
26. Melanoma: Updates in adjuvant therapy and Metastatic disease, 5th Annual National Conference of Indian Musculoskeletal Oncology Society (IMSOS) 2019, 8-10 March 2019, Kolkata
27. Metastatic and Relapsed Bone Sarcomas: Management Principles, 5th Annual National Conference of Indian Musculoskeletal Oncology Society (IMSOS) 2019, 8-10 March 2019, Kolkata
28. Osteosarcoma and Chondrosarcoma, 5th Annual National Conference of Indian Musculoskeletal Oncology Society (IMSOS) 2019, 8-10 March 2019, Kolkata
29. Paediatric and young Adult Bone and Soft Tissue Sarcoma, Paediatric Adolescent Young Adult Workshop—Beyond the scalpel, 10 March 2019, Kolkata
30. Osteosarcoma: AIIMS data, Paediatric Adolescent Young Adult Workshop—Beyond the scalpel, 10 March 2019, Kolkata
31. Immunotherapy in clinic: Melanoma, Sarcoma, Head and Neck, 1st Immuno-Oncology Society of India Congress 2019 (IOSCON 2019), 15 and 17 March 2019, Mumbai
32. Metronomic Chemotherapy vs Best Supportive Care in Refractory Paediatric Solid Tumors: A Randomized Controlled Trial, 1st AIIMS Research Day, 26 March 2019, New Delhi

Ranjit Kumar Sahoo

1. Quality of life in RCC, Dilemmas in RCC: Controversies to Consensus, 16 March 2018, New Delhi
2. Myelofibrosis: A case presentation, MPN Symposium, 27 April 2018, New Delhi
3. Making the Right choice in the Treatment of mCRC-Panel discussion, Right Choice Conclave, 21 July 2018, New Delhi
4. Panel Discussion on Best of ASCO abstracts in Head and Neck Cancer, Best of American Society of Clinical Oncology (ASCO) Conference, 28 July 2018, New Delhi
5. Panel Discussion on Best of ASCO abstracts in Hematological Malignancies, Best of American Society of Clinical Oncology (ASCO) Conference, 28 July 2018, New Delhi
6. Tumor Board in Prostate Cancer (Panel), Tumor Board Meeting, 1 September 2018, New Delhi
7. Overview of Oral Cancer, ACSTP-O Course, NICPR, 6 September 2018, Noida
8. ICMR Guidelines on Cellular Therapy, 11th TCS Annual Conference and Workshops 2018, 29 October 2018, New Delhi
9. EQAS in FCM (Chairperson), 11th TCS Annual Conference and Workshops 2018, 30 October 2018, New Delhi
10. Key abstracts in Prostate Cancer presented at ESMO-2018, 2nd Annual CME on Key Highlights from the Annual Congress of ESMO 2018, 10 November 2018, New Delhi
11. Check point Inhibitors and Monoclonal antibodies in myeloma: Indian Experience, Sun Pharma Science Foundation Annual Conference, 30 November 2018, New Delhi
12. Advances in the management of AML-2018 update (Panel), Hematology Update-Year in Review 2018, 15 February 2019, New Delhi
13. Management of locally advanced and oligo metastatic prostate cancer: Current trends Surgery, Hormone therapy, Radiation and Chemotherapy, ISP on Prostate cancer, 26 February 2019, New Delhi
14. Multiple Myeloma: How do we monitor treatment outcome? ONCOCON, SRL Oncocare, 3 March 2019, New Delhi
15. A case-based discussion in Myeloma (Panel), ONCOCON, SRL Oncocare, 3 March 2019, New Delhi
16. A case of T-NHL-Panel discussion, International CME on Lymphoma 2019, 6 March 2019, AIIMS, New Delhi
17. Double HIT NHL—Upfront autologous transplantation in CR1, ISCTR-2019, 8 March 2019, CMC, Vellore
18. Precision Medicine in Oncology-Moderator, Department of Medicine Seminar, 13 March 2019, AIIMS, New Delhi
19. New Treatment Paradigm for FLT3 Mutated AML, International Conference on Cellular and Immunotherapies in Haematological Disorders, 16 March 2019, New Delhi
20. FLT3 Mutated AML (Panel), FLT3 Inhibitors in AML, 26 March 2019, New Delhi

Sameer Rastogi

1. Advanced soft tissue sarcoma—End of the Road? Ortho ONCOCON 2018, 14 July 2018, Delhi
2. Recent advances in soft tissue sarcoma, Asia Pacific Annual Musculoskeletal Society conference, 6 October, Jaipur
3. Recent advances in Soft tissue sarcoma, Indian Society of Medical and Paediatric Oncology (ISMPOCON 2018), 16 November 2018, Jaipur

Prabhat Singh Malik

1. Prognostic factors in NSCLC, ASCO-ISSLC Lung MCMC, 24-25 March 2018, Chandigarh
2. Participated as member, Annual Meeting of the National Cancer Grid, 5-6 May 2018, Mumbai
3. First-line treatment in mutation negative NSCLC, Lung Cancer Masterclass, 22 July 2018, Mumbai
4. Cancer Genetics and Immunology, 58th Annual Conference of the National Academy of Medical Sciences, 27 October 2018, Pondicherry
5. Molecular Pathology of NSCLC: AIIMS experience, 2nd Edition of Update in lung cancer Year End Review, 15-16 December 2018, Mumbai

Raja Pramanik

1. Organ preservation protocols in laryngeal cancer, International Head and Neck Dissection Course: 7th AIIMS Course, Department of Otolaryngology-Head and Neck surgery, JPNATC, AIIMS, 26 March 2019, New Delhi
2. Panel discussion on Head and Neck Cancers, Melanoma, sarcoma, 1st Immuno-Oncology Society of India Congress, 15-17 March 2019
3. Panel discussion on PTCL and Hodgkins Lymphoma, International CME on Lymphoma, AIIMS, 6 March 2019, New Delhi
4. Panel discussion on molecular testing in colon cancer, ONCOCON 2019, 3 March 2019
5. Panel discussion on cancer survivorship, ONCOVISION 2019, 23-24 February 2019
6. Panelist: Personalized medicine in HN cancers, 4th MOSCON (Molecular Oncology Society of India Conference), 2019, 16-17 February 2019
7. Conducted quiz for post-graduates, Panelist in ALL panel discussion, Hemaology update 2019 conducted by Delhi Hematology Group and RESMO, 15-16 February 2019, New Delhi
8. Panel discussion on Personalized medicine: Hope or hype, 4th Indian Cancer Genetics Conference, 8-10 December 2018
9. Panel discussion: Cancer prevention, ISMPOCON, 2018, 16-18 November 2018, Jaipur
10. Review of important abstracts on head and neck cancers, ESMO highlights 2018, 10 November 2018
11. Conducted workshop on Breast cancer genetics, Speaker: A) HBOC, its importance, tools, guidelines and pedigree drawing
12. AIIMS data, 7th ABSICON, Association of Breast Surgeons of India Conference, 9 November 2018, AIIMS, New Delhi
13. Rapid review on select GI Cancers (CRC) and Head and Neck cancer abstracts from ASCO 2018, Best of ASCO, 2018, 28-29 July 2018, New Delhi

Sachin Khurana

1. Panel discussion on “Cross talk between immunotherapy, chemotherapy and targeted therapy in metastatic lung cancer”, 1st Immuno-Oncology Society of India Congress, 15-17 March 2019
2. Panel discussion on Immunotherapy, ONCOVISION 2019, 23-24 February 2019
3. Conducted quiz for post-graduates, Best of WCLC, 14 October 2018
4. Speaker: How to Sequence ALK inhibitors, ISMPOCON, 2018, 16-18 November 2018, Jaipur
5. Speaker: AIIMS data on EGFR positive lung cancer, ESMO highlights 2018, 30 November 2018
6. Speaker: Medical implications of genetic testing: Ovarian and breast cancer, 7th ABSICON, Association of Breast Surgeons of India Conference, AIIMS, 9 November 2018, New Delhi
7. Speaker: Rapid review on select Gyne Cancers abstracts from ASCO 2018, Best Of ASCO, 28-29 July 2018, New Delhi

Chandra Prakash Prasad

1. Basics of Immunotherapy in Cancer Treatment, Short Curriculum on Cancer Control prevention for North-East Region, 20 September 2018, New Delhi

2. Environmental Exposure and the risk of Breast Cancer, Interdisciplinary Global environmental Health Collaborations Conference, 30 October 2018, New Delhi
3. Basics of Translational Research, Student-Mentorship Programme 2018, 30 December 2018, New Delhi
4. Role of Phosphofructokinase-P (PFKP) in Breast Cancer, 38th Annual Convention of Indian Association for Cancer Research (IACR-2019), 1 March 2019, Chandigarh

Thoudam Debraj Singh

1. Discussant in “In Vivo Preclinical Imaging” session, “In Vivo Preclinical Imaging and Drug Discovery” ACTREC, 26 September 2018, Pune
2. Non-invasive imaging of therapeutic effect induced by IL-4 receptor targeting AP1-ELP-KLAK polymer in glioblastoma bearing mouse tumor model, Young Investigator Award Category (Nanobiotek 2018) Indian Society of Nanomedicine and DBT, 26 October 2018, New Delhi
3. Application of Biopolymer in biomedicine and targeted therapy, Seminars in Molecular Medicine, 6 March 2018, New Delhi
4. Application of Molecular Imaging in Cancer Biology, Use of scientific and technical terminologies in sustainable environment development, its challenges, Organized by (CSTT), 14 March 2018, New Delhi

Mayank Singh

1. Best of ASCO Abstracts on Gynecological Cancer , Best of ASCO 2018 Annual Meeting, 28 July 2018, New Delhi
2. Cancer Research, Indian Perspective, Short Curriculum on Cancer Control prevention for North-East Region, 17 September 2018, New Delhi
3. Environmental Epigenetics and Cervical Cancer Risk, Interdisciplinary Global environmental Health Collaborations Conference at University of Chicago Center in Delhi, 30 October 2018, New Delhi
4. Liquid Biopsy Past present and Future, Sun Pharma science Foundation Annual Conference “New Frontiers in Oncology”, 30 November 2018, New Delhi
5. Environmental determinants in Cancer, Student-Mentorship Programme 2018, 30 December 2018, New Delhi
6. USP37 (Ubiquitin specific peptidases 37) helps in tolerance of replication stress by stabilizing proteins involved in oncogenesis and promoting constitutive replication fork movement, 38th Annual Convention of Indian Association for Cancer Research (IACR-2019), 2 March 2019, Chandigarh

Medical Physics

Pratik Kumar

1. Medical Radiation Perspective, Industry Academia Meet-2018, 6 October 2018, SN Bose National Centre for Basic Sciences, Kolkata
2. Quality assurance tests of CT scanner, 5th National Conference of Indian Society of Radiographers and Technologists, (NCISRT-2018), 27-28 October 2018, KGMU, Lucknow
3. Medical Physics Services Beyond Radiation Oncology, International Day of Medical Physics, 24 November 2018, Fortis Hospital, Shalimar Bagh, New Delhi

Radiodiagnosis

Sanjay Thulkar

1. Imaging approach to ovarian tumors, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi

Mukesh Kumar

1. Pleural, mediastinal and pericardial drainages and aspirations, 2nd Medanta Interventional radiology tutorials— “Aspirations and Drainages: All you need to know”, 28-29 April 2018, India Habitat Centre, New Delhi
2. Workshop on PICC line Insertion, Oncology Imaging and Interventions 2018, 27 May 2018, Auditorium, Delhi State Cancer Institute, Delhi
3. Workshop—Basics of Angiography, 5th Annual Conference of Society for Emergency Radiology, 2-4 November 2018, Hyderabad
4. Basics of image guided drainage procedures: Hardwares and techniques, 72nd Annual Conference of Indian Radiology and Imaging Association (IRIA), 19 January 2019, PGIMER, Chandigarh

5. Ultrasound guided pain relief procedures, 72nd Annual Conference of Indian Radiology and Imaging Association (IRIA), 20 January 2019, PGIMER, Chandigarh

Ekta Dhamija

1. Imaging in Sarcoma, Oncology imaging and interventions 2018, 27 May 2018, Auditorium, Delhi State Cancer Institute, Delhi
2. Role of imaging in cancer management, Short Observership Programme on Cancer Control and Prevention for North Eastern Region (NER), 17-22 September 2018, Dr BRA IRCH, AIIMS, New Delhi
3. Touch me not lesions in breast imaging, 6th Annual conference of Breast Imaging Society of India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna
4. X-ray chest in oncology: Relevance in era of CT and PET-CT, 1st Annual and International Conference of Society of Oncological Imaging of India (SOIICON) 2019, 8-10 February 2019, Rohini, New Delhi

Radiation Oncology

GK Rath

1. Current Perspectives on research in Radiation Oncology, Conference on Practical aspects of Radiation oncology and Medical Physics, 11-12 May 2018, BBCI, Guwahati
2. Role of Research in present Indian Oncology Context, Guest Lecture at AIIMS, Rishikesh, 20 June 2018, AIIMS, Rishikesh
3. Oncology research: A need of the hour, ONCON 2018, 30 June 2018, Kolkata
4. Translational research in oncology in India—Current status and future perspective, Chaturtha Conference CRAB-E-CON 2018, 6-7 October 2018, Jammu
5. Improving cancer literacy among primary care physicians, Symposium on Integration of Primary and Tertiary Cancer Care, 17 November 2018, Kochi
6. Moderated case based panel discussion-Ca Hypopharynx, 1st Annual EBM-BBCI Conference-2018, 23-25 November 2018, Guwahati
7. Early detection of cancer, Cancer awareness expedition, 2 December 2018, Odisha
8. The Key achievements at the National Level and future road map, ICMR—Plenary session on Non-Communicable Diseases at the 106th Indian Science Congress, 3-7 January 2019, LPU, Jhalandhar
9. Towards Predictive Therapeutics, Accelerating Biology 2019; Towards thinking machines, 5-7 February 2019, CDAC, Pune

Subhash Chander

1. ASOMA Congress, 3-5 October 2018, Male, Maldives
2. 39th Annual Conference of Association of Medical Physicists of India (AMPICON 2018), 2-4 November 2018, Chennai
3. 71st Annual Conference of The Association of Otolaryngologists of India with 14th Asia-Oceania ORL-HNS Congress 2019, 9-13 January 2019, Hyderabad
4. Association of Physicians of India—APICON2019, 7-10 February 2019, Kochi
5. 20th International AEK Cancer Congress, 27 February to 1 March 2019, Heidelberg, Germany

DN Sharma

1. Brachytherapy for oral cavity—How I do it, Brachytherapy to Soft Tissue Sarcoma, Head and Neck and Prostate, 28 July 2018, Calicut
2. Role of Brachytherapy in Neck Nodes, 8th Annual Conference of Indian Brachytherapy Society, 11-12 August 2018, Mumbai
3. Interstitial Brachytherapy in Locally Advanced Cervical Cancer, Annual Conference of Association of Radiation Oncology of India, Rajasthan Chapter (RAJAROICON 2018, 18-19 August 2018, Bikaner, Rajasthan
4. Controversies in Brachytherapy of Carcinoma Cervix, 24th Annual Conference of Association of Radiation Oncologists of India—North Zone, 15-16 September 2018, Chandigarh
5. Video presentation: Brachytherapy in lymph node metastases, 1st Head and Neck Brachytherapy Workshop, 21-22 September 2018, Shimla
6. Brachytherapy in Oral Cavity Cancer, 1st Head and Neck Brachytherapy Workshop, 21-22 September 2018, Shimla
7. Brachytherapy for nodal metastases, 1st Head and Neck Brachytherapy Workshop, 21-22 September 2018, Shimla

8. Advanced RT Technology: Its clinical Impact, 39th Annual Conference of Association of Medical Physicists of India (AMPICON 2018), 2-4 November 2018, Chennai
9. APBI-In or Out, 40th Annual Conference of the Association of Radiation Oncologists of India, 29 November to 2 December 2018, Thiruvananthapuram, Kerala
10. Vulvar cancer: Technologies (EBRT, brachytherapy) and outcome, ESTRO Meets Asia 2018, 7-9 December 2018, Singapore
11. APBI in early breast cancer, Max APBI, 3-4 March 2019, New Delhi
12. Interstitial Brachytherapy in Vulvo-vaginal cancer, 4th NCHCON-2019, 7-9 March 2019, Kathmandu, Nepal
13. Imaging protocols for radiation planning, 3rd AROI-ESTRO Course on IGBT, 14-17 March 2019, Rishikesh

Sushmita Pathy

1. Neoadjuvant chemotherapy followed by Chemoradiation in Locally Advanced Cervical Cancer, GCIG CCRN INTERLACE Meeting, 17-18 June 2018, Kolkata
2. Course Faculty Radiobiology of SBRT: Optimal dose and Fractionation, SBRT Masterclass, 1 July 2018, Visakhapatnam
3. Expert Faculty/chairperson, The Contouring Course on Hepatobiliary and Pancreatic Cancer, 28 October 2018, New Delhi
4. Neoadjuvant chemotherapy followed by Chemoradiation in Locally Advanced Cervical cancer, East Zone Yuva FOGSI, 22-24 November 2018, Gangtok, Sikkim
5. Chairperson and panelist, 2nd Annual Conference of Research and Education Society of Medical Oncology: Lung Cancer Management in India: Challenges and Way Forward, 1 and 2 December 2018, New Delhi
6. Meet the Expert: Integrating Oncology with Palliative Care, International Conference of Indian Association of Palliative Care, IAPCON-2019, 8-10 February 2019, Kochi, Kerala
7. Panelist, Childhood Cancer is Curable, 27 February 2019, New Delhi
8. Panelist/Expert, Delhi Gastrointestinal Oncology Forum, 16 March 2019, Delhi

Subhash Gupta

1. Panelist for a session on GBM, Best of ASTRO, May 2018, Delhi
2. Talk on Abstract 'Velaparib in GBM', Best of American Society of Clinical Oncology (ASCO) Conference, 29 July 2018, New Delhi
3. Attended, Annual academy of Srilankan college of Radiologists, August 2018, Colombo
4. Panelist for a session on Ca Cervix, RAJAROICON 2018, August 2018, Bikaner
5. NZAROICON-2018, 15-16 September 2018, Chandigarh
6. ESMO Preceptorship in Kidney Cancers, 19-20 September 2018, Singapore
7. ESMO advanced course on clinical questions in Prostate Cancer, 21-22 September 2018, Singapore
8. Fourth year in review breast cancer conference, January 2019, Mumbai
9. Advances in Immunooncology, February 2019, Mumbai
10. 40th ICON, March 2019, Kolkatta

Haresh KP

1. Panelist for Panel discussion on Best of ASCO abstracts in Genitourinary Cancer, Best of American Society of Clinical Oncology (ASCO) Conference, 29 July 2018, New Delhi
2. Attended, 3rd National Thyroid Congress-ISTSCON 2018, 24-26 August 2018, Mumbai
3. Role of Molecular Classification in management of Brain Tumors, NZAROICON-2018, 15-16 September 2018, Chandigarh
4. ESMO advanced course on clinical questions in prostate cancer, 21-22 September 2018, Singapore
5. Panelist for 'Mock MDT in EBC', Asian Society of Mastology Meeting-2018, 3-5 October 2018, Male, Maldives
6. Contouring of OAR in abdomen and Pelvis, ICRO Teaching Programme—PRODVANCE-18, 10-11 November 2018, Bhatinda
7. AROIICON 2018, 29 November to 2 December 2018, Trivandrum
8. APBI-External Beam Radiation Therapy, Contouring Workshop on Breast Cancer: From Theory to Hands on, 3 March 2019, New Delhi
9. National Cancer Grid Meeting, 9-10 March 2019, Mumbai

Rambha Pandey

1. Panelist for Symposium on lung cancer, AIIMS PULMOCRIT 2018, 30 March-1 April 2018, New Delhi
2. Evaluating Radiation Omission Decisions in a Population-based Sample of Older Adults Receiving Lumpectomy for Breast Cancer, Best of Astro India 2018, 5-6 May 2018, New Delhi
3. Patterns of failure and Adjuvant Radiation Therapy in Uterine CS, Delhi Gynae Oncology Group meeting, 4 July 2018, New Delhi
4. Definitive CT RT in stage III lung Cancer: Data from AIIMS, Delhi Gynae Oncology Group meeting, 4 July 2018, New Delhi
5. Panelist Definitive CT RT in NSCLC: Challenges and outcome, Lung Cancer management in Indian Context, AIIMS 1 and 2 December 2018, New Delhi
6. Panelist: Role of Radiotherapy in Brain metastases in NSCLC, Lung Cancer management in Indian Context, AIIMS 1 and 2 December 2018, New Delhi
7. Panelist “Chart round with Professors”, RGCON 2018, 8-10 February 2019, New Delhi
8. How I approach to SVCO, AIIMS Pulmocrit, 2 and 3 March 2019, New Delhi

Ahitagni Biswas

1. Intrinsic immune landscapes between radiosensitive and radioresistant tumours, Best of ASTRO Annual Meeting 2018, 5 May 2018, New Delhi
2. ISCO rapid review in head and neck cancer, Best of ASCO Annual Meeting 2018, 28 July 2018, New Delhi
3. Phase II study of pembrolizumab or pembrolizumab plus bevacizumab in recurrent glioblastoma (rGBM), Best of ASCO Annual Meeting 2018, 29 July 2018, New Delhi
4. Current aspects of management of NHL: Radiation oncologist’s perspective, Haematology and Radiation therapy: Working together—A collaborative approach in the management of haematological disorders, 15 December 2018, Gurgaon

Ritesh Kumar

1. Panel Discussion on Environmental Determinants of Cancer, Summarizing The Scientific Evidence, Key Policy Options and Environmental Interventions, First Conference on Environmental and Occupational Determinants of Cancer: Interventions for Primary Prevention, 26 May 2018, New Delhi
2. Contouring and Controversies in Target Volume Inclusion in Modern Radiotherapy for Cancer Breast, Annual conference of North Zone—Association of radiation Oncologists of India (NZ-AROI) 2018, 15 September 2018, Chandigarh
3. When to irradiate after Mastectomy—Evidence Based guidelines, ABSICON 2018, 10 November 2018, New Delhi
4. Chairperson in Lymphedema Workshop, ABSICON 2018, 10 November 2018, New Delhi
5. Contouring of Cancer Rectum, PRODVANCE 2018 (ICRO Teaching Programme), 11 November 2018, Bhatinda

Surgical Oncology

SV Suryanarayan Deo

1. Pros and Cons of MIS for thyroid cancer, Moderator, Panel Discussion, “Surgical approaches to the thyroid open/endoscopic/robotic- Live Surgical Workshop”, 7 April 2018, Kolkata
2. How to Start a Peritoneal Surface malignancy Centre, Panelist, Update in Peritoneal Surface Malignancies, 25 February 2019, Chennai
3. Consensus and Controversies—Breast Oncoplasty and Reconstruction, Moderator, Panel discussion, 32nd Annual National Conference of IASO (NATCON IASO 2018), 22 September 2018, Trivandrum
4. CRS and HIPEC for PSM, Panelist, 32nd Annual National Conference of IASO (NATCON IASO 2018), 22 September 2018, Trivandrum
5. Invited Lecture on “ABSI Breast Module for General Surgeons”, “AMU Surgery Update 2019”, 3 March 2019, Aligarh
6. Recent Advances in Cancer, Panelist, Apollo Cancer Conclave 2019, 25 January 2019, Chennai
7. Challenging Case Scenarios—Breast cancer, Moderator, Panel discussion, 78th Annual National Conference of the Association of Surgeons of India, 27 December 2018, Chennai
8. Epidemiology and Risk factors for oral Cancer, Invited Lecture, 78th Annual National Conference of the Association of Surgeons of India, 27 December 2018, Chennai

9. Surgical Oncology—Past, Present and Future, Invited Lecture, 1st Health City Cancer Symposium and Workshop, 8 September 2018, Guwahati
10. Recent Advances in Breast Cancer Surgery, Invited lecture, Indo American Cancer Society “CME on Breast Cancer”, 11 August 2018, Hyderabad
11. Evolution of LABC management, Invited Lecture, 2nd IBCC 2nd Annual Indian Breast Cancer Conference, 6 October 2018, Jaipur
12. Breast Oncoplasty—Indian Experience, Invited Lecture, 4th Indo-British Advanced Master-Class in Oncoplastic Breast Surgery and Breast Cancer Symposium 2018, 18 August 2018, Pune
13. Breast Oncoplasty—AIIMS Experience, Invited Lecture, Onco-Vision Conference R&R, 20 February 2019, New Delhi
14. PIPAC Workshop—Guest Faculty, International Workshop on PIPAC, 13 February 2019, Lausanne, Switzerland
15. Surgical Management of Locally Advanced Breast Cancer, Invited Lecture, 4th Indo UK breast forum, Coventry, 25 March 2019, North Midlands, UK
16. Surgical oncology curriculum and Training, Guest Lecture, Annual Cancer Symposium Society of Surgical Oncology, USA, 30 March 2019, San Diego, California, USA

Sunil Kumar

1. Breast Oncoplasty (Cadaver demonstration), AIIMS-UK Breast Oncoplasty Workshop and Cadaver Course, November 2018, Trauma Center, AIIMS, New Delhi
2. Breast cancer: IRCH AIIMS Experience, ABSICON 2018, August 2018, AIIMS, New Delhi
3. Mediastinal staging and surgery in lung cancer, Lung Cancer Management in Indian Context: Challenges and way out (RESMO), December 2018, AIIMS, New Delhi
4. Applicability of recent advances in management of lung cancer in resource constrain setting: Ground reality, Lung Cancer Management in Indian Context: Challenges and way out (RESMO), December 2018, AIIMS, New Delhi
5. Surgical management of lung cancer, Best of ASCO, July 2018, New Delhi
6. Management controversies in thyroid cancer, 3rd Master Course in Head and Neck Cancer, December 2018, Sri Mata Vaishno Devi Hospital, Jammu
7. Management of Lung Cancer: IRCH experience, RGCON 2019, February 2019, New Delhi
8. Mediastinal staging for NSCLC, RGCON 2019, February 2019, New Delhi

MD Ray

1. Moderator, PIPAC demonstration—Apollo Hospital, 11 April 2018, New Delhi
2. Chairperson and Panel for Palliative Surgery, Lung Cancer Update: AIIMS-NCI Initiative-2018, 12-13 May 2018, New Delhi
3. CRS, HIPEC and beyond at a Glance-Experience in a Premier Institute, India, AGSMG 2nd Peritoneal Surface Malignancy Course 2018, 7-8 June 2018, Singapore
4. For self training, 3rd Hands on Cadaver Laparoscopic Workshop—Advanced Gynecology Surgery, 25-26 June 2018, Bangalore
5. ‘HIPEC-An Evolving Treatment Approach for Peritoneal Surface Malignancies’, SURGICON 2018 Annual conference of Association of Surgeons of India, Delhi State Chapter, 23-25 November 2018, New Delhi
6. Chairperson, Update in Peritoneal Surface Malignancies-2019, 25-26 February 2019, Chennai
7. ‘Role of T-regulatory cells in epithelial ovarian cancer’, Translational Research Day Meeting, Tata Medical Centre, 13-15 March 2019, Kolkata
8. Chairperson, Update on Ovarian Tumours, MAMC, 23 March 2019, New Delhi

Sandeep Kumar Bhorwal

1. Result and TE Flap reconstruction, ABSICON 2018, 10-11 November 2018, New Delhi
2. Breast Oncoplasty (Cadaver demonstration), AIIMS-UK Breast Oncoplasty Workshop and Cadaver Course, November 2018, New Delhi

Oral papers/posters presented

Onco-Anaesthesia and Palliative Medicine

1. Bhatnagar S, Present Poster, 17th World Conference on Pain, 12-16 September 2018, Boston, USA

2. Mishra S*, Bhatnagar S, Thulkar S, USG guided Superior Hypogastric Plexus Neurolysis in pelvic cancer pain in palliative care, MASCC/ISOO 2018 Annual Meeting, 28-30 June 2018, Vienna, Austria
3. Mishra S, Bhatnagar S, Thulkar S, A comparative efficacy of epidural triamcinolone and betamethasone for lumbosacral radicular pain in cancer patients: A Prospective Randomized study, MASCC/ISOO 2018 Annual Meeting, 28-30 June 2018, Vienna, Austria
4. Gulia A, Mishra S, Bhatnagar S, Gogia A, Sharma A, Observational study on care giving burden and the quality of life of family caregivers of cancer patients on chemotherapy, IAPCON 2019, 8-10 February 2019, Kochi, Kerala
5. Singh VP, Mishra S, Bhatnagar S, Sharma A, Gupta N, Bharti SJ, Garg R, Kumar V, Symptom burden and quality of life assessment in patients of gastrointestinal malignancies attending the palliative care clinic of a tertiary care center, India, IAPCON 2019, 8-10 February 2019, Kochi, Kerala
6. Abraham NS, Bhatnagar S, Mishra S, Choudhary N, Nutritional pattern in cancer patients admitted to palliative care ward using Subjective Global Assessment Form, IAPCON 2019, 8-10 February 2019, Kochi, Kerala
7. Gulia A, Mishra S, Kumar L, Bhatnagar S, Gupta N, Bharti SJ, Garg R, Kumar V, Symptomatic palliation and quality of life improvement in multiple myeloma, IAPCON 2019, 8-10 February 2019, Kochi, Kerala
8. Maurya BP, Bhatnagar S, Mishra S, Gupta N, Kumar V, Garg R, Bharathi SJ, End of Life care practice at a Tertiary Cancer Centre in India: An observational study, IAPCON 2019, 8-10 February 2019, Kochi, Kerala
9. Choudhary N, Mishra S, Bhatnagar S, Gupta N, Kumar V, Prevalence of breakthrough cancer pain and its impact on quality of life in cancer patients at regional cancer centre, India: A Cross-sectional study, IAPCON 2019, 8-10 February 2019, Kochi, Kerala
10. Rathore P, Bhatnagar S, Mishra S, Garg R, Bharti SJ, To study and analyze the pattern of symptoms in head and neck cancer patients presenting in palliative care ward at a tertiary cancer centre of India: A cross sectional study, IAPCON 2019, 8-10 February 2019, Kochi, Kerala

Delhi Cancer Registry

1. Manoharan N, Deo SVS, Rath GK, PBCR Sources with HBCR-Dr BRAIRCH, New Delhi, Workshop on Cancer Registration, 2 May 2018, New Delhi
2. Kumar R, Indrayan A, Receiver Operating Characteristic (ROC) Curve for Medical Researchers, 58th Annual Conference (NAMSCON2018) of the National Academy of Medical Sciences, 26-28 October 2018, Pondicherry

Laboratory Oncology

1. Das N, Bakhshi S, Das N, Gogia A, Gupta R, Gupta SK, Kumar L, Prajapati VK, Rai S, Sahoo RK, Sharma A, Singh S, Leukemic stem cells in acute myeloid leukemia—Important predictor of minimal residual disease, 11th TCS Annual Conference and Flow Cytometry Workshop, 29 October to 1 November 2018, AIIMS, New Delhi, *Third prize in oral presentation
2. Garg S, Begum A, Dahiya M, Garg S, Gupta R, Kumar L, Mookerjee A, Patekar M, Sharma A, Sharma OD, Shekha V, Reliable minimal residual disease estimation in multiple myeloma is influenced by presence of adequate numbers of normal bone marrow elements, 11th TCS Annual Conference and Flow Cytometry Workshop, 29 October to 1 November 2018, AIIMS, New Delhi, *First prize in Poster
3. Das N, Gupta R, Gupta SK, Jain G, Kumar C, Early T-Cell precursor acute lymphoblastic leukemia: A diagnostic and therapeutic challenge, 11th TCS Annual Conference and Flow Cytometry Workshop, 29 October to 1 November 2018, AIIMS, New Delhi
4. Das N, Gupta R, Gupta SK, Jain G, Kumar C, Sharma A, Extramedullary relapse in case of ETP-ALL in the form of leukemia cutis: A rare presentation, 11th TCS Annual Conference and Flow Cytometry Workshop, 29 October to 1 November 2018, AIIMS, New Delhi
5. Dahiya M, Girish N, Gupta R, Khan S, Rai S, Singh S, Clearllab LS and clearllab compensation kit—Evaluation of dry multicolor panels for lymphoma and leukemia diagnosis and monitoring on a flow cytometer, 11th TCS Annual Conference and Flow Cytometry Workshop, 29 October to 1 November 2018, AIIMS, New Delhi
6. Gupta R, Kaur G, Prajapati VK, Rai S, Singh S, Thakral D, Expression levels of CD45 in normal lymphocytes in different leukemic states, 11th TCS Annual Conference and Flow Cytometry Workshop, 29 October to 1 November 2018, AIIMS, New Delhi
7. Anand R, Das N, Gupta R, Prajapati VK, Rai S, Ranjan R, Singh S, HLA-DR positive APML paediatric patient-A rare clinical entity, 11th TCS Annual Conference and Flow Cytometry Workshop, 29 October to 1 November 2018, AIIMS, New Delhi
8. Gupta R, Kaur G, Kumar L, Pandey M, Rani L, Sharma A, Evaluation of genes involved in Pharmacokinetics of Imatinibmesylate in CML, 7th Annual MPAI Conference, 12-13 January 2019, ACTREC, TMC, Navi Mumbai

9. ChariSriram K, Chaturvedi, Gogia N, Gupta A, Gupta R, Kaur G, Kumar L, Rani L, Ruhela V, Sharma A, CLL miRNome, 7th Annual MPAI Conference, 11-13 January 2019, ACTREC, Mumbai
10. Bakhshi S, Gupta SK, Kamal VK, Relevance of functional subtyping of IKZF1 deletion-Loss-of-function or Dominant-negative, in pediatric B-cell Acute Lymphoblastic leukemia, (Poster), 42nd annual scientific meeting of HGSA 2018, 4-7 August 2018, Sydney, Australia
11. Bakhshi S, Gupta SK, Kamal V, Clinical impact of IKZF1 deletions in BCR-ABL1 negative pediatric B-cell acute Lymphoblastic leukemia, (Poster), Haematocon 2018; 59th Annual Conference of ISHBT, 25-28 October 2018, Kochi, Kerala
12. Bakhshi S, Gupta SK, Utility of molecular genetic analysis in pediatric B-cell Acute Lymphoblastic Leukemia, (Poster), 4th International Conference on Medical and Health Sciences 2018, 9-11 November 2018, Thimphu, Bhutan
13. Durai J, Ranjan A, Tanwar P, Plasma cell leukemia, a case series, Int Congress on Blood and Marrow transplantation, 30 August-1 September 2018, Busan, Korea
14. Durai J, Ranjan A, Tanwar P, 'Bone marrow aspirate, not biopsy helping in diagnosis of testicular tumour', 4TH Int Conf on translational research, 11-13 October 2018, Goa
15. Durai J, Ranjan A, Tanwar P, Prognostic significance of thrombopoietin after radiotherapy in cases of malignancies, 2nd annual conf of ASOMA, 3-5 October 2018, Male, Maldives
16. Bhatla N, Haider I, Tanwar P, Vashist S, Application and validation of flow cytometry-based E6/E7 mRNA quantification for the detection of high-risk HPV infection in cervical cancer screening, Australasian Cytometry Society 2018: Annual Conference, 21-24 October 2018, Adelaide
17. Deo SVS, Haider I, Kumar C, Kumar R, Kumar R, Rath GK, Tanwar P, Prevalence of PIK3CA mutation in primary breast cancer (Poster), ASOMACON-2018, Maldives, 3-5 October 2018, Male, Maldives
18. Chaturvedi N, Gogia A, Gupta A, Gupta R, Kaur G, Kumar L, Rani L, Ruhela V, Sharma A, Sriram C, The CLL miRNome, 7th Annual conference of Molecular Pathology Association of India (MPAI), 12 January 2019, Mumbai
19. Kaur G, Molecular medicine: Moving forwards for better healthcare, First AIIMS Scientists Association (ASA) Symposium 2018, 19 January 2018, New Delhi, *Best Oral Presentation
20. Bakhshi S, Gupta R, Kumar I, Kumar L, Kaur G, Savola S, Seth R, Sharma A, Slagter AB, Thakral D, Rapid Identification of Key Copy Number Alterations in B- and T-cell Lymphoblastic Leukaemia by Digital Multiplex Ligation-Dependent Probe Amplification, 7th Annual MPAI Conference

Medical Oncology

1. Sharma A, Chaudhary SP, Raina V, Shukla NK, Sreenivas V, Prakash S, Priyatma P, Bharti S, Final Result of a Phase II/III, Randomized, double Blind, Placebo-Controlled Study to Investigate the Efficacy of A High Potency Multistrain Probiotic, On Chemotherapy Induced Diarrhea in Cancer Patients Receiving Fluoropyrimidines and/or Irinotecan Based Therapy, ESMO Congress 2018, 18-22 October 2018, Munich (Germany)
2. Biswas A, Sahoo R, Kumar R, Mallick S, Sikka K, Bakhshi S, Bhasker S, Sharma A, Thakar A, Combined Modality Management of Esthesioneuroblastoma in Paediatric and Adolescent Patients: Clinical Experience from a Regional Cancer Centre in North India, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
3. Bakhshi S, Biswas B, Pushpam D, Kumar A, Thakar A, Sharma DN, Equivalent Outcome with Radiotherapy Only Versus Surgery as Local Treatment Modality in Head and Neck Ewing Sarcoma Family of Tumors, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
4. Bakhshi S, Srivastava R, Pushpam D, Toteja G, Dhawan D, Micronutrients do not Impact Overall Survival, Event Free Survival and Complete Remission in Acute Lymphoblastic Leukemia: A Prospective Observational Study of 155 Patients, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
5. Kashyap M, Mishra A, Tiwari A, Bakhshi S, Change of Nutritional Status During Chemotherapy and Factors Predicting Nutritional Status at 6 Month Interval, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
6. Biswas A, Sahoo R, Kumar R, Mallick S, Sikka K, Bakhshi S, Bhasker S, Sharma A, Thakar A, Combined Modality Management of Esthesioneuroblastoma in Paediatric and Adolescent Patients: Clinical Experience from a Regional Cancer Centre in North India, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
7. Bakhshi R, Tyagi A, Pramanik R, Sreenivas V, Ali S, Bakhshi S, Pattern of MTDNA (D-LOOP) Variations and their Relation with Mitochondrial Encoded Gene in AML, 50th Congress of the International Society of Paediatric

- Oncology (SIOP), 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
8. Agarwal M, Rashmi S, Bakhshi S, Sadanand D, Madhulika K, Rachna S, Gene Copy Number Alterations and Association with Prognostic Factors in Childhood Acute Lymphoblastic Leukemia, 50th Congress of the International Society of Paediatric Oncology (SIOP), 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 9. Biswas A, Bakhshi S, Suri V, Sharma M, Julka P, Combined Modality Management of Paediatric Primary Central Nervous System Lymphoma: Clinical Experience from a Regional Cancer Centre in North India, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 10. Gupta S, Bakhshi S, Kamal V, Impact of Loss-of-Function and Dominant-Negative IKZF1 Deletions on Outcome in BCR-ABL1 Negative Paediatric B-Cell Acute Lymphoblastic Leukemia, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 11. Agarwala S, Murli D, Dhua A, Jain V, Sharma K, Bakhshi S, Biswas A, Thulkar S, Jana M, Kandasamy D, Srinivas M, Bhatnagar V, Ewing Sarcoma of Ribs: Outcome of Surgical Management as a Part of Multimodality Treatment, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 12. Anand S, Agarwala S, Jain V, Dhua A, Bakhshi S, Seth R, Gulati S, Jana M, Kandasamy D, Srinivas M, Bhatnagar V, Neuroblastoma with Opsoclonus-Myoclonus-Ataxia Syndrome (OMAS): Outcomes of Surgical Management Over Twenty Years 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 13. Pushpam D, Rajpoot N, Chopra A, Sreenivas V, Kumar R, Bakhshi S, Correlation of Absolute Lymphocyte Count and Peripheral Blood Lymphocyte Subset with Minimal Residual Disease at End of Induction in Paediatric B Cell Acute Lymphoblastic Leukemia, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 14. Pushpam D, Chopra A, Kumari M, Sreenivas V, Kumar R, Bakhshi S, Absolute Lymphocyte Count at the End of Induction as a Surrogate Marker for Minimal Residual Disease in T Acute Lymphoblastic Leukemia: A Pilot Study, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 15. Sharma K, Agarwala S, Jana M, Kandasamy D, Jain V, Dhua A, Bakhshi S, Bhatnagar V, Hepatoblastoma: Role Diffusion Weighted MRI (DW-MR) in Detection of Satellite Lesions not Detected with Multi-Phase CT Scans, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 16. Bakhshi R, Tyagi A, Pramanik R, Sreenivas V, Ali S, Bakhshi S, Pattern of mtDNA (D-Loop) Variations and their Relation with Mitochondrial Encoded Gene in AML, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 17. Patel A, Biswas B, Toteja G, Singh A, Bakhshi S, Serum Zinc Level and Paediatric Acute Myeloid Leukemia: A Prospective Observational Study, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 18. Kumar A, Pramanik R, Chopra A, Kapil A, Vishnubhatla S, Bakhshi S, Early Stoppage versus Continuation of Antimicrobial Therapy in Low Risk Paediatric Cancer Patients with Febrile Neutropenia, Before Recovery of Counts: A Feasibility and Pilot Study, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 19. Tiwari A, Kashyap M, Mishra A, Bakhshi S, Malnutrition and Associated Factors in Paediatric Cancer Patient at Baseline, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 20. Mahajan A, Arora R, Dinand V, Kalra M, Jain S, Bakhshi S, Singh M, Seth R, Verma N, Kumar A, Radhakrishnan V, Jain S, Mandal P, Kapoor G, Phulkar S, Arora A, Chandra J, Initial Report on InPOG-HL-15-01- A Risk-Stratified Response-based Collaborative Protocol for Newly Diagnosed Childhood Hodgkin Lymphoma Patients in India, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 21. Patel A, Sharma MC, Sreenivas V, Bakhshi S, Outcome and Clinical Predictors of Paediatric Lymphoblastic Lymphoma Treated with a Uniform Protocol: A Single Center Experience of 65 Patients from India, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
 22. Faruqui N, Joshi R, Lowe J, Arora R, Anis H, Kalra M, Bakhshi S, Mishra A, Santa A, Sinha S, Rani S, Seth R, Bernays S, Martiniuk A, Exploring Barriers to Accessing Care for Childhood Cancers in India: A Qualitative Study (InNPOG-ACC-16-03), 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan

23. Kashyap S, Singh L, Singh MK, Sen S, Chawla B, Bakhshi S, Expression of Transcriptional Target of p53 Protein in Human Retinoblastoma, 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
24. Arora R, Rahman R, Joe W, Bakhshi S, Dhawan D, Radhakrishnan V, Kalra M, Chinnaswamy G, Das A, Mudaliar S, Sangareddi S, Sharma S, Seth R, Singh A, De S, Scott J, Uppuluri R, Borker A, Sankaran H, Bagai P, Families of Children Newly Diagnosed with Cancer Incur Significant Out-of-Pocket Expenditure for Treatment—Report of a Multi-Site Prospective Longitudinal Study from India (InPOG-ACC-16-01), 50th Congress of the International Society of Paediatric Oncology (SIOP), 16-19 November 2018, Kyoto, Japan
25. Singh M, Batra A, Bakhshi S, Validation of USP37 (Ubiquitin specific peptidases 37) as a prognostic and diagnostic marker in osteosarcoma, AACR Annual Meeting 2019, 28 March-3 April 2019, Atlanta Georgia
26. Korula A, Bhattacharyya J, Jain H, Kapoor R, Philip CC, Bhattacharyya M, et al., Hematological Cancer Consortium: Multi-Center Acute Lymphoblastic Leukemia Registry Data from India, ASH 2018, 7-10 December 2018, Houston, Texas, US
27. Biswas A, Sahoo R, Kumar R, Mallik S, Sikka K, Bakhshi S, et al., Combined modality management of esthesioneuroblastoma in paediatric and adolescent patients: Clinical experience from a regional cancer centre in north India, Conference: 50th Congress of the International Society of Paediatric Oncology (SIOP), November 2018, Kyoto, Japan
28. Biswas, N, Adhikari, A, Gogia, R, Sahoo, A, Garg, M, Sharma, et al., High Dose Methotrexate Based Chemotherapy and Response Adapted Whole Brain Radiation Therapy in Primary CNS Lymphoma, 60th Annual Meeting of the American Society for Radiation Oncology (ASTRO), October 2018, San Antonio
29. Adhikari N, Biswas A, Gogia A, Sahoo R, Garg A, Nehra A, et al., A phase II trial of response adapted whole brain radiotherapy after high-dose methotrexate based chemotherapy in patients with newly diagnosed primary central nervous system lymphoma, ASCO Annual Meeting 2018, May 2018, Chicago, Illinois
30. Sahoo R, Patekar M, Adhikari N, Biswas A, Raina V, Kumar L, et al., Primary Central Nervous System Lymphoma in India: A 17-year Experience from AIIMS, SOHO 2018, September 2018, Houston, Texas
31. Kumar N, Deo S, Shukla N, Bhorival S, Sharma A, Pramanik R, Sahoo R, Kumar S, Neoadjuvant chemotherapy for locally advanced squamous cell carcinoma of esophagus: Clinical profile and outcomes from tertiary care cancer centre, ESMO 20th World Congress on Gastrointestinal Cancer, 20-23 June 2018, Barcelona, Spain
32. Biswas L, Kashyap N, Adhikari A, Gogia R, Sahoo A, Sharma B, Mohanti, Secondary central nervous system lymphoma clinical experience from a regional cancer centre in India, ESTRO 2018, 20-24 April 2018, Barcelona, Spain
33. Rastogi S, Barwad A, Dhamija E, Panday R, Immunotherapy experience in advanced melanoma, New frontiers in oncology, AIIMS, New Delhi, 30 November 2018, Delhi
34. Agarwala S, Sharan P, Sahni P, How to prepare an annual report, II Conference of Annual Report preparers, 17 May 2018, London, UK
35. Singh A, Kumar B, Cough in the elderly, XI National Conference of Association of Cough specialists, 12 April 2018, Jaipur
36. Mohapatra P, Prasad CP, Linnskog R, Moradi F, Jönsson G, Andersson T, WNT5A-IL-6 signaling as a therapeutic target in melanoma, Keystone Symposium Precision medicine in cancer, 6-10 May 2018, Stockholm, Sweden
37. Mohapatra P, Prasad CP, Linnskog R, Moradi F, Södergren K, Andersson T, WNT5A signaling: A promising target for anti-metastatic therapy, The 17th Biennial Congress, Metastasis Research Society, 1-5 August 2018, Princeton University, NJ, USA
38. Mohapatra P, Prasad CP, Andersson T, WNT5A: Target for anti-metastatic therapy, EMBO Workshop—Cellular Signaling and Cancer Therapy, 14-18 September 2018, Cavtat, Croatia
39. Prasad CP, WNT-5A affects the epithelial-mesenchymal phenotype differently in human mammary epithelial cells versus human breast cancer cells, Indo-Australian Symposium on EMT, 24 October 2018, Pune, India

Medical Physics

1. Seema S, Chander S, Subramani V, Kumar P, Gopishankar N, Bhaskar S, Pathy S, Thulkar S, Kumar R, Singh M, Binjola A, Kumar P, Dhayanethi N, Correlation Between 2D-Gamma Index Passing Rate and 3D-DVH Based Patient Specific Quality Assurance, AAPM annual meeting 2018, 29 July-2 August 2018, Music City Centre, Nashville, Tennessee, US
2. Chander S, Sharma S, Subramani V, Kumar P, Bhaskar S, Pathy S, Gopishankar N, Thulkar S, Singh M, Binjola A, Kumar P, Dhayanethi N, 3D DVH Based Patient Specific Quality Assurance Using COMPASS, AAPM annual meeting 2018, 29 July-2 August 2018, Music City Centre, Nashville, Tennessee, US

3. Sharma S, Chander S, Subramani V, Kumar P, Gopishankar N, Bhaskar S, Pathy S, Thulkar S, Singh M, Binjola A, Dhayanethi N, Kumar P, Comparison of COMPASS beam modelling with Monaco using Elekta express QA beams, European Society for Radiotherapy and Oncology ESTRO-37, Innovation for value and access, 20-24 April 2018, CCIB, Rambla Prim, Barcelona, Spain
4. Pandey A, Sharma K, Bahl S, Singh B, Kumar P, Lochab SP, CaF₂:Tm Nanophosphor as Gamma Radiation and Carbon Beam Dosimeter for Radiotherapy, 22nd Asia-Australasia Conference of Radiological Technologists (AACRT 2019), 28-31 March 2019, Adelaide Convention Centre, Adelaide, Australia
5. Kumar N, Daga A, Satpathy S, Kumar P, Physical and chemical hazard identification and risk analysis for healthcare workers at AIIMS hospital, New Delhi, First Annual Research Day Conference 2019, 26 March 2018, AIIMS, New Delhi
6. Mini A, Sahil, Kumar P, First Annual Research Day Conference 2019, 26 March 2019, Development of novel luminescent radiation dosimetric phosphors and their application in medicine, First Annual Research Day Conference 2019, 26 March 2018, AIIMS, New Delhi

Radiodiagnosis

1. Ramachandran A, Dhamija E, Thulkar S, Incidental vascular findings in abdomen with potential clinical implications, in patients with known malignancy, 2nd Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, EROS Delhi, New Delhi
2. Ramachandran A, Dhamija E, Thulkar S, Incidental findings of potential clinical significance in patients with abdominal malignancies Oral Paper, 2nd Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, EROS Delhi, New Delhi
3. Prakash A, Dhamija E, Thulkar S, Imaging Spectrum Of Atypical Abdominal Tumors ORAL PAPER, 2nd Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, EROS Delhi, New Delhi
4. Chauhan D, Prasad V, Dhamija E, Hari S, Paul SB, Baby A, Malla S, Paget's Disease of Breast: Clinico-Radiological Perspective, 6th Annual Conference of Breast imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna
5. Dhamija E, Thulkar S, CT Imaging Spectrum: Causes of Dyspnea in patients with malignancy, 72nd Annual Conference of Indian radiological and Imaging Association (IRIA 2019), 17-20 January 2019, PGIMER, Chandigarh
6. Dhamija E, Ramachandran A, Thulkar S, Incidental findings with potential clinical implications detected on staging CT, 72nd Annual Conference of Indian radiological and Imaging Association (IRIA 2019), 17-20 January 2019, PGIMER, Chandigarh
7. Dhamija E, Diwan K, Thulkar S, Extranodal lymphoma in Abdomen-CT imaging spectrum, 72nd Annual Conference of Indian radiological and Imaging Association (IRIA 2019), 17-20 January 2019, PGIMER, Chandigarh
8. Diwan K, Dhamija E, Thulkar S, Imaging features of Breast Cancer: Potential Biomarker? 6th Annual Conference of Breast imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna, First Prize Oral Paper
9. Diwan K, Dhamija E, Thulkar S*, Difficult mammogram: An Obstacle to Overcome, FIRST PRIZE E-POSTER, 6th Annual Conference of Breast imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna
10. Diwan K, Dhamija E, Thulkar S, Parasitic Infestation in breast- rare entity of primary breast hydatid, 6th Annual Conference of Breast imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna
11. Diwan K, Dhamija E, Thulkar S, Distinguishing Pseudomyxoma Peritonei From Peritoneal Mucinous Carcinomatosis: CT Identification And Prognostication, 2nd Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, EROS Delhi, New Delhi
12. Diwan K, Dhamija E, Thulkar S, Abdominopelvic Extranodal Lymphoma: Spectrum Of Imaging Findings THIRD PRIZE, 2nd Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, EROS Delhi, New Delhi
13. Diwan K, Dhamija E, Kumar M, Gupta P, Thulkar S, Renal Metastases In Lung Cancer- Retrospective Analysis Of 700 Patients ORAL PAPER, 2nd Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, EROS Delhi, New Delhi
14. Gowda M, Deo SVS, Dhamija E, Thulkar S, Dwivedi SN, TURBO STUDY: Tumor and Breast Volumetry by Clinical and radiological methods: Results of Breast Volumetry, 7th Annual Conference of Association of Breast Surgeons of India (ABSICON 2018), 9-11 November 2018, AIIMS, New Delhi
15. Meyyappan L, Dhamija E, Malla S, Priyanka, Mohapatra S, Singh S, Malignant Peripheral Nerve sheath tumor of Sciatic nerve extending into deep femoral vein—A rare presentation, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi

16. Meyyappan L, Dhamija E, Malla S, Priyanka, Mohapatra S, Singh S, Endometrial changes in patient receiving Tamoxifen therapy for Breast Cancer, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
17. Makhija N, Dhamija E, Paul SB, Hari S, Imaging features of HER2 Enrich breast cancer, 6th Annual Conference of Breast imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna
18. Makhija N, Dhamija E, Paul SB, Hari S, Refining USG breast technique, 6th Annual Conference of Breast Imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna
19. Paramesh S, Sandeep B, Deo SVS, Thulkar S, Puneet, Dhamija E, Hari S, Role of Intraoperative Ultrasound in optimizing breast conservation surgery- results a pilot study, 7th Annual Conference of Association of Breast Surgeons of India (ABSICON 2018), 9-11 November 2018, AIIMS, New Delhi
20. Priyanka, Dhamija E, Malla S, Mohapatra S, Meyyappan L, Singh S, Leiomyosarcoma of renal vein: An Unusual entity, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
21. Priyanka, Dhamija E, Malla S, Mohapatra S, Meyyappan L, Singh S, Recurrent tumor thrombus in IVC following nephrectomy and Thrombectomy: Case report, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
22. Singh R, Dhamija E, Deo SVS, Shukla NK, Mathur M, Thulkar S, A prospective study to evaluated the accuracy of axillary staging using ultrasound and USG-guided FNAC in early breast patients in a high volume center, 7th Annual Conference of Association of Breast Surgeons of India (ABSICON 2018), 9-11 November 2018, AIIMS, New Delhi
23. Thulkar S, Bhatnagar S, Combined ultrasound and computed tomography guided superior hypogastric plexus block for pelvic cancer pain management, World congress on pain 2018, 12-16 September 2018, International Convention Centre, Boston, USA, Boston, USA
24. Singh S, Dhamija E, Malla S, Priyanka, Mohapatra S, Meyyappan L, Thulkar S, Radiation Induced Changes in Lung FIRST PRIZE, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
25. Singh S, Dhamija E, Malla S, Priyanka, Mohapatra S, Meyyappan L, Thulkar S, Desmoid-Type Fibromatosis: Ct Imaging Spectrum FIRST PRIZE, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
26. Paul SB, Dhamija E, Prasad VP, Gamanagatti SR, Das P1, Shalimar2, Acharya SK2, Combined Hepatocellular Cholangiocarcinoma: Clinical and Imaging Findings FIRST PRIZE, 2nd Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, EROS Delhi, New Delhi
27. Paul SB, Gamanagatti SR, Prasad VP, Dhamija E, Shalimar1, Acharya SK1, Hepatocellular carcinoma with Extrahepatic Collateral supply: Diagnosis and impact on management with Transarterial chemoembolization, 2nd Annual Conference of Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, EROS Delhi, New Delhi
28. Mohapatra S, Malla S, Priyanka, Singh S, Meyyappan L, Dhamija E, Paediatric Mediastinal Rhabdomyosarcoma: Case report, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
29. Mohapatra S, Priyanka, Meyyappan L, Singh S, Malla S, Dhamija E, Intra bronchial rupture of metastatic lesion as a rare cause of diffuse alveolar hemorrhage—A case report, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
30. Malla S, Mohapatra S, Priyanka, Singh S, Meyyappan L, Dhamija E, Oncological emergencies in abdomen-CT spectrum, Third Prize, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
31. Malla S, Mohapatra S, Priyanka, Singh S, Meyyappan L, Dhamija E, Interventional radiology in palliative oncology: Clinical impact ORAL PAPER, Oncology Imaging and Interventions 2018, 27 May 2018, Delhi State Cancer Institute, Delhi
32. Malla S, Chahal A, Kumar M, Thulkar S, Percutaneous Radiological Gastrostomy—Comparison of nasogastric feeding and PRG for enteric feeding support in patients with neoplasms of oropharynx and esophagus—Oral paper, Annual Conference of ISVIR, 8-10 March, Goa
33. Malla S, Dhamija E, Paul SB, Hari S, Chauhan D, Baby A, Prasad V, Imaging Spectrum of Male Breast Diseases, 6th Annual Conference of Breast imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna
34. Prasad V, Chauhan D, Hari S, Paul SB, Dhamija E, Baby A, Malla S, Breast Sonography: A Problem Solving Tool, 6th Annual Conference of Breast imaging Society, India (BISICON 2018), 16-18 November 2018, Gyan Bhawan, Patna

Radiation Oncology

1. Rath GK, Gandhi A, Mallick S, Sharma DN, Clinical outcome of brainstem glioma treated with or without concurrent chemoradiotherapy: An institutional retrospective analysis of 71 patients, 6th Annual Meeting of the ASTRO, 21-24 October 2018, Texas, USA
2. Bhasker S, Chander S, Head and Neck soft tissue sarcoma: Treatment outcome, patterns of failure and prognostic factors—Clinical experience from a regional cancer centre in India, 20th International AEK Cancer Congress, 27 February to 1 March 2019, Heidelberg, Germany
3. Pathy S, Kumar L, Dashwal, V Sharma DN, Review of practice and outcomes of external beam radiotherapy followed by Hdr brachtherapy in elderly patients with cervical cancer, American Brachytherapy Society 2018, Annual Meeting, 7-9 June 2018, San Francisco, USA
4. Devnani B, Gupta S, Haresh KP, Julka PK, Rath GK, Pineal parenchymal tumors: Patterns of care from a tertiary cancer centre in India, ESMO 2018, 19-23 October 2018, Munich, Germany
5. Biswas A, Kashyap L, Adhikari N, Gogia A, Sahoo R, Sharma A, et al., Secondary central nervous system lymphoma-clinical experience from a regional cancer centre in India, European Society for Radiotherapy and Oncology (ESTRO) 37 Conference, April 2018, Barcelona, Spain
6. Sahoo R, Patekar M, Adhikari N, Biswas A, Raina V, Kumar L, et al., Primary central nervous system lymphoma in India: A 17-year experience from AIIMS, 6th Society of Hematologic Oncology (SOHO) Annual Meeting, September 2018, Houston, USA
7. Kanodia R, Kumar R, Bhasker S, Biswas A, Verma H, Pandey RM, et al., Survival and QOL outcomes with quality palliative quad shot radiotherapy in advanced head and neck cancer (HNC)—An alternative regimen in low resource countries, 22nd International Congress on Palliative Care, October 2018, Montreal, Canada
8. Biswas A, Adhikari N, Gogia A, Sahoo R, Garg A, Sharma M, et al., High dose Methotrexate based chemotherapy and response adapted whole brain radiation therapy in primary CNS lymphoma, 60th Annual Meeting of the American Society for Radiation Oncology (ASTRO), October 2018, San Antonio, USA
9. Biswas A, Sahoo R, Kumar R, Mallick S, Sikka K, Bakhshi S, et al., Combined modality management of esthesioneuroblastoma in paediatric and adolescent patients: Clinical experience from a regional cancer centre in north India, 50th Congress of the International Society of Paediatric Oncology (SIOP), November 2018, Kyoto, Japan
10. Biswas A, Bakhshi S, Suri V, Sharma M, Julka P, Combined modality management of paediatric primary central nervous system lymphoma: Clinical experience from a regional cancer centre in north India, 50th Congress of the International Society of Paediatric Oncology (SIOP), November 2018, Kyoto, Japan
11. Agarwala S, Murli D, Dhua A, Jain V, Sharma K, Bakhshi S, Biswas A, et al., Ewing sarcoma of ribs: outcome of surgical management as a part of multimodality treatment, 50th Congress of the International Society of Paediatric Oncology (SIOP), November 2018, Kyoto, Japan
12. Pathy S, Kumar R, Sharma DN, Biswas R, Sharma S, Binjola A, Small bowel doses in vaginal cuff brachytherapy in post-hysterectomy cervical cancer patients: A volumetric dosimetric study in patients treated with point based technique, Annual Conference of American Brachytherapy Society 2018, 7-9 June 2018, San Francisco, USA
13. Kanodia R, Kumar R, Bhasker S, Biswas A, Verma H, Pandey RM, Chander S, Survival and QOL outcomes with palliative QUAD SHOT radiotherapy in advanced head and neck cancer (HNC)—An alternative regimen in low resource countries, 22nd International Congress on Palliative Care, 2-5 October 2018, Montreal, Canada
14. Kumar R, Manasa P, Binjola A, Krishnan B, Biswas R, Radiation Exposure to Heart in Left Sided Whole Breast Radiation (WBRT): Dosimetric Estimates with Three Dimensional Conformal Radiation (3DCRT) with tangential fields, Annual Conference of Association of Radiation Oncologists of India (AROI) 2018, 29 November-2 December 2018, Trivandrum

Surgical Oncology

1. Barua A, Deo SVS, Gogia A, Kumar R, “Comparison of PET CT vs conventional staging investigation for locally advanced breast cancer (LABC); results of a prospective study”, ABSICON 2018, 9-11 November 2018, AIIMS, New Delhi
2. Barua A, Sunil K, Deo SVS, “Comparison of preoperative short course RT vs long course CT-RT in rectal cancer, surgical and oncological outcomes”, AIIMS Research Day, 26 March 2019, AIIMS, New Delhi
3. Shivanna P, Sunil K, Deo SVS, Sandeep B, Review of pulmonary Metastatectomy, European lung cancer Conference, 11-14 April 2018, Geneva, Switzerland
4. Kumar N, Ray MD, Clinical profiles, Peritoneal Cancer Index (PCI), Extent of Resection and Completeness of Cytoreduction (CC) rates in Peritoneal, Oncovision, R&R Hospital, 24 February 2019, New Delhi

5. Kumar N, Ray MD, Deo SVS, Carcinomatosis (PC) after CRS and HIPEC—Oncovision 2019, Oncovision, R&R Hospital, 24 February 2019, New Delhi
6. Kumar B, Deo SVS, Ray MD, Cytoreductive surgery and HIPEC for peritoneal surface malignancy: Clinical spectrum, morbidity and mortality in 102 cases', SSO 2019, 28 March 2019, San Diego, California, USA, Best Paper prize in IASO to participate in SSO 2019—USA with Travel Grant
7. Kumar B, Sunil K, Oral presentation titled 'Mediastinal Staging: PET vs Mediastinoscopy vs EBUS', Lung Cancer Management in Indian Context, 1 December 2018, AIIMS, New Delhi
8. Kumar B, Sunil K, Rate of pathological N2 nodes among patients of NSCLC with cN0/cN1 nodal status on CECT scan—A study from tertiary care hospital in India, ESMO, 24 November 2018, Asia at Singapore
9. Kumar B, Deo SVS, Gogia A, Impact of tumor size on prediction of pathological complete response after neoadjuvant chemotherapy in breast cancer, ABSICON 2018, 9-11 November 2018, AIIMS, New Delhi
10. Kumar B, Deo SVS, Ray MD, Cytoreductive surgery and HIPEC for peritoneal surface malignancy: Clinical spectrum, morbidity and mortality in 102 cases, NATCON IASO, 22 September 2018, Kovalam, India
11. Kumar N, Sunil K, Sandeep B, Neoadjuvant chemotherapy for locally advanced squamous cell carcinoma of esophagus: Clinical profile and outcomes from tertiary care cancer centre, 20TH ESMO GI cancer congress 2018, 20-23 June 2018, Barcelona, Spain
12. Kumar N, Deo SVS, Sunil K, Factors affecting Sphincter Salvage Rate in Rectal Cancer treated with multimodality therapy, IASO NATCON 2018, 21-23 September 2018, Kovalam, India
13. Kumar N, Deo SVS, Sunil K, Comparison of Pre-operative Short course Radiotherapy verses Long course Chemo-Radiotherapy in Rectal Cancer: Surgical and Oncologic Outcomes, IASO NATCON 2018, 21-23 September 2018, Kovalam, India
14. Kumar N, Deo SVS, Analysis of Critical complications following Upfront verses Re-do surgery for Thyroid Cancer, SSO 2019, 27-30 March 2019, San Diego, USA, Best Paper prize in IASO to participate in SSO 2019—USA with Travel Grant
15. Gowda M, Deo SVS, Gogia A, Sharma DN, Mathur S, Thulkar S, Mudulay D, Ashish J, Criteria for Pathological Complete Response (pCR) CR and its impact on relapse rates in Breast cancer patients undergoing Neo-adjuvant chemotherapy—Surgical Oncology-AIIMS-New Delhi Experience, ABS-UK, 18-19 June 2018, Birmingham, UK
16. Gowda MS, Bansal B, Kumar VJR, Deo SVS, Malik P, Kumar S, Correlation between maximum Tumor diameter measurement on CT scan and histopathological specimen, An Indian experience, IASLC:WCLC, 23-26 September 2018, Toronto, Canada
17. Gowda MS, Deo SVS, Gogia A, Breast cancer survival in low and middle income countries, Experience from a tertiary cancer center in India, ABSICON 2018, 9-11 November 2018, New Delhi
18. Gowda MS, Deo SVS, Ekta D, Thulkar S, TURBO Study: Tumor and Breast volumetry by clinical and radiological methods, Results of breast volumetry, ABSICON 2018, 9-11 November 2018, New Delhi
19. Ashutosh M, Sunil K, Sandeep B, Deo SVS, Impact of revision surgery timing on overall survival in incidentally detected gall bladder cancer: An experience from tertiary care centre of Northern India, ESMO World Congress on GI Cancers, 24 June 2018, Barcelona

RESEARCH

Funded projects

Ongoing

Onco-Anaesthesia and Palliative Medicine

1. Spiritual problems and concerns faced by Indian palliative care patients, Sushma Bhatnagar, ICMR, 3 years, 2017-2019, Rs 1.32 lakhs
2. Prevalence and factors associated with cancer related neuropathic pain in India: A cross sectional study, Sushma Bhatnagar, ICMR, 2 years, Rs 10 lakhs
3. A Double Blind, Double-Dummy, Randomized, Prospective, Two Arm, Parallel, Multicenter, Phase IV Clinical Trial to Evaluate Efficacy and Safety of Gaba-NT (Fixed-Dose Combination of Gabapentin and Nortriptyline) in Comparison with Gabapentin in Patients with Neuropathic Pain, Sushma Bhatnagar, 2 years, Rs 3 lakhs

Delhi Cancer Registry

1. Establishment of Hospital based Cancer Registries and patterns of care and survival studies on Cancer Breast, Cancer Cervix and Head and Neck Cancers, SVS Deo, National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore, 6 years, 2014, Rs 38 lakhs per annum (approximately)

2. Patterns of Care and Survival Studies on childhood, lymphoid and hematopoietic malignancies, SVS Deo, National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore, 5 years, 2017, Rs 1 lakh per annum (approximately)
3. Population Based Survival Studies on Cancer Breast, Cervix and Head and Neck Cancers, SVS Deo, National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore, 5 years, 2017, Rs 6.8 lakhs per annum (approximately)

Laboratory Oncology

1. Centre for Advanced Research and Excellence in Leukemic Stem Cells (LSC) for Prognosis and Treatment (CARE-LSCPT) in Acute Myeloid Leukemia, Ritu Gupta, ICMR, 5 years, 2019-2024, Rs 490.82 lakhs
2. Unit of Excellence on Cancer Research on Multiple Myeloma, Ritu Gupta, DBT, 5 years, 2016-2021, Rs 314 lakhs
3. Evaluation of DRY Multi-Color Panels for Lymphoma and Leukemia Diagnosis and Monitoring on a Flow Cytometer, Ritu Gupta, Beckman Coulter, 2 years, 2018-2020, Rs 9.46 lakhs
4. Prevalence and significance of ETS related gene deletions in Acute Lymphoblastic Leukemia, Sanjeev Kumar Gupta, AIIMS, New Delhi, 1 year, 2018-2019, Rs 5 lakhs
5. Early immature T-lymphoblastic leukemia (ALL): Evaluation of early thymic precursor T-ALL immunophenotype, absence of biallelic deletion of TCR γ chains (ABD) and expression of MEF2C as predictors of treatment response as assessed by minimal residual disease determination, Anita Chopra, DST, 3 years, 2015-2018, Rs 20.16 lakhs
6. Molecular determinants of prednisolone sensitivity in pediatric acute lymphoblastic leukemia, Anita Chopra, AIIMS New Delhi, 2 years, 2016-2018, Rs 8 lakhs
7. Molecular biology of cytogenetically normal acute myeloid leukemia, Anita Chopra, DBT, 3 years, 2015-2018, Rs 55 lakhs
8. ICMR Task Force Comparative study of Genetic, Clinical and Epidemiological factors of Breast Cancer in Indian population, Pranay Tanwar, ICMR, 5 years, 2017-2022, Rs 122 lakhs
9. A prospective study to evaluate WT1 gene expression as predictive molecular marker of disease progression in de novo cases of Acute Myeloid Leukemia, Pranay Tanwar, DST, 4 years, 2017-2021, Rs 52 lakhs
10. ICMR Task Force Genomics of gallbladder carcinoma in Indian Patients, Pranay Tanwar, ICMR, 5 years, 2017-2022, Rs 1.99 lakhs
11. Human Papilloma Virus (HPV): Relevance in etiology of oral squamous cell carcinoma in Indian Population, Pranay Tanwar, DHR, MoHFW, 4 years, 2017-2021, Rs 45 lakhs
12. Evaluation of Thrombopoietin as a marker of sepsis in postoperative cases of gastrointestinal malignancy, Amar Ranjan, AIIMS, New Delhi, 3 years, 2016-2019, Rs 4 lakhs
13. Evaluation of HE4 level in epithelial ovarian cancer for diagnosis and monitoring of therapy, Amar Ranjan, ICMR, New Delhi, 3 years, 2017-2020, Rs 25 lakhs
14. Prognostic evaluation of thrombopoietin following surgery in gastrointestinal cancer patients, Amar Ranjan, Oncology Forum, New Delhi, 1 year, 2018, Rs 1.5 lakhs
15. Molecular determinant of prednisolone sensitivity in Acute lymphoblastic leukemia, Anita Chopra, AIIMS, New Delhi, 2 years, 2016-2018, Rs 8 lakhs
16. Identification of novel tyrosine kinases in Indian paediatric Ph-like Acute lymphoblastic leukemia, Anita Chopra, DHR, New Delhi, 3 years, 2018- 2021, Rs 30 lakhs
17. Impact of TCR $\alpha\beta$ sequence repertoire in CML blasts, Gurvinder Kaur, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
18. Characterization of circulating cell free Nucleic acids for identification of leukemia-specific genetic alterations in early recurrence monitoring of Acute Myeloid Leukemia, Deepshi Thakral, AIIMS, New Delhi, 2 years, 2018-2020, Rs 10 lakhs

Medical Oncology

1. Aspirin for Dukes C and High Risk Dukes B Colorectal Cancers - An International, Multi-centre, Double Blind, Randomised Placebo Controlled Phase III Trial, Atul Sharma, Singapore clinical Research Institute, Singapore, 5 years, 2013-2018, 500 USD per patient
2. CANscript™ Clinical Outcomes in a Real-World Setting (ANCERS-1): A Prospective, Multicenter, Observational Study Examining the Clinical Utility of CANscript™ in Routine Clinical Practice, Atul Sharma, Catalyst (CRO), 3 years, 2017-2020, Rs 2 lakhs

3. A single arm, multicentric, open label, efficacy and safety study of Doceaqualip (Docetaxel Lipid Suspension for Injection of Intas Pharmaceuticals Limited, India) based regimens in metastatic gastric adenocarcinoma patients, Atul Sharma, Lambda Therapeutics Research Limited, 2 years, 2018-2020, Rs 4.79 lakhs + 1.72 lakh per patient
4. Improving Refusal, Non-Compliance, Abandonment and Outpatient Infection Treatment in Paediatric and Adolescent Cancers, Sameer Bakhshi, Lebara Foundation, 5 years, 2015-2020, Rs 93.33 lakhs
5. Establishing a nutritional counseling programme and developing a nutritional database in pediatric patients with cancer, Sameer Bakhshi, Cuddle Foundation, 3 years, 2016-2019, Rs 13.37 lakhs
6. Role of mitochondrial complex encoding genes in Paediatric AML, Sameer Bakhshi, AIIMS, 3 years, 2016-2019, Rs 10 lakhs
7. National Multicentre Childhood Leukemia Programme, Sameer Bakhshi, ICMR, 2 years, 2017-2019, Rs 32 lakhs
8. Role of mitochondrial heterogeneity in the progression and prognosis of Acute Myeloid Leukemia (AML), Sameer Bakhshi, DST, 3 years, 2017-2020, Rs 50.7 lakhs
9. Indian childhood collaborative leukaemia group multicentre national standardisation study for newly diagnosed acute lymphoblastic leukemia (ALL), Sameer Bakhshi, National Cancer Grid, 3 years, 2016-2019, Rs 35 lakhs
10. SADAL: A Phase 2b Open label Study of Selinexor (KPT-330) in Patients with Relapsed/Refractory Diffuse Large B-Cell Lymphoma (DLBCL), Sameer Bakhshi, Excel Life Sciences, 5 years, 2018-2023, Rs 11 lakhs
11. A Phase 2, Open-Label Trial Evaluating the Efficacy and Safety of Two Dosages of Once Daily Oral CA-170 in Patients with Selected Relapsed Advanced Tumors (ASIAD), Sameer Bakhshi, Veeda Clinical Research Pvt. Ltd., 5 years, 2018-2023, Rs 3.8 lakhs per patient
12. A Phase IV Multi-Centric Post-Marketing Study Evaluating the Safety, Immunogenicity and Efficacy of the Marketed Formulation of Hetero – Rituximab, Sameer Bakhshi, Hetro Pharma Ltd., 2 years, 2018-2020, Rs 12 lakhs
13. Androgen receptor in triple negative breast cancer, Ajay Gogia, AIIMS, 1 year, 2019, Rs 3.75 lakhs
14. Role of RRM1, RRM2, hENT1 and ERCC1 expression in Advanced Carcinoma of Gall Bladder treated with Gemcitabine-Platinum Doublet, Ranjit Kumar Sahoo, Nag Foundation, Pune, 2 years, 2016-2018, Rs 5 lakhs
15. Safety study of Nivolumab for selected advanced malignancies in India, Prabhat Singh Malik, Bristol-Myers Squibb Company (BMS), 2 years, 2018-2020, Rs 39.72 lakhs
16. A prospective, multicenter, Phase-IV clinical trial to assess safety of TAGRISSO TM (Osimertinib) in Indian adult patients with metastatic epidermal growth factor receptor (EGFR) T790M mutation-positive non small cell lung cancer (NSCLC), Prabhat Singh Malik, AstraZeneca Pharma India Limited, 1 year, 2019-2020, Rs 5.06 lakhs
17. AIIMS-IIT Delhi collaborative research Proposal on Liquid Biopsy: An exploratory study on exosome-based diagnostics for Lung Cancer, Prabhat Singh Malik, IIT and AIIMS, Delhi, 1 year, 2019-2020, Rs 10 lakhs (For IITD), Rs 10 lakhs (AIIMS)
18. Expression of NOTCH1,2,3, HES-1 and p21 in esophageal squamous cell carcinoma, Raja Pramanik, AIIMS, 1 year, 2017-2018, Rs 5 lakhs
19. Assessment of BRCA and non-BRCA mutations with Multi gene panel testing in patients of ovarian cancer: A cross-sectional observational study, Sachin Khurana, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
20. Role of Phosphofructokinase-P (PFKP) in Breast Cancer, Chandra Prakash Prasad, AIIMS, 2 years, 2017-2019, Rs 10 lakhs
21. Exploring how β -catenin induced metabolic changes can be exploited for Triple Negative Breast Cancer (TNBC) prognosis and therapeutics, Chandra Prakash Prasad, SERB, 3 years, 2018-2021, Rs 46.65 lakhs
22. To study the role of Estrogen-Related Receptor Gamma (ERR γ) as a potential biomarker in thyroid cancers, Thoudam Debraj Singh, AIIMS, 2 years, 2017-2019, Rs 9 lakhs

Medical Physics

1. Development of tissue equivalent optically stimulated luminescent materials for radiation dosimetric applications in low and high doses of medical radiation, Pratik Kumar, DHR, 3 years, 2017-2020, Rs 15.53 lakhs
2. Preparation and study of radiochromic film as radiation dosimeter for medical applications, Pratik Kumar, ICMR, 3 years, 2018-2021, Rs 16.69 lakhs

Radiodiagnosis

1. Metallic tumour marker clip for breast cancer: Design, development and clinical implications, Prof Sanjay Thulkar, Science and Engineering research Board (SERB)-DST, 5 years, 2014-2019, Rs 23.27 lakhs

2. Comparative evaluation of Nasoenteric feeding and Percutaneous Radiologic Gastrostomy for enteric support in patients with moderate and severe dysphagia due to neoplasms of oropharynx or esophagus: A pilot randomized controlled trial, Mukesh Kumar, AIIMS, 2 years, 2018- 2020, Rs 5 lakhs
3. Diagnostic accuracy of Contrast enhanced Ultrasound in detecting early response to Neoadjuvant Chemotherapy in Breast cancer patients, Ekta Dhamija, AIIMS, 2 years, 2019- 2021, Rs 8 lakhs

Radiation Oncology

1. A study of Palbociclib in combination with Letrozole as treatment of postmenopausal women with hormone receptor positive, Her 2 new negative advanced breast cancer for whom Letrozole therapy is deemed appropriate, Haresh KP, Pfizer India, 3 years, 2017-2019, Rs 10 lakhs
2. Prospective assessment of Radiation Induced Lung Injury (RILI) in Breast cancer patients undergoing adjuvant post-operative Three Dimensional Conformal Radiotherapy (3DCRT), Ritesh Kumar, AIIMS, 2 years, 2017-2019, Rs 4 lakhs

Surgical Oncology

1. HBCR and Pattern of care and survival studies inbreast, Head and Neck and Cervical Cancer, SVS Deo, ICMR, 4 years, 2014-2018, Rs 35 lakhs per year
2. Diversity of Oral micro biome of smokeless tobacco induced oral cancer patients as compared to tobacco chewers and non tobacco chewer healthy individuals—A metagenomic approach, SVS Deo, DST-SERB, 3 years, 2015-2018, Rs 50 lakhs
3. Patterns of care and survival studies on cancer in childhood, lymphoid and hematopoietic malignancies, other gynaecological malignancies, SVS Deo, ICMR, 4 years, 2017-2021, Rs 5 lakhs
4. Immuno-phenotypic profile of tumour infiltrating cells of the immune system and expression of PDL1 in triple negative/Her-2 neu positive breast cancer patients and their correlation with response to neoadjuvant chemotherapy, SVS Deo, DST, 3 years, 2017-2020, Rs 28.74 lakhs
5. Comparative Sphingolipid profiling of breast cancer cell and tissue types for identification of Potential Metastatic Biomarkers, SVS Deo, DST, 2 years, 2016-2018, Rs 47.15 lakhs
6. Clinical significance of cell-free DNA in intraoperative pleural lavage fluid and plasma in patients undergoing pulmonary metastasectomy: A pilot study, Sunil Kumar, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
7. Development of Standard Operating Procedures (SOP) of Hyperthermic Intraperitoneal Chemotherapy (HIPEC) in peritoneal surface malignancies for public set up in India, MD Ray, DST, 2 years, 2017-2019, Rs 50 lakhs
8. Association of HIPEC treatment with expression of T regulatory cells (FOXP3) in epithelial ovarian cancer and its clinical significance, MD Ray, AIIMS, 2 years, 2018-2019, Rs 8 lakhs
9. Role of T-Regulatory Cells (Tregs) and their clinical correlation in epithelial ovarian cancer, MD Ray, AIIMS, 3 years, 2017-2020, Rs 8-10 lakhs

Completed

Onco-Anaesthesia and Palliative Medicine

1. Molecular Determinates of Response to opioids in cancer patients: Indian Scenario, ICMR, Sushma Bhatnagar, 3 years, Rs 28 lakhs

Laboratory Oncology

1. Elucidation of pathologically relevant miRNAs responsible for disease progression and resistance to chemotherapy in CLL, Ritu Gupta, DBT, 3 years, 2015-2018, Rs 1.05 lakhs
2. Resistance to tyrosine kinase inhibitors in Indian patients with chronic myeloid leukemia—A mechanistic view, Ritu Gupta, ICMR, 3 years, 2015-2018, Rs 21.24 lakhs
3. Prevalence of intrachromosomal amplification of chromosome 21 (iAMP21) in B-ALL, Sanjeev Kumar Gupta, AIIMS, New Delhi, 2 years, 2016-2018, Rs 10 lakhs
4. Evaluation of Thrombopoietin as a marker of sepsis in postoperative cases of gastrointestinal malignancy, Amar Ranjan, AIIMS, New Delhi, 1 year, 2016-2017, Rs 4 lakhs

Medical Oncology

1. Investigating the efficacy of microRNAs as molecular marker in pediatric acute myeloid leukemia, Sameer Bakhshi, DBT, 3 years, 2015-2018, Rs 26.85 lakhs
2. EGFR/CK-5/6 in triple negative breast cancer, Ajay Gogia, AIIMS, 1 year, 2017, Rs 3.5 lakhs

3. MGMT methylation in primary CNS lymphoma, Ranjit Kumar Sahoo, AIIMS, 3 years, 2015-2017, Rs 3.15 lakhs
4. Validation of Thymidylate Synthetase and Folate Receptor alpha expression as predictive biomarkers for efficacy of pemetrexed based chemotherapy in advanced non squamous NSCLC, Prabhat Singh Malik, AIIMS, 2 years, 2016-2018, Rs 9 lakhs

Surgical Oncology

1. A Prospective Randomised Control Trial Comparing Intracostal with Pericostal Thoracotomy Closure to Evaluate Post Thoracotomy Pain Syndromes (PaINT), Sunil Kumar, AIIMS, 2 years, 2016-2018, Rs 2 lakhs
2. Role of Fibrin Sealant in Ilio Inguinal Block Dissection to reduce the rate of lymphatic drainage and seroma formation, thereby morbidity, MD Ray, AIIMS, 2 years, 2016-2018, Rs 1.20 lakhs

Departmental projects

Ongoing

Onco-Anaesthesia and Palliative Medicine

1. A comparison of effect of Desflurane vs Sevoflurane on arterial oxygenation during one lung ventilation for thoracotomies in oncosurgical patients, A randomized control trial
2. A comparison of two techniques of postoperative analgesia: Lignocaine-fentanyl intravenous infusion and ropivacaine-fentanyl epidural infusion in patients undergoing Cytoreductive Surgery (CRS) and Hyperthermic Intraperitoneal Chemotherapy (HIPEC)—Prospective randomized control study
3. A cross-sectional survey of medical professionals in India to assess their prescription practices, knowledge, attitude, and barriers towards opioid analgesic prescriptions
4. A Pilot Randomized Clinical Trial Comparing Desflurane Anaesthesia vs Total Intravenous Anaesthesia, for changes in Hemodynamic, Inflammatory and Coagulation Parameters in patients undergoing Hyperthermic Intraperitoneal Chemotherapy
5. A Prospective Observational Study to Assess the Effect of Palliative Care Consultation on the Palliative Care Needs of Patients Suffering from Advanced Lung Cancer, in a Tertiary Care Hospital in India
6. A prospective randomized control trial comparing intracostal with pericostal thoracotomy closure to evaluate post thoracotomy pain syndromes (paint)
7. A Prospective Randomized Control Trial of Goal directed vs Standard Fluid Therapy in Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy
8. A prospective randomized study to assess the analgesic efficacy of SAP Block (SAP) for modified radical mastectomy under general anaesthesia
9. A survey of medical professionals in an apex tertiary care hospital to assess awareness, interest, practices and knowledge in palliative care: A descriptive cross-sectional study
10. An assessment of need for palliative care in patients with rheumatoid arthritis using SF36, DAS28, DASS and HAQ-DI questionnaires
11. An observational study to elucidate the reasons for non-compliance to home treatment for breast cancer related lymphedema in a tertiary care hospital
12. Anaesthesia for brachytherapy in a cancer institute in the last 6 years: A retrospective observational study
13. Asian Patient's Perspective Regarding Oncology Awareness, Care and Health (APPROACH)
14. Assessment of palliative care outcome in patients of multiple myeloma attending the palliative care clinic of a tertiary care centre: A prospective observational study
15. Assessment of palliative care outcomes in patients of gastrointestinal malignancies attending the palliative care clinic of a tertiary care centre, A prospective observational study
16. Assessment of quality of life in breast cancer patients receiving hormonal therapy
17. Assessment of symptom burden and quality of life in patients of advanced breast cancer in Indian population: A cross-sectional study
18. Association of Vitamin D deficiency with opioid consumption, quality of life and progression free survival in metastatic breast cancer patients: An observational descriptive prospective study
19. Cardiopulmonary exercise testing as a predictor of morbidity after major gastrointestinal cancer surgeries in patients at nutritional risk: A prospective observational pilot study
20. Cardiopulmonary exercise testing as a predictor of outcomes after major oncological abdominal surgeries: A prospective observational study

21. Cardiopulmonary exercise testing as a predictor of postoperative outcome in patients undergoing esophageal cancer surgery following neoadjuvant chemotherapy—A prospective observational study
22. Cardiopulmonary exercise testing as an early predictor of chemotherapy induced cardiac dysfunction in carcinoma breast patients receiving neo-adjuvant chemotherapy and to compare their early post-operative recovery with the carcinoma breast patients posted for upfront surgery—A prospective observational study
23. Comparative evaluation of efficacy of intravenous infusion of Dexmedetomidine with Morphine for postoperative analgesia and sedation in head and neck cancer surgery
24. Comparative evaluation of Nasotracheal intubation with C Mac Video laryngoscope conventional blade vs D blade using cuff inflation technique in patients undergoing head and neck cancer surgeries: A prospective randomized study
25. Comparative evaluation of Nasotracheal intubation with Glidescope Video laryngoscope and conventional Macintosh laryngoscope using cuff inflation technique in patients undergoing head and neck cancer surgeries: A prospective randomized study
26. Comparative evaluation of ultrasound guided Serratus Anterior Plane block versus Erector Spinae Plane Block for postoperative analgesia in modified radical mastectomy—A randomized controlled trial
27. Comparison between C-arm fluoroscopic guided posterior versus Percutaneous Ultrasound-guided anterior approach for celiac plexus neurolysis in patients with upper abdominal cancer in terms of pain relief and quality of life—A Prospective randomized comparative study
28. Comparison between lignocaine-fentanyl intravenous infusion and ropivacaine-fentanyl epidural infusion as perioperative analgesia technique in patients undergoing major abdominal oncosurgery
29. Comparison of analgesic efficacy of ultrasound guided thoracic Paravertebral block versus surgeon guided Serratus Anterior Plane block for acute postoperative pain in patients undergoing thoracotomy for lung surgery—A prospective randomized study
30. Comparison of dexmedetomidine vs midazolam in conscious sedation for patients undergoing medical thoracoscopy—A randomized controlled pilot study
31. Comparison of efficacy of Ultrasound guided Paravertebral Block versus Erector Spinae Plane block for Postoperative Analgesia in Modified Radical Mastectomy—A randomized controlled trial
32. Comparison of intervention with analgesics versus analgesics alone in patients with upper abdominal malignancy in terms of pain relief and quality of life at 3 months follow up: A prospective randomized study
33. Comparison of intervention with analgesics versus analgesics alone in patients with Head and Neck malignancy in terms of pain relief and quality of life at 3 months follow up: A prospective randomized study
34. Comparison of postoperative analgesic efficacy of intrathecal morphine versus epidural morphine in equivalent doses in patients undergoing thoracotomy for lung cancer surgeries—Prospective randomized study
35. Comparison of two different doses of hyperbaric bupivacaine for intracavitary radiotherapy in patients with carcinoma cervix: A randomized control trial
36. Comparison of two Forced air warming blankets for prevention of intraoperative hypothermia in colorectal surgeries: A prospective randomized study
37. Comparison of WHO step 2 analgesic drug versus step 3 analgesic drug in Stage 4 opioid-naive lung cancer patients presenting to pain clinic with moderate to severe pain in terms of pain relief and quality of life at 3 weeks follow up: A randomized prospective study
38. Development of tool to assess total pain in cancer patients
39. Early pain intervention in cancer pain patients improves quality of pain relief, decreases analgesic requirement and thus improves quality of life
40. Effect of adding dexamethasone to ropivacaine on ultrasound guided serratus anterior plane block for modified radical mastectomy: A prospective randomized controlled pilot study
41. Effect of autonomic nervous system dysfunction in breast cancer patients on post induction and early intraoperative hypotension: A prospective observational study
42. Effect of Patient Controlled Epidural Analgesia (PCEA) and Intravenous Patient Controlled Analgesia (IVPCA) on postoperative inflammatory response and cancer recurrence in patients undergoing abdominal oncosurgery, A prospective randomized controlled trial
43. Effect of perioperative pregabalin on incidence of chronic post mastectomy pain syndrome—A prospective randomized placebo-controlled pilot study
44. Effectiveness of Intercostal Radio Frequency Ablation for the Management of Chronic pain after thoracic surgery

45. Effectiveness of the Certificate Course in Essentials of Palliative Care programme on the knowledge in palliative care among the participants: A cross-sectional interventional study
46. Effects of physiotherapy on neck and shoulder movements and mouth opening in patients operated for oral cancer and their quality of life, A pilot study
47. End of life care practice at a tertiary cancer centre in India: An observational study
48. Exploratory Cross-Sectional study to identify the social contents of pain in cancer patients
49. Incidence and risk factors for postoperative nausea vomiting in cancer surgeries: A prospective observational study
50. Indwelling venous catheter care in oncology setup—A pilot single center prospective observational study
51. Intraoperative celiac plexus neurolysis for pain relief in unresectable pancreatic, gastric and gall bladder cancer
52. Knowledge, attitude and perception regarding morphine use in Indian cancer patients
53. Nasotracheal intubation in patients with oropharyngeal carcinoma under general anaesthesia: A comparative evaluation between fiberoptic bronchoscope and C-MAC D blade video laryngoscope
54. Palliative Care Needs Assessment in Patients Suffering from Advanced Chronic Obstructive Pulmonary Disease (COPD)/ Interstitial Lung Disease (ILD): A prospective study
55. Palliative Care: Promoting Access and International Cancer Experience in India Collaborative (PC-PAICE India Collaborative)
56. Pattern of presentation of breast cancer related lymphedema and its impact on quality of life of breast cancer patients attending pain and palliative care clinic
57. Perioperative airway management choices in head and neck cancer patients: A retrospective analysis in a tertiary care center
58. Predicting difficult laryngoscopy in oral cancer patients by clinical and radiological parameters—A prospective, observational study
59. Prediction of infection in postoperative cases of gastrointestinal malignancy by analysis of thrombopoetin
60. Prevalence and factors affecting dyspnea in advanced cancer patients presenting in palliative care unit at a tertiary cancer centre in India
61. Prevalence and factors associated with cancer related neuropathic pain in India: A cross sectional study
62. Prevalence and predictors of insomnia in cancer patients presented to palliative care unit of a tertiary care center in India
63. Prevalence and risk factors of cognitive dysfunction in advanced cancer patients admitted in palliative care unit
64. Prevalence of breakthrough cancer pain and its impact on quality of life in cancer patients at regional cancer centre, India: A cross-sectional study
65. Prevalence of chemotherapy induced peripheral neuropathy in a palliative care setup and its impact on the quality of life of cancer patients
66. Prevalence of Pain Among Inpatients at All India Institute of Medical Sciences—New Delhi
67. Prospective, randomized, double blinded comparison of intranasal Dexmedetomidine vs intranasal ketamine for efficacy of sedation in preschool children undergoing radiotherapy procedures
68. Quality of life and symptom burden in patients with hematological malignancies receiving hematopoietic stem cell transplantation—A prospective observational study
69. Randomized control trial to evaluate the efficacy of scrambler therapy in the management of pain due to cancers of head, neck and thoracic origin
70. Safety and efficacy of neoadjuvant chemotherapy in stage IIB and IIIA NSCLC: Single arm phase II study
71. Single injection US guided ESP block compared to GA in patients undergoing APBI—A randomized controlled trial
72. The journey of cancer patients from symptom onset to the beginning of treatment in a cancer hospital in India
73. To Compare Clinical Versus Ultrasound assessment of correct placement of Proseal laryngeal mask airway—A prospective randomized study
74. To compare the effectiveness of Duloxetine vs Gabapentin on neuropathic pain intensity in patients with chemotherapy-induced peripheral neuropathy: A double-blind randomized controlled trial
75. To determine the financial burden in palliative care patients attending a tertiary care centre: A prospective observational study assessment of quality of life in head and neck cancer patients visiting palliative care outpatient department

76. To evaluate the comparative efficacy and safety of Gabapentin, Duloxetine and Pregabalin in patients with Chemotherapy Induced Painful Neuropathy (CIPN): A randomized controlled pilot trial
77. To study and analyze the pattern of symptoms of patients presenting in palliative care ward at Regional cancer Center of India
78. To study the clinical correlation between Chemotherapy Induced Peripheral Neuropathy (CIPN) and deficiency of vitamin b12, vitamin d3, calcium and omega 3 fatty acids
79. Validation of an Indian Palliative Care Spiritual Distress Scale

Laboratory Oncology

1. A study of plasma cell and B-cell compartment in Plasma Cell Proliferative Disorders (PCPD)
2. Establishment of standard and State of the Art molecular procedures for monitoring Minimal Residual Disease (MRD) and identification of ABL kinase domain mutations in Chronic Myeloid Leukemia (CML)
3. GS based characterization of pathways involved in the development of breast cancer among Indian women
4. Identification of tyrosine kinase lesions in B-ALL
5. Minimally invasive evaluation of genomic aberrations in Multiple Myeloma
6. Molecular biology of immature T-ALL
7. Study of efficacy of various preservatives as compared to formalin-based solutions being used in embalming for transportation purpose

Medical Oncology

1. A pilot study to assess safety and efficacy of modified FOLFIRINOX in unresectable Gall Bladder Cancer
2. A Prospective Randomized Control Trial of Goal directed Vs Standard Fluid Therapy in Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy
3. A prospective, Interventional study assessing response to Cytarabine, Daunorubicin and Etoposide (ADE) for first relapse of Paediatric Acute Myeloid Leukemia
4. A study to determine the association of trace elements and heavy metals with lung cancer and their correlation with smoking
5. A two-arm randomized open label prospective parallel design superiority Phase II multicentric clinical trial to evaluate the efficacy of a doublet second line chemotherapy versus monotherapy in advanced unresectable or metastatic gall bladder cancer progressing on first line chemotherapy
6. Adjuvant Chemotherapy or Chemo-radiation in Gall Bladder Cancer: A Phase III Randomized Controlled Study (ACCeRate trial)
7. Analysis of clinic pathological features, molecular profile and survival outcome of lung cancer patients below 40 years
8. Analysis of Diffuse Large B Cell Lymphoma (DLBCL)
9. Analysis of locally advanced breast cancer
10. Analysis of triple negative breast Cancer
11. Bortezomib, lenalidomide and dexamethasone (VRd) versus bortezomib, cyclophosphamide and dexamethasone (VCd) as induction therapy in untreated multiple myeloma: A phase III randomized study
12. Bortezomib, lenalidomide and dexamethasone-based consolidation therapy after Autologous Hematopoietic Stem Cell Transplantation in multiple myeloma: A single arm prospective study
13. Comparison of “Multigene hereditary panel testing” profiles in breast cancer patients qualifying and not qualifying the NCCN 2018 criteria for genetic testing: A prospective study in North Indian population
14. Concurrent Chemotherapy and External Radiation Therapy: An Open Label Non-Inferiority Phase III Randomized Controlled Trial of Weekly versus Three Weekly Cisplatin and Radical Radiotherapy in Locally Advanced Head and Neck Squamous Cell Carcinoma
15. Early stoppage of empirical antibiotic therapy at clinical improvement in pediatric cancer patients with high risk febrile neutropenia, A randomized open label clinical trial
16. Effect of Non-ionizing Electromagnetic Field (EMF) on human health
17. Gene expression profile and its correlation with mitochondrial energy metabolism in pediatric AML
18. Impact of serum galactomannan assay on diagnosis and outcome of invasive fungal infections in high risk febrile neutropenia
19. Minimal Residual Disease in Multiple Myeloma

20. Olanzapine for prevention of nausea and vomiting in children and adolescents receiving highly emetogenic chemotherapy (HEC): An investigator initiated, randomized, open-label trial
21. Pazopanib based oral metronomic therapy in Platinum relapsed, Platinum Refractory and Advanced ovarian cancer: A randomized phase 2 study
22. Pre and Post-transplant evaluation of natural killer T cells in multiple myeloma
23. Retrospective analysis of testicular Germ cell tumours treated at IRCH, AIIMS
24. Retrospective review of clinicopathological features and treatment outcomes in patients with advanced thymic tumours treated with chemotherapy
25. Role of PARP1 and γ -Glutamyl cysteine synthetase (GCS) Inhibitors on cisplatin sensitivity and DNA Methylation in ovarian cancer
26. Role of RRM1, RRM2, hENT1 and ERCC1 expression in Advanced Carcinoma of Gall Bladder treated with Gemcitabine-Platinum Doublet
27. Study of clinico-pathological characteristics and outcomes to therapy in High Risk and metastatic Endometrial cancer at a tertiary cancer centre
28. Study of efficacy and safety of neo adjuvant chemotherapy in patients with stage II B and III NSCLC
29. Study of PKC α signaling in Ovarian Serous Carcinoma
30. The role of the PARP – 1 and B- Catenin in cisplatin resistance in cervical cancer
31. Three arm phase II/III RCT in patients with unresectable/metastatic GBC with poor performance status-Best supportive care/Erlotinib/Capecitabine
32. To assess the frequency, clinicopathological, molecular correlation and outcome of brain metastasis in NSCLC patients

Medical Physics

1. Development of new luminescence material for dosimetry purpose
2. Calibration and use of optically stimulated luminescence dosimeter
3. Development of protocol for quality assurance of lead apron and thyroid collar
4. Development of radiochromic film dosimeter

Radiodiagnosis

1. Assessment of the effectiveness of Transversus Abdominis Plane (TAP) block for pain relief in percutaneous transhepatic biliary drainage in gall bladder cancer patients—A randomized control trial

Radiation Oncology

1. A phase II study to assess the feasibility of involved site radiotherapy for consolidation after chemo-immunotherapy in newly diagnosed patients of stage I-II nodal diffuse large B-cell lymphoma
2. A phase III multicentre trial of weekly induction chemotherapy followed by standard chemoradiation versus standard chemoradiation alone in patients with locally advanced cervical cancer
3. A pilot study to compare Interstitial Multicatheter Brachytherapy vs VMAT for APBI in early breast cancer: An adaptation, toxicity, and cosmesis comparison
4. Analysis of a prospective computerized surgical database of Rectal cancer presenting to IRCH, AIIMS
5. Assessment of brain metastasis (incidence, clinicopathological, molecular correlation and outcome) in non-small cell lung cancer (NSCLC) patients: A single arm prospective observational study
6. Assessment of early treatment response and dosimetric evaluation in locally advanced cervical cancer treated with 3D conformal radiation therapy along with concurrent cisplatin and image guided high dose rate brachytherapy
7. Comparative evaluation of acute toxicity, cosmesis and quality of life in hypofractionation versus conventional fractionation radiotherapy to whole breast and regional nodes after breast conservation surgery in breast cancer patients
8. Dosimetry and quality of life in post mastectomy breast cancer patient between 3DCRT vs VMAT
9. Evaluation of 4DCT based IMRT/VMAT and 3DCRT planning for locally advanced non-small cell lung cancer –dosimetric evaluation and early clinical outcome
10. Open label randomized control trial to compare efficacy and safety of Pemetrexed plus Carboplatin followed by maintenance Pemetrexed versus Paclitaxel plus Carboplatin followed by maintenance Pemetrexed in patients with stage IIIB or IV Non-squamous Non-Small-Cell lung cancer

11. Role of PET CT guided ICRT in cervical cancer following EBRT and conc, Cisplatin
12. Study of Clinicopathological characteristics of high risk and metastatic endometrial carcinoma and it's outcome to therapy at tertiary care centre
13. To assess outcome of combined Plaque Brachytherapy and Transpupillary Thermotherapy in Choroidal Melanoma

Surgical Oncology

1. A prospective observational study comparing CT scan vs PET CT scan in carcinoma ovary for determining the preoperative disease burden and respectability
2. A prospective study to evaluate the accuracy of axillary staging using ultrasound and USG-guided fine needle aspiration cytology in early breast cancer patients in a high volume centre
3. A study of young colorectal patients—Clinical profile, treatment and relapse patterns, and learning basic laboratory techniques of molecular biology for miRNA extraction in colon cancer patients
4. Awareness and Knowledge of Indian Breast Cancer patients pertaining to genetic aspect of Breast cancer, Clinical Utility of cell-free DNA in intraoperative pleural lavage fluid and plasma for patients with resectable primary pulmonary malignancies—A pilot study
5. Efficacy of Neoadjuvant chemotherapy in carcinoma esophagus—A pilot study comparing Cisplatin+5-FU with Paclitaxel+Carboplatin
6. Evaluation of Indocyanine green dye-based navigation surgery in optimizing axillary management of carcinoma breast
7. Evaluation of Peritoneal Cancer Index (PCI) in primary advanced ovarian epithelial carcinoma amongst Indian population
8. Learning basic lab techniques and analysis of colorectal cancer data base
9. Prevalence of sarcopenia in patients with upper gastrointestinal and lung malignancy undergoing surgical resection and its impact on immediate postoperative outcomes: A prospective observational study

Completed

Medical Oncology

1. A phase III open label randomized control study to compare efficacy and safety of pemetrexed-Carboplatin versus Paclitaxel- Carboplatin as induction regimen in advanced Non-Squamous NSCLC
2. Analysis of Metastatic breast cancer
3. Early stoppage versus continuation of antimicrobial therapy in low risk pediatric cancer patients with febrile neutropenia, before recovery of counts: A randomized controlled study-DALFEN study
4. Engraftment syndrome: A retrospective analysis of experience from a tertiary care institute
5. Lymphocyte reconstitution following Autologous Stem Cell Transplantation in myeloma and lymphoma
6. Phase II randomized trial (LRvs BR) in treatment naïve follicular lymphoma
7. POEMS syndrome: Indian Experience from a tertiary care institute
8. Role of Bone Marrow Microenvironment in Multiple Myeloma
9. Study to evaluate the anti-emetic effect of Aprepitant as an add-on therapy in children and adolescents receiving AML remission induction chemotherapy: An investigator-initiated, randomized, open label trial
10. To study clinical and biological significance of mutations in mitochondrial DNA regulatory region in acute myeloid leukemia
11. To study the Wnt signaling molecules and their correlation with common mutation (FLT3, CEBPa) in Acute myeloid leukemia
12. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian Cancer

Medical Physics

1. Development of protocol for quality assurance of medical image laser printer
2. Development of protocol for quality assurance of fluoroscopy

Radiation Oncology

1. Evaluation of patient specific pretreatment verification methods for Intensity Modulated Radiotherapy Techniques
2. Efficacy of Neoadjuvant chemotherapy in carcinoma esophagus—A pilot study comparing Cisplatin+5-FU with Paclitaxel+ Carboplatin

3. Fifteen years outcome of metastatic colorectal cancer from an Indian tertiary cancer centre: A retrospective study
4. Hypofractionated radiotherapy with concurrent chemotherapy vs Conventional concurrent chemo-radiotherapy in locally advanced non-small-cell carcinoma of lung—Randomised controlled trial

Surgical Oncology

1. A prospective study of assessment of breast anthropometry and tumor vs breast ratio calculation using clinical and radiological methods in Indian breast cancer patients
2. Awareness and knowledge of Indian breast cancer patients pertaining to genetic aspect of breast cancer—a prospective study
3. Standardizing surgico-pathological evaluation of oral squamous cell carcinomas specimens—A prospective study

Collaborative projects

Ongoing

Laboratory Oncology

4. Clinical significance of cell-free DNA in intraoperative pleural lavage fluid and plasma in patients undergoing pulmonary metastatectomy, Surgical Oncology
5. Determination of breakpoints of IKZF1 (IKAROS) deletions in B cell acute lymphoblastic leukemia, Instituto Nacional de Cancer Jose Gomes de Alencar da Silva, Rio de Janeiro, Brazil
6. Developing platelet based liquid biopsy assay for cancer detection—A pilot study, Medical Oncology, and Indraprastha Institute of Information Technology (IIIT) Delhi
7. Digital Holographic Microscopy of acute leukemic cell for 3D morphology-based classification, IIT, Delhi
8. Elucidation of circulating cell free miRNA in pathogenesis, disease progression and outcome in multiple myeloma using integrated bioinformatics and experimental, Biophysics
9. ICMR TASK Force Comparative study of Genetic, Clinical and Epidemiological factors of Breast Cancer in Indian population as ICMR Task Force, National Institute of Pathology, New Delhi Regional Cancer Centre Trivandrum National Institute of Cancer Prevention and Research, NOIDA
10. ICMR Task Force Genomics of gallbladder carcinoma in Indian Patients, National Institute of Pathology, New Delhi and National Institute of Cancer Prevention and Research, NOIDA
11. Identification of network pathways for drug targeting in Multiple Myeloma from NGS data using Deep Learning, IIT, Delhi
12. Minimal Residual Disease Estimation in Multiple Myeloma using Image Processing: Design and Development of Myelomaimager - an Automated Computer Assisted Tool, IIT, Delhi

Medical Oncology

1. Centre of Advanced Research and Excellence in AML, Laboratory Oncology
2. Lu177-PSMA therapy in metastatic CRPC, Nuclear Medicine
3. Lenvatinib in advanced thyroid cancer, Nuclear Medicine
4. A prospective study to evaluate the efficacy of PET-CT Scan in detecting residual disease in locally advanced head and neck cancers after primary treatment with definitive chemoradiotherapy, Nuclear Medicine, ENT, Radiation Oncology
5. EBV DNA PCR in clinically suspected nasopharyngeal cancer, Microbiology, ENT, Radiation oncology
6. Biomarkers for bacteremia, antimicrobial resistance and hospital acquired infections by NMR and Mass Spectrometry among febrile neutropenic patients, Microbiology
7. p53 in regulation of Epithelial-Mesenchymal Transition in breast cancer: Role of micro-RNA, IIT Delhi, Inst of Cytology, St Petersburg, Russia

Radiodiagnosis

1. Clinical Outcome of MRI-CT based Intracavitary brachytherapy in cervical cancer: A retrospective Clinical Study, Radiation Oncology
2. Early pain interventions in cancer pain patients improves quality of pain relief, decreases analgesic requirement and thus improves quality of life, Oncoanaesthesia and Palliative Care
3. A pilot study to compare Interstitial Multicatheter Brachytherapy (IMB) versus Volumetric modulated ARC therapy for APBI in early breast cancer: An adaptation, toxicity and cosmesis comparison, Radiation Oncology

4. Assessment Of Early Treatment Response And Dosimetric Evaluation In Locally Advanced Cervical Cancer Treated With 3d Conformal Radiation Therapy Along With Concurrent Cisplatin And Image Guided High Dose Rate Brachytherapy, Radiation Oncology
5. Correlation of Barrel Index determined by MRI in early cervical cancer with operability, lymph node status and local extension of the disease, Obstetrics and Gynae-Oncology
6. Role of MR guided biopsy in detecting prostate cancer, Nuclear Magnetic Resonance
7. Assessment of brain metastases in advanced NSCLC, Medical Oncology
8. Comparison of CT vs PET CT in Ca ovary for accuracy of staging, disease burden and prediction of resectability and determination of PCI, a prospective study, Surgical Oncology
9. A prospective study to determine the efficacy of Positron Emission Tomography/Computed Tomography (PET/CT) in detecting residual disease in Locally Advanced Head and Neck Squamous Cell Carcinoma managed with primary Chemo- Radiation Therapy, Nuclear Medicine
10. Development of tissue equivalent optically stimulated luminescent materials for measurement of low doses of medical radiation, Medical Physics Unit, BRAIRCH, and Department of Health Physics Inter University Accelerator Centre, New Delhi
11. Three arm phase II/III RCT comparing erlotinib plus Best Supportive Care (BSC), capecitabim plus BSC and BSC only in unresectable/metastatic CAGB patients with poor performance status (ECOG PS-III), Medical Oncology

Surgical Oncology

Ongoing

1. A comprehensive analysis of mammalian Target of Rapamycin (mTOR) and Mitogen Activated Protein (MAP) Kinase signaling pathways in non-small cell lung carcinoma, Pathology
2. Differentiating inflammatory and metastatic mediastinal lymphadenopathy on 18-FDG- PET/CT in lung cancer: Role of steroid suppression, Nuclear Medicine
3. Role of nuclear receptors in pathogenesis of carcinoma gall bladder, Biochemistry,
4. A prospective study to elucidate molecular genetic risk factors of gallbladder carcinoma in Indian Population, Laboratory Oncology
5. Evaluation of Human Epididymis Protein 4 (HE4) level in the diagnosis of ovarian cancer, Laboratory Oncology
6. The phase 2 study of HIPEC and the proposed phase 3 RCT comparing between HIPEC and IP chemotherapy, TMC, Kolkata
7. Hyperthermia and immune modulation in homologous recombination stratified epithelial ovarian cancer: Development of targeted therapeutic approaches, TMC, Kolkata
8. An economic analysis of alternative treatment methods of ovarian cancer in India: An appraisal of economic burden, quality of life and mortality risk, Obstetrics and Gynaecology
9. Determining Surgical Resection Margin of Cancer by Rapid Molecular Assessment Using Mass Spectrometric Imaging, Department of Chemistry, IISER, Tirupati

Completed

Medical Oncology

1. Efficacy of neoadjuvant chemotherapy in locally advanced head and neck cancers: A randomized pilot study comparing paclitaxel+ carboplatin versus cisplatin and 5FU, Surgical Oncology
2. Efficacy of neoadjuvant chemotherapy in esophageal squamous cell carcinoma: A randomized pilot study comparing paclitaxel+ carboplatin versus cisplatin and 5FU, Surgical Oncology

Radiodiagnosis

1. A Prospective study to evaluate the accuracy of Axillary Staging using Ultrasound guided FNAC in early Breast cancer Patients, Surgical Oncology
2. Evaluation of Peritoneal Cancer Index (PCI) in primary advanced ovarian epithelial carcinoma amongst Indian population, Surgical Oncology
3. Predicting difficult laryngoscopy in oral cancer patients by clinical and radiological parameters—A prospective observational study, Onco Anesthesia and Palliative Medicine

Radiation Oncology

1. MGMT promoter methylation in primary CNS lymphoma, Medical Oncology, Pathology

- Radiolabelling of trastuzumab with Lutetium-177: Its evaluation as a potential agent for radioimmunotherapy in breast cancer, Nuclear Medicine

Surgical Oncology

- Comparison of analgesic efficacy of Ultrasound guided thoracic Paravertebral block versus surgeon guided Serratus Anterior Plane block for acute postoperative pain in patients undergoing thoracotomy for lung surgery—A prospective randomized study, Onco-Anaesthesia
- Outcomes of metastatic colorectal cancer over fifteen years from an indian tertiary care cancer center: A retrospective study, Medical Oncology

PUBLICATIONS

Onco-Anaesthesia and Palliative Medicine

Journals: 32 Abstracts: 16

Delhi Cancer Registry

Journals: 7

Laboratory Oncology

Journals: 28 Abstracts: 6 Chapters in Books: 2

Medical Oncology

Journals: 64 Abstracts: 29

Medical Physics

Journals: 3

Radiodiagnosis

Journals: 8 Abstract: 1

Radiation Oncology

Journals: 40 Abstracts: 17

Surgical Oncology

Journals: 18 Abstracts: 2

PATIENT CARE

Total Bed Strength: 182

Medical Oncology: 78

Surgical Oncology: 61

Radiation Oncology: 37

Palliative Care Unit: 6

OPD Attendance: 1,71,778

New Patient's Registered: 13,886

Revisits: 1,67,680

Various OPD/Clinics

S. no. Name of the OPD/clinic New patient registered Revisits							
S. No.	Name of the OPD/Clinic	New patients			Old patients		
		Male	Female	Total	Male	Female	Total
1.	Adult Medical Oncology	992	902	1894	16,941	27,193	44,134
2.	AML/HL	196	102	298	3,390	2,297	5,687
3.	ALL/CML	206	124	330	3,453	2,603	6,056
4.	Breast Cancer	47	760	807	811	9,236	10,047

5.	Bone and Soft (Tissue)	170	143	313	1,069	1,017	2,086
6.	Cancer Prevention and Screening	17	17	34	-	-	-
7.	Familial Cancer	3	3	6	-	-	-
8.	Gastrointestinal	452	412	864	1,285	1,001	2,286
9.	Gynaecology 'A'	-	164	164	-	745	745
10.	Gynaecology 'B'	-	366	366	-	1,818	1,818
11.	Gynaecology 'C'	-	265	265	-	1,062	1,062
12.	Genitourinary and Gynae	85	238	323	659	1,976	2,635
13.	Head and Neck (Surgery)-A	343	107	450	1,933	626	2,559
14.	Head And Neck (ENT)-B	1,161	215	1,376	3,608	914	4,522
15.	Hepatobiliary and Pancreatic	130	89	219	978	667	1,645
16.	Lung Cancer	550	180	730	4,605	2,609	7,214
17.	NHL/MM/CLL	86	53	139	2,182	1,285	3,467
18.	Neuro Oncology	315	159	474	1,471	821	2,292
19.	Ophthalmic Tumour	57	30	87	-	-	-
21.	Paediatric Medical Oncology	273	118	391	8,169	5,273	13,442
22.	Paediatric Lymphoma Leukemia	124	46	170	4,424	2,233	6,657
23.	Paediatric (Surgery)	81	59	140	1,809	1,439	3,248
24.	Pain Relief	550	413	963	8,495	7,782	16,277
25.	Radiotherapy	630	813	1,443	5,916	7,885	13,801
26.	Surgical Oncology	363	337	700	2,512	2,764	5,276
27.	Thoracic Oncology	182	144	326	1,510	1,009	2,519
28.	Transplant	22	22	44	699	422	1,121
29.	Urology Malignancy	467	35	502	4,776	1,601	6,377
30.	Endo Malignancy	43	25	68	408	299	707
	Total	7,545	6,341	13,886	81,103	86,577	1,67,680

Grand Total=13,886+1,67,680=1,81,566

Admissions		Discharges		Operations	
Regular	11,965	Regular	11,618	Major	1,592
Short/Day Care	34,440	Short/Day Care	34,120	Minor	10,477
Total	46,405	Total	45,738	Total	12,069

Total Deaths: 349

Electrocardiogram (ECG)	4,519	OPD procedures	6,836
--------------------------------	-------	-----------------------	-------

OPD Chemotherapy Services (Treatment Room No. 15)			
Adult Male	5,134	Male child	5,940
Adult Female	2,447	Female child	2,422
Total		15,943	

OPD Attendance

Month and year	New patients			Old patients		
	Male	Female	Total	Male	Female	Total
April 2018	592	499	1,091	6,464	6,563	13,027
May 2018	727	610	1,337	7,422	7,559	14,981
June 2018	589	517	1,106	6,392	6,434	12,826
July 2018	627	551	1,178	6,971	6,993	13,964
August 2018	662	605	1,267	7,327	7,396	14,723

September 2018	567	502	1,069	6,545	6,808	13,353
October 2018	617	531	1,148	7,216	7,929	15,145
November 2018	583	448	1,031	6,325	7,118	13,443
December 2018	599	516	1,115	7,034	8,218	15,252
January 2019	677	512	1,189	6,833	7,459	14,292
February 2019	681	507	1,188	6,299	7,241	13,540
March 2019	624	543	1,167	6,275	6,859	13,134
Total	7,545	6,341	13,886	81,103	86,577	1,67,680

Geographical Distribution of New Patients

S. No.	State/Country	Total
1.	Andhra Pradesh	13
2.	Andman Nicobar	2
3.	Assam	34
4.	Arunachal Pradesh	4
5.	Bihar	1,876
6.	Chandigarh	3
7.	Chhattisgarh	30
8.	Dadar and Nagar Haveli	-
9.	Daman and Diu	1
10.	Delhi	4,179
11.	Goa	2
12.	Gujrat	5
13.	Haryana	1,585
14.	Himachal Pradesh	47
15.	Jammu and Kashmir	138
16.	Jharkhand	147
17.	Kerala	16
18.	Karnataka	6
19.	Lakshdeep	-
20.	Madhya Pradesh	242
21.	Maharashtra	17
22.	Meghalaya	-
23.	Manipur	47
24.	Mizoram	5
25.	Nagaland	8
26.	Orissa	47
27.	Pondicherry	4
28.	Punjab	81
29.	Rajasthan	296
30.	Sikkim	33
31.	Tamilnadu	11
32.	Telangana	03
33.	Tripura	7
34.	Uttar Pradesh	4,415
35.	Uttaranchal	395
36.	West Bengal	133
	Total	13,832

37.	Afghanistan	7
38.	Bangladesh	6
39.	Behrain	1
40.	Camroon	2
41.	Fiji	1
42.	Iraq	1
43.	Kazakstan	1
44.	Nepal	34
45.	Uzbekistan	1
	Total	54
	Grand total	13,886

Laboratory Oncology Services

1.	Haemogram: Haemoglobin, Total leucocyte count, Platelets	51,137
2.	Peripheral blood smear	8,012
3.	Bone marrow aspiration	4,373
4.	Cyto-chemistry	1,163
5.	Serum protein electrophoresis	4,213
6.	Immunofixation	2,782
7.	Urine electrophoresis	1,800
8.	Tumour markers	3,366
9.	Flowcytometry	34,324
10.	Cerebrospinal fluid	1,147
11.	Erythrocyte sedimentation rate	573
12.	Molecular biology	4,416
13.	Serum freelight chain	3,886
14.	Cytopathology	-
15.	Beta 2-microglobulin	462
16.	Cytology	-
17.	HPB DNA	-
	Total	1,21,654

Apheresis

1.	Single Donor Platelets	2,606
2.	Peripheral Blood Stem Cell-Harvest	231
3.	Haemogram	24,002
4.	Plasma	-
5.	No. of Granulocytes	57
6.	Plasma Exchange	11
	Total	26,907

Medical Oncology Laboratory Services

1.	Cytogenetics for detection of Philadelphia chromosome	317
2.	Cytogenetics for Chimerism	01
3.	RT-PCR for detection of P210 and P190 translocation in CML (Qualitative)	475
4.	RQ-PCR for detection of P210 and P190 translocation in CML (Quantitative)	17
5.	CD 34 counts by flowcytometry	371
6.	CD 3 counts by flowcytometry	13
7.	MNC counts	231

8.	Cryopreservation of Stem Cells – 80	137
9.	Storage of Stem Cells at 4	94
10.	Infusion of stem cells	134
11.	Viability of Stem Cell	164
12.	ELISA for detection of Aspergillosis	2,052
	Total	4,006

Dr Atul Sharma participated in superspecialty medical camp, 3-30 September 2018, Leh (Ladakh), J&K

Dr Chandra Prakash Prasad started two biochemical assays for cancer patients in Department from April 2018 onwards:

(i) Serum LDH Assay and (ii) Serum Mg²⁺ Assay

Medical Physics

No. of blood bags irradiated	1,152
Quality assurance test done on X-Ray machines	2,322
Quality assurance test on film processor at Radiology (Main)	27
Radiation output measurements in X-Ray units	398
Quality assurance test done on film processor at AIIMS	76
Radiation protection survey measurements	2
Advise in inadvertent exposure to pregnancy	9
QA tests done on lead apron at AIIMS	31
Total	4,017

Radiotherapy Services

1.	Cases on Radiotherapy	65,792
2.	Cases on Brachytherapy	835
3.	Treatment Planning And Simulations	3,894
4.	Two And Three Dimensional Dose Distributions	619
5.	Compensators	447
6.	Shielding Blocks Immobilization Devices And Orifits	2,168
7.	Radiation Review Clinic	1,667
8.	Planning C.T.	1,975
	Total	77,397

Radiodiagnosis

C.T. Scan	7,448
Ultrasound	7,045
Mammography	2,086
X-Rays (Routine)	17,430
Doppler	296
Ultrasound and CT guided interventions	1,807
Fluroscopy Investigations and guided interventions	765
Intervention Mammography	28
Total	36,905

Onco-Anaesthesia and Palliative Medicine

1. Started 'Pain Policy' at IRCH, AIIMS. The aim of the policy is; IRCH is committed to treat pain of all registered patients
2. Indian Association of Palliative Care's Certificate Course in Palliative Care Unit of Anesthesiology, Dr BRA, IRCH is Nodal Center for conducting Indian Association of Palliative Care's Certificate Course in Palliative Care twice in a year
3. Research on psychosocial and spiritual aspect of pain in Cancer patients
4. International collaborative research started in area of Pain and Palliative Care

Laboratory Oncology

S. No.	Investigation	Number
1.	Haemogram	51,137
2.	Bone Marrow	4,373
3.	Peripheral blood smear	8,012
4.	Serum Protein Electrophoresis	4,213
5.	Urine Electrophoresis	1,800
6.	Immunofixation	2,782
7.	Serum Free Light Chain	3,886
8.	ESR	573
9.	Cytochemistry	1,163
10.	Cytospin	1,147
11.	Flowcytometry	34,324
12.	Molecular Studies	4,416
13.	Beta 2 microglobulin	462
14.	Tumor Marker	3,366
15.	HPV DNA Test	1,397
16.	Guided Cytopathology	610

Surgical Oncology

Total no. of minor operations and endoscopic procedures performed: 10,477

Total no. of major cancer operations performed: 1,592

- Overall Bed Occupancy: 100%
- Operative Mortality: 0.7%
- Re-operation rate: 1.5%
- Re-admission rate: 0.5%
- Perioperative morbidity (CD Grades III and IV): 5%

Other salient initiatives

NCI—AIIMS—The department of Surgical Oncology has actively contributed for planning, procurement and commissioning of Surgical Oncology services at NCI Jhajjar. Oncology OPD services started in February 2019.

Organized: (i) Interactive Meeting of Breast Cancer Survivors and Clinicians in collaboration with ‘Cancer Sahyog’ and (ii) Workshop on ‘Role of Physiotherapy in Rehabilitation of Breast Cancer patients’ along with Physiotherapy division of AIIMS.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Onco-Anaesthesia and Palliative Medicine

Professor Sushma Bhatnagar is President of Indian Association of Palliative Care; Member of Scientific Committee of World Congress on Pain to be held at Amsterdam in August 2020; Scientific Committee of World Congress on Pain to be held at Boston during 12-16 September 2018; Member of Implementation Group—Lancet Commission Global Access to Pain Control and Palliative Care, 2018; Recipient of 2018 International Innovation Grant (Project ID 12554) from Conquer Cancer Foundation by American Society of Clinical Oncology; Is ‘Council member’ International Association of Study of Pain (IASP) Council for a period of six years till 2023; ‘Chief Editor’ of Indian Journal of Palliative Care since 2009; Is appointed as Board of Directors of International Association of Hospice and Palliative Care (IAHPC) in 2014 for three years; ‘Deputy Team leader’ of Training-of-Trainers in Palliative Care Programme by Asia Pacific Hospice Palliative Care Network, 2012-2018; Appointed as ‘Master mentor’ of Palliative Care Programme in India; Is Reviewer of articles for Lancet Oncology and British Journal of Anaesthesia; Expert in Selection Committee for recruitment against faculty posts in AIIMS, Raipur; Nominated as subject expert in selection committee for recruitment against faculty posts in AIIMS, 4 January 2019, Raipur; For evaluation to extend the Palliative Care Programme for Cancer Treatment Centres in India, Palliative Care Training Programme for Cancer Treatment Centre in India (Evaluation) Kasturba Medical College, 24 October 2018, Manipal.

Dr Rakesh Garg received ISA Bhopal Award 2018 for Academic Excellence Dr Rakesh Garg, Award conferred by Indian Society of Anaesthesiologists; Dr Y.G. Bhoj Raj Award 2018—Best Review Article in IJA, Award conferred by Indian Society of Anaesthesiologists; Editorial Board Member of the Journal “AIRWAY”: Official publication of the All India Difficult Airway Association; Is Associate Editor for Indian Journal of Anaesthesia; Journal of Anesthesiology and Clinical Pharmacology; Journal of Medical Case Reports which are Pubmed indexed peer reviewed journals.

Dr Nishkarsh Gupta: The correlation of multivariate risk index with airway management choices in head and neck cancer patients: A retrospective analysis received second best prize for presentation in SOAPCC at TMH 2018; Comparative evaluation of forced air warming and infusion of amino Acid enriched solution on intraoperative hypothermia in patients undergoing major oncological surgeries under general anaesthesia: A prospective randomized study (received second prize in innovation at RSACPCON 2018); Reviewer of IJA, BMJ open, JOAPC, Iranian Journal of Paediatrics, Indian Journal of Cancer; Editorial board member of Medical Journal of Dr DY Patil Vidyapeeth; Chaired a session on Lung Cancer Symposium, AIIMS PULMOCRIT, 1-3 March 2019, AIIMS, Delhi

Delhi Cancer Registry

Dr Rajeev Kumar Malhotra received Dr Abhaya Indrayan Award for recognition of paper title “Receiver Operating Characteristic (ROC) Curve for Medical Research” received at Annual conference of National Academy of Medical Sciences organised at Mahatma Gandhi Medical College and Research Institute, Pondicherry on 26-28 October 2018.

Laboratory Oncology

Professor Ritu Gupta received AIIMS Research Excellence Award 2019.

Dr Sanjeev Kumar Gupta was recipient of AIIMS Oncology Research Award 2019—Second Prize for outstanding publication (Clinical Research) titled, “Molecular genetic profile in BCR-ABL1 negative pediatric B-cell acute lymphoblastic leukemia can further refine outcome prediction in addition to that by end-induction minimal residual disease detection”, at AIIMS, New Delhi on 26 March 2019; Best Reviewer Award—Indian Journal of Hematology and Blood Transfusion at the 59th Annual Conference of Indian Society of Haematology and Blood Transfusion, 25-28 October 2018, at Kochi, Kerala; Award in Hindi essay-competition at AIIMS, New Delhi, September 2018; Was Judge for Poster session at 29th Annual DSH conference, 23 September 2018, at UCMS, Delhi; Chairperson in TCS conference “Case presentation session”, 11th Annual The Cytometry Society Meeting, 29 October-1 November 2018, at AIIMS, New Delhi; Chairperson in TCS workshop- “CLPD session”, 11th Annual The Cytometry Society Meeting and Workshops, 29 October-1 November 2018, at AIIMS, New Delhi; Chairperson for a session on “T cell lymphoma”, International CME on Lymphoma, 6-7 March 2019, at AIIMS, New Delhi.

Dr Anita Chopra received membership of National Academy of Medical Science, 2018 as an acknowledgement of achievements in the profession and DBT Wellcome Trust India alliance intermediate career fellowship for clinicians.

Dr Pranay Tanwar was invited as external examiner of Master of Philosophy at The University of Newcastle, Australia. Received travel Grant from SERB, DST and Local hospitality from organizers to attend SOHO-2018, 12-15 September 2018 at Houston, Texas, USA; AIIMS, New Delhi Travel Grant to Attend Annual Meeting of Australasian Cytometry Society 21-24 October 2018 at Adelaide, Australia. He was Chairperson in Lung Cancer update in Session-1, 9 to 10 am, 12-13 May 2018, at AIIMS, New Delhi; Chairperson for a session on “T cell lymphoma”, International CME on Lymphoma, 6-7 March 2019, at AIIMS, New Delhi; Chairperson for National Conference on Frontiers in Health Sciences (NCFHS-2019) is scheduled to be held on 11-12 March 2019 at the Institute of Medical Sciences, Banaras Hindu University (BHU), Varanasi. He is reviewer of various extramural projects at SERB, DST under the category of Early Career Research and IMPRINT Grant.

Medical Oncology

Professor Lalit Kumar is member Editorial Board, Indian Journal of Medical Research (IJMR), (July 2018); Delivered ‘S. Krishna Murthi Memorial Oration’ on 15 September 2018 at the Cachar Cancer Hospital and Research Centre, Silchar, Assam; Is Council Member, Indian Science Academy, Bangalore and members of various expert committee—Screening Committee of the cancer consortium R&D programme (DBT) meeting held on 11-12 June 2018, at New Delhi; Member of the Institutional Committee for Stem Cell Research (IC-SCR) for University of Delhi-South Campus (2018 onwards); Member Technical Expert Committee for NPCDCS by Government of India; Members, DSMB (Data Safety Monitoring Board) on qHPV Vaccination study by Serum Institute, Pune (2018-2019); Scientific Advisory Group for the division of Non Communicable Diseases (NCD), Indian Council of Medical Research (2019 onwards); Is DM (Medical Oncology) Examiner (14 August 2018) at Sher-i-Kashmir Institute of Medical Sciences Sri Nagar; Is organizing Secretary “New Frontiers in Oncology” meeting- on 30 November 2018 at AIIMS, New Delhi (Sponsored by Sun Pharma Science Foundation, New Delhi).

Professor Atul Sharma organized an international meeting “Hematology Update Year in Review 2018”, on 15-16 February 2019 at New Delhi; Chair the session—Impact of Next-Generation Sequencing (NGS) on Treatment Selection in Acute Myeloid Leukemia (AML) at ISCO (Indian Society of Clinical Oncology); Organized a meeting on Metastatic Colorectal Cancer in Delhi; Chairperson, Trans Oral Surgical Alternatives in Head and Neck Cancer at TOUSS IN HEAD and NECK CANCER; Chaired Session, Transforming Care and Maximizing response in the Management of Advance Breast Cancer at ABISCON 2018; Chaired Session, 4th Edition of Year in Review in Breast Cancer Conference at Tata Memorial Hospital and Nag Foundation; Chaired Session, Adjuvant treatment and literature update at Evidence Based management of Cancers in India EBM 2019; Organized a Guest Lecture by Dr Eric Van Cutsem at I.R.C.H. AIIMS, New Delhi.

Professor Sameer Bakhshi received AIIMS Excellence Research Award-2018 for outstanding published research work during the year 2017-2018; Was awarded fellowship of National Academy of Sciences (NASI) 2018.

Dr Ranjit Kumar Sahoo received ASH-VTP (Visitor Training Programme) award in 2018; IACA Fellowship in 2019; Observership in Leukemia Department at MDACC, Houston, Texas, September 2018.

Dr Chandra Prakash Prasad is working group committee member of HTA on 'Breast Cancer Screening' organized by Ministry of Health and Family Welfare, Government of India at NHRC, New Delhi organized on 3 May 2018; European Association for Cancer Research (EACR) Ambassador from June 2018-till date; Panelist for Best of ASCO Abstracts on Breast Cancer Metastasis at Best of ASCO Meeting on 28 July 2018; Organized workshop for 'Automated Nucleic Acid Extraction System for ctDNA-by Promega' on 14 August 2018; Was external expert for Practical Exam/Viva voice for Animal Tissue Culture (BT355) on 18 December 2018 at Department of Biotechnology at Guru Gobind Singh Indraprastha University, New Delhi; Was Chairperson for CML Session at 'Hematology Update Year In Review 2019' on 15 February 2019.

Dr Thoudam Debraj Singh was awarded "Reviewer of the Year Award 2018-19" by Biomedical and Pharmacological Journal; Was Chairperson for Non-Hodgkin Lymphoma session at 'Hematology Update Year in Review 2019' on 15 February 2019.

Dr Mayank Singh organized workshop for 'Automated Nucleic Acid Extraction System for ctDNA-by Promega' on 14 August 2018, Delhi; Was Chairperson for multiple myeloma session at 'Hematology Update Year in Review 2019' on 15 February 2019.

Medical Physics

Professor Pratik Kumar elected as Vice-President of Association of Medical Physicists of India (AMPI); Was nominated by DST as member, Facility Management Committee for the Sophisticated Analytical Instrument Facility (SAIF) at AIIMS, Delhi; Got invited by Biotechnology Industry Research Assistance Council (BIRAC), DBT for evaluating the projects under Social Innovation Programmes for Products Affordable and Relevant to Societal Health (SPARSH); By ICMR to attend meeting of Innovation and Translational Research (ITR) Division to review concept proposals for funding; By BIRAC and Ministry of Electronics and Information Technology (MeitY) to review projects funded under Industry Innovation Programme on Medical Electronics (IIPME); By BIRAC to Expert Selection Committee Meeting for final selection of applications for Biotechnology Ignition Grant (BIG); Member, sub-committee of 115th Technical Expert Committee (TEC) on Medical Devices and Diagnostics, BIRAC; Member, 2nd Scientific Advisory Group for Medical Devices and Diagnostics under National Biopharma Mission, BIRAC; Member, TEC, SPARSH, BIRAC; Was referee for the manuscripts submitted to Thermochemica Acta (Elsevier), Indian J Radiol Imag, J Luminescence, Applied Radiation and Isotopes and J Med Physics; Question Setter for Bachelor of Radiotherapy / Radiology Technology at AMU Aligarh, KGMU Lucknow, PGIMER, Chandigarh, IGIMS Patna and MSc Med. Tech Radiodiagnosis at PGIMER Chandigarh; Was panelist for the theme "Benefits versus risk in radiological examinations", 39th Annual Conference of Association of Medical Physicists of India, AMPICON-2018, Chennai, 2-4 November 2018; Chaired a session at 5th National Conference of Indian Society of Radiographers and Technologists, KGMU, Lucknow, 27-28 October 2018; At 6th World Congress on Nanomedical Sciences and Chemistry Biology Interface Synergistic in New Frontiers, 7-9 January 2019, Vigyan Bhawan, New Delhi; Chaired meetings of Exposure Investigation Committee for Radiation Facilities of Northern Region (EIC-NR) at Northern Regional Regulatory Centre (NRRC), AERB, New Delhi; Was editor, Medical Physics Gazette, newsletter of Association of Medical Physicists of India (AMPI); Member, Editorial Board, Journal of Medical Physics; Member Electro-medical Equipment Sectional Committee, Bureau of Indian Standards (BIS), New Delhi.

Radiodiagnosis

Dr Mukesh Kumar Yadav was reappointed as treasurer for Society for Emergency Radiology India for 2019-2020.

Radiation Oncology

Professor GK Rath delivered Dhanvantri Oration of Mahatma Gandhi University of medical sciences and technology, Jaipur on 12 May 2018; Was chairman of search committee for appointing a new director for Regional Cancer Centre, Thiruvananthapuram; Is member of delegation to London to visit Guys Cancer Center and its satellite unit at SIDCUP from 29 to 31 July 2018; Was invited for the ground breaking ceremony of cancer care facilities as part of the cancer control programme in partnership with Govt of Assam on 18 June 2018; Invited for the meeting for cancer care with Hon'ble Chief Minister of Andhra Pradesh at Amravati on 21 April 2018; Participated in the NCI India-IBSD Joint cancer research initiative at Imphal from 16-17 April 2018; Was honoured as Guest of Honour on flag off ceremony for cancer awareness expedition from Berhampur to Pune covering 513 districts, 5 states, 1,481 km with special focus on Hausla Cancer Awareness Campaign on 2 December 2018; Participated in the site visit for the deployment of 6 MeV LINAC under Jai Vigyan II Programme from 26 to 27 April at Silchar and Head and Neck Cancer Training Programme at Dr B Baruah Cancer Hospital Guwahati on 1 September 2018, organised by the National Health Mission, Assam; Is the Chairman of committee to oversee the technology transfer process of Dual energy medical LINAC being developed by SAMEER, Mumbai; PRSG

for the project Development of low cost automated screening system for cervical cancer (Cervi SCAN-II) implemented by CDAC, Thiruvananthapuram; Scientific Advisory Committee (SAC) of National Centre for Disease Informatics and Research (NCDIR), Indian Council of Medical Research, Bangalore; National steering committee for the project entitled 'Research and development of high energy electron linear accelerator technology for medical and other applications' being implemented by SAMEER, Mumbai and INMAS, DRDO, New Delhi; Is a member of expert Committees/ Bodies of the External Expert for developing tender specification of 4DCT Simulator along with its accessories at RMLIMS, Lucknow; Atomic Energy Regulatory Board (AERB), Government of India; Member of Research area Panel on cancer of National Centre for Disease Informatics and Research (NCDIR), Indian Council of Medical Research, Bangalore; Expert for the Faculty selection (Radiotherapy) at KGMU, Lucknow on 16 July 2018; Member of Standing Selection Committee for Department of Radiotherapy, IGIMS, Patna on 14 July 2018; Member Governing Body of AIPH University, Bhubaneswar, AIIMS, Bhopal, Super Speciality Cancer Institute and Hospital, Lucknow, Acharya Tulsi Regional Cancer Center, Bikaner, Acharya Harihara Regional Cancer Center, Cuttack and Regional Cancer Center, Agartala, and Regional Cancer center, Allahabad; Expert for technical evaluation of brachytherapy units at NEIGRIMS, Shillong on 23 June 2018; Expert group committee member for reviewing the content of online screening modules/course being developed by National Cancer Institute under National Institute of Health of US Department of Health and Human Services; Member of Standing Academic and Research Council (SARC) of CNCI, Kolkata; took part in programme in DD News on Ayushman Bharat on 14 October 2018

Professor DN Sharma was awarded the Certificate of Outstanding Contribution in Reviewing by the European Society of Radiotherapy and Oncology, The Netherlands.

Professor Sushmita Pathy was chairperson for session in 7th Annual Conference and Workshop Association of Breast Surgeons of India (ABSICON2018), 9-11 November 2018 at New Delhi; Expert for Interview of faculty post for ILBS on 18 December, 2018 at New Delhi; Chairperson for session in International Conference of Indian Association of Palliative Care, IAPCON-2019, 8-10 February 2019 at Kochi, Kerala; Chairperson and Member Core Group Clinical Trial and Study Portfolio Planning, at 1st Annual Meeting of Kolkata Gynecological Oncology Trial and Translation Research Group, 2-4 March 2019 at Kolkata; Is reviewer of abstracts International Conference of Indian Association of Palliative Care, IAPCON-2019 at Kochi, Kerala, February 2019 and reviewer in various scientific journals; Speaker in Public lecture on Childhood Cancer is Curable, J.L.N Auditorium February, 2019

Dr Subhash Gupta was chairperson for session on SBRT Lung at RGCON February 2019, Delhi; Best of ASTRO, 5-6 May 2018, Delhi, lung cancer at Lung Cancer Update—An AIIMS NCI initiative, 12-13 May 2018, Delhi; Was chairperson for two session Lung at RGCONe of Indian Associ 2018, Delhi; Was Judge for Best Paper Award Session at NZAROICON, 15-16 September, Chandigarh; Best Paper Award Session at RAJAROICON, Bikaner, Rajasthan on 18-19 August 2018; Associated with the cancer screening activities of ICPO, Noida; Actively involved in medical camps organized by Ashoka mission to attend cancer patients

Dr Haresh KP was chairperson for session at Lung Cancer Update 2018—An AIIMS NCI initiative on 12 May 2018 at New Delhi; Lung Track session at the Best of ASTRO on 6 May 2018 at New Delhi; Advances in adjuvant therapyst of ASTRO on 6 May 2018 at New Delhi initiative; Is member of Project Review Committee in Oncology at ICMR, New Delhi, Project Review Committee of Research Methodology Cell at ICMR, New Delhi, Tobacco Free Education Institute Committee at AIIMS, New Delhi, Committee for DPC of Radiology Technologists at AIIMS, New Delhi, Committee for DPC of Radiotherapy Technologists at AIIMS, New Delhi on 3 October 2018; Is Examiner for Final DNB Radiotherapy Practical examination at R&R Hospital, New Delhi, 9-11 May 2018; Associated with the cancer screening activities of ICPO, Noida; Actively involved in medical camps organized by Ashoka mission at Leh, 23-30 September 2018 to attend cancer patients

Surgical Oncology

Professor SVS Deo delivered the CVK Rao Memorial Oration, APASICON, Cudapha, 24-25 August 2018; "Surgical oncology Past, Present and Future; delivered the Arun Benerjee Memorial Oration, Golden Jubilee Celebrations, IPGMER, Kolkota "Computerized database Development in oncology; Was invited to deliver a Grand Round Talk by visiting International faculty at University Hospital North Midlands, UK, 24 March 2019, "Cancer Tsunami in India-Facts and Figures"; Was elected as Treasurer, Breast Surgery International, Switzerland; President "Indian Society of Peritoneal Surface Malignancies"; treasurer "Association of Breast Surgeons of India"; Vice President "NCR oncology forum".

Dr Sunil Kumar delivered "9th Dr T N Bajpai Memorial Oration", Fatehpur (U.P.), 8 June 2018.

Dr MD Ray was awarded FRCS from Glasgow in 2018.

10.4. Dr Rajendra Prasad Centre for Ophthalmic Sciences

Chief and Professor

Atul Kumar

Professors

Pradeep Sharma	Ramanjit Sihota	Gita Satpathy (Ocular Microbiology)
JS Titiyal	Radhika Tandon	SK Khokhar
Shakti Kumar Gupta (Medical Superintendent)	Mahesh Chandra	Dilip R Shende (Ocular Anaesthesia)
Mandeep Singh Bajaj	Rajpal Vohra	Seema Sen (Ocular Pathology)
Sanjay Sharma (Radiodiagnosis)	Seema Kashyap (Ocular Pathology)	Namrata Sharma
Tanuj Dada	Pradeep Venkatesh	Neelam Pushker
T Velpandian (Ocular Pharmacology)	Praveen Vashist (Community Ophthalmology)	Jasbir Kaur (Ocular Biochemistry)
Rohit Saxena	Viney Gupta	Renu Sinha (Ocular Anaesthesia)
Tushar Agarwal	M Vanathi	Rajesh Sinha
	Bhavna Chawla (On leave)	

Additional Professors

Parijat Chandra

Associate Professors

Senjam Suraj Singh (Community Ophthalmology)	Alok Kumar Ravi (Ocular Biochemistry)	Nabanita Halder (Ocular Pharmacology)
---	--	--

Assistant Professors

Noopur Gupta	Rachna Meel	Vinod Kumar
Rohan Chawla	Swati Phuljhele	Vivek Gupta (Community Ophthalmology)
Nishat Hussain Ahmed (Ocular Microbiology)	Shikha Gupta	Neiwete Lomi
Dewang Angmo	Prafulla Maharana	Shorya Vardhan Azad
Neelima	Kanil Ranjith Kumar (Ocular Anaesthesia)	Arshad Ayub (Ocular Anaesthesia)

HIGHLIGHTS

Dr Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS, the Apex Centre for Ophthalmic Care in the country, is recognized as a premier super-specialty institute with state-of-the-art equipment and world class facilities for patient care, teaching and research. Some of the key highlights of Dr RP Centre include:

- WHO Collaborating Centre for Prevention of Blindness
- Largest Postgraduate Teaching Programme in the world with over 100 PG residents and over 50 senior residents being trained at any time

- Plays a major role in planning and policy development of eye care activities under the National Programme for Control of Blindness and Visual Impairment, Ministry of Health and Family Welfare, India. The Chief, RP Centre is Advisor to the Ministry for the programme
- Conducted 22 scientific workshops on sub-specialties of Ophthalmology which including live interactive surgical sessions and individualized wetlab sessions with hands on training
- **Retina and Uvea Services:** Apex referral centre for the management of various sight threatening vitreo-retinal disorders. Published several research papers last year including the proposed classification system for retinal capillary angiomas and novel intraoperative optical coherence tomography feature predicting macular hole closure. Ongoing stem cell research on degenerative retinal disorders aims to provide hope to the blind in future. The first institute in the entire Asia-Pacific region to acquire 3D heads up display technology, the NGENUITY 3D Visualization System, providing state of the art digitally assisted vitreoretinal surgeries
- **Glaucoma Services:** Initiated the National Training Programme for Upgrading Glaucoma Training in the country in collaboration with National Programme for Control of Blindness. Research at the centre has found that meditation reduces stress to provide better control of intraocular pressure and can be used as an adjuvant with topical medications
- **Cornea, Cataract and Refractive Services:** Published path-breaking research papers including use of collagen cross-linking–treated donor corneas to prevent the recurrence of infection in fungal keratitis. Innovative techniques such as implantation of specialized intraocular lenses for improved visual outcomes for patients with dry AMD have been initiated. Working on genetic research in corneal dystrophies. Bioengineering on artificial cornea research is going on. Developed treatment protocol for Graft Versus Host Disease (GVHD) in eye and assisted in ICMR in preparation of Standard Treatment Workflows in Ophthalmology
- **Strabismus and Paediatric Ophthalmology:** Highly specialized surgeries namely complex strabismus procedures, orbitotomies, cosmetic oculoplasty, grafting procedures (fascia-lata), congenital abnormalities repair etc are performed. Research on newer surgical techniques in the field of ptosis, eyelid and contracted reconstruction, retinoblastoma, strabismus and neuroophthalmology is ongoing
- **Oculoplasty:** RP Centre has setup of plaque brachytherapy for intraocular tumors with good control rate. Several complex eyelid, orbital and lacrimal drainage system surgeries, sclerotherapy, orbital decompression and reconstructive procedures, intravitreal melphalan, perilesional interferon therapy are performed
- **Environmental Factors and Eye Health:** ICMR multicentric collaborative study on the impact of environmental changes and ultraviolet ray exposure on ocular health was initiated at RP Centre with partnership of RIO Guwahati, IIPH Hyderabad, and National Physical Laboratory (NPL)
- Under Indo US collaboration, links established with: Jules Stein Institute, Tufts University, UT Western University of Texas, Massachusetts Eye and Ear Infirmary, Harvard Medical School, NEI, NIH, Bethesda, MD, USA, Sightlife, Seattle, USA, and Cleveland Clinic, USA
- **NPCB and VI-National Blindness Survey** including nationwide Diabetic Retinopathy Survey was completed this year in 31 districts. The first ever nation-wide survey of blindness in <50 years aged population (in last 30 years) was also completed by the centre
- For elimination of Trachomatous Trichiasis in India, the centre developed training modules and conducted training of state programme officers in partnership with MOH&FW and WHO
- **Community Ophthalmology:** Primary eye care services for poor and vulnerable communities have been extended to 28 vision centres. Completed an epidemiological study on childhood blindness in Delhi with examination of 20,000 children
- **Low Vision Services with Additional Rehabilitation Services:** Were upgraded with support of Christoffel Blinden Mission. Became the first public sector centre of India to acquire desktop magnifier with audio and video
- **Visual Rehabilitation and Training Centre** was initiated which provides low vision aids, counselling, disability certificates, mobility and orientation training, activities of daily living training, tactile stimulation and for environmental and lighting modification, etc
- **Ocular Pathology:** Molecular research being done in micro-RNA, mitochondrial mutations, cell cycle regulatory proteins, p53 and cyclins, NF κ B pathways, PD-1/PD-L1 pathway, lipid metabolism, in various ocular tumours; Steven Johnson Syndrome, IOP and trabecular meshwork histopathology, and antiretinal antibodies in autoimmune retinitis
- **Ocular Pharmacology:** Practicing high sterile dispensing of injectable/topical drug formulations for RPC and other departments. Analysing bioactive compounds in surface and ground water in NCR under National Mission for Clean Ganga. Standardized Corneal Storage Media is served to 66 eye banks across 23 states of India, which has enabled more than 15,000 eye donations across the country. Newer storage media has been introduced which can preserve donor cornea for a week. Edited Pharmacology Textbook “Lippincott’s Illustrated Reviews in Pharmacology”

- **Ocular Microbiology:** Offers investigations like culture and PCR for Acanthamoeba eye and CNS infections, chlamydia antigen detection, herpes simplex virus antigen detection; PCR assays for bacteria, fungi, viruses, etc
- **Ocular Biochemistry:** Provides specific investigations like hormones, vitamin B12, etc. Scientific research areas include ocular tumors, glaucoma, angiogenesis associated retinal diseases and stem cell research both basic and translational. Department has been recognized with many awards
- **National Eye Bank:** Has collected over 31,000 corneas and conducted more than 20,000 corneal transplants. Certain milestones include 10,500 pledges in North India in a single day, 22 corneal transplantation in a single day and 21 modern corneal surgery (DSAEK) in a single day. NEB Utilization rates is >70% consistently over last 10 years. For the last consecutive 4 years >1,000 corneal transplantations have been performed annually
- **Hospital Administration, RP Centre:** Conducted studies on analysis of incidence of cases in eye casualty due to colors during Holi Festival Days and magnitude of problem of firecracker injury during Diwali Festival. To improve the interpersonal interaction, conducted training for security staff, housekeeping, hospital attendants and nursing officers with respect to soft skills and communication. As a part of Digital India Initiative numerous services, documentation and communication systems have been computerized
- Collaboration with IIT-Delhi established to improve wayfinding using non-digital and digital interventions for patients visiting hospitals

EDUCATION

- The centre provides state of the art training to the 110 postgraduate ophthalmology students and 49 students of BSc (Hons) Ophthalmic Technique
- 21 PhD students and several post-doctoral fellows are enrolled in the centre under various subspecialties and involved in advance research in eye care including community eye care
- The centre has established a National Ophthalmic Surgical Skills Development Centre (NOSSDC), the first of its kind with a high-end virtual reality simulator for intraocular surgical training for cataract and vitreo-retinal surgery. During the training hands-on skill transfer in all ophthalmic subspecialties is provided. Numerous trainees have benefitted immensely by experiencing complex interaction between instruments and intraocular structures in real time
- Continuing medical education programmes for practicing ophthalmologists under the auspices of WHO, ICMR and Ministry of Health are conducted regularly at the institute. Two District Ophthalmic Surgeons and other 9 candidates were trained for short/long term training under various ophthalmic sub-specialties at Dr RP Centre
- Under the National Blindness Survey, capacity development for various partner institutes was done for conducting blindness surveys as per standard, internationally accepted RAAB methodology at local level and for delivery of primary eye care services
- The centre trained 230 volunteers in primary eye care in urban slum clusters of Delhi
- The faculty of RP Centre, AIIMS were instrumental in teaching and training of ophthalmology postgraduate students from all over the country during the teaching programmes of All India Ophthalmological Society and Delhi Ophthalmic Society
- The Medical Superintendent and the Nursing Superintendent jointly run an In-service Education Programme. The educational activities have been conducted by the Nursing In-service Education Department include Continuous Nursing Education (CNE) on Computerization, Standard Precautions and Practices for housekeeping, sanitation and pharmacy staff, Hand Hygiene Practices, OT Etiquettes and Orientation Programmes for newly joined Nursing staff, Accreditation and Quality of care for patient safety, Sensitization of Doctors, Nurses, Housekeeping, Sanitation and Pharmacy staff in Bio Medical Waste Management, Importance of Communication and Stress Management in nursing practice, Training of nurses in CPR and BLS on regular basis at Convergence Block, Ongoing In Service Education and Training of Nursing Officers on Deceased Organ and tissue by ORBO at CMET, International Nurses Week Celebration was conducted during 7 to 18 May with theme of “A Voice to Lead—Health is A Human Right,” “Hand Hygiene Awareness” for the patient and relatives in wards and OPD etc

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop on “Writing a Research Paper”, CMET, 5-6 April 2018, AIIMS, New Delhi
2. Strabismus Workshop, Dr RP Centre for Ophthalmic Sciences, 22 July 2018, AIIMS, New Delhi
3. Workshop on Ocular Pharmacology at 25th Indian Eye Research Group (IERG-ARVO) Meeting, LVPEI, 27-29 July 2018, Hyderabad
4. RPC-Sight Life DSAEK Course, Dr RP Centre for Ophthalmic Sciences, July-August 2018, AIIMS, New Delhi
5. Indian Society of Cornea and Kerato Refractive Surgeons (ISCKRS), 3rd Annual Meet, August 2018, New Delhi

6. Research Methodology Workshop for Biomedical Research, 6-8 August 2018, ICMR, New Delhi
7. Glaucoma Workshop, Dr RP Centre for Ophthalmic Sciences, 19 August 2018, AIIMS, New Delhi
8. Retina Workshop, Dr RP Centre for Ophthalmic Sciences, 23 September 2018, AIIMS, New Delhi
9. 33rd National Eye Donation Fortnight Celebration, Dr RP Centre for Ophthalmic Sciences, AIIMS, September 2018, AIIMS, New Delhi
10. RPC ACOIN Orientation Training Programme on Research Methodology for the Ophthalmology, Community Ophthalmology, Dr RP Centre for Ophthalmic Sciences, 26-27 October 2018, AIIMS, New Delhi
11. Cornea Workshop, Dr RP Centre for Ophthalmic Sciences, October 2018, AIIMS, New Delhi
12. NPCB&VI Workshop for SPOs for Elimination of Trachoma and Sequelae by 2020, Community Ophthalmology, Dr RP Centre for Ophthalmic Sciences, 22 November 2018, AIIMS, New Delhi
13. 1st National Workshop on Strengthening Low Vision and Rehabilitation (LVR) Services, Community Ophthalmology, Dr RP Centre for Ophthalmic Sciences, 29-30 November 2018, AIIMS, New Delhi
14. Keracon 2018, 6th National Meeting, 30 November-2 December 2018, New Delhi
15. 3rd National hands-on Workshop on Advanced Bioanalytical Techniques—From Method Development to Data Interpretation, Mainly focusing on Metabolomics, Lipidomics and Proteomics, 17-19 December 2018, AIIMS, New Delhi
16. Phacoemulsification and Refractive Surgery Workshop, Dr RP Centre for Ophthalmic Sciences, January 2019, AIIMS, New Delhi
17. Indian Society of Cornea and Keratorefractive Surgeons (ISCKRS), Annual meeting of Deccan Ophthalmic Association and ISCKRS West Zone Meet, January 2019, Goa
18. Clinical Grand Round (CGR): Interdisciplinary approaches in Ophthalmic Care: Vistas from Cornea, Cataract, Refractive Surgery and Ocular Oncology Services, 15 January 2019, New Delhi
19. Phacoemulsification and Refractive Surgery Update, Dr RP Centre for Ophthalmic Sciences, 20 January 2019, AIIMS, New Delhi
20. 2nd National Workshop on Strengthening Low Vision and Rehabilitation (LVR) Services at Community Ophthalmology, Dr RP Centre for Ophthalmic Sciences, 29 January 2019, AIIMS, New Delhi
21. 52nd Annual Day Congress, 9 March 2019, New Delhi
22. Patient Education Programme on World Glaucoma Week, 11 and 15 March 2019, New Delhi

Lectures delivered

Atul Kumar

1. Guest Lecture, Worcester Eye Meet, 18 April 2018, Worcester, UK
2. Course: Optimizing Ophthalmic Residency Training in India—Running an Ideal MD/MS Residency Programme, The Dr RP Centre Way, 14th VISION 2020 India, 9 June 2018, Guwahati
3. Outer Retinal Tubules, Retina Imaging Congress, 29 and 30 June 2018, Trivandrum
4. Wide field Imaging in Retinal Practice, Retina Imaging Congress, 29 and 30 June 2018, Trivandrum
5. Ngenuity for Traumatic VR Surgery, Ocular Trauma Con 2018 Meeting, 12-15 July 2018, Chennai
6. Guest Faculty, 42nd Annual Conference of MP State Ophthalmic Society, 6 and 7 August 2018, Indore
7. Guest Faculty: Live Video and Paediatric Ophthalmology and Strabismus Symposium, Annual Conference of North Zone Ophthalmic Society in association with Chandigarh Ophthalmic Society, 6-9 September 2018, Chandigarh
8. Guest Speaker, Kantivelugu Training Programme for newly recruited ophthalmologists from Telangana, 20 September 2018, Hyderabad
9. Keynote address: Complex macular pathologies: Nuts, Bolts and Pearls and Innovative 3D Visualization in VR Surgery, CME: Retina Decoded, 30 September 2018, Ludhiana
10. Complex Macular Pathologies: Nuts, Bolts, MOSCON 2018, 27 October 2018, Aurangabad
11. Vitreo Retinal Surgery—A Video-Assisted, ROSCON 2018—Annual State Conference of Rajasthan Ophthalmological Society, 4 November 2018, Ajmer
12. Guest Speaker, 18th Annual Meeting of Uveitis Society of India—COTS CON—TB Consensus Meeting, 16 November 2018, Chandigarh
13. Restoring 3-D Vision, Haryana Ophthalmic Society, 24 November 2018, Gurgaon
14. One Role for Everyone—Heads up 3D PPV: Pro, VRSI 2018—Annual Conference of the Vitreo-Retina Society of India, 1 December 2018, Jaipur

15. Reinforced Plication: Renewed Interest, Annual Meeting SPOSI 2018, 1-2 December 2018, Baroda
16. Anti-VEGF Therapy in DME in the Management of Diabetic Retinopathy (DME) Symposium, 12th Asia-Pacific Vitreo-retina Society Congress, 14-16 December 2018, Seoul, Korea
17. Guest Faculty, iFocus 2019, 23 January 2019, Hyderabad
18. IC 50: Macular Pathologies Simplified, IC 264: DME Management—Unanswered Question, 77th AIOS Conference, 14-17 February 2019, Indore
19. Treating Persistent DME after Successful Vitrectomy? 77th AIOS Conference, 14-17 February 2019, Indore
20. Massive Sub Macular Hemorrhage, Modified Management, 77th AIOS Conference, 14-17 February 2019, Indore
21. Guest Lecture, Founder Days of Advanced Eye Centre of PDIMER, 17 March 2019, Chandigarh

Pradeep Sharma

1. Plication vs Resection, DOS—Annual Conference-2018, 7-8 April 2018, New Delhi
2. Evaluation of patient with Phoria, INAPOSS-2018, 20-21 April 2018, Semarang, Indonesia
3. PG Teaching: Strabismus Simplified in Dr Kariadi Hospital, INAPOSS-2018, 20-21 April 2018, Semarang, Indonesia
4. Post Traumatic Strabismus, INAPOSS-2018, 20-21 April 2018, Semarang, Indonesia
5. Motor Nystagmus: What Should We Do? INAPOSS-2018, 20-21 April 2018, Semarang, Indonesia
6. Principles of Managing Strabismus Resurgeries, INAPOSS-2018, 20-21 April 2018, Semarang, Indonesia
7. Newer muscle transposition procedures, INAPOSS-2018, 20-21 April 2018, Semarang, Indonesia
8. New muscle trans positioning procedures, OS-SPOSI Mid Term 2018, 19-20 May 2018, Allahabad, UP
9. Nystagmus—An overview, OS-SPOSI Mid Term 2018, 19-20 May 2018, Allahabad, UP
10. Amblyopia Management in Paediatric Cataract, OS-SPOSI Mid Term 2018, 19-20 May 2018, Allahabad, UP
11. Newer surgical procedures in Paralytic strabismus, XII International Congress, Eye Advance, 1-3 June 2018, Mumbai
12. DRS and Nystagmus, Strabismus Workshop, 22 July 2018, Dr RP Centre, New Delhi
13. Strabismus Surgery Stop before Your Chop, 4th Central Zone, ARC-AIOS, 9-11 August 2018, KGMU, Lucknow
14. Role of Imaging in Strabismus, 4th Central Zone, ARC-AIOS, 9-11 August 2018, KGMU, Lucknow
15. Management of Nystagmus, 32nd Annual Conference North Zone Ophthalmological Society, 8-9 September 2018, NZOS, Chandigarh
16. Management of DRS, 32nd Annual Conference North Zone Ophthalmological Society, 8-9 September 2018, NZOS, Chandigarh
17. New muscles transposition procedures, Strabismus-Concerns and Changing Paradigms, 23 September 2018, AIIMS, Rishikesh
18. Management of Paralytic Strabismus, Strabismus-Concerns and Changing Paradigms, 23 September 2018, AIIMS, Rishikesh
19. Emergencies in Neuro Ophthalmology, 1st Annual Conference INOS, 30 September 2018, New Delhi
20. Surgical Techniques in Strabismus, Paediatric Eye Symposium, 5-6 October 2018, TIO, Kathmandu, Nepal
21. Nystagmus Simplified, Paediatric Eye Symposium, 5-6 October 2018, TIO, Kathmandu, Nepal
22. Digital Teller Acuity in Children using Eye tracking, 122nd Annual Meeting, AAO 2018, 27-30 October 2018, Chicago, USA
23. A new technique for placation, 122nd Annual Meeting, AAO 2018, 27-30 October 2018, Chicago, USA
24. Digital teller acuity in children using eye tracking, 122nd Annual Meeting, AAO 2018, 27-30 October 2018, Chicago, USA
25. The Pursuit of Stereopsis, AIIMS Optometry Explorer, 19 January 2019, AIIMS, New Delhi
26. IS Roy Oration, 12th Annual Congress, KAO 2019, 13-14 January 2019, Kolkata
27. Sight to Stereopsis: New Goal Post, 12th Annual Congress, KAO 2019, 13-14 January 2019, Kolkata

Ramanjit Sihota

1. Oration: Preventing glaucoma blindness, Bangalore Ophthalmic Society, 24 June 2018, Bangalore
2. Group leader in a Workshop Definition of Glaucoma in the 21st Century, Glaucoma Research Society, 27 August-1 September 2018, Parma, Italy

3. Bleb revision, Glaucoma Society of India, 14-16 September 2018, Trivandrum
4. Oration—Preventing glaucoma blindness, Andhra Pradesh Ophthalmology Society, 5-7 October 2018, Nandyala, Andhra Pradesh
5. Fight the fever—How to maximize your performance in the examination, iFocus, 20-27 January 2019, Hyderabad
6. Getting Care to those who need it, Design and implementation of a national wide glaucoma care skill upgradation programme, World Glaucoma Association, 27-30 March 2019, Melbourne, Australia

Gita Satpathy: 1 (For details see 9.20 Microbiology)

JS Titiyal

1. Advancement phaco in cutting edge technology, Delhi Ophthalmological Society, 12-14 April 2019, New Delhi
2. Current trends in cataract and refractive surgery, All India Ophthalmological Society Conference, February 2019, Indore, MP
3. Cataract Session “Uttraeyecon 2018”, 14th Annual Conference of Uttarakhand Ophthalmological State Society, October 2018, Ramnagar, Uttarakhand
4. Reconstructive surgery session, Indian Society of Cornea and Keratorefractive Surgeons (ISCKRS), August 2018, New Delhi
5. Phacoemulsification with preloaded ultrasert IOL, 69th Annual Conference of Delhi Ophthalmic Society (DOS), April 2019, New Delhi
6. Contoura-guided LASIK, Keracon 2018, 30 November-2 December 2018, New Delhi
7. DSAEK surgery, Keracon 2018, 30 November-2 December, New Delhi
8. SMILE surgery, Phacoemulsification and extended range vision Symphony IOL, Indian Society of Cornea and Keratorefractive Surgeons, August 2018, New Delhi
9. Phacoemulsification in difficult situations, 77th AIOS Conference, 14-17 February 2019, Indore

Radhika Tandon

1. Lo and behold a wobbly lens complex refractive cases revisited, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 7-8 April 2018, New Delhi
2. Keratoplasty recent advances corneal dystrophy what is new, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 7-8 April 2018, New Delhi
3. Current Indian Eyebank Statistics—What EBAI has in Store Great Debates—SMILE, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 7-8 April 2018, New Delhi
4. The applications of stem cells for eye disorders the journey and the destination, Symposium on Exploring the Wonders of Stem Cell Therapy, 2 May 2018, New Delhi
5. Dry eye: What’s new and everything we need to know, DOS Academic CME, 12 May 2018, New Delhi
6. Update on newer technologies in Keratoplasty, 6th Asia Cornea Society Biennial Scientific Meeting 2018 (ACS 2018), 16-19 May 2018, Qingdao, China
7. Evolution of eye banking and its impact on corneal surgery, 6th Asia Cornea Society Biennial Scientific Meeting 2018 (ACS 2018), 16-19 May 2018, Qingdao, China
8. Moderator, Symposium 9, 6th Asia Cornea Society Biennial Scientific Meeting 2018 (ACS 2018), 16-19 May 2018, Qingdao, China
9. AEBA Breakfast Symposium: Facilitator, 6th Asia Cornea Society Biennial Scientific Meeting 2018 (ACS 2018), 16-19 May 2018, Qingdao, China
10. Guest Faculty Session: Cornea 5—Convenor, Eye Advance 2018 XIIth International Congress on Advances in Ophthalmology, 1-3 June 2018, Mumbai
11. Will modern Eye Banking and Keratoplasty eliminate corneal blindness ever? Eye Advance 2018, XIIth International Congress on Advances in Ophthalmology, 1-3 June 2018, Mumbai
12. Curing corneal blindness in children: Tips and tricks, Eye Advance 2018, XIIth International Congress on Advances in Ophthalmology, 1-3 June 2018, Mumbai
13. Decoding ocular surface disease in the elderly, Eye Advance 2018, XIIth International Congress on Advances in Ophthalmology, 1-3 June 2018, Mumbai
14. Keynote Address—Corneal Blindness, The follow up meeting of Corneal Blindness “Backlog Free” under NPCB and VI, 7 June 2018, Chandigarh

15. Hot topics, New developments and breakthrough innovations, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 15-19 June 2018, Barcelona, Spain
16. Digital 3D Visualization Technology—A paradigm shift for every ophthalmic surgery, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 15-19 June 2018, Barcelona, Spain
17. New perspectives on patho-physiology of Dry Eye Disease, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 15-19 June 2018, Barcelona, Spain
18. Advances in new drug discovery for Dry Eye Disease including RNA interferon, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 15-19 June 2018, Barcelona, Spain
19. New synergy opportunities in cataract surgery, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 15-19 June 2018, Barcelona, Spain
20. New strategies for accurately reaching targets-integrating patient selection with technology, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 15-19 June 2018, Barcelona, Spain
21. Bibliometric analysis of eye genetics research, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 15-19 June 2018, Barcelona, Spain
22. Nanotechnology, tissue bio-engineering and artificial intelligence applications in ophthalmology, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 15-19 June 2018, Barcelona, Spain
23. Stem cell transplantation current concepts and techniques, BOS Summit 2018 (Bangalore Ophthalmic Society), 23-24 June 2018, Bangalore
24. Type 1 KPRO: Panelist, OSKON 2018—Ocular Surface and Keratoprosthesis Conference, 27-29 July 2018, Chennai
25. Type 1 KPRO: Ensuring compliance in the Indian scenario, OSKON 2018—Ocular Surface and Keratoprosthesis Conference, 27-29 July 2018, Chennai
26. Round Robin: CDS, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
27. Breakout Session I: Medical Standards, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
28. Breakout Session II: Table 3, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
29. Wrap up, Where to from here—Stakeholders: Panelist, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
30. Clinical Session 1: Ocular Surface and Corneal Diseases: Keynote Address: Modern Technologies in Corneal Surgeries, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
31. Combined Session 1: Eye Banking Cornea Achievements in India and International Developments: Panelist, Co-Chairman, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
32. Introduction to the session, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
33. Eye Bank Session 2: NPCB and Vision 2020: Presenter: Eye Banking models in India, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
34. Clinical Session 8: Challenging Situations: Presenter: 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
35. Optimizing results in Paediatric Keratoplasty Combined Session 4: Aap Ki Adalat: Judge, 10th National Conference on Cornea and Eye Banking—Annual Convention of EBAI, 7 and 9 September 2018, Pune
36. Disappearing in the desert sands, rescue efforts redefined, Delhi Film Festival 2018, 20 October 2018, New Delhi
37. Guest faculty, Workshop on Physical and Mental Disabilities in the Light of Global Best Practices in Care, Rehabilitation and Research, 23 October 2018, New Delhi
38. Genetics, Keratoconus CME on the occasion of World Keratoconus Day, 1 November 2018, Noida
39. Surgical management, Keratoconus CME on the occasion of World Keratoconus Day, 1 November 2018, Noida
40. Eye donation promotion session, “Healthy Lifestyle and Well being”, A 21st Century Paradigm, 17 and 18 November 2018, New Delhi

41. Launch of MIRACLE DREAM programme on cornea donation in India, “Healthy Lifestyle and Well being” A 21st Century Paradigm, 17 and 18 November 2018, New Delhi
42. Live Surgery Transmission from Guru Nanak Eye Centre: Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
43. DSEK: Panel Discussion (17 November 2018 at 10:00-10:30), Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
44. Cataract Surgery and Secondary IOL Implantation: Surgeon (17 November 2018 at 10:30-11:30), Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
45. SSTC: Convenors, Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
46. Difficult Situation in Cataract: Topic: Cataract after PK, Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
47. SSTC: Convenors (18 November 2018), Winter Conference of Delhi Ophthalmological Society (DOS), 17 and 18 November 2018, New Delhi
48. Recent advances in corneal surgery, Ophthalmic Rainbow “HOS Annual Conference 2018” hosted by Gurugram Ophthalmological Society, 24 and 25 November 2018, Gurugram
49. Cornea harvesting and banking, Scientific Session on “Universal Guidelines for Evaluation and Optimization of Organ in a Donor”, 28 November 2018, New Delhi
50. Ocular surface update on recent developments, KERACON 2018—6th National Meeting of Cornea Society of India, 1 and 2 December 2018, New Delhi
51. New technologies in corneal surgery, Talk for the residents and faculty of PGIMER and Dr RML Hospital, 4 December 2018, New Delhi
52. Understand and define various types of Eye injuries due to prolonged occupational exposure, Train the Trainers Programme on Occupational and Environmental Health for Medical Officers, 4 December 2018, New Delhi
53. Eye Banking in India, Keratoplasty Conference cum Workshop “The Ray of Light”, 15 December 2018, Lucknow
54. Practical Pearls in Keratoplasty, Keratoplasty Conference cum Workshop “The Ray of Light”, 15 December 2018, Lucknow
55. Way forward to research protocol, A National level educational conference—The AIIMS Optometry Explorer, 19-20 January 2019, New Delhi
56. Eye banking and corneal preservation techniques, iFocus 2019, 21 January 2019, Hyderabad
57. Co-Chaired and Speaker: Current concepts and clinical management of low vision and blindness, 2nd National Workshop: Strengthening Low Vision and Rehabilitation Services, 29 January 2019, New Delhi
58. Low Vision and Rehabilitation Services: Current Concepts and Advancements, 2nd National Workshop: Strengthening Low Vision and Rehabilitation Services National Research and Training Centre for Low Vision and Rehabilitation Services, 29 January 2019, New Delhi
59. How to read corneal Topography and case-based discussion, 11th DOS Teaching Programme, 2-3 February 2019, New Delhi
60. Cost-Effectiveness analysis of DSAEK versus PK in patients with Corneal Endothelial Dysfunction—Co-Author, 77th AIOS Conference, 13-16 February 2019, Indore
61. Visual quality and quality of life following sutured versus glued anterior lamellar keratoplasty—Co-Author, 77th AIOS Conference, 13-16 February 2019, Indore
62. Evaluation of Barrett’s Universal II Formula in Indian Eyes—Co-Author, 77th AIOS Conference, 13-16 February 2019, Indore
63. IC578: OSD—Confusions, Concerns and Changing Paradigms—Chief Instructor and Co-Instructor, 77th AIOS Conference, 13-16 February 2019, Indore
64. Hyperosmolarity and Osmoprotection—Myth or Reality? Speaker, 77th AIOS Conference, 13-16 February 2019, Indore

SK Khokhar

1. SMILE-Everything you wanted to know, Academic CME “VISICON 2018”—Advances in Cornea and Refractive Surgery: An Update, 12 May 2018, New Delhi
2. Invited as Faculty, 4th Midterm Conference of Strabismus and Paediatric Ophthalmological Society of India (SPOSI) and 1st Annual Conference of Allahabad Ophthalmological Society, 19-20 May 2018, Allahabad, UP

3. Invited as Speaker, 14th SAARC Academy of Ophthalmology Conference, 21-23 June 2018, Kathmandu, Nepal
4. Paediatric subluxated lenses and management, XIIth International Congress on Advances in Ophthalmology “Eye advance 2018”, 1-3 June 2018, Mumbai
5. Paediatric Cataract, Annual Conference of Bombay Ophthalmologists Association BOA FOCUS-2018, 24-26 August 2018, Mumbai
6. Refractive outcomes of cataract surgery in operated primary congenital glaucoma, World Society of Paediatric Ophthalmology and Strabismus, 21 September 2018, Vienna, Austria
7. Comparative evaluation of intraoperative wave front aberrometry versus conventional IOL power calculation in pediatric eyes, 122nd meeting of the American Academy of Ophthalmology (AAO), 26-30 October 2018, Chicago, USA
8. Surgical approach to persistent fetal vasculature, 122nd meeting of the American Academy of Ophthalmology (AAO), 26-30 October 2018, Chicago, USA
9. Refractive Surgery, DOSCON18—Delhi, 17-18 November 2018, New Delhi
10. Keynote address: ICL surgery simplified, DOSCON18—Delhi, 17-18 November 2018, New Delhi
11. Guest Faculty, “Binodulous 18 Vadodara” Annual Conference of Strabismus and Paediatric Ophthalmological Society of India (SPOSI), 1-2 December 2018, Vadodara, Gujarat
12. Decision making in selection of refractive surgery, 11th DOS Teaching Programme, 2-3 February 2019, New Delhi
13. Paediatric Cataract, SPOSI Symposium, 77th AIOS Conference, 14-17 February 2019, Indore
14. IC on SMILE, SPOSI Symposium, 77th AIOS Conference, 14-17 February 2019, Indore
15. Video based teaching of cataract surgical difficulties including the management of complications, The Midland Ophthalmological Society Medical Education Department, 29 March-2 April 2019, Worcester Rugby Club, Sixways Stadium, Worcester, UK
16. Guest Speaker, Jaipur Ophthalmological Society (JOS), 24 March, Jaipur

Shakti Kumar Gupta: 5 (For details see 9.17 Hospital Administration)

Dilip R Shende: 6 (For details see 9.1 Anaesthesiology)

MS Bajaj

1. Innovations in Ptosis Surgery, SAARC Academy of Ophthalmology, 21-24 June 2018, Kathmandu, Nepal
2. Step by Step Approach to Ptosis, 3rd Island Ophthalmological Society, 20-23 December 2018, Port Blair

Rajpal Vohra

1. Anti-VEGF in ROP Retinal Lasers, Retina Workshop, 23 September 2018, New Delhi
2. Poster presentation, 122nd AAO Conference, 27-30 October 2018, Chicago
3. Vascular retina diseases, lecture, 5 January 2019, New Delhi
4. Ocular trauma meeting, 77th AIOS Conference, 14-17 February 2019, Indore

Seema Sen

1. Pathology of Retinoblastoma, Workshop in Paediatric Oncology, 17 March 2018, New Delhi
2. Pathology of intraocular tumours, OPAI Conference, 28-30 September 2018, Jaipur
3. Uveal Melanoma: An update, The Cutting edge of Pathology-2, 21-22 December 2018, New Delhi
4. Cases from ophthalmic pathology, The Cutting edge of Pathology-2, 21-22 December 2018, New Delhi
5. Pathology of Eyelid Tumors, Oculoplasty and oncology workshop, 2 December 2018, New Delhi

Sanjay Sharma: 3 (For details see 9.36 Radiodiagnosis)

Seema Kashyap

1. Pathology of Retinoblastoma, Workshop in Paediatric Oncology, 17 March 2018, New Delhi
2. Pathology of intraocular tumours, OPAI Conference, 28-30 September 2018, Jaipur
3. Uveal Melanoma: An update, The Cutting edge of Pathology-2, 21-22 December 2018

Namrata Sharma

1. Managing Preexisting and Postoperative Corneal and Ocular Surface Disorders During Phacoemulsification: Instruction Course, The Annual Meeting of ASCRS 2018, 13-17 April 2018, Washington DC, USA
2. Simple Limbal Epithelial Transplantation: SLET, The Annual Meeting of ASCRS 2018, 13-17 April 2018, Washington DC, USA
3. Women in leadership role, The SAARC Academy of Ophthalmology (SAO 2018) Conference organized by SAARC Academy of Ophthalmology, 21-24 June 2018, Kathmandu, Nepal
4. Presented Keynote on the topic “Phaco in Corneal haze”, The SAARC Academy of Ophthalmology (SAO 2018) Conference organized by SAARC Academy of Ophthalmology, 21-24 June 2018, Kathmandu, Nepal
5. Co-Instructed on topic Severe Chemical Injury and Descemet Membrane Detachments, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 16-19 June 2018, Barcelona, Spain
6. Phacoemulsification in Ocular Surface Disease, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 16-19 June 2018, Barcelona, Spain
7. Modified Technique of Phacoemulsification in Cases of Cataract with Corneal Opacities, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 16-19 June 2018, Barcelona, Spain
8. Different types and complications of SLET and their management, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 16-19 June 2018, Barcelona, Spain
9. Phacoemulsification in Corneal Opacities, 36th World Ophthalmology Congress of the International Council of Ophthalmology (WOC 2018), 16-19 June 2018, Barcelona, Spain
10. Intraoperative Oct Guided Anterior Segment Surgeries, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
11. Convened the session on “CORNEA CORNER”, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
12. Co-Convened the session on “live surgical session: Telecast from Dr Agarwal’s eye hospital”, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
13. Severe Fungal Keratitis with Very deep and large Infiltrate with Hypopyon-Intrastromal Anti-fungal therapy, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
14. DSAEK and DMEK problems and solutions, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
15. Vice captain of the confident capsules-Appasamy team in the session “Ophthalmic Premier League- 20/20”, The Indian Intraocular Implant and Refractive Surgery Convention 2018 organized by Intraocular Implant and Refractive Society (IIRSI), 7-8 July 2018, Chennai
16. Layer by Layer Keratoplasty, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad
17. Cog in the Machine Intraoperative OCT guided Lamellar Keratoplasty, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad
18. Vivinex IOL’s, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad
19. Toric IOL planning, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad
20. Cornea Symposium, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad
21. I-OCT guided DALK, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad
22. Management of acute chemical injuries, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad
23. Cataract surgery in cloudy corneas, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad
24. Complications in Phakic IOLs/ICLs, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad
25. Complications of LASIK, The 4th Annual Conference of Telangana Ophthalmological Society 2018 organized by Telangana Ophthalmological Society, 13-15 July 2018, Hyderabad

26. One of the Panellist at the session “Acute SJS”, The 3rd Meeting of Ocular Surface and Keratoprosthetics, OSKON 2018 organized by Sankar Nethralaya, 27-29 July 2018, Chennai
27. Acute SJS Management, The 3rd Meeting of Ocular Surface and Keratoprosthetics, OSKON 2018 organized by Sankar Nethralaya, 27-29 July 2018, Chennai
28. One of the Panellist at the session “POT POURRI”, The 3rd Meeting of Ocular Surface and Keratoprosthetics, OSKON 2018 organized by Sankar Nethralaya, 27-29 July 2018, Chennai
29. Use of i-OCT for Ocular Surface Surgeries, The 3rd Meeting of Ocular Surface and Keratoprosthetics, OSKON 2018 organized by Sankar Nethralaya, 27-29 July 2018, Chennai
30. Pythium Keratitis: Devastating and disastrous, The Annual Conference of ISCKRS Meet 2018 organized by Indian Society of Cornea and Keratorefractive Surgeons, 4-5 August 2018, New Delhi
31. IOCT guided DALK Convened the “Live Surgeries” session, The Annual Conference of ISCKRS Meet 2018 organized by Indian Society of Cornea and Keratorefractive Surgeons, 4-5 August 2018, New Delhi
32. Chaired the Symposium “Keratoplasty Unlocked”, The 66th Annual Conference of the Tamil Nadu Ophthalmic Association, “Pudhu Vue’18” organized by Mahatma Gandhi Medical College and Research Institute, 10 and 11 August 2018, Puducherry
33. Opportunities and Challenges for Women in Ophthalmology: A Round Table, The 66th Annual Conference of the Tamil Nadu Ophthalmic Association, “Pudhu Vue’18” organized by Mahatma Gandhi Medical College and Research Institute, 10 and 11 August 2018, Puducherry
34. Corneal Ulcer, The 12th Kalpavriksha 2018—A National CME Programme for the post graduates organized by Dr Agarwal’s Eye Hospital and Eye Research Centre, 16-18 August 2018, Chennai
35. Dry Eye: TFOS DEWS II recommendations, The 12th Kalpavriksha 2018—A National CME Programme for the post graduates organized by Dr Agarwal’s Eye Hospital and Eye Research Centre, 16-18 August 2018, Chennai
36. Corneal Ectasia, The 12th Kalpavriksha 2018—A National CME Programme for the post graduates organized by Dr Agarwal’s Eye Hospital and Eye Research Centre, 16-18 August 2018, Chennai
37. Penetrating Keratoplasty, The 12th Kalpavriksha 2018—A National CME Programme for the post graduates organized by Dr Agarwal’s Eye Hospital and Eye Research Centre, 16-18 August 2018, Chennai
38. Phacoemulsification cataract with IOL, Phalic IOL, Glued IOL, Squint, Retina (macular hole), Ptosis, DMEK, The Conference—XXVIIth Annual Conference of Bombay Ophthalmologists Association BOA FOCUS-2018, 24-26 August 2018, Mumbai
39. I-OCT in Corneal Surgery, The conference—XXVIth Annual Conference of Bombay Ophthalmologists Association BOA FOCUS-2018, 24-26 August 2018, Mumbai
40. DALK in unusual situations, The Conference—XXVIth Annual Conference of Bombay Ophthalmologists Association BOA FOCUS-2018, 24-26 August 2018, Mumbai
41. Management of acute chemical injuries, The Conference—XXVIth Annual Conference of Bombay Ophthalmologists Association BOA FOCUS-2018, 24-26 August 2018, Mumbai
42. Phaco in corneal haze, The Conference—XXVIth Annual Conference of Bombay Ophthalmologists Association BOA FOCUS-2018, 24-26 August 2018, Mumbai
43. Phacoemulsification in Corneal Haze Endothelial keratoplasty in difficult situation, The XIXth Russian National Congress 2018 organized by Modern Technologies in Cataract and Refractive Surgery, 18-20 October 2018, Moscow, Russia
44. Attended as one of the panelists at Subspecialty Day and “When Medical Therapy Fails, What Next?” which was attended by I am packed hall, The Annual Meeting of American Academy of Ophthalmology, 27-30 October 2018, Chicago, USA
45. Comparative evaluation of Intrastromal Injections of Voriconazole, Amphotericin B, and Natamycin—This was awarded the best paper of the cornea session, The Annual Meeting of American Academy of Ophthalmology, 27-30 October 2018, Chicago, USA
46. Cornea and External Disease, The Annual Meeting of American Academy of Ophthalmology, 27-30 October 2018, Chicago, USA
47. Complex Corneal Clinics: Logical Solutions, The Annual Meeting of American Academy of Ophthalmology, 27-30 October 2018, Chicago, USA
48. Management of Corneal Perforation, The Annual Meeting of American Academy of Ophthalmology, 27-30 October 2018, Chicago, USA
49. Intraoperative OCT for DALK and DMEK in the Cornea Society International AAO Symposia, The Annual Meeting of American Academy of Ophthalmology, 27-30 October 2018, Chicago, USA

50. Attended as one of the panellists at the session “Refractive surgery Practice protocol”, The Annual Conference of Kerala Society of Ophthalmic Surgeons 2018 organized by the Kerala Society of Ophthalmic Surgeons, 23 and 24 November 2018, Kannur, Kerala
51. Attended as one of the judges at “The Great Debate”, The Annual Conference of Kerala Society of Ophthalmic Surgeons 2018 organized by the Kerala Society of Ophthalmic Surgeons, 23 and 24 November 2018, Kannur, Kerala
52. Cataract surgery with Ant segment reconstruction—surgeons dilemma, The Annual Conference of Kerala Society of Ophthalmic Surgeons 2018 organized by the Kerala Society of Ophthalmic Surgeons, 23 and 24 November 2018, Kannur, Kerala
53. Attended as one of the panelists at the session Video Assisted Skill Transfer: Cornea ‘Basics’, The Annual Conference of Kerala Society of Ophthalmic Surgeons 2018 organized by the Kerala Society of Ophthalmic Surgeons, 23 and 24 November 2018, Kannur, Kerala
54. Was one of the moderators at the “LIVE SURGERY” session, The SROC-KOSCON 2018 organized by the Karnataka Ophthalmic Society, 7 December 2018, Mangalore, Karnataka
55. Refining LASIK surgery, The SROC-KOSCON 2018 organized by the Karnataka Ophthalmic Society, 7 December 2018, Mangalore, Karnataka
56. Keynote lecture in the session “KERATITIS Problem Based Learning (PBL)”, The SROC-KOSCON 2018 organized by the Karnataka Ophthalmic Society, 7 December 2018, Mangalore, Karnataka
57. Lamellar keratoplasty revisited, The 34th Annual Conference of the Odisha State Ophthalmological Society (OSOCON 2018) organized by Odisha State Ophthalmological Society, 8 and 9 December 2018, Puri
58. Women in leadership role, The 34th Annual Conference of the Odisha State Ophthalmological Society (OSOCON 2018) organized by Odisha State Ophthalmological Society, 8 and 9 December 2018, Puri
59. Management of fungal keratitis, The 34th Annual Conference of the Odisha State Ophthalmological Society (OSOCON 2018) organized by Odisha State Ophthalmological Society, 8 and 9 December 2018, Puri
60. Persistent corneal edema after Phacoemulsification; How to manage, The 22nd Annual Punjab Ophthalmological Conference Eye Glance 2018 organized by the Punjab Ophthalmological Society, 15 December 2018, Patiala, Punjab
61. Managing LASIK Complications, The Refractive Surgery Meeting organized by the Gurugram Ophthalmological Society and Haryana Ophthalmological Society, 16 December 2018, Gurugram, Haryana
62. Refining LASIK Surgery, The Refractive Surgery Meeting organized by the Gurugram Ophthalmological Society and Haryana Ophthalmological Society, 16 December 2018, Gurugram, Haryana
63. My Experience with Phototherapeutic Keratectomy, The Refractive Surgery Meeting organized by the Gurugram Ophthalmological Society and Haryana Ophthalmological Society, 16 December 2018, Gurugram, Haryana
64. Persistent corneal edema after Phacoemulsification; How to manage, The CME Scientific Programme 2019 organized by the South Gujarat Academy of Ophthalmology, 6 January 2019, Surat, Gujarat
65. Persistent Post Phacoemulsification Corneal Oedema: How to deal, The MID Term IIRSI 2019 organized by the Intra Ocular Implant and Refractive Society of India (IIRSI), 19 January 2019, Amritsar
66. Role of Intra Cameral Moxifloxacin in Prevention of Endophthalmitis, The MID Term IIRSI 2019 organized by the Intra Ocular Implant and Refractive Society of India (IIRSI), 19 January 2019, Amritsar
67. Decision making in refractive surgery, The Zone CME 2019 organized by the All Gujarat Ophthalmological Society, 27 January 2019, Rajkot, Gujarat
68. Keratoconus: How to deal and when to refer, The Zone CME 2019 organized by the All Gujarat Ophthalmological Society, 27 January 2019, Rajkot, Gujarat
69. Complications of LASIK surgery, The Zone CME 2019 organized by the All Gujarat Ophthalmological Society, 27 January 2019, Rajkot, Gujarat
70. Keratoplasty and Component Corneal Surgery—Technique, Results and Complications, 77th AIOS Conference, 14-17 February 2019, Indore
71. Microbial Keratitis: How has new evidence changed the management, 77th AIOS Conference, 14-17 February 2019, Indore
72. Phacoemulsification in corneal haze Queries and Controversies, 77th AIOS Conference, 14-17 February 2019, Indore
73. Exciting awards for the best three presentations, 77th AIOS Conference, 14-17 February 2019, Indore
74. Corneal Infections—Principal of Medical and Surgical Management Graft Infiltrate: How does our management differ, 77th AIOS Conference, 14-17 February 2019, Indore

75. “iOCT Guided DALK and DMEK” in the session “Anterior Lamellar Keratoplasty”, The 34th APAO Congress in conjunction with The 43rd Annual Meeting of the Royal College of Ophthalmologist of Thailand organized by the Asia Pacific Academy of Ophthalmology (APAO), 6-7 March 2019, Bangkok, Thailand
76. Women in Leadership Roles, The 34th APAO Congress in conjunction with The 43rd Annual Meeting of the Royal College of Ophthalmologist of Thailand organized by the Asia Pacific Academy of Ophthalmology (APAO), 6-7 March 2019, Bangkok, Thailand
77. Was one of the Panelist at the session “Ophthalmic Premier League”, The 34th APAO Congress in conjunction with The 43rd Annual Meeting of the Royal College of Ophthalmologist of Thailand organized by the Asia Pacific Academy of Ophthalmology (APAO), 6-7 March 2019, Bangkok, Thailand
78. “Current Trends in Eye Banking in India Q and A” in the session “Eye Banking in 2019: Advances and Challenges”, The 34th APAO Congress in conjunction with The 43rd Annual Meeting of the Royal College of Ophthalmologist of Thailand organized by the Asia Pacific Academy of Ophthalmology (APAO), 6-7 March 2019, Bangkok, Thailand
79. Dr ND Lakhnopal Memorial Lecture: Component Surgery of Cornea, The Annual Founders Day PGIMER, Chandigarh organized by the PGIMER, 17 March 2019, Chandigarh

Tanuj Dada

1. Alternative and complimentary therapy in Glaucoma, World Glaucoma Congress, 27-30 March 2019, Melbourne, Australia
2. Trabeculectomy is still the Gold Standard, World Glaucoma Congress, 27-30 March 2019, Melbourne, Australia
3. Glaucoma Screening, World Glaucoma Congress, 27-30 March 2019, Melbourne, Australia
4. Biodegradable implants in Glaucoma Surgery, World Glaucoma Congress, 27-30 March 2019, Melbourne, Australia
5. Innovations in Glaucoma Surgery, International Congress Glaucoma Surgery, 6-8 September 2018, Montreal, Canada
6. Role of meditation in Glaucoma, International Conference on YOGA—Ministry of AYUSH, 11-12 October 2018, Goa
7. Challenging Situations in Glaucoma Surgery, All India Ophthalmic Society Meeting, February 2019, Indore

T Velpandian

1. Educational course on basics of ocular pharmacology and drug delivery to eye, 25th Annual meeting of IERG ARVO India Chapter organized by CCMB 7 LV Prasad Eye Research Centre, 27-29 July 2018, Hyderabad
2. Vision Science to Patient Care—A Translational Research, Meeting organized by Arvind Medical Research Foundation, 25 August 2018, Madurai

Praveen Vashist

1. Role of NPCB in prevention of blindness due to Glaucoma in ACOIN Session, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 8 April 2018, New Delhi
2. Revised Government of India Guidelines on disability certification for visually impaired, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 8 April 2018, New Delhi
3. National Health Care Protection Scheme impact on eye health in the session on Universal Eye Health, 14th VISION 2020 India, 9-10 June 2018, Guwahati
4. Prevalence of blindness and visual impairment in India in the session on Advocacy for Research in India, 14th VISION 2020 India, 9-10 June 2018, Guwahati
5. Community Based Inclusive Development (CBID) experience sharing in the session on towards a disability inclusive world, 14th VISION 2020 India, 9-10 June 2018, Guwahati
6. Invited talk on strategies for elimination of Cataract blindness, World Ophthalmic Conference, 2018, 16-19 June 2018, Barcelona, Spain
7. Guest lecture for awareness generation on various primary eye care health issues, Dte. GHS and MoH&FW, 19 July 2018, New Delhi
8. Delivered IPS Permar Oration lecture on current status of blindness in India, ACOIN Haryana State Chapter 2018, 28 July 2018, Gurgaon, Haryana
9. Revised guidelines on visual Impairment Certificate under Ministry of Social Justice and Empowerment, ACOIN Conference Digha 2018, 31 August-3 September 2018, West Bengal
10. Current status of Trachoma in India, CME on Venture the Village for Vision, 22 September 2018, AIIMS, Rishikesh

11. Current Status of Corneal Blindness in India, 10th National Conference on cornea and Eye Banking, 8 September 2018, Pune
12. Current Status of Trachoma in India—NPCB National Trachoma Surveys 2014-2017, 25th ISGEO Meeting, 11-12 September 2018, Hyderabad
13. Assessing the needs for rehabilitate service among functional low vision and absolute blind persons in India: Results from the population-based study, 25th ISGEO Meeting, 11-12 September 2018, Hyderabad
14. Study design, Orientation Training Programme on Research Methodology, 26-27 October 2018, New Delhi
15. Disability Certification—Revised National Guidelines, CBM eye care Partners Meet “Towards a safe Inclusive World”, 29-30 October 2018, New Delhi
16. Moderated session on “Beyond Cataract-taking eye care to the next level”, CBM eye care Partners Meet “Towards a safe Inclusive World”, 29-30 October 2018, New Delhi
17. Recent advances in community Ophthalmology along with current status of National Programme of Blindness in India, Meeting at Vision Eye Centre, 3 November 2018, New Delhi
18. Integration of community eye health with primary eye health care, Vision 2020 Right to Sight India Training Programme, 16 November 2018, Delhi
19. Epidemiology of diabetic retinopathy and recent NPCB survey on diabetic retinopathy, DOS Winter Conference in the ACOIN Session, 18 November 2018, New Delhi
20. Current Status of Trachoma in India NPCB and VI National Trachoma Surveys 2014-2017, Workshop on “NPCB-TT Elimination Planning”, 22 November 2018, New Delhi
21. Revised Visual Disability guidelines in India, Haryana Ophthalmic Society Conference in ACOIN Session, 25 November 2018, Haryana
22. National Action Plan Low Vision and Rehabilitation: Recommendation for tertiary care hospitals, 1st National workshop on low vision and rehabilitation services, 29 and 30 November 2018, New Delhi
23. Recent Initiative under NPCB, Second annual meeting, 8-9 December 2018, AIIMS, Jodhpur
24. Revised certification disability criteria, Second annual meeting, 8-9 December 2018, AIIMS, Jodhpur
25. National Action Plan Low Vision and Rehabilitation: Recommendation for tertiary care hospitals, 2nd National workshop on low vision and rehabilitation services, 29 January 2019, New Delhi
26. Community Ophthalmology, RPC AIIMS Overview, Inauguration ceremony of Visual Rehabilitation and Training Centre, 12 February 2019, New Delhi
27. Judged and Convenor for the free paper presentation in Community/Social Ophthalmology, 77th AIOS Conference, 14-17 February 2019, Indore
28. RAAB survey in SAARC Academy of Ophthalmology Session, 77th AIOS Conference, 14-17 February 2019, Indore
29. Moderator for the Vision 2020 session and delivered talk on NPCB National Blindness Survey in India 2015-2018, 77th AIOS Conference, 14-17 February 2019, Indore
30. Blindness Survey in India—An NPCB Initiative, 77th AIOS Conference, 14-17 February 2019, Indore
31. Moderator for the Vision 2020 Session Delivered talk on New Rapid Assessment of Avoidable Blindness in India, 77th AIOS Conference, 14-17 February 2019, Indore
32. Community ophthalmology initiatives at RP Centre, 16 March 2019, Amity University, Gurgaon
33. Participated as a Guest of honor and delivered a talk on “Role of Optometrists in involvement in health system in India”, Conference organized by Ansal University, 31 March 2019, Gurgaon

Renu Sinha: 13 (For details see 9.1 Anaesthesiology)

M Vanathi

1. Correlation of percent tissue altered with corneal biomechanics in myopic laser assisted in-situ keratomileusis, XIVth SAARC Academy of Ophthalmology Conference 2018, 21-24 June 2018, Kathmandu, Nepal
2. Paediatric Corneal Diseases and Management, XIVth SAARC Academy of Ophthalmology Conference 2018, 21-24 June 2018, Kathmandu, Nepal
3. ROP and other pediatric ocular diseases: Paediatric session 3—Co-Chair, XIVth SAARC Academy of Ophthalmology Conference 2018, 21-24 June 2018, Kathmandu, Nepal
4. The path forward in cataract and refractive surgery—Session Co-convenor, IIRSI 2018 Chennai, 7-8 July 2018, Chennai

5. Latest with iOCT aided corneal lamellar surgeries, IIRSI 2018 Chennai, 7-8 July 2018, Chennai
6. Advanced Concepts—Refining TORICs with ORA, IIRSI 2018 Chennai, 7-8 July 2018, Chennai
7. Management of chemical injury—chronic stage: CLET/SLET/LK/PK, Ocular TraumaCON 2018, 13-15 July 2018, Chennai
8. LK post SLET, OSKON 2018 (3rd Ocular Surface and Keratoprosthesis Conference), 27-29 July 2018, Chennai
9. Corneal Biomechanics in Post LASIK Corneas—Refractive Learning the Tricks, ISCKRS 2018—Evolving Trends (Annual meeting of Annual Conference of Indian Society of Cornea and Kerato-Refractive Surgeons, 4-5 August 2018, New Delhi
10. Keratoplasty Unlocked, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
11. Contact Lens Spectrum Instruction Course—Co-instructor, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
12. Scleral Contact Lens, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
13. Fathoming paediatric keratoconus—Co-instructor, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
14. Keratoplasty in Paediatric Keratoconus, Pudhuvue 2018—Annual Conference of Tamil Nadu Ophthalmic Society TNOA, 10-12 August 2018, Puducherry
15. Keratoconus—An Update, Bombay Ophthalmic Association FOCUS 2018, 24-26 August 2018, Mumbai
16. Paediatric Corneal Blindness—President Medal Oration, ACOIN 2018, 1-2 September 2018, Digha, West Bengal
17. Complex Corneal Disorders and Co-morbidities: Congenital cloudy Cornea—A diagnostic and treatment challenge, EBAI 2018—National Cornea and Eye Banking Conference 2018—10th Annual Convention of Eye Bank Association of India, 8-9 September 2018, Pune
18. Management Options in Keratoconus, AAO Ophthalmology Summit 2018, 27-28 September 2018, Kolkata
19. Acute Graft Rejection, RPC Cornea Workshop, 21 October 2018, New Delhi
20. Fungal Keratitis: Innovations in Diagnosis and Treatment—Instructor, AAO 2018 (Annual Meeting of American Academy of Ophthalmology), 27-30 October 2018, Chicago, USA
21. Paediatric Corneal Disorders and Surgical Management: A Comprehensive Overview—Chief Instructor, AAO 2018 (Annual Meeting of American Academy of Ophthalmology), 27-30 October 2018, Chicago, USA
22. Surgical intervention of Fungal Keratitis, AAO 2018 (Annual Meeting of American Academy of Ophthalmology), 27-30 October 2018, Chicago, USA
23. Overview of Paediatric Keratoplasty, AAO 2018 (Annual Meeting of American Academy of Ophthalmology), 27-30 October 2018, Chicago, USA
24. Symposium: OSD: A Colloquium for Clinical Conundrum—Panelist, Keracon 2018, 1-2 December 2018, New Delhi
25. Paediatric Cornea and Anterior Segment Session-1: Paediatric Cornea Diseases—Co-chair, Keracon 2018, 1-2 December 2018, New Delhi
26. Overview of pediatric keratoplasty: Preoperative evaluation includes imaging, critical period assessment and timing of surgical intervention, Keracon 2018, 1-2 December 2018, New Delhi
27. Keracon Film Challenge—Intrastromal Corneal Cyst, Keracon 2018, 1-2 December 2018, New Delhi
28. Approach to Infectious Keratitis, PG Teaching Programme, 23 December 2018, Jalna
29. AIOS—Cipla PG Teaching Programme EyeShala 2019: Approach to infectious keratitis, 77th AIOS Conference, 14-17 February 2019, Indore
30. AIOS ARC—ICO Teachers in Ophthalmology Apex Conclave—Session 1: Bedside Teaching—A Must, 77th AIOS Conference, 14-17 February 2019, Indore
31. Clinical Rounds—Cornea—Convenor, 77th AIOS Conference, 14-17 February 2019, Indore
32. Celebrating 200 years of Indian Ophthalmology-(Cornea)—Co-chair, 77th AIOS Conference, 14-17 February 2019, Indore
33. OSD—Confusions, Concerns and Changing Paradigms, 77th AIOS Conference, 14-17 February 2019, Indore
34. VAST on Corneal Theatre Masterclass—Power Capsule on Pearls and Pitfalls, 77th AIOS Conference, 14-17 February 2019, Indore
35. Mistakes in diagnosis and management, 77th AIOS Conference, 14-17 February 2019, Indore

36. Cornea Society of India (CSI) Debates and Controversies in Cornea: Medical Vs Surgical Management in Infectious Keratitis, 77th AIOS Conference, 14-17 February 2019, Indore
37. Dioptric distress: Biometry Solution for All Situations—Targeting Eagle’s Eye Vision Refining TORICs, 77th AIOS Conference, 14-17 February 2019, Indore
38. Mastering MULTIFOCALS: Maximizing Manipulations—Case Based Approach TORICS with ORA, 77th AIOS Conference, 14-17 February 2019, Indore
39. Fungal Keratitis in India: Keynote Address, Japan Cornea Conference 2019 and Cornea Seminar, 9 February 2019, Kyoto, Japan
40. Member—Organizing committee, RPC Foundation Day, 9 March 2019, New Delhi

Parijat Chandra

1. When to Operate in Advancing ROP, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi
2. ROP Surgery, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi
3. When to Operate in Advancing ROP, 3rd iROP Society Meeting, ROP in 2018, 21-22 July 2018, Raipur
4. 2nd Hyderabad Retina Society Meeting, 5 August 2018, Hyderabad
5. ROP: Screening and Management, ARC AIOS PG Teaching Course, 31 August-2 September 2018, Delhi
6. Evolving Role of Anti-VEGF drugs in ROP, Annual DOS Conference, 17-18 November 2018, Delhi
7. Retinal lasers vs Injections for ROP treatment, 16th Annual Conference of Jharkhand Ophthalmic Society, 7-9 December 2018, Ranchi
8. Anti-VEGF drugs in ROP, 16th Annual Conference of Jharkhand Ophthalmic Society, 7-9 December 2018, Ranchi
9. Management of Advanced ROP, CME Indian Academy of Paediatrics, 23 March 2019, Patna
10. Future of ROP Management in India, CME Indian Academy of Paediatrics, 23 March 2019, Patna

Senjam Suraj Singh

1. Recommendation of Eye health for IPHS in the meeting, IPHS Sub Committee Meeting, 4 August 2018, AIIMS, Bhopal
2. Assessing the needs for rehabilitative service among functional low vision and absolute blind persons in India: Results from the population-based study, 25th ISGEO Meeting, 11-12 September 2018, Hyderabad
3. Physical and Mental Disabilities in the Light of Global Best Practices in Care, Rehabilitation and Research, 23 October 2018, New Delhi
4. Low vision certification criteria according to Government of India, Inauguration of Low Vision, 1 November 2018, Gurgaon
5. Potential of e-Referral Networks on eye care, School of Public Health PGIMER with support from MCI India, 11 January 2019, Chandigarh
6. Overview of Community Ophthalmology Department, London School of Hygiene and Tropical Medicine (LSHTM), 5 March 2019, London

Nabanita Halder

1. Comparison of Ocular Pharmacokinetics of Selected Antiangiogenic Agents after Intravitreal (IVT) Injection in Rabbits using ESI-LC-MS/MS, 25th Annual Meeting of IERG ARVO India Chapter Annual National, 27-29 July 2018, Hyderabad
2. Precorneal tear film pharmacokinetics of extemporaneously compounded piperacillin and tazobactam in rabbits, Annual Conference of Association of Physiologists and Pharmacologists (APPICON), 27 November-1 December 2018, Manipal

Noopur Gupta

1. WHO-SEARO and NPCB workshop on Achieving Universal Eye Health Key recommendations, 14th VISION 2020 India, 9-10 June 2018, Guwahati
2. Corneal Blindness in India, 14th VISION 2020 India, 9-10 June 2018, Guwahati
3. Trachoma status in India: Road map to elimination, ISCKRS Meet 2018, 6 August 2018, New Delhi
4. Corneal Donation, Organ Retrieval Banking Organization, 10 September 2018, AIIMS, New Delhi
5. Burden of Corneal Blindness and need for donor cornea in India, 10th Annual Meeting of Eye Bank Association of India, 7-9 September 2018, Pune

6. Corneal Donation, Organ Retrieval Banking Organization, 10 September 2018, AIIMS, New Delhi
7. Approach to dry eye, RPC Cornea Workshop, 21 October 2018, New Delhi
8. Literature Review and Reference Management, Short-term research methodology training under aegis of Community Eye Health Research Projects 2018, ACOIN, 26-27 October 2018, New Delhi
9. Phenotype, causes and correlates of trichiasis in a tertiary eye care hospital, 4th Global Scientific Meeting on Trachoma, 27-29 November 2018, Geneva, Switzerland
10. Challenging Case Scenarios: Suprachard cataract, RPC Phacoemulsification and Refractive Surgery Workshop, 10 January 2019, New Delhi
11. Challenging Case Scenarios: Small pupil, RPC Phacoemulsification and Refractive Surgery Workshop, 20 January 2019, New Delhi
12. Are we on the road to trachoma elimination in India? Overview on current status of blinding trachoma, 77th AIOS Conference, 14-19 February 2019, Indore
13. Study on health-related quality of life and costing of cataract surgery for treatment of age-related cataract in India, 77th AIOS Conference, 14-19 February 2019, Indore
14. Visual quality and quality of life following sutured versus glued anterior lamellar keratoplasty, 77th AIOS Conference, 14-19 February 2019, Indore
15. Cost-effectiveness analysis of DSAEK versus PK in patients with Corneal Endothelial Dysfunction, 77th AIOS Conference, 14-19 February 2019, Indore
16. Isolated corneal pigmented mycetoma masquerading as corneal melt with massive uveal prolapse, 77th AIOS Conference, 14-19 February 2019, Indore
17. RAAB: Survey procedures and methodology, 77th AIOS Conference, 14-19 February 2019, Indore
18. Corneal donation, Organ Retrieval Banking Organization, 18 March 2019, AIIMS, New Delhi

Rachna Meel

1. Ocular surface squamous neoplasia—The changing trends, 29th Conference of Oculoplastica Association of India, 28-30 September 2018, Jaipur
2. Case based approach for Entropion management, 10th DOS Teaching Programme, 2 and 3 February 2019, Delhi
3. Debates and Controversies in: Tumours and Ocular Oncology, 77th AIOS Conference, 5-17 February 2019, Indore

Vinod Kumar

1. Moderator of the session “Update on Endophthalmitis”, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi
2. Moderator of the session “Current Concepts in Vascular Blocks”, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi
3. Participated in debate on uvea session, Spoke against intravitreal for toxoplasmosis, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi
4. PRN vs Treat-and-Extend regimen for treatment of neovascular AMD (Debate)-AGAINST, Vitreo-retina update, 28-29 April 2018, Coimbatore
5. Optimizing outcomes of Macular Hole Surgery, Vitreo-retina update, 28-29 April 2018, Coimbatore
6. Intraoperative OCT: Fad or Foundation for future VR surgery, Vitreo-retina update, 28-29 April 2018, Coimbatore
7. An unusual subretinal abscess, RETNET, 9 June 2018, Bangalore
8. Representative case of Pachychoroid pigment epitheliopathy, Retina Imaging Congress, 29-30 June 2018, Thiruvanthapuram
9. Pathogenesis, imaging and clinical significance of Dome shaped macula, Retina Imaging Congress, 29-30 June 2018, Thiruvanthapuram
10. Changing trends in the management of macular disorders, AIOC ARC Teaching Programme, 1 September 2018, New Delhi
11. Combined mechanism RD taking an unusual turn, Delhi Retina Forum, 1 September 2018, Delhi
12. Digging beneath the macula, Video presentation at Delhi Film Festival, 22 October 2018, Delhi
13. Moderator of Retina Surgical Session, Midterm DOS, 18 November 2018, Delhi
14. Spotting a publishable case, YOSI-AIOS Meeting, 25 November 2018, Delhi
15. Hitting the Bull’s Eye with Case Reports, Invited lecture at iFocus, 25 January 2019, Hyderabad
16. Perceptor, DOS Teaching Programme, 3 February 2019, Delhi

Rohan Chawla

1. Diabetic vitreoretinal surgery, 69th Annual Conference of Delhi Ophthalmic Society (DOS), April 2018, Delhi
2. OCT CME on retina, June 2018, Guwahati
3. OCT-A, CME on retina, June 2018, Guwahati
4. Optic Disc Pit Surgery, Delhi Retina Forum CME, August 2018, Delhi
5. Coloboma RD, Retina Biriyani, September 2018, Chandigarh
6. OCTA in choroiditis, USI of India National Conference, November 2018, Chandigarh
7. Endophthalmitis, AIOS Teaching Programme, November 2018, Delhi

Swati Phuljhele Aalok

1. Brown's Syndrome, Strabismus Workshop, RP Centre, 22 July 2018, AIIMS, New Delhi
2. Superior Oblique Palsy, Strabismus Workshop, RP Centre, 22 July 2018, AIIMS, New Delhi
3. Cortical Visual Impairment, Silver Jubilee CME Paediatric Ophthalmology and Strabismus, 19 August 2018, I Care Hospital
4. Vision loss-looking beyond obvious, Annual Conference of Indian Neuro-Ophthalmology Society, 30 September 2018, New Delhi
5. Pupil disorders, Delhi Ophthalmology Society Winter Conference, 17-18 November 2018, New Delhi
6. Should III-year resident be given independent surgery, AIOS ARC- ICO Teachers in Ophthalmology Apex Conclave—Session 4, 13 February 2019, Indore
7. Recent advances in management of amblyopia, Annual Conference of All India Ophthalmology Society, 13-17 February 2019, Indore
8. Not just resections but Apt-plications too!., Annual Conference of All India Ophthalmology Society, 13-17 February 2019, Indore
9. Role of Steroids in NAION, Annual Conference of All India Ophthalmology Society, 13-17 February 2019, Indore

Vivek Gupta

1. Leveraging Whatsapp and free software for GIS mapping in RAAB surveys, 25th ISGEO meeting Indian Institute of Public Health organized by ISGEO, 11 and 12 September 2018, Hyderabad
2. Foldable IOL use and quality of life among patients from primary eye care clinics receiving free cataract surgery in Delhi, 25th ISGEO meeting Indian Institute of Public Health organized by ISGEO, 11 and 12 September 2018, Hyderabad
3. Research terminology and definitions: Study design, population, sampling and variables, National SORT IT Operational Research Course 2018, 3-8 September 2018, Chennai
4. Minerva Mortality in India established through verbal autopsies, IT Platform AIIMS Technical Support Unit (ATSU), 26 and 27 October 2018, DELNET
5. MINERVA coding platform—Registration and use, Cause of death and ICD-coding under SRS-based verbal autopsy in India, 13 October 2018, DELNET
6. A, F, and E Interventions and Surveillance for Trachoma elimination in India, Trachoma Sentinel Surveillance Workshop conducted at Community Ophthalmology, 24 November 2018, New Delhi
7. Minerva COD coding platform, Technical Working Group (TWG), 22 November 2018, DELNET
8. Experience of adoption and use of clinical terminology at AIIMS, NRCeS Users Meet Winter 2018, 28 November 2018, New Delhi
9. Data management and data analysis, Research methodology training under aegis of Community Eye Health Research Projects 2018, ACOIN, Community Ophthalmology, 28 November 2018, New Delhi
10. Disability certification: Using the new classification, National Workshop on Strengthening Low Vision and Rehabilitation Services, 29 and 30 November 2018, New Delhi
11. Data Management and Analysis, 77th AIOS Conference, 14-17 February 2019, Indore
12. Research and Training-CBM-RPC Initiative, Inauguration of Visual Rehabilitation and Training Centre, 12 February 2019, New Delhi
13. Disability certification: Using the new visual disability classification, Strengthening Low Vision and Rehabilitation Services National Research and Training Centre for Low Vision and Rehabilitation Services, 29 January 2019, New Delhi

Nishat Hussain Ahmed

1. Antimicrobial Resistance in Ocular Pathogens, Microbiology Clinical Grand Round, 16 October 2018, New Delhi

Shikha Gupta

1. Moderator Glaucoma free paper, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, New Delhi
2. Post traumatic hypotony: Rings and more rings, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, New Delhi
3. Glaucoma medications: New and in the pipeline, Glaucoma Workshop, RPC, 2018, 19 August 2019, New Delhi
4. Anterior segment imaging in glaucoma, GSI 2018, 14-16 September 2018, Kovallam, Kerala
5. Managing the complications of the Tubes, DOS Winter Conference, 17 November 2018, New Delhi
6. Ocular and refractive development in infants, AIIMS Optometry Explorer Conference 2019, 19-20 January 2019, New Delhi
7. Patient responsibilities, Public education lecture, World Glaucoma Week, 11 and 15 March 2019, New Delhi

Neiwete Lomi

1. Molecular diagnosis of paediatric sepsis', CME on 'Paediatric Sepsis', 4 May 2018, Delhi
2. Mini Symposium on retinoblastoma, DOS Clinical Meeting, 15 July 2018, New Delhi
3. Brachytherapy—An eye and vision sparing therapy for ocular tumors, Uttara-Eye Conference, 5-7 October 2018, Jim Corbett, Uttarakhand
4. Acute chemical injury, RPC Cornea Workshop, 21 October 2018, New Delhi
5. Challenges of phaco surgery in pseudoexfoliation, RPC Phaco Workshop, 20 January 2019, New Delhi

Dewang Angmo

1. Difficult Situation in Glaucoma, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 7 April 2018, Delhi
2. Challenging cases in Glaucoma, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 7 April 2018, Delhi
3. Approach to Esotropia, Strabismus Workshop, 22 July 2018, Delhi
4. Role of ASOCT in Glaucoma, Glaucoma Workshop, 19 August 2018, Delhi
5. Lasers in Glaucoma, Glaucoma Workshop, 19 August 2018, Delhi
6. Principles of Medical Therapy in Glaucoma, Glaucoma Workshop, 19 August 2018, Delhi
7. Revision of Blebs: Techniques and complications, Winter DOS 2018, 17 November 2018, Delhi
8. Teachers In Ophthalmology Apex Conclave—Session 1—Teaching in Crowded OPD, 77th AIOS Conference, 13 February 2019, Indore
9. Teachers in Ophthalmology Apex Conclave—Session 5—Specialty Training, 77th AIOS Conference, 13 February 2019, Indore
10. Trabeculectomy Basics: Tips and tricks focussing on success—Video Assisted Talk, AIOS Instruction Course, 16 February 2019, Indore
11. Trabeculectomy: Pre-op and post-op handling, AIOS Instruction Course, 16 February 2019, Indore
12. Trabeculectomy basics: Tips and tricks focussing on Success—Video Assisted Talk, AIOS Instruction Course, 16 February 2019, Indore
13. Releasable sutures—When to put and remove, AIOS Instruction Course, 16 February 2019, Indore
14. Role of Ologen in Glaucoma, AIOS Instruction Course, 16 February 2019, Indore
15. Exploring the role of endocannabinoids in glaucoma—Poster walk presentation, WGC 2019, 27-30 March 2019, Melbourne, Australia

Shorya Azad

1. Invited Faculty—"Role of OCTA in Present day Practice", Gorakhpur Ophthalmological Association Annual Conference, 20 October 2018, Gorakhpur
2. Invited Faculty—"Diabetic Macular Edema—Management", Gorakhpur Ophthalmological Association Annual Conference, 20 October 2018, Gorakhpur
3. Juvenile open angle glaucoma: Thinking out of the box, SAARC Academy of Ophthalmology (SAO) Meeting, 22-24 June 2018, Kathmandu, Nepal

4. Juvenile open angle glaucoma: Thinking out of the box, Annual Conference of Noida Ophthalmological Society, 5 August 2018, Noida
5. Translating genetics to clinical practice, Annual Meeting of the Tamil Nadu Ophthalmic Association, 10-12 August 2018, Puducherry
6. Genetics what the clinician should know and JOAG, Annual NZOS Meeting, 8-9 September 2018, Chandigarh
7. Steroid induced Glaucoma: Tackling the Menace, The gene association of congenital/Juvenile Glaucoma and SLT for POAG less than 40 years of age, Annual Glaucoma Society of India Meeting, 14-16 September 2018, Trivandrum, Kerala
8. Perimetry in Glaucoma for Eyeshala, Post graduate teaching programme, 77th AIOS Conference, 13 February 2019, Indore
9. The well prepared examination under anesthesia, Congenital Paediatric Glaucoma at the World Glaucoma Congress, 27-30 March 2019, Melbourne
10. Surgical Management of Uveitic Glaucoma, World Glaucoma Congress, 27-30 March 2019, Melbourne

Kanil Ranjith Kumar

1. Cadaveric workshop: Ultrasound guided regional anaesthesia, Comprehensive Symposium on Ultrasound for Anesthesiologists (CUSA), 1 and 2 December 2018, New Delhi
2. Workshop: Ultrasound guided pediatric nerve blocks, 11th Annual Conference of India Association of Paediatric Anaesthesiologist (IAPA), 8 February 2019, New Delhi

Arshad Ayub

1. Arterial blood gas analysis, AIIMS PG Assembly-2018, 18-21 October 2018, New Delhi
2. Anaesthesia Circuits, AIIMS PG Assembly-2018, 18-21 October 2018, New Delhi
3. Infraclavicular and axillary blocks, ICPM Jodhpur 2018, 27-31 October 2018, Jodhpur
4. USG guided regional anaesthesia blocks, CUSA, AIIMS 2018, 1 and 2 December 2018, New Delhi
5. USG guided regional anaesthesia in Paediatrics, IAPA AIIMS 2019, 1 and 2 February 2019, New Delhi

Oral papers/posters presented

Unit II (Vitreoretina, Uvea and ROP)

1. Agarwal D, Chandra P, Vohra R, Chawla R, Agarwal R, Kumawat D, Kumar A, Predictors for surgical outcomes in stage 4A retinopathy of prematurity, 9th Euretina Winter Meeting, 1-4 March 2019, Prague
2. Dolma Y, Chandra P, Sharma I, Toppo F, Rajput A, Joji A, Developing culture of safe hands among healthcare providers, 4th International Conference on Medical and Health Sciences, 9-11 November 2018, Thimphu
3. Regani H, Agarwal R, Chandra P, Chawla R, Deorari A, Kumar A, Vohra R, Additional diode laser photocoagulation posterior to the ridge in type I zone 2 retinopathy of prematurity, World Ophthalmology Congress, 16-19 June 2018, Barcelona
4. Sachan A, Chandra P, Vohra R, Agarwal R, Chawla R, Sankar J, Kumar A, Scourge of advanced ROP in middle income countries: Lacunae in screening and treatment, American Academy of Ophthalmology Annual Conference 2018, 27-30 October 2018, Chicago
5. Singh P, Kumar A, Chandra P, Kumar V, Ultra-wide field fluorescein angiography guided targeted retinal photocoagulation in diabetic retinopathy, ARVO 2018, 29 April-3 May 2018, Honolulu
6. Tewari R, Chandra P, Jain S, Kumar V, Ravani R, Thakurela P, Posterior shifting of scleral port for myopic retinal detachments, World Ophthalmology Congress, 16-19 June 2018, Barcelona
7. Vanathi M, Chandra P, Kumawat D, Navrosh J, Singh R, Gupta N, The increasing concern of cataract caused by intravitreal VEGF injection in ROP eyes of preterm infants, American Academy of Ophthalmology Annual Conference 2018, 27-30 October 2018, Chicago

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

1. Titiyal JS, Kaur M, Bharti N, Sharma N, Visual quality and stereoacuity after binocular implantation of extended range of vision intraocular lens, Asia Pacific Academy of Ophthalmology (APAO), 6-9 March 2019, Bangkok, Thailand
2. Titiyal JS, Kaur M, Falera R, Bhageswar L, Comparative evaluation of Toric IOL alignment and visual quality with image guided surgery and conventional three step manual marking, PP2-09, Asia Pacific Association of Cataract and Refractive Surgeons (APACRS), July 2018, Chain Mai, Thailand

3. Titiyal JS, Verma S, Kaur M, Sinha R, Sharma N, Correlation of corneal biomechanics and confocal microscopy with corneal thickness in myopes, Asia Pacific Association of Cataract and Refractive Surgeons (APACRS), July 2018, Chain Mai, Thailand

Unit IV (Glaucoma and Paediatric Cataract)

1. Angmo D, Bruce G, Sihota R, Gupta V, Dada T, Exploring the role of endocannabinoids in glaucoma—Poster walk presentation, WGC 2019, 27-30 March 2019, Melbourne, Australia
2. Angmo D, Challenging cases in Glaucoma, 69th Annual Conference of Delhi Ophthalmic Society (DOS), 6-8 April 2018, Delhi
3. Angmo D, Selvan H, Sihota R, Gupta V, Dada T, Changes in intraocular pressure and angle status post phaco in Primary Angle Closure Hypertension—Poster, WGC 2019, 27-30 March 2019, Melbourne, Australia
4. Angmo D, Shakarwal J, Sihota R, Dada T, Lens extraction with or without goniosynechialysis in primary angle closure disease for angle parameters assessment, WGC 2019, 29 March 2019, Melbourne, Australia
5. Angmo D, Shakarwal J, Sihota R, Dada T, Phaco vs PhacoGSL in Primary Angle Closure Disease for angle parameters assessment, Annual Glaucoma Society of India Meeting, 14-16 September 2018, Trivandrum, Kerala
6. Bhai N, Dada T, Dada R, Effect of meditation on Trabecular Meshwork Gene expression in Glaucoma—Awarded third prize, AIIMS Research Day Presentation, 26 March 2019, Delhi
7. Chaurasia A, Sharma A, Gupta A, Gupta S, Khanna A, Gupta V, Rates of fast and catastrophic visual field loss in three glaucoma subtypes, Andrew Anderson, WGC 2019, 27-30 March 2019, Melbourne, Australia
8. Desai A, Bhardwaj M, Gupta V, Gupta S, Wave-front aberrometry and ocular aberrations in Primary Congenital Glaucoma, Institute Research Day 2019 (Best Poster Presentation), 24 March 2019, AIIMS, New Delhi
9. Gupta B, Angmo D, Sihota R, Gupta V, Dada T, Circumferential iridotrabecular contact changes following iridotomy in primary angle closure suspect, primary angle closure and primary angle closure glaucoma eyes, WGC 2019, 29 March 2019, Melbourne, Australia
10. Gupta S, Azimera K, Selvan H, Gupta V, Single Point Pivot Technique for combined repair of iridodialysis and cyclodialysis, APACRS 2018, 19-21 July 2018, Chiang Mai, Thailand
11. Gupta S, Bhardwaj M, Sen S, Titiyal JS, Gupta V, The Descemet's membrane in primary congenital glaucoma, GSI 2018, 14-16 September 2018, Kovallam, Kerala
12. Gupta S, Selvan H, Gupta V, Modified sewing machine technique for closure of refractory cyclodialysis cleft, AIOS 2019, 14-19 February 2019, Indore
13. Gupta S, Selvan H, Gupta V, One step management of post-traumatic triple dialysis using two rings, GSI 2018, 14-16 September 2018, Kovallam, Kerala
14. Gupta S, Selvan H, Gupta V, Single Point Pivot Technique for combined repair of iridodialysis and cyclodialysis, AIOS 2019, 14-19 February 2019, Indore
15. Gupta S, Selvan H, Shakrawal J, Gupta V, Triple dialysis repair: Rings and more rings, APACRS 2018, 19-21 July 2018, Chiang Mai, Thailand
16. Gupta S, Sen S, Titiyal JS, Gupta V, The Descemet's membrane in primary congenital glaucoma, WGC 2019, 27-30 March 2019, Melbourne, Australia
17. Gupta V, Bhardwaj M, Sen S, Titiyal JS, Gupta S, The Descemet's membrane in primary congenital glaucoma, WGC 2019, 27-30 March 2019, Melbourne, Australia
18. Kishan A, Gupta S, Dhull C, Swamy DR, Chaurasia AK, Chawla R, Gupta V, Outcomes of selective laser trabeculoplasty for post vitreoretinal surgery secondary glaucoma, WGC 2019, 27-30 March 2019, Melbourne, Australia
19. Lakra S, Anand M, Gupta S, Primary angle closure disease in the young, WGC 2019, 27-30 March 2019, Melbourne, Australia
20. Lakra S, Selvan H, Gupta V, Gupta S, Management of cyclodialysis: Coming a full circle, WGC 2019, 27-30 March 2019, Melbourne, Australia
21. Lakra S, Yadav M, Gupta V, Gupta S, Primary angle closure disease in the young, WGC 2019, 27-30 March 2019, Melbourne, Australia
22. Management of cyclodialysis coming a full circle, Video Talk, WGC 2019, 27-30 March 2019, Melbourne, Australia
23. Selvan H, Gupta V, Gupta S, Management of cyclodialysis: Coming a full circle, AIOS 2019 (best paper of session in AIOC 2019), 14-19 February 2019, Indore

24. Sethi A, Gupta S, Yadav S, Chaurasia A, Sihota R, Gupta V, Efficacy of goniotomy in adult glaucomas undergoing phacoemulsification, WGC 2019, 27-30 March 2019, Melbourne, Australia
25. Sethi A, Yadav S, Sihota R, Dada T, Gupta S, Efficacy of goniotomy in adult glaucomas undergoing phacoemulsification, WGC 2019, 27-30 March 2019, Melbourne, Australia
26. Shaikh NF, Gupta V, Gupta N, Gupta S, Somarajan B, Chaurasia A, To study clinical and genetic profile of patients with juvenile onset normal tension open angle glaucoma (JNTG), WGC 27-30 March 2019, Melbourne, Australia
27. Sidhu T, Jindal V, Sihota R, Dada T, Video-Bleb rescue operations—Awarded first prize, World Glaucoma Congress, 27-30 March 2019, Melbourne, Australia

Unit V (Squint, Neuro Ophthalmology, Paediatric Ophthalmology and Oculoplasty)

1. Bajaj MS, Vukkadala T, Pushker N, Meel R, Trephination and stent versus canaliculo-DCR in common canalicular block, 122nd Annual Conference of JOS, 19-22 April 2018, Osaka, Japan
2. Bhaskaran K, Phuljhele S, Saxena R, Sharma P, Yadav N, Vertical Gaze Palsy with Bilateral Third Nerve Palsy and Contralateral Hemiparesis, 45th Annual Meeting North American Neuro-Ophthalmology Society, 16-21 March 2019, Las Vegas, USA
3. Mahabir M, Pushker N, Silicone sling surgery for congenital ptosis: Tarsal tunnel technique vs suture fixation, American Academy of Ophthalmology, October 2018, Chicago
4. Meel R, Surve A, Bakhshi S, Kashyap S, “A rare case of pediatric lacrimal sac—Squamous cell carcinoma”, 77th Annual Conference of All India Ophthalmic Society, 15-17 February 2019, Brilliant Convention Centre, Indore
5. Phuljhele Aalok S, Saluja G, Niranjana B, Saxena R, Sharma P (Best e-poster award), Correlation of Magnetic Resonance Imaging and Ocular examination findings in Patients of Hypoxic Ischemic Encephalopathy, Annual Conference of Indian Neuro-Ophthalmology Society, 30 September 2018, Delhi
6. Phuljhele Aalok S, Saxena R, Sharma P, Relationship between structural and functional parameters in Idiopathic Intracranial Hypertension, Annual Conference of All India Ophthalmology Society, 13-17 February 2019, Indore
7. Pushker N, Gorimanipalli B, Sharma N, Fibrin glue for graft opposition in mucous membrane grafting for lid margin pathologies in Stevens-Johnson syndrome, American Academy of Ophthalmology, October 2018, Chicago
8. Saluja G, Phuljhele Aalok S, Niranjana B, Saxena R, Sharma P, Correlation of Magnetic Resonance Imaging and Ocular examination findings in Patients of Hypoxic Ischemic Encephalopathy, 45th Annual Meeting North American Neuro-Ophthalmology Society, 16-21 March 2019, Las Vegas, USA

Unit VI (Cornea, Squint and Neuro-ophthalmology)

1. *Shah P, Tandon R, Vanathi M, Gupta N, Cost-effectiveness analysis of DSAEK versus PK in patients with Corneal Endothelial Dysfunction—Oral Poster Podium, AIOC 2019 (70th Annual Conference of All India Ophthalmological Society), 14-17 February 2019, Indore
2. Vanathi M, Azimeera S, Tandon R, Corneal Biomechanics change in safe PTA in myopic LASIK—Scientific Poster, AAO 2018 (Annual Meeting of American Academy of Ophthalmology), 27-30 October 2018, Chicago, USA
3. Vanathi M, Chandra P, Kumawat D, Singh R, Singh N, Navrosh J, The increasing concern of cataract caused by intravitreal VEGF injection in ROP eyes of preterm infants—Scientific Poster, AAO 2018 (Annual Meeting of American Academy of Ophthalmology), 27-30 October 2018, Chicago, USA
4. Vanathi M, Gupta V, Dada T, Saini M, Tear neuromediators in chronic antiglaucoma therapy with and without BAK preservatives, AAO 2018 (Annual Meeting of American Academy of Ophthalmology), 27-30 October 2018, Chicago, USA
5. Vanathi M, Nikhil K, Tandon R, Evaluation of Barrett’s II universal formula in Indian Eyes, AAO 2018 (Annual Meeting of American Academy of Ophthalmology), 27-30 October 2018, Chicago, USA
6. Vanathi M, Shukla R, Balakrishnan P, Dwivedi R, Evaluation for thrombospondin-1 Polymorphisms in Asian Indians with immune corneal graft rejections—Poster, AAO 2018 (Annual Meeting of American Academy of Ophthalmology), 27-30 October 2018, Chicago, USA
7. Vanathi M, Singh A, Bageshwar L, Gupta N, Tandon R, Role of strip meniscometry in diagnosis of dry eye disease—Scientific poster, OSKON 2018 (3rd Ocular Surface and Keratoprosthesis Conference), 27-29 July 2018, Chennai

Ocular Microbiology

1. Ahmed NH, Satpathy G, Chawla R, Tandon R, Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type-1 and Type-2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral

Community Ophthalmology

1. Jain P, Vashist P, Gupta V, Senjam S, Epidemiology of blindness among elderly in East Siang district—Arunachal Pradesh RAAB Survey 2018, 25th ISGEO Meeting, 11-12 September 2018, Hyderabad
2. Misra V, Vashist P, Gupta V, Senjam S, E-Poster—To assess the barriers and facilitating factors in utilization of cataract surgical services among cataract patients in the urban slums of Delhi in India in session: Interdisciplinary, Ophthalmic Education and Ophthalmic Epidemiology, World Ophthalmic Conference, 16-19 June 2018, Barcelona, Spain
3. Shukla P, Vashist P, Gupta V, Senjam S, E poster—“Feasibility to involve Accredited Social Health Activist (ASHA) in Primary Eye Care (PEC)”, 77th AIOS Conference, 16 February 2019, Indore
4. Shukla P, Vashist P, Gupta V, Senjam S, Free paper “Primary Eye Care (PEC) training evaluation for ASHA in Urban India, Selected as best free paper in community/Social Ophthalmology”, 77th AIOS Conference, 16 February 2019, Indore
5. Sidhu T, Vashist P, Gupta V, Senjam S, Efficacy of PEEK camera for assessing optic nerve head in Indian eyes, 25th ISGEO Meeting, 11-12 September 2018, Hyderabad
6. Vashist P, Gupta V, Senjam S, Free Paper—Patterns and Pathways to Primary Eye Care in Urban Vulnerable Populations of Delhi, In Session—Eye Care Delivery Free Paper Session, World Ophthalmic Conference, 16-19 June 2018, Barcelona, Spain
7. Vashist P, Gupta V, Senjam S, Gupta N, E-Poster Pod—National Trachoma Prevalence Survey, India: 2014-2017, In Session—Ophthalmic Education and Ophthalmic Epidemiology, World Ophthalmic Conference, 16-19 June 2018, Barcelona, Spain
8. Vashist P, Gupta V, Senjam S, Gupta N, E-Poster—Trachoma Rapid Assessment (TRA) Surveys in Seventeen Districts of India in session: Interdisciplinary, Ophthalmic Education and Ophthalmic Epidemiology, World Ophthalmic Conference, 16-19 June 2018, Barcelona, Spain
9. Vashist P, Gupta V, Senjam S, Poster on change in visual function and quality of life after cataract surgery in tertiary care hospital, 77th AIOS Conference, 16 February 2019, Indore
10. Vashist P, Misra V, Gupta V, Senjam S, E Poster—Willingness to pay for cataract surgical services and the spectacle services in urban slums population of Delhi in session Interdisciplinary, Ophthalmic Education and Ophthalmic Epidemiology, World Ophthalmic Conference, 16-19 June 2018, Barcelona, Spain
11. Wadhvani M, Vashist P, Gupta V, Gupta N, Tandon R, Prevalence of cataract and its association with sun exposure in rural population in India, 25th ISGEO Meeting, 11-12 September 2018, Hyderabad
12. Wadhvani M, Vashist P, Gupta V, Senjam S, E-Poster—Prevalence of childhood visual impairment in North Indian Community in Session—Interdisciplinary, Ophthalmic Education and Ophthalmic Epidemiology, World Ophthalmic Conference, 16-19 June 2018, Barcelona, Spain
13. Wadhvani M, Vashist P, Gupta V, Senjam S, Health Seeking behavior among parents of visually impaired children in Delhi, 77th AIOS Conference, 16 February 2019, Indore

Ocular Pathology

1. Anjum S, Sen S, Kashyap S, Chosdol K, Pushker N, Bakhshi S, Bajaj MS, Sharma MC, Meel R, Clinical relevance of NOTCH1 in Lacrimal gland Adenoid Cystic Carcinoma, 1st AIIMS Research Day 2019, 25-26 March 2019, New Delhi
2. Anjum S, Sen S, Sharma N, Sharma A, Kashyap S, HSV-1 detection in post keratoplasty and failed graft corneal buttons, APAO Congress 2019, 6-9 March 2019, Bangkok, Thailand
3. Bhardwaj M, Husain M, Sen S, Pushker N, Kashyap S, Bakhshi S, Status of lipid metabolizing enzymes in prognosis of uveal malignant melanoma, 7th International Symposium on Current Trends in Drug Discovery Research, March 2019, Lucknow
4. Bhardwaj M, Sen S, Chosdol K, Sharma A, Kashyap S, Pushker N, Bajaj MS, Bakhshi S, Poster presentation on “Clinical relevance of Vimentin expression in eyelid sebaceous gland carcinoma and its association with epithelial-mesenchymal transition”, 4th Innovations in Oncology, Nanavati Hospital, 8-9 December 2018, Mumbai
5. Jha J, Singh MK, Pushker N, Sen S, Kashyap S, ATM as a DNA Damage Response Protein in Uveal Melanoma: Association with Clinicopathological Factors and Prognostic Outcome, APAO Congress 2019, 6-9 March 2019, Bangkok, Thailand
6. Jha J, Singh MK, Pushker N, Sen S, Kashyap S, Role of Ataxia Telangiectasia Mutated in uveal melanoma and its prognostic significance, 1st AIIMS Research Day 2019, 25-26 March 2019, New Delhi

7. Kashyap S, Singh MK, Meel R, Pushker N, Sen S, Chosdol K, Bakhshi S, 'Activation of Non-Canonical NFκB pathway in Inflammatory Environment of Uveal Melanoma', European Society of Medical Oncology (ESMO), 19-23 October 2018, Munich, Germany
8. Singh L, Kashyap S, Pushker N, Bakhshi S, Sen S, Rizvi MA, Poster presentation on 'Immune checkpoints and T-Lymphocytes as Immunotherapeutic Target in the treatment of Sebaceous Gland Carcinoma', European Society of Medical Oncology (ESMO), 19-23 October 2018, Munich, Germany
9. Singh L, Kashyap S, Singh MK, Sen S, Rizvi MA, 'Targeting PD-1/PD-L1 Pathway in Tumor Microenvironment of Sebaceous Gland Carcinoma as a New Paradigm of Immunotherapy', European Congress of Immunology (ECI), 2-5 September 2018, Amsterdam, Netherlands
10. Singh L, Pushker N, Sen S, Bakhshi S, Kaur J, Kashyap S, Prognostic Impact of Mitochondrial Proteins in Retinoblastoma Patients', Society of Mitochondrial Research, 28-30 November 2018, Lucknow
11. Singh MK, Kashyap S, Pushker N, Sen S, Chosdol K, Decreased Activation of Non-Canonical NFκB (NC-NFκB) Pathway in Inflammatory Environment of Uveal Melanoma, APAO Congress 2019, 6-9 March 2019, Bangkok, Thailand
12. Singh MK, Kashyap S, Pushker N, Sen S, Chosdol K, Prognostic significance of loss of NEMO protein in uveal melanoma, APAO Congress 2019, 6-9 March 2019, Bangkok, Thailand
13. Singh MK, Kashyap S, Pushker N, Sen S, Meel R, Chosdol K, Bakhshi S, Kaur J, Interaction of NFκB1 protein expression with Inflammatory Microenvironment of Uveal Melanoma and its Prognostic Significance, European Congress of Immunology 2018, 2-6 September 2018, Netherlands
14. Singh MK, Pushker N, Meel R, Chosdol K, Sen S, Bakhshi S, Kashyap S, Prognostic significance of NFκB pathway in the tumor microenvironment of uveal melanoma, ISOO 2019, 22-26 March 2019, Los Angeles, USA
15. Venugopal R, Sen S, Mohanty S, Kashyap S, Agarwal T, Sharma N, "Prognostic significance of matrix metalloproteinase 9 in cultivated oral mucosal epithelial transplantation (COMET) in Stevens-Johnson Syndrome (SJS) chronic ocular sequelae", Keracon 2018 by Cornea Society of India, 30 November-2 December 2018, New Delhi

Ocular Biochemistry

1. Kaur J, Goswami S, KS, Pushker N, Kashyap S, Comparative gene expression profiling of metastatic and non-metastatic human uveal melanoma, International Symposium on tumor microenvironment and cancer prevention and therapeutics, 8-9 February 2019, School of Life, Sciences, JNU, New Delhi
2. KS, Goswami S, Bajaj MS, Ravi AK, Kaur J, Differential gene expression of human uveal melanoma, LMCE 2018 and KSLM 59th Annual Meeting, 1-3 November 2018, Seoul, Korea
3. KS, Goswami S, Shukla S, Kumar S, Ravi AK, Pushker N, Kaur J, FK506-binding protein 12-rapamycin-associated protein 1 (FRAP1) mRNA expression in human uveal melanoma, MVRCONCON 2018, 28-30 September 2018, Kozhikod, India

Ocular Pharmacology

1. Bhattacharyya S, Halder N, Singh B, Chawla R, Velpandian T, Proteomic profiling of aqueous humor in rat model of diabetes, -do-, -do-, -do-
2. Das U, Titiyal JS, Singh B, Sreenivas V, Jayaram B, Halder N, Velpandian T, Comparison of tear pharmacokinetics of calcium channel blockers following systemic administration in rabbits, -do-, -do-, Hyderabad
3. Das U, Titiyal JS, Singh B, Sreenivas V, Jayaram B, Halder N, Velpandian T, Intraocular penetration and QSPR modeling of 8 congeneric antifungal and antiprotozoal agents in rabbits after systemic administration
4. Gowtham L, Halder N, Dada T, Jayasundar R, Baskarsingh, Velpandian T, Metabolic profiling of glaucomatous patients, -do-, -do-, Hyderabad
5. Gowtham L, Halder N, Dada T, Jayasundar R, Singh B, Velpandian T, Aqueous humor metabolomic profiling of glaucomatous patients, -do-, -do-, -do-
6. Halder N, Das U, Velpandian T, Comparison of Ocular Pharmacokinetics of Selected Antiangiogenic Agents after Intravitreal (IVT) Injection in Rabbits using ESI-LC-MS/MS, -do-, -do-, -do-
7. Halder N, Velpandian T, Precorneal tear film pharmacokinetics of extemporaneously compounded piperacillin and tazobactam in rabbits, 64th Annual meeting of Association of Physiologists and Pharmacologists (APPICON), 27-1 November 2018, Manipal
8. Moksha L, Halder N, Kumar A, Singh B, Chawla R, Velpandian T, Functional importance of drug transporter modulation in blood ocular barriers during inflammation, -do-, -do-, Hyderabad

9. Moksha L, Halder N, Kumar A, Singh B, Chawla R, Velpandian T, Drug Transporter Modulation in Blood Ocular Barriers During Inflammation, PharmSci 360—American Association of Pharmaceutical Scientists, November 2018, Washington DC, USA
10. Moksha L, Halder N, Kumar A, Singh B, Chawla R, Velpandian T, Functional importance of efflux drug transporter modulation in blood ocular barriers during inflammation, -do-, -do-, -do-
11. Premkumar C, Das U, Moksha L, Halder N, Velpandian T, Poultry Antibiotics—An emerging multidrug resistant superbug threat in Delhi, -do-, -do-, -do-
12. Velpandian T, Educational course on basics of ocular pharmacology and drug delivery to eye, 25th Annual Meeting of IERG ARVO India Chapter, 27-29 July 2018, Hyderabad
13. Velpandian T, Vision Science to Patient Care—A Translational Research, Meeting organized by Arvind Medical Research Foundation, 25 August 2018, Madurai

Ocular Radiology

1. Combined 18th Meeting of Asian Oceanian Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), organized by PGIMER, 14-16 September 2018, Chandigarh
2. Dohare, N, Sharma S, Madhusudhan KS, Jana M, Das P, Malik R (Poster), Hepatic shear wave elastography as an additional paradigm in assessing response to endovascular intervention in pediatric syndrome, at PGI Chandigarh
3. Jagannathan NR, Kumar P, Kumar R, Kumar V, Kumaran SS, Sharma S, Thulkar S, Datta Gupta S (Poster), Metabolic Profiling of Blood Plasma for Distinguishing Prostate Cancer in Patients with Positive Biopsy and Negative Biopsy using NMR Spectroscopy, Joint Annual Meeting of ISMRM-ESMRMB, 16-21 June 2018, Paris
4. Kumar V, Das CJ, Sharma S, Thulkar S, Kumaran SK, Datta Gupta, Kumar R, Jagannathan NR (Poster), Added value of magnetic resonance spectroscopic imaging to multiparametric MRI for detection of prostate cancer using PIRADS version 2, Joint Annual Meeting of ISMRM-ESMRMB, 16-21 June 2018, Paris
5. Maji P, Malik R, Sharma S (Poster), Transjugular Liver biopsy in children and adolescents, 51st Annual Meeting of ESPGHAN, 11 May 2018, Geneva
6. Mewar SK, Sharma S, Dhamija E, Bhattachajee R, Thulkar S, et al. (Poster), In bore MR guided prostate biopsy usig multiparametric MRI to avoid unnecessary biopsies, Joint Annual Meeting of ISMRM-ESMRMB, 16-21 June 2018, Paris
7. Mewar SK, Sharma S, Dhamijia E, Thulkar S, Kumar P, Kumar V, Kumaran SK, Datta Gupta, Kumar R, Jagannathan NR (Poster), Use of multiparametric MRI in guiding in bore guided prostate biopsy and routine TRUS guided biopsy for detection of prostate cancer, ISMRM Workshop on Quantitative Body Imaging, 26-28 March 2019, New Delhi
8. Prakash A, Sharma S (Oral paper), Orbital cysticercus: More than that meets the eye, Combined 18th Meeting of Asian Oceanian Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), organized by PGIMER, 14-16 September 2018, Chandigarh
9. Razik A, Das CJ, Sharma S, Genitourinary Case of the day, 104th Scientific Assembly and Annual Meeting, of RSNA, 25-30 November 2018, Chicago

Ocular Anaesthesia

1. Dr Dilip R Shende, Dr Ramkumar, Dr L Kashyap, Presented the paper—Comparison of Sub-Tenon Block, Peribulbar Block and IV Fentanyl for Peri-Operative Analgesia in Paediatric Cataract Surgery, 15th Conference of Asian Society of Paediatric Anaesthesiologists (15th ASPA) in conjunction with the 88th Annual Scientific Meeting of the Royal College of Anesthesiologists of Thailand, 18-19 August 2018, Bangkok, Thailand
2. Sarath, Kumar KR, Sinha R, Pranita, C-MAC® D-BLADE for awake oro-tracheal intubation with minimal mouth opening—A safe alternative to fiberoptic bronchoscope, AIIMS Anaesthesiology Post Graduate Assembly, 18 October 2018, New Delhi
3. Dr Dilip R Shende, Dr Velmurgan, Dr L Kashyap, Presented paper: End expiratory occlusion test and mini fluid challenge in predicting fluid responsiveness in acute circulatory failure, 15th Annual Congress of the Turkish Society of Medical and Surgical Intensive Care Medicine and 7th Euro-Asian Critical Care Meeting 2018, 21-24 November 2018, Antalya, Lara, Turkey
4. Sinha R, Yadav S, Khanna P, Ray BR, Pandey RK, Punj J, Darlong V, Dexmedetomidine effect on serum cortisol in paediatric ophthalmic surgery, Post Graduate Assembly (PGA-72) conducted by New York Society of Anaesthesiologist, 7 December 2018, New York, USA
5. Kumar A, Kumar KR, Sinha R, Parvathy, TIVA with Peribulbar block for Smith Lamli Optiz syndrome, 11th Annual Conference of India Association of Paediatric Anaesthesiologist, 9 February 2019, New Delhi

6. Pranita, Kumar KR, Darlong V, Air-Q as rescue conduit for fiberoptic guided intubation in a child with Treacher Collins Syndrome, 11th Annual Conference of India Association of Paediatric Anaesthesiologist, 10 February 2019, New Delhi

RESEARCH

Funded projects

Ongoing

Unit I (Cataract, Refractive surgery, Vitreoretina, Uvea and ROP)

1. CRFB002H2301, RAINBOW Study: A randomized, controlled study evaluating the efficacy and safety of RAINBIZUMB compared with laser therapy for the treatment of INFANTS BORN prematurely With retinopathy of prematurity, Rajpal, Novartis Health Care Private Limited, May 2016 ongoing

Unit II (Vitreoretina, Uvea and ROP)

1. Evaluation of autologous bone marrow derived stem cells in the dry age related macular degeneration—A Comprehensive Study (Code-I880), Atul Kumar, ICMR, 3 years, 2015-2018, Rs 49 lakhs
2. Diabetic Retinopathy: An Epidemiological Study of its Risk Factors and Biological Markers in Delhi under NPCB and VI, Atul Kumar, MoH&FW, 2 years, 2017-2019, Rs 109.25 lakhs
3. TB DNA/RNA in choroiditis, Rohan Chawla, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
4. Chemoport for ocular delivery, Rohan Chawla, AIIMS, 1 year, 2018-2019, Rs 5 lakhs

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

1. A Comparative Study of Efficacy and Acceptability of a new Paradigm Foldscopy and Conventional Microscopy for analysis of Goblet Cells in patients with Limbal Stem Cell Deficiency, JS Titiyal, DBT, 1 year, 2018-2019.
2. Safety and Efficacy of the Presbyopia IPCL for correction of Presbyopia with Moderate Myopia and Hyperopia, JS Titiyal, IPCL, 3 years, 2018-2021, Rs 7.8 lakhs
3. Study of Inflammatory mediators in aqueous humour of patients undergoing FLACS surgery: A pilot surgery, JS Titiyal, AIIMS, 3 years, 2018-2021, Rs 5 lakhs
4. Comparative evaluation of 0.1% Sodium Hyaluronate drops versus 0.5% Carboxy Methyl Cellulose (CMC) in cases of Steven Johnson Syndrome (SJS) ocular sequelae: A randomized controlled pilot study, Namrata Sharma, Microlabs, 1 year, 2019, Rs 2.67 lakhs.
5. Comparative evaluation of 0.1% Sodium Hyaluronate drops versus 0.5% Carboxy Methyl Cellulose (CMC) in cases of Dry eye Disease: A randomized controlled pilot study, Namrata Sharma, Microlabs, 1 year, 2019, Rs 1.22 lakhs
6. Comparative evaluation of combined 0.03% chloroquine phosphate with 0.1% olopatidine drops versus 0.1% olopatidine drops alone in cases of allergic keratoconjunctivitis, Namrata Sharma, FDC Ltd, 1 year, 2018-2019, Rs 10.50 lakhs
7. Efficacy of prophylactic use of Intracameral Moxifloxacin 0.5% in prevention of post-cataract surgery endophthalmitis in North India: A randomized control trial, Namrata Sharma, Cipla Ltd, 1 year 2 months, 2018-2019, Rs 24.5 lakhs

Unit IV (Glaucoma and Paediatric Cataract)

1. Screening of known and novel genetic variations associated with Juvenile onset open angle glaucoma, Viney Gupta, ICMR, 3 years, 2018-2021, Rs 33 lakhs
2. Exome sequencing based detection of novel and causal mutation(s) associated with juvenile onset open angle glaucoma, Viney Gupta, DRDO, 3 years, 2017-2020, Rs 68 lakhs
3. Exploring the role of endocannabinoids in primary adult glaucoma, Dewang Angmo, AIIMS, 2 years, 2017-2019, Rs 9 lakhs
4. Genetics of Primary Angle Closure Disease, Ramanjit Sihota, DBT, 2 years, 2016-2018, Rs 54 lakhs
5. To evaluate the effect of increased outdoor activity on the incidence and progression of myopia in school children, Rohit Saxena, DST, 3 years, 2016-2019, Rs 31.10 lakhs
6. CBM- RPC Disability Eye Health Programme and Strengthening of LV and Rehabilitation Services, Rohit Saxena, CBM, 5 years, 2015-2020, Rs 12.42 lakhs

7. A Pivotal Phase II/III, Randomized, Double-Masked, Sham-Controlled Trial of QPI-1007 delivered by single or Multi-Dose Intravitreal Injections to Subjects with Acute Non-Arteritic Anterior Ischemic Optic Neuropathy (NAION), Rohit Saxena, Quark Pharmaceuticals Inc, 3 years, July 2016-2019

Unit V (Squint, Neuro Ophthalmology, Paediatric Ophthalmology and Oculoplasty)

1. Molecular and mutational studies in the uveal melanoma and their correlation with clinicopathological parameters, Neelam Pushker, ICMR, 3 years, 2017-2020, Rs 30 lakhs
2. A comparative study to evaluate the efficacy of Idebenone in comparison with placebo in Leber's Hereditary Optic Neuropathy patients—A pilot study, Swati Phuljhele Aalok, AIIMS, 2 years, 2017-2019, Rs 4.32 lakhs per year
3. Exploring the Role of Tumor Microenvironment in Retinoblastoma, Rachna Meel, AIIMS, 1 year, 2018-2019, Rs 5 lakhs

Unit VI (Cornea, Squint and Neuro-ophthalmology)

1. Clinical trial of Cultivated Oral Mucosal Epithelial Transplant (COMET) in patients with bilateral ocular surface diseases, Radhika Tandon, DBT, 3 years, 2016-2019
2. Multi-centric Task-force Project: Study of impact of exposure to Ultra Violet Radiation (UVR) and aerosol exposure on ocular health in India Phase-II, Radhika Tandon, ICMR, 5 years, 2018-2023, Rs 428.42 lakhs
3. Comparative evaluation of efficacy of conjunctival stem cell transplantation with cultivated oral mucosal epithelial transplantation in patient with bilateral cicatrizing ocular surface diseases, DBT Centre of Excellence for Stem Cell Research: Basic and Translational (Phase-II), Radhika Tandon, DBT, 3 years, 2017-2020
4. Assessment of inflammatory markers and growth factors in normal and diseased corneas, Noopur Gupta, AIIMS, 3 years, 2016-2019, Rs 5 lakhs
5. Operational research project on conducting training sessions for health care professionals, Noopur Gupta, DHR
6. Prospective audits of the phenotypes, causes, correlates of trichiasis—WHO Trachoma Collaborative Study, Noopur Gupta, WHO Geneva, 1 year, 2018-2019, Rs 5.2 lakhs
7. Clinicopathological significance of melanogenesis in uveal melanoma, Neiwete Lomi, AIIMS, 2 years, 2018-2020, Rs 5 lakhs
8. Exploring the role of tumor microenvironment in retinoblastoma, Rachna Meel, AIIMS, 2 years, 2018-2019, Rs 5 lakhs

Community Ophthalmology

1. Epidemiological study of avoidable blindness in India, Praveen Vashist, MoHFW, 4 years, 2015-2019, Rs 528.08 lakhs
2. To evaluate the effect of increased outdoor activity on the incidence and progression of myopia in school children, Praveen Vashist, DST, 3 years, 2016-2019, Rs 48.63 lakhs
3. Operational research project on strengthening integrated primary eye care in urban vulnerable populations of Delhi, Praveen Vashist, Sightsavers, 3 years, 2016-2019, Rs 163.74 lakhs
4. A Sustainable Model for Comprehensive Outreach Eye Care Service in NCR, Praveen Vashist, Deepalaya, 5 years, 2017-2022, Rs 77.12 lakhs
5. A Sustainable Model for Comprehensive Outreach Eye Care Service in NCR, Praveen Vashist, Hero Motocorp, 3 years, 2018-2021, Rs 37.04 lakhs
6. A Sustainable Model for Comprehensive Outreach Eye Care Service for underserved population, Praveen Vashist, Sparsh, 3 years, 2018-2020, Rs 39.42 lakhs
7. A Sustainable Model for Comprehensive Outreach Eye Care Service for underserved population in Delhi Slums and resettlement colonies, Praveen Vashist, Deepalaya, 5 years, 2018-2022, Rs 125.10 lakhs
8. Comprehensive primary eye care services in rural areas of Delhi/DJJS, Praveen Vashist, Divya Jyoti Jagrati Sansthan, 4 years, 2016-2020, Rs 34.74 lakhs
9. Vision Screening and Eyeglasses Dispensing Programme for Students in Delhi Schools, Praveen Vashist, Vision Spring, 2 years, 2017-2019, Rs 6.40 lakhs
10. Assistive Technology Study, Senjam Suraj Singh, Commonwealth Eye Health Consortium UK, 1 year, 2017-2018, Rs 1.5 lakhs
11. An Operational Research on Developing Disability Inclusive Eye Health Programme in India, Suraj Singh Senjam, Christoffel Blinden Mission (CBM), 2 years, 2018-2020, Rs 22.54 lakhs

12. Patterns and pathways of care seeking for cataract and common ocular morbidities and impact of local volunteers on the pathways among urban vulnerable population settings of West Delhi, Vivek Gupta, Swami Sivananda Memorial, 2 years, 2017-2019, Rs 20 lakhs
13. Development of a culturally appropriate health literacy instrument and assessing its validity in Hindi speaking patients receiving general and primary eye care services in New Delhi, Vivek Gupta, AIIMS, 3 years, 2016-2019, Rs 9.96 lakhs
14. Correlation between outdoor activity as measured by UV radiation exposure and myopic refractive error in school going children in New Delhi, Praveen Vashist, ORBIS, 1 year, 2019, Rs 10 lakhs

Ocular Pathology

1. Identification and Characterization of Molecular Targets in Orbital Tumors: Basis of innovative therapeutic strategies, Seema Sen, UGC, 5 years, 2017-2022, Rs 40 lakhs

Ocular Biochemistry

1. Role of circulating endothelial progenitor cell markers in human retinoblastoma, Jasbir Kaur, AIIMS, 2 years, 2017-2018, Rs 10 lakhs

Ocular Pharmacology

1. Developing quality control parameters and dispensing MK Media for Corneal Transplant Preservation for Indian Eye banks under Ministry of Health, T Velpandian, MoHFW, Government of India, 11 years, 2009-2020, Rs 129 lakhs
2. Rationalizing the development of newer intravitreal agents/formulations for diabetic neovascular conditions, T Velpandian, Saksin Lifesciences Pvt Ltd, 1 year, 2018-2019, Rs 18 lakhs
3. In vivo Based QSPR model for the In-Silico Prediction of Drugs Penetrating Through Blood Retinal Barriers for High-throughput Ocular Drug Development, T Velpandian, DBT, 4 years, 2015-2019, Rs 51 lakhs
4. Preclinical studies on selected anti-angiogenic compounds for their suitability in retinal neovascular conditions, Nabanita Halder, AIIMS, 2 years, 2016-2018, Rs 9 lakhs
5. Rationalizing the usage of extemporaneously prepared topical solution of piperacillin and tazobactam combination based on their ocular kinetics, Nabanita Halder, AIIMS, 1 year, 2018-2019, Rs 4.5 lakhs

Completed

Unit I (Cataract, Refractive surgery, Vitreoretina, Uvea and ROP)

1. A 12 months, phase III, randomized, double-masked, multi-centre active controlled study to evaluate the efficacy and safety of two individualized regimens of 0.5 mg ranibizumab vs Verteporfin PDTG in patients with visual impairment due to choroidal neovascularization secondary to pathologic myopia, Rajpal, Novartis Health Care Private Limited, 2 years, 2015-2017, Rs 2.53 lakhs

Unit II (Vitreoretina, Uvea and ROP)

1. Natalizumab in rabbit eye, Rohan Chawla, AIIMS, 2 years, 2016-2018, Rs 5 lakhs

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

1. Comparison of autologous cultured limbal stem cells on amniotic membrane transplant versus limbal lenticule transplantation alone in the management total limbal stem cell deficiency due to ocular burns: A randomized controlled clinical trial, Namrata Sharma, DST, 2 years 6 months, 2015-2017, Rs 42 lakhs
2. A prospective study to evaluate Suprathob Toric Intra Ocular Lens (IOL) implantation to correct pre-existing corneal astigmatism in patients undergoing cataract surgery, Namrata Sharma, Appasami Associates Pvt Ltd, Chennai, 3 years 7 months, 2015-2018, Rs 4.4 lakhs
3. Detection of HSV-1 etiology in primary keratoplasty and failed grafts in suspected viral keratitis cases: A prospective clinic pathological and molecular study, Professor Namrata Sharma, ICMR, 4 years 2 months, 2013-2017, Rs 31 lakhs
4. Clinical Study to Evaluate the Safety and Efficacy of the Bioengineered Cornea in Patients Requiring Deep Anterior Lamellar Keratoplasty, Namrata Sharma, Linkocare Lifesciences, Sweden (Care Group India), 2 years 4 months, 2016-2018, Rs 12.8 lakhs
5. Asia Cornea Society for Infectious keratitis study, ACSIKS Study, Namrata Sharma, Asia Cornea Society, Singapore, 2 years, 2015-2017, Rs 18.29 lakhs

Unit IV (Glaucoma and Paediatric Cataract)

1. Cascade screening of family members of patients with JOAG, Viney Gupta, ICMR, 3 years, 2015-2018, Rs 47 lakhs

Ocular Microbiology

1. Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type 1 and Type 2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral Infections, Nishat Hussain Ahmed, AIIMS, 24 months, 2016-2018, Rs 7.7 lakhs

Community Ophthalmology

1. Community Ophthalmology Programme in South Delhi, Praveen Vashist, Deepalaya, 1 year, 2017-2018, Rs 2 lakhs

Ocular Pathology

1. Molecular study of mitochondrial DNA in intraocular malignant childhood tumours, Seema Kashyap, ICMR, 3 years, 2015-2018

Ocular Pharmacology

1. Feasibility Study for Developing the Pharmaceutical and Bio-analytical Methods for the Development of Newer Anticancer Agents for Retinoblastoma, T Velpandian, Invictus, 5 years, 2013-2018, Rs 38.86 lakhs
2. Collaborative Studies on Developing newer antimicrobials based on QSPR platform for its projected use in ocular and other infections, T Velpandian, Vyome Biosciences, 4 years, 2014-2018, Rs 23.12 lakhs
3. Preclinical studies on selected anti-angiogenic compounds for their suitability in retinal neovascular conditions, Nabanita Halder, AIIMS, 2 years, 2016-2018, Rs 9 lakhs
4. Development and standardisation of pharmaceutical products for their use in special population, T Velpandian, INMAS, DRDO, 3 years, 2015-2018, Rs 26 lakhs

Departmental projects

Ongoing

Unit I (Cataract, Refractive Surgery, Vitreoretina, Uvea and ROP)

1. Anatomical and functional outcomes of drainage through posterior retinotomy versus PFCL assisted drainage through pre-existing break in vitrectomy for rhegmatogenous retinal detachment
2. Characterization of secondary/idiopathic choroidal neovascular membranes and their response to anti-VEGF therapy using optical coherence tomography angiography
3. Pilot study to evaluate efficacy of subthreshold micropulse laser (577 nm) in case of central serous chorioretinopathy
4. Prospective Observational Study of Cases of Aggressive Posterior Retinopathy of Prematurity (APROP) and Zone 1 Retinopathy of Prematurity
5. To characterize treatment Naive Choroidal Neovascular Membranes Using Optical Coherence Tomography angiography
6. To compare the outcomes of 0.1 mg vs 0.25 mg Intravitreal Ranibizumab in Aggressive Posterior Retinopathy of Prematurity
7. To study the outcomes of immediate sequential Bilateral ROP surgery

Unit II (Vitreoretina, Uvea and ROP)

1. A randomized, masked, controlled trail to study the safety and efficacy of suprachoroidal CLS-TA in conjunction with intravitreal aflibercept in subject's retinal vein occlusion
2. Assessment of role of Autologous Bone Marrow derived stem cells in the treatment of Dry Age Related Macular Degeneration—A comprehensive study
3. Characterisation of treatment naive choroidal neovascular membranes using OCT—A guide
4. Choroidal thickness measurement in normal healthy india population by using swept source optical coherence tomography
5. Coguide—High resolution photoreceptor and microvascular imaging using adaptive optics fundus camera and OCT angiography in early stages of diabetic retinopathy

6. Comparative Evaluation of Retinal Architectural changes using microscope—Integrated i-OCT in Macular Surgery—A prospective randomised trial
7. Comparative evaluation of SF6 versus partial air tamponade on structural and functional outcomes of epiretinal membrane surgery
8. Comparison of antivegf alone with anti-VEGF + 2 mg Tricort in cases of CRVO
9. Comparison of effect of 3 antibiotic regimens in endophthalmitis
10. Digitally Assisted VS conventional vitreo-retinal surgery—A prospective randomized trial
11. Efficacy of Eplerenone in polypoidal choroidal vasculopathy
12. Efficacy of Oral Eplerenone in polypoidal choroidal vasculopathy
13. Multimodal retinal imaging of eyes with metamorphopsia after retinal detachment surgery
14. Evaluation of outer retinal structural integrity using En Face OCT Imaging in post anti-VEGF eyes with Diabetic Macular Oedema—A prospective study
15. High-resolution Photoreceptor and Microvascular Imaging Using Adaptive Optics Fundus Camera and OCT-angiography in Early Stages of Diabetic Retinopathy
16. Intraoperative monitoring of cerebral oxygen saturation using Near Infrared Spectroscopy (NIRS) and assessment of risk factors for low cerebral oxygen saturation in preterm and very preterm infants with retinopathy of prematurity during vitreoretinal surgeries: An observational prospective study
17. Intravitreal steroid in CRVO, Effect of various antibiotics in Endophthalmitis
18. Choroidal thickness measurement in normal healthy Indian population by using swept source optical coherence tomography
19. Metagenomics in endophthalmitis and septicaemia
20. Multimodal retinal imaging of eyes with metamorphopsia after retinal detachment surgery
21. Predictors for surgical outcomes in stage 4a retinopathy of prematurity
22. Prospective observational study of cases of APROP and zone 1 ROP
23. Role of 3D Heads up Digitally Assisted Vitreoretinal surgery in primary and recurrent rhegmatogenous retinal detachment with proliferative vitreoretinopathy—A prospective randomized trial
24. Surgical outcomes of sutureless clear corneal microincision vitrectomy surgery in end stage 5 ROP
25. To compare the outcomes of 0.1 mg vs 0.25 mg Intravitreal Ranibizumab in Aggressive Posterior Retinopathy of Prematurity
26. To Compare the Outcomes of Laser vs Combined Laser and Ranibizumab in Threshold Retinopathy of Prematurity
27. To study the outcomes of Immediate Sequential Bilateral Vitreo Retinal Surgery (ISBVS) in advanced ROP
28. Ultra-wide Field Fluorescein Angiography (UWFA) guided peripheral laser photocoagulation in Recalcitrant Diabetic Macular Edema eyes—A comparative randomized study
29. Use of broad-range PCR assay for diagnosis of endophthalmitis and its comparisons against conventional and automated (BACTEC) culture
30. Yoga in CSR

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

1. Effect of Glaucoma Surgery on Corneal topography
2. Pre-descemets endothelial Keratoplasty vs descemets membrane endothelial keratoplasty
3. Role of Microscope intergrated intraoperative optical coherence tomography in pediatric Keratoplasty

Unit IV (Glaucoma and Paediatric Cataract)

1. A randomized controlled trail to evaluate the effect of low dose atropine eye drops for childhood myopia
2. A randomized controlled trial to compare outcomes of trabeculectomy alone vs trabeculectomy with deep scleral pocket
3. Effect of “Yoga Based Intervention” on Inflammatory Markers and Gene Expression Profile in Blood, Aqueous and Trabecular Meshwork of Primary Open Angle Glaucoma Patients: A randomized controlled trial
4. Correlation of AS OCT changes in trabecular meshwork with SLT outcomes among JOAG, OCT angiography in POAG and PACG
5. Effect of Mindfulness Based Stress Reduction (MBSR) on intraocular pressure in patients with ocular hypertension

6. Effect of Mindfulness Based Stress Reduction (MBSR) on Optic Disc Perfusion using OCT Angiography in Glaucoma Patients: A Randomized Controlled Trial
7. Effect of Yoga based intervention in IOP, QOL, inflammatory markers, and gene expression in glaucoma pts: A RCT
8. RCT to compare outcomes of Trabeculectomy alone vs Trabeculectomy with Deep sclerectomy
9. Endocyclophotocoagulation in refractory glaucoma, Role of SLT in Pseudophakic Glaucoma
10. Evaluating Nd-Yag PI Vs Cataract extraction in PACG—A prospective observational cohort study
11. Evaluation of effect of mindfulness based stress reduction on intraocular pressure in patients with ocular hypertension
12. Evaluation of the effects of trabeculectomy on corneal topography, aberrometry, biomechanics, and ocular surface
13. Longterm evaluation of medical therapy vs Surgical therapy in chronic glaucomas and QOL outcome, Predicting visual field deterioration based on progression analysis
14. Metabolomic and pharmacogenomic evaluation of glaucoma therapy, Incidence of Congenital Glaucoma—A multicentric Trial, Glaucoma Definition study India
15. Prevalence of glaucoma in diabetic retinopathy patients, Comparative evaluation of corneal biomechanical aberrations following corneal cross linking between thin corneas vs corneas with thickness >400 microns in patients with keratoconus
16. Prevalence of Glaucoma in Diabetic retinopathy, Evaluating the severity of glaucoma in consanguinous marriage, A 10-year review of the perimetric and confocal scanning laser ophthalmoscopic changes in glaucoma

Unit V (Squint, Neuro Ophthalmology, Paediatric Ophthalmology and Oculoplasty)

1. A temporal evaluation of structural and functional changes of optic nerve in acute cases of idiopathic intracranial hypertension and the impact of weight reduction on the same
2. Ambispective Study Evaluating Correlation between Proposed MRI based Optic Nerve Staging in Extraocular Retinoblastoma with Clinical Outcome and Prospective Evaluation of Optic Nerve Enhancement Without Optic Nerve Thickening
3. Autologous fat transfer for orbital volume augmentation in sockets with small non-seeing eye
4. Evaluation of efficacy of silicone intubation after probing with adjunctive mitomycin-c in adults with primary acquired nasolacrimal duct obstruction
5. Evaluation of levator plication as compared to frontalis sling surgery in severe congenital ptosis
6. Evaluation of mitomycin-c in anophthalmic contracted socket reconstruction with mucous membrane grafting
7. Evaluation of the role of intralesional bleomycin in orbital lymphangioma
8. Evaluation of Optical Coherence Tomography-Angiography (OCT-A)
9. Changes in Non Arteritic Anterior Ischemic Optic Neuropathy (NAION)
10. Psychosocial factors among patients undergoing orbital exenteration
11. Role of serum galactomannan assay in the treatment of invasive orbital aspergillosis

Unit VI (Cornea, Squint and Neuro-ophthalmology)

1. Assessment of Outdoor Ultraviolet Light Exposure and Serum Melatonin levels in Young Myopes
2. Assessment of quality of vision and vision related quality of life in patients undergoing anterior lamellar keratoplasty: A pilot study
3. Clinical profile and outcome of povidone eye drops versus artificial tears in treatment of viral conjunctivitis
4. Comparison of AMT, MMG, COMET in acute ocular surface disorders
5. Corneal Epithelial Thickness Mapping Using Fourier Domain Optical Coherence Tomography and Corneal Biomechanics in Vernal Keratoconjunctivitis
6. Evaluation of accuracy of Barrett toric calculator in predicting post-operative residual astigmatism in cases of toric IOL implantation
7. Evaluation of Corneal Tomography and Biomechanics following Intrastromal Lamellar Keratoplasty in Keratoconus, Topical autologous platelet Lysate drops in ocular GVHD, Dry eye disease and ocular morbidity in individuals with sleep disorders
8. Evaluation of graft survival and visual outcomes following keratoplasty in vernal keratoconjunctivitis
9. Evaluation of Thrombospondin – 1 polymorphisms in corneal graft rejection
10. Evaluation of Barrett Universal II Formula for IOL power calculation

11. Lenticular changes with use of statins—A hospital based prospective cohort study
12. Operational Research Project on conducting training sessions for health care professionals
13. Role of collagen cross linking for bleb leakage
14. Role of conjunctival autofluorescence in ocular surface squamous neoplasia
15. Sonicated versus non-sonicated liposomal amphotericin B in the treatment of fungal corneal ulcer
16. Ocular Surface evaluation in Vernal Keratoconjunctivitis
17. Study of posterior corneal astigmatism in normal and post refractive surgery corneas, Antifungal susceptibility testing in fungal keratitis
18. Study of the effect of red tinted filters on colour discrimination in patients with congenital colour vision deficiency and the impact of type, severity and structural change

Ocular Microbiology

1. Correlation of Antibiotic Resistance Patterns of Ocular Bacterial Isolates and Antibiotic Use in Patients Admitted to Hospital—A Step Towards Antimicrobial Stewardship
2. Species Identification and Determination of Virulence Factors of Coagulase Negative Staphylococci in Ocular Infections
3. Use of advanced genomics in Microbiology of culture negative infections

Community Ophthalmology

1. A population based study to assess the prevalence of glaucoma in Delhi
2. Community based operational research study on involvement of Accredited Social Health Activists (ASHAs) in strengthening Primary Eye Care services for Urban Vulnerable Population of Delhi
3. Epidemiological Study on Childhood Visual Impairment in Delhi

Ocular Pathology

1. Molecular Characterization of Malignant Lacrimal Gland Tumours
2. Molecular Characterization of NFκB pathway in Uveal Melanoma
3. Molecular characterization of Steven Johnson Syndrome Ocular Sequelae
4. Molecular mechanism of melanogenesis pathway in uveal melanoma
5. Ocular Surface evaluation in vernal Keratoconjunctivitis
6. Study of CHED patients with and without SLC4A11 Gene mutation
7. Study of tear film and ocular surface changes after long term use of Rose K Lenses in patients with Keratoconus
8. Targeting PD-1/PD-L1 Pathway in Tumor Microenvironment: New Immunotherapeutic Paradigm for Ocular Malignancies
9. To study variable gene expression of collagen and associated degradative enzymes present in human vitreous in patients with myopia vs normal population

Ocular Pharmacology

1. Collaborative Studies on Developing newer antimicrobials based on QSPR platform for its projected use in ocular and other infections
2. Determining Omics relationship with the pathophysiology of diabetic retinopathy
3. Development and standardisation of pharmaceutical products for their use in special population
4. Feasibility Study for Developing the Pharmaceutical and Bio-analytical Methods for the Development of Newer Anticancer Agents for Retinoblastoma
5. In vivo Based QSPR model for the In-Silico Prediction of Drugs Penetrating Through Blood Retinal Barriers for High-throughput Ocular Drug Development
6. Metabolomic and pharmacogenomic evaluation of glaucoma therapy
7. Preclinical studies on selected anti-angiogenic compounds for their suitability in retinal neovascular conditions
8. Understanding the drug transporter functions in blood ocular barriers during ocular inflammation in the experimental model of uveitis

Ocular Radiology

1. Imaging and Intervention in Paediatric Budd Chiari Syndrome, Ultrasound Assessment of Gastric Emptying of Clear Fluids with Different Energy Content in Children: A Crossover Pilot Study
2. Role of MR guided biopsy in detection of prostate cancer, Effects of use of bolster and its orientation on kidney position in reference to prone percutaneous nephrolithotomy, Role of ultrasound and advanced MRI in evaluation of prostate cancer

Ocular Anaesthesia

1. Comparison of low-fresh gas flow technique to standard technique of sevoflurane induction in children
2. Comparison of paravertebral block and Caudal epidural block undergoing renal surgery in pediatric patients
3. Comparison of Ultrasound guided femoro-sciatic nerve block versus epidural analgesia for post-operative analgesia following excision of knee tumours—A randomized control study
4. Effect of entropy guided low flow desflurane anaesthesia on laryngeal mask airway removal time in children undergoing ophthalmic surgery—A prospective, randomized, comparative study
5. Intra operative monitoring of cerebral oxygen saturation using Near Infra Red Spectroscopy (NIRS) and Assessment of risk factors for Low cerebral oxygen saturation in preterm and very preterm infants with Retinopathy of prematurity during Vitreo retinal surgeries: An observational prospective study
6. Serum Procalcitonin, Interleukin-6 and sTREM-1 as diagnostic and prognostic markers in sepsis in Intensive Care Unit
7. To determine the association between altered cerebral blood flow in the frontal cortex during sevoflurane anaesthesia and incidence of postoperative emergence delirium in children: An fNIRS based observational study
8. To study the outcomes of Immediate Sequential Bilateral Vitreo Retinal Surgery (ISBVS) in advanced ROP, Fascia Iliaca Block for Acetabular Fractures, Erector Spinae Block for Spine surgeries, USG guided confirmation of LMA

Completed

Unit I (Cataract, Refractive Surgery, Vitreoretina, Uvea and ROP)

1. Anatomical and functional outcomes of drainage through posterior retinotomy versus PFCL assisted drainage through pre-existing break in vitrectomy for rhegmatogenous retinal detachment
2. Characterization of secondary/idiopathic choroidal neovascular membranes and their response to anti-VEGF therapy using optical coherence tomography angiography
3. Characterization of treatment Naive Choroidal Neovascular Membranes Using Optical Coherence Tomography-Angiography
4. Choroidal Vascular Patterns in Sturge Weber Syndrome
5. Comparison of OCTA and fluorescein angiography in patient of diabetic retinopathy
6. Determination of clinic-imaging abnormalities and vitreo retino-choroido-scleral relationship in Myopia
7. Ocular biometry in pediatric age group less than 15 years using 35 mhz ultrasound biomicroscopy
8. Patterns of retinal vasculitis and their clinical and etiological profile—Ultra Wide Field (UWF) study
9. Pilot Study to evaluate efficacy of subthreshold micropulse laser (577 nm) in case of central serous Chorioretinopathy
10. Prevalence of ocular manifestation of tuberculosis in pulmonary TB patients
11. Prospective Observational Study of Cases of Aggressive Posterior Retinopathy of Prematurity (APROP) and Zone 1 Retinopathy of Prematurity
12. Prospective pilot study for comparison of three antibiotic drug regimens (intravitreal) in endophthalmitis
13. Retinopathy of prematurity profile in Inborn and Outborn babies in a tertiary hospital
14. Role of fundus fluorescein angiography in the management of aggressive posterior retinopathy of prematurity
15. To characterize treatment Naive Choroidal Neovascular Membranes Using Optical Coherence Tomography-Angiography
16. To compare the outcomes of 0.1 mg vs 0.25 mg Intravitreal Ranibizumab in Aggressive Posterior Retinopathy of Prematurity
17. To study efficacy of Intravitreal Ranibizumab plus Tricort vs Intravitreal ranibizumab alone in patients with macular edema secondary to CRVO
18. To study the outcomes of immediate sequential Bilateral ROP surgery

Unit II (Vitreoretina, Uvea and ROP)

1. A randomized controlled trial to evaluate the Role of no Strict prone positioning versus one day postoperative strict prone positioning in anatomical closure of Idiopathic full thickness Macular Hole: A preliminary study
2. Anatomical and Functional outcome after Vitrectomy (with ILM peeling) for Recalcitrant Tractional VS non-Tractional Diabetic Macular Edema
3. Anatomical and visual Outcome of posteriorly dislocated lens after phacofragmentatio, Services in Dr RPC AIIMS, New Delhi
4. Assessment of role of autologous bone marrow derived stem cells in the treatment of dry age-related macular degeneration—A comprehensive study
5. Comparative evaluation of conventional macular hole surgery with inverted Internal Limiting Membrane flap technique for large macular holes—A prospective randomized study
6. Comparative evaluation of ultra-wide field fluorescein angiography guided peripheral laser photocoagulation with and without intravitreal antiVEGF in recalcitrant centre involving diabetic macular edema—A randomized study
7. Comparison of Ultra-Wide Field FA (UWFFA) with conv FA guided Pascal laser treatment in DR
8. Evaluation of Autologous Stem Cells for management of Dry AMD
9. Evaluation of the Role of Retinal Renin Angiotensin System (RAS) in the Animal Model of Retinopathy of Prematurity (ROP)
10. Measurement of choroidal thickness in healthy Indian population using swept source OCT
11. Microwave Assisted Synthesis, Development of LC-ESI-MS Method and Quantification of Ocular bis-retinoids in Human Cadaver Retinal Pigment Epithelium
12. OCT-A in CNV
13. Predictors for surgical outcomes in stage 4a retinopathy of prematurity
14. Prospective randomized interventional trial comparing branch retinal vein occlusion treatment with ultra wide field imaging guided peripheral laser in combination with Ranibizumab v/s Ranibizumab only in treatment naïve cases
15. Retinopathy of prematurity profile in Inborn and out born babies in a tertiary Hospital Services in Dr RPC AIIMS, New Delhi
16. Role of fundus fluorescein Angiography in the management of Aggressive posterior Retinopathy of Prematurity Services in Dr RPC AIIMS New Delhi
17. Strengthening of Low Vision and Rehabilitation Services in Dr RPC AIIMS, New Delhi
18. To Determine the Patterns of Ocular Trauma and final visual acuity based on Ocular Trauma Scoring (OTS)
19. To study the role of additional posterior barrage laser in Type 1 Zone 2 ROP

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

1. A study to identify the Genetic basis underlying Epidermal Necrolysis
2. Clinicobiochemical profile of tear fluid in Patients of Primary Open Angle Glaucoma
3. Comparative Evaluation of Femtosecond Small Incision Lenticule Extraction (SMILE) and Femtosecond Laser Assisted In-situ Keratomileusis (FS-LASIK) in moderate to high Myopia
4. Evaluation of Etiology, Clinical features and Outcomes in cases of Descemetocoele, An Ambispective Observational Study
5. Evaluation of Visual functions and Ocular surface before and after Conjunctival Autograft in Patients with Pterygium
6. Molecular Characterization of Stevens-Johnson Syndrome Ocular Sequelae

Unit IV (Glaucoma and Paediatric Cataract)

1. Circumferential iridotrabecular contact changes following iridotomy in primary angle closure suspect, primary angle closure and primary angle closure glaucoma eyes
2. Evaluation of the effect of mindfulness based stress reduction in patients with primary open angle glaucoma

Unit V (Squint, Neuro Ophthalmology, Paediatric Ophthalmology and Oculoplasty)

1. Comparative study of trephination with stent with mitomycin c vs trephination with stent in distal canalicular and common canalicular block
2. Evaluation of botulinum toxin injection in lacrimal outflow obstruction

3. Evaluation of canalicular trephination and monocanicular stenting versus canaliculodacryocystorhinostomy in common canalicular block
4. Evaluation of collagen matrix implant in failed dacryocystorhinostomy surgery as compared to mitomycin c
5. Evaluation of surgical outcome of porous polyethylene implants in anophthalmic sockets with implant migration
6. Evaluation of vitreous seed regression using intravitreal melphalan in combination with intravenous chemotherapy for persistent/partially regressing vitreous seeds in group C and D retinoblastoma In vivo assessment of somatostatin receptor expression with ⁶⁸Ga DOTANOC PET/CT in patients with autoimmune and immune related orbitopathy
7. Mucous Membrane Grafting (Fibrin Glue vs Suture) for Lid Margin Pathologies in Patients with Stevens-Johnson Syndrome: A randomized comparative study
8. The spectrum of visual impairment in Hypoxic Ischemic Encephalopathy and their relationship with clinical classification

Ocular Microbiology

1. Molecular characterization of Fungi from Mycotic Keratitis and invasive infections and comparison with conventional methods like direct detection and culture

Ocular Pathology

1. Correlation of between baseline intraocular pressure and histopathology of trabecular meshwork

Ocular Biochemistry

1. Clinical performance and ocular surface homeostasis study with gas permeable scleral contact lens for ocular surface disease
2. Gene expression profiling in retinopathy of prematurity
3. Genomic alterations in juvenile open angle glaucoma
4. Molecular alterations in glaucoma
5. Study of Endothelial Progenitor Cell (EPC) tetrahydrobiopterin (BH₄) levels and its association with EPC number and function in Coronary Artery Disease (CAD) patients

Ocular Pharmacology

1. Analysing the levels of Vitamin D3 in pharmaceutical formulations available in the market
2. Comparison of time to intubate and intubation conditions with CMAC Miller blade size 1 and CMAC Macintosh blade size 2 in paediatric patients—A prospective randomized controlled study
3. Comparison of two techniques (bolus morphine vs morphine infusion) of analgesic titration with IV morphine in cancer patients
4. Development and standardisation of pharmaceutical products for their use in special population
5. Diagnostic performance of Lung Ultrasound in Ventilator Associated Pneumonia
6. Effect of ACE inhibitor on plasma levels of norepinephrine
7. Effect of low dose ketamine on inflammatory markers and on perioperative analgesia in patients undergoing laparoscopic hernia surgery—A prospective, randomized, comparative study
8. Efficacy of Pulse Dexamethasone in addition to standard therapy alone in children with Juvenile Idiopathic Arthritis: A double blind randomised controlled trial
9. Efficacy of three different antiseptic solutions in neonates admitted in NICU: A randomised non-inferiority trial
10. End expiratory occlusion test and mini fluid challenge for predicting fluid responsiveness in acute circulatory failure
11. Estimation of ceramides in autosomal recessive congenital ichthyosis
12. Estimation of neurotransmitters, metabolites and phospholipids from epileptic brain tissues
13. Evaluation of the Role of Ultrasound Biomicroscopy in Retinoblastoma
14. Feasibility study for developing the pharmaceutical and bio-analytical methods for the development of newer anticancer agents for retinoblastoma
15. Hormonal response during oscillatory lower body negative pressure
16. Pharmacokinetic evaluation of first line anti-tubercular drugs in patients with TB
17. Pharmacokinetic evaluation of second line anti-tubercular drugs in patients with TB
18. Pharmacokinetics of second-line anti-tubercular drugs in children

19. Pharmacological evaluation of selected Ayurvedic formulation
20. Preclinical studies on selected anti-angiogenic compounds for their suitability in retinal neovascular conditions
21. Therapeutic drug monitoring and evaluation of clinical response in abdominal tuberculosis
22. Time-based animal study in hind limb of rat for sequestration of methotrexate-loaded nanoparticles
23. Toxicological analysis and distribution pattern of alcohol and different drugs in various biological samples and their neurobiological effects in suicidal deaths
24. Understanding the drug transporter functions in blood ocular barriers during ocular inflammation in the experimental model of uveitis

Ocular Radiology

1. Role of multi parametric MRI, and Ga-68 PSMA PET scan in evaluation of intermediate and high grade prostate cancer

Collaborative projects

Ongoing

Unit IV (Glaucoma and Paediatric Cataract)

1. Development of a portable and non-contact type intraocular (IOP) pressure measurement device, IIT, Delhi

Unit VI (Cornea, Squint and Neuro-ophthalmology)

1. A metagenomic approach to evaluate the human ocular microbiome in ocular surface disease
2. Efficacy of low dose versus standard regimen of oral betamethasone pulse therapy in rapidly progressive vitiligo: A randomized controlled trial

Community Ophthalmology

1. Establishing a Technical Support Unit (TSU) for Verbal Autopsy based Cause of Death Ascertainment in the Sample Registration System, Registrar General of India—MINerVA - N1715, CCM, AIIMS and Registrar General of India
2. SNOMED-CT: NRCeS—Development of National Drug Repository Database, MoHFW and C-DAC Pune
3. Study on Health-Related Quality of Life and Costing of cataract surgery for treatment of age-related cataract in India
4. Tools to Diagnose—Eye-development and assessment of image analysis tool for identification of glaucoma, IIT Delhi
5. Tools to Diagnose—Eye-development and assessment of image analysis tools for identification of retinal disorders, Diabetic Retinopathy, IIT, Delhi

Ocular Pathology

1. Study of Lipid Metabolism in Ocular Malignancies (N-PDF; DST-SERB), Jamia-Millia Islamia

Shakti Gupta

1. Indoor navigation assistance for patients at Dr RP Centre for Ophthalmic Sciences, Assitech Lab, Indian Institute of Technology, Delhi

PUBLICATIONS

Journals: 254 Abstracts: 10 Chapters in Books: 22

PATIENT CARE

Name of OPD/Clinic	New Cases	Old Cases	Total
General OPD	1,59,216	1,64,903	3,24,119
Emergency	11,492	47,744	59,236
Specialty Clinics	42,727	1,43,979	1,86,706
Total	2,13,435	3,56,626	5,70,061
Specialty Clinics			
Cornea Clinic	7,099	13,713	20,812

Lens Clinic	1,121	2,733	3,854
Uvea Clinic	1,100	4,911	6,011
Contact Lens Clinic	925	1,741	2,666
Glaucoma Clinic	3,945	9,051	12,996
Ophthalmoplasty Clinic	5,111	4,050	9,161
Paed. Ophthalmology Clinic	48	10	58
Retina Clinic	4,267	6,331	10,598
Neuro-Ophthalmology Clinic	3,480	3,340	6,820
Vitreo Retinal Clinic	5,157	4,878	10,035
ROP	1,048	3,687	4,735
Ocular Oncology Clinic	283	693	976
Low Visual Aid	3,155	1,795	4,950
a) Orthoptic Clinic	568	21,690	22,258
b) Squint Clinic	5,420	20,437	25,857
Refraction	0	44,919	44,919
Total Cases	42,727	1,43,979	1,86,706
Admissions			
General Admissions			16,935
Casualty Admissions			3,793
Private Admissions			1,323
Short Admissions			14,388
Day Care Admissions			10,917
Total			47,356
Operations			
Major			20,984
Day Care			9,867
Total			30,851
Minor			18,725
Grand Total			49,576*
Deaths			0
Other figures			
Average bed occupancy ratio			81%
Average length of stay			4.7%
Average OPD Attendance per working day			1,916 per day
Average No. of Indoor Admission per day			130 per day
Average No. of Surgeries per day			136 per day

Investigative Laboratories

Investigations	Total
Dark room prone provocation test (DRPPT)	22
Tear Lab	41
Pupillometry	131
Scanning and storage of MRI records	132
Photo Dynamic Therapy (PDT)	142
GDx Variable Corneal Compensation (VCC) and Enhanced Corneal Compensation (ECC)	148
Ultrasonic Biomicroscopy	304
Adaptive Optics	488
Flaremeter	517

Optic Neuritis Clinic	652
Electroretinogram (ERG) and Multifocal ERG	1,158
Medical Board	1,504
Goldman Visual Field	2,105
Schirmer + Tear Film Breakup Time	2,195
YAG Laser + Selective Laser Trabeculectomy	2,662
Contact Lens Clinic	2,852
Ant. Seg. Clinical Photograph	2,984
i-TRACE Aberrometer	3,415
Retinopathy of Prematurity (ROP)	3,527
Video Keratography (VKG), Cassini + Sirius Topography	3,894
Post Segment laser (PRP)	4,105
Contrast Sensitivity	4,825
OCT Angiography	4,943
Heidelberg Retinal Tomography (HRT)	5,039
ECG	5,462
Low Vision Aid Services	5,585
Colour Vision Assessment	6,527
Visual Evoked Responses (VER)	7,615
Fundus Photo and Auto-fluorescence	8,237
Laser Interferometry	9,515
Fluorescein Fundus Angiography (FFA), and Indocyanin Green Angiography (ICG)	10,434
Specular Microscopy	10,815
Anterior Segment Ocular Coherence Tomography (AS OCT)	11,397
Pentacam	12,235
Humphrey Perimeter and Micro Perimetry	13,997
Auto-lensometry	14,541
Pachymetry (Central Corneal Thickness and NCCT)	15,627
Axial Length	24,491
B-Scan Ultrasound	25,945
Keratometry (Manual + Auto)	27,913
Ocular Biometry, IOL Master & Lens Star	29,934
High Definition OCT (HD-OCT), Polarisation-sensitive OCT (PS OCT)	56,459
Refraction	99,015
Auto Refraction (AR)	1,15,969
Non-contact tonometry (NCT), Applanation tonometry (ATN)	1,36,415
Total	6,95,913

Community Ophthalmology

Total Patients Seen in Outreach Programme: 1,09,772

Primary Eye Care Services through Vision Centres	
Number of Vision Centres	28
Attendees at Vision Centres	72,944
Refractions Conducted	29,578
Spectacles prescribed	28,704
Patients referred to RP Centre	9,186
Primary Eye Care Volunteer training events	

Volunteers Training Programmes organized	16
Volunteers Trained	230
Eye Health Education Events	
Eye Health Education Events conducted in Vision Centres	1,104
Eye Health Education Events conducted in RPC	198
Reach-in-Programme for cataract surgery in Rural and remote areas	
Cataract screening camps organized	2
People examined	395
Refraction	189
Patients referred to RP Centre	124
School Eye Screening (SES) Programme	
Schools covered under SES Programme	34
Numbers of Children screened	36,378
Refractions Conducted	5,092
Spectacles Prescribed	3,312
Spectacles Booked	3,312
Diabetic Retinopathy Screening Camps	
Total number of DR screening camps organized	242
Diabetic patients screened in camps	2,764
Total DR Patients identified and referred to RP Centre	562(523)
Patient Reported for treatment at Dr RP Centre under Community Ophthalmology	
Total Patient Reported under community ophthalmology	4,825
Total Patient Operated for cataract surgeries under community ophthalmology	2,121
Follow-up	
Follow up clinic organized	
Patients examined in follow-up clinics	1,422
Low Vision Rehabilitation	
Total Enrolled	772
Mobility Training	463
ADL Counselling	641
Visual Disability Certification	274
Vocational Training	55
Special School Admission	26

Ocular Biochemistry

Sl. No.	Tests Name	Number
1.	Sugar (R, F, PP, GTT)	13,697
2.	HbA1c	3,412
3.	TBIL	13,154
4.	DBIL	13,154
5.	ALT or SGPT	13,154
6.	AST or SGOT	13,154
7.	ALP	13,154
8.	TP	8,183
9.	ALB	8,183
10.	Creatinine (CRE)	13,564

11.	Urea (UREA)	13,564
12.	Uric Acid (UA)	13,563
13.	Sodium (Na+)	13,566
14.	Potassium (K+)	13,566
15.	Chloride (Cl-)	13,566
16.	TCHOL	2,766
17.	LDL-C	2,766
18.	HDL-C	2,766
19.	Triglyceride (TRIG)	2,766
20.	Free T3	1,052
21.	Free T4	1,053
22.	TSH	1,121
23.	Vitamin B12	378
	TOTAL	1,95,302

Ocular Microbiology

Sl. No.	Test	
1.	Bacterial culture and sensitivity	17,858
2.	Fungal culture	5,016
3.	Specimens processed for cytology	2,740
4.	Specimens processed for chlamydia ag detection using DFA	58
5.	Specimens processed for HSV Ag detection using DFA	26
6.	Viral PCR for herpes simplex virus, adeno and coxsackie virus (conjunctivitis/corneal ulcer)	149
7.	Specimens processed for microsporidia	18
8.	Specimens processed for mycobacteria	19
9.	Culture for acanthamoeba	29
10.	Automated (Bactec) culture for endophthalmitis	46
11.	Broad range PCR for endophthalmitis	46
	Total	26,005

Ocular Pathology

Blood	1,18,089
Urine	7,852
Cyto + Cyto research	2,460
Histo + Histo research	28,763
Total Number of Investigations	1,57,164

Ocular Pharmacology

Drugs Supplied/ Dispensed through Ocular Pharmacy during the year

Drug Dispensed	Total Vials (5 ml)
1. Drugs purchased by the patient and fortified at the pharmacy	
Acetyl Cysteine (10, 20%, 2.5%, 5%)	194 vials
Amikacin (1.3%, 2.5%, 1%, 5%)	47 vials
Amphotericin B (0.25, 0.15%)	57 vials
Betaxolol (0.25%)	363 vials
Cefazolin (5%)	1,132 vials
Conc. Tobramycin (1.3%)	4,602 vials

Mitomycin (0.02%, 0.04%)	119 vials
Pilocarpine (0.125%, 0.5%, 0.25%, 1%)	87 vials
Polymixin B (20,000 µ-30,000 µ/ml, 50,000 µ/ml)	225 vials
Vancomycin (5%)	3,057 vials
Timolol 0.25	4 vials
Ceftazidime	47 vials
Bevacizumab/Avastin	5,367 ampoules
Interferon	167 vials
Voriconazole (1%)	573 vials

2. Dispensed than pharmacy RPC free of cost

Autologous Serum	208 vials
Artificial Tears	56,682 vials
Ciprofloxacin (0.3%)	8,557 vials
Corneal storage media (MK Media)	4,037 vials
Cyclosporine 2%, 1%	134 vials
EDTA (1.1%)	123 vials
Homatropine (2%)	14,000 vials
Hypertonic Saline (5%)	4,371 vials
Methyl Cellulose (2%)	77 L
Methyl Cellulose (2%)	1,099 vials
Pilocarpine (2%)	1,698 vials
Acetazolamide 30 mg, 10, 25, 40, 50, 60, 80 mg	1,699 pkt
Sodium Ascorbate (10%)	352 vials
Sodium Citrate (10%)	326 vials
Thimerosal Solution (0.005%)	90 L
Tropicamide (1%)	33,374 vials
Pipracillin	115
Tropac + Phenylephrine (0.5%+2.5%) (ROP)	9,487 vials
Gancyclovair vials 100 mg	105
PHMB	168 vials
Meropenam 5 mg/ml	8 vials
Piloclonidine	165 vials
Atropine 0.01%	4 vials
Mycophenolatemo Diazoxide 10 mg, 12.5 mg	69
Glycerin 20%	1
Olopatadin	6,261

3. Kit items dispensed

Botox	307 ampoules
Ethylalcohol 20%	321 x 5 ml
Gold chloride	73
Hydrazin Hydrate	73
Sod. Chloride 20% solution	25 ml x 2 vials
Tab.CitriZen 2.5 mg	4 sachets
Tab. A cyclover 1/8	16 sachets
Voriconazole 25 mg	63 sachets
Folicacid 0.5%	4 vials
Ethylalcohol 100%	5 ml x 1 vials

Xylistin 0.15%	1 vial
Formalim 10%	3 litres
Imeperam 5%	1 vial
TimololMaleate oint. 0.5%	11 ointments
Augmentin Tab. in parts	8 sachets
Valganciclovir Tablet	153 sachets
Sirolimus Powder	56 sachets
Glibenclamide	29 sachets
Indomethacintab.	110 sachets
Nitisinone Capsule	78 sachets
Lanzoprazol Tablet	22 sachets
Spiranolactone Tablet	30 sachets

Ocular Radiology

Total number of patients for X rays	8,496
Total number of patients for CTs	1,407

Ocular Anaesthesia

S. No.	G.A. Cases	Number
1.	Routine + EUA	5,720
2.	Emergency	1,667
3.	Monitored Anaesthesia Care	485
4.	Dr R.P.C. CASUALTY-O.T.	3,137
	Total	11,009

National Eye Bank

National Eye Bank (Neb):	
Total Collection of Cornea	2,209
Total Utilizationfor Cornea Transplantation	1,439
Other Eye Bank (Oeb):	
Total Collection of Cornea	99
Total Utilizationfor Cornea Transplantation	82
Total Number of Peoples Pledged for Eye Donation at Neb:	
Total Number of People Pledged for Eye Donation	225

Low vision Services:

A total number of 4,950 patients were presented to the low vision services for their clinical evaluation. Among 4,950, a total number of 3,060 patients were seen for low vision evaluation which required low vision devices. New patients enrolled under Low vision were 1,808 and 1,252 were follow ups. 1,890 number of patients were challenging cases referred from OPD/wards/clinics which could be improved with refraction, for clinical photograph, tear sample analysis. Total Number of New Patients were: 3,155 Total Number of Follow Up patients were: 1,795

Total no. of Males	2,261
Total no. of Male Child	1,035
Total no. of Females	1,104
Total no. of Female Child	550

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Unit I (Cataract, Refractive Surgery, Vitreoretina, Uvea and ROP)

Professor SK Khokhar was honored by MOS, UK for “Video based teaching of cataract surgical difficulties including the management of complications” in The Midland Ophthalmological Society Medical Education Department at Worcester, UK, which was held from 29 March to 2 April 2019.

Unit II (Vitreoretina, Uvea and ROP)

Professor Atul Kumar was Hon. Consultant Ophthalmology, Armed Forces Medical Services (December 2015-December 2018); Advisor Ophthalmology, Government of India, December 2015-2018; Member, Advisory Board, Current Indian Eye Research Journal of Ophthalmic Research Group; Co-Chairperson, Advisory Committee for the 13th Five Year Plan under National Programme for Control of Blindness (NPCB), Government of India; Member PMOA Duties Committee under NPCB, Government of India; AIIMS Committee Member for selection of Assistant Professor Ophthalmic Anaesthesia; Member Advisory Committee for National Blindness Survey and National Trachoma Survey, May 2016; Co-Chairman Treatment of Retinal Diseases in the country under committee for National Programme for Control of Blindness (NPCB); Awarded Dr BC Roy National Award for Excellence in Ophthalmic Sciences by the President of India; Director, WHO Collaborating Centre for Prevention of Blindness, IND-142; Co-Chairman in the Advisory Committee for the 13th Five-year Plan under National Programme for Control of Blindness (NPCB); Member of APS “Standing Selection Committee Meeting for Interview under APS” PGIMER, Chandigarh; Founder’s Day Oration on High Myopia related Retinal Pathologies at 11th Founders Day AEC—PGI, Chandigarh, 18 March 2017; Awarded “Golden Apple” Award at i-Focus CFS Dwarka, Delhi, 27 January 2018; Chairman: Retina Diagnostics Session at iFocus—PG Teaching Programme, New Delhi on 27 January 2018; Chairperson: Retina Capsule Session at AIOS Refresher Course, PGIMER, Chandigarh on 3 February 2018; Dr Subramaniam Oration Lecture delivered at 36th Annual Karnataka State Ophthalmic Conference 2018 at Bangalore on 3 November 2017; Invited External Examiner for MS (Ophthalmology) at “PGI” Chandigarh on 4 and 5 May 2018; Received Award of Fellowship Ad hominem of the Royal College of Surgeons of Edinburgh held at Edinburgh, UK on 20 April 2018; Chairperson: Managing retinal detachments and IOFB and managing infections and inflammation after trauma, Ocular Trauma Con 2018 Meeting, 12-15 July 2018, Chennai; Chairman of Session: Choroidal Neovascular Membrane: IPCV Management Protocol and When to refer to Vitreoretinal Specialists, CME: Retina Capsules for the Comprehensive Ophthalmologists, 12 August 2018, Chandigarh

Professor Mahesh Chandra: Evaluated thesis projects of other Universities.

Dr Parijat Chandra was Co-convenor, Retina Grand Rounds, 69th Annual Conference of Delhi Ophthalmological Society, Delhi, 6-8 April 2018; Panelist, AntiVEGF in ROP, 3rd iROP Society meeting, Raipur, 21-22 July 2018; Panelist, 2nd Hyderabad Retina Society Meeting, Hyderabad, 5 August 2018; Chairman, Instruction Course: Retinopathy of Prematurity, 16th Annual Conference of Jharkhand Ophthalmic Society, Ranchi, 7-9 December 2018; Examiner, FAICO [Vitreoretina] Examination, Under Aegis of All India Ophthalmological Society, AIIMS, New Delhi, 17 December 2018; Evaluator, Free Papers (Paediatric), AIOS, Indore, 14-17 February 2019.

Unit III (Cornea and Refractive Surgery, Paediatric Cataract)

Professor Jeewan S Titiyal received AIOS International Heroes Award, 77th All India Ophthalmological Society Conference, February 2019, Indore, Madhya Pradesh, India; IJO Honor, 77th All India Ophthalmological Society Conference, February 2019, Indore, Madhya Pradesh, India; Best E Poster (First Prize) on cornea and refractive section, Correlation of corneal biomechanics and confocal microscopy with corneal thickness in myopes, PP3-06, Asia Pacific Association of Cataract and Refractive Surgeons (APACRS), July 2018, Chiang Mai, Thailand; Titiyal JS, Kaur M, Shaikh F, Management of difficult lenticule extraction in learning curve of SMILE 2018, Best of Show Award at American Academy of Ophthalmology, Chicago, USA, October 2018; Col. Henry “Jullundur” Smith Oration Award, Jalandhar Cataract and Refractive Club, August 2018, Jalandhar, Punjab; Maharshi Sushruta Oration, Mahatma Gandhi University of Medical Sciences and Technology, January 2018, Jaipur, Rajasthan.

Unit IV (Glaucoma and Paediatric Cataract)

Professor Rohit Saxena was awarded **AIIMS Excellence Award 2018** for the paper Incidence and Progression of Myopia and associated factors in urban school children in Delhi: The North India Myopia Study (NIM Study), PLoS One, 2017 December 18;12(12):e0189774.

Dr Shikha Gupta: Institute Research Day 2019, Wave-front aberrometry and ocular aberrations in Primary Congenital Glaucoma, Arjun Desai, Manish Bhardwaj, Viney Gupta, Shikha Gupta, Poster Presentation, Best Poster Presentation; AIOS 2019, Management of cyclodialysis: Coming a full circle, Harathy Selvan, Viney Gupta, Shikha Gupta, Best Paper of Session in AIOC 2019.

Dr Dewang Angmo received Young Ophthalmologists Travel Grant in the World Glaucoma Congress 2019; Chaired and Delivered Successful Instruction Course in AIOS 2019 on Basics of Trabeculectomy.

Unit V (Squint, Neuro Ophthalmology, Paediatric Ophthalmology and Oculoplasty)

Professor Pradeep Sharma received the distinguished International Heroes of AIOS from All India Ophthalmological Society at Coimbatore 2018; Invited Keynote Guest Speaker for Indonesian Paediatric Ophthalmology and Strabismus Society, INAPOSS at Semarang, Indonesia, April 2018; Professor Pradeep Sharma's Poster on DigiTAC selected for special presentation in the Poster Theater at the American Academy of Ophthalmology, AAO, Chicago, October 2018; Invited Guest Speaker for the International Paediatric Ophthalmology and Strabismus Symposium at Tilganga Eye Institute, Kathmandu, Nepal, October 2018; Installed as the President of Strabismus and Paediatric Ophthalmological Society of India, SPOSI December 2018; Awarded IS Roy Oration of Kolkata Academy of Ophthalmology, Kolkata, January 2019; Awarded Dr HK Tewari Golden Apple Award of iFOCUS, Hyderabad, January 2019.

Dr Swati Phuljhele Alok was awarded SNEC-ARC AIOS Fellowship in Neuro-Ophthalmology; Joint Organizing Secretary for Annual Conference of Indian Neuro-Ophthalmology Society; First prize for e-poster at Annual Conference of Indian Neuro-Ophthalmology Society, 2018; Phuljhele Alok S, Saluja G, Nirnajana B, Saxena R, Sharma P, "Correlation of Magnetic Resonance Imaging and Ocular examination findings in Patients of Hypoxic Ischemic Encephalopathy"; Appointed as Co-Chairperson, BSc Optometry; Appointed as an Internal Examiner for BSc Optometry Phase III; Moderator for Advances in Neuro-Ophthalmology, 1st Annual Conference of Indian Neuro-Ophthalmology Society, 30 September 2018; Invited faculty for Silver Jubilee CME on Paediatric Ophthalmology and Strabismus of I Care Hospital, 19 August 2018, New Delhi; Invited as Faculty for AIOS ARC-ICO Teachers in Ophthalmology Apex Conclave, 77th Annual Conference of All India Ophthalmology Society 2018, 13-17 February 2019 at Indore; Panelist for Neuro-Ophthalmology (INOS) session at 77th Annual Conference of All India Ophthalmology Society 2018, 13-17 February 2019 at Indore.

Unit VI (Cornea, Squint and Neuro-Ophthalmology)

Professor Radhika Tandon was President of EBAI conferred by EBAI; Vice President of Association of Eye Banks of Asia; Member of NOTTO conferred by NOTTO; Appointed as Chairperson, Eye Leadership Summits supported by WHO, 7 September 2018; Advisory Member for the Global Alliance of Eye Bank Associations (GAEBA); Appointed as Chairperson of the Committee for Standard Treatment Workflows (STWs) conferred by ICMR; Invited to participate in the framing of Barcelona principles for Ethical Practices in Usage of donated tissue released in collaboration with Global Alliance of Eye Bank Associations and WHO; Appointed as Member of the Advisory Committee for National Programme for Control of Blindness and Visual Impairment (NPCB&VI), Ministry of Health and Family Welfare, Government of India; Appointed as an Expert for Project Review Committee (PRC) conferred by ICMR; Nominated as a Member of the Editorial Board of the Indian Journal of Medical Research (IJMR) from July 2018; Nominated as Member of DBT Bioengineering Task Force, Department of Biotechnology, Ministry of Science and Technology, Government of India; Nominated as a Member of the Editorial Board of the Indian Journal of Medical Research (IJMR) from July 2018 [Ref. No. IJMR/EB/2017-18/194 dated 4 July 2018]; Appointed as an External Expert for Standing Selection Committee Meeting of AIIMS, Jodhpur, on 22 December 2018; Appointed as an External Expert for Standing Selection Committee Meeting of AIIMS, Gorakhpur, on 7 February 2019 in SGPGIMS, Lucknow.

Professor M Vanathi received Best Publication in Clinical Research 2018—Awarded by AIIMS for clinical research related to oncology (Nair S, Vanathi M, Mahapatra M, Seth T, Kaur J, Velpandian T, et al. Tear inflammatory mediators and protein in eyes of post allogeneic hematopoietic stem cell transplant patients, *Ocul Surf*, 2018;16:352-367.)

Dr Noopur Gupta was invited by WHO Headquarters, Geneva as WHO Global Trachoma Expert for developing recommendations for global elimination of trachoma; Nominated as Expert for Project Review Committee Meeting conferred by ICMR; Invited as Expert for Developing Standard Treatment Workflows for Ophthalmology under Government of India; Appointed as Expert for the Central Task Force at national level for policy planning and strategy for implementation for elimination of Trachoma from the country by the year 2020 by the MoH&FW; Appointed as WHO Regional Expert for South-East Asia (SEARO) on Prevention of Blindness and promoting eye health and represented India at the Regional Group Consultation-accelerating actions for Prevention of Blindness; As resource faculty and National WHO expert for NPCB-WHO SEARO Expert Group Meeting on Development of National Action Plan for achieving Universal Eye Health in India; Trainer and resource faculty for DALK (lamellar keratoplasty) and DSAEK (endothelial keratoplasty) Workshop as part of Surgeon Training Initiative in EBAI, Pune in September 2018; As Expert Ophthalmologist and trainer for optometrists and ophthalmologists at Goa and Banda for supervision and monitoring of National Blindness Survey, 2015-2019 under NPCB, MoH&FW, Government of India in May 2018 and January 2019, at the 52nd RP Centre Foundation Day, 2019.

Ocular Microbiology

Professor Gita Satpathy was made a Scientific Advisory Group Member for the Epidemiology and Communicable Diseases Division of ICMR.

Dr Nishat Hussain Ahmed was awarded third prize in poster presentation titled 'Establishment of Multiplex PCR for Detection of Herpes Simplex Viruses Type-1 and Type-2, Cytomegalovirus, Varicella-Zoster Virus and Adenovirus in Ocular Viral Infections' in National Conference of the Clinical Infectious Diseases Society, 2018, held at Christian Medical College, Vellore, Tamil Nadu.

Community Ophthalmology

Professor Praveen Vashist was invited by WHO for review of WHO World Vision Report; Nominated by WHO as member of the committee of the Nepal trachoma elimination Dossier Review Group to recommend the validation of trachoma elimination in Nepal; Nominated as member Secretary of National Trachoma Task Force and National Trachoma Monitoring Committee by Government of India, Submitted Trachoma Modules for elimination of trachoma in India and survey proposal for "Trachoma only survey" to Ministry of Health and Family Welfare, Government of India; Appointed Chairperson for the Scientific Committee of Vision 2020 Right to Sight India for the period 2018-2019; Invited by Lok Sabha TV as an expert panelist for Eye Care in the programme "Swasth Bharat" on 1 June 2018; Chaired session on "School Screening and Refractive Error" and "HMIS Challenges and Recommendations" in Annual Conference of Vision 2020 India at Sri Sankaradeva Nethralaya, Guwahati on 8-10 June 2018; Invited as member of Technical Appraisal Committee Meeting held on 3 July 2018 at DHR, Red Cross, New Delhi to evaluate the activities relating to Health Technology Assessment in India; Invited in the stakeholders consultative meeting for the outcome study on the Health Technology Assessment of Intra Ocular Lenses for Cataract Surgery at DHR on 20 July 2018; Invited as an expert by Sightsavers to discuss clinical quality assurance for Sightsavers partner hospitals on 18 July 2018; Also invited by Sightsavers as an expert for mentoring support to Ophthalmology Units of district for service quality enhancement on 21 August at Ranchi; Awarded Dr Parmar Memorial Oration 2018 by ACOIN on 28 July 2018 at Gurgaon, Haryana; Chaired the session of "Equity and Universal Eye Health" in 25th ISGEO Meeting held on 11-12 September 2018 at Hyderabad; Resource person for development of guidelines on Primary Eye Care through Health and Wellness Centres under NHSRC, Government of India; Presented report for the National Blindness and Visual Impairment Survey 0-49 years in India to Joint Secretary, MoH&FW, New Delhi on 6 March 2019; Presented report for the Epidemiological Study of Avoidable Blindness in India (2015-2018) to Joint Secretary, MoH&FW, New Delhi on 9 December 2018; Awarded project by NPCB&VI for developing a Vision Atlas on National Blindness Survey on 30 March 2019; Appointed member of NPCB&VI committee to provide technical assistance in developing benchmarks for States/UTs wise cataract burden and designing protocol for evaluation process for verification cataract free claims of states/districts for awards and incentivization under NPCB&VI; Nominated by Chief to represent RP Centre in the NPCB&VI Advisory Committee Meeting to review existing scheme and future plan for implementation of NPCB&VI on 9 October 2018 at MoH&FW, Nirman Bhawan; Nodal officer for RP Centre for the Hindi Rajbhasha Committee, Prepared RPC calendar as part of committee recommendations; Nominated as member of Intramural Project Review Committee (Clinical Science) by research section, AIIMS; Nominated by Chief as Nodal Officer for RP Centre Annual Report for submission to Director AIIMS.

Dr Senjam Suraj Singh was recipient of Commonwealth Eye Health Consortium UK Scholarship, for MSc Public Health for Eye Care, 2017-2018; Awarded Master's Degree in public health for Eye Care on 5 March in London School of Hygiene and Tropical Medicine (LSHTM); Chaired a session and presented lecture on "New disability guidelines for visual impaired in India" in the AIIMS Optometry Explorer 2019 held on 19 and 20 January 2019; Organizing Secretary, CBM—1st National Workshop Strengthening Low Vision and Rehabilitation Services, 29 November 2018, Dr RP Centre, AIIMS; Organizing Secretary, CBM—2nd National Workshop Strengthening Low Vision and Rehabilitation Services, 29 January 2019, Dr RP Centre, AIIMS.

Dr Vivek Gupta was Organizing Secretary, 52nd RPC Foundation Day Congress 2019; Organizing Secretary, ACOIN-RPC Workshop 2018; Developed an Online Training Platform for Distance Training of Coders in Verbal Autopsy under the MINerVA project: www.causeofdeathindia.com; Assisting Faculty, Computer Facility, AIIMS, New Delhi; Member Secretary, Technical Specifications Committee, Computer Facility, AIIMS, New Delhi; Member, Committee for redevelopment and expansion of campuses of AIIMS, New Delhi; Member of "Central Task Force at national level for policy planning and strategy Implementation for elimination of Trachoma from the country by the year 2020" set up by Ministry of Health and family Welfare, Government of India; Member of "Monitoring Committee for monitoring and reporting of Trachoma cases in states for elimination of Trachoma from the country by the year 2020" set up by Ministry of Health and Family Welfare, Government of India; Member of the NPCB&VI "Group to prepare action plan for forming a sound IT platform for transparent monitoring of the field level performance and payments to NGOS through NPCB&VI MIS".

Ocular Biochemistry

Professor Jasbir Kaur was examiner, PhD, Postgraduate Institute of Medical Education and Research, Chandigarh; Reviewed research project under Indo-US Programme, Department of Biotechnology, Ministry of Science and Technology, Government of India; Associate Editor, Global Journal of Immunology and Allergic Diseases; Editorial Board Member: Journal

of Ophthalmology: Open Access, SM Genetic Syndromes and Gene Therapy, Journal of Biomolecules and Biochemistry, Journal of Ophthalmology and Vision, Annals of Clinical Diabetes and Endocrinology, Annals of Clinical Oncology, Journal of Ocular Diseases and Therapeutics, International Journal of Hematology and Blood Research, Annals of Stem Cell Research; Reviewer (Indexed Journals): Biomedicine and Pharmacotherapy, International Journal of Oncology, BMC Ophthalmology, Journal of Ophthalmology, Indian Journal of Medical Research, International Journal of Ophthalmology, Indian Journal of Ophthalmology; Executive Council Member of Biotechnology Society of India; Member, Institutional Ethical Committee, CARICD (CCRAS, Ministry of AYUSH, Government of India), New Delhi.

Ocular Pharmacology

Professor T Valpandian received 2 Best Oral Presentation Award at 64th Annual Meeting of Association of Physiologists and Pharmacologists of India (APPI), APPICON at Manipal, during 27 November-1 December 2018 at Kasturba Medical College, Manipal, India; Received BIG GRANT (BIRAC) for the project entitled “Development and validation of TransRecon Technique for sterile pharmaceutical preparation”.

Ocular Radiology

Professor Sanjay Sharma was Editorial Board Member JCIR: Uro-Radiology Section; Consulting Editor (Radiology), Indian J Urology; External expert for ICMR, for assessing Extra Mural Funded Project June 2018.

Hospital Administration

Professor Shakti Kumar Gupta was honored with Capital Foundation National Award in September 2018 by Governor of Assam for tremendous contribution to the field of Health Care Administration; Awarded with Times Healthcare Achievers Award, 2018 by Times of India in honor of excellence in Healthcare; Member for the Selection Committee Meeting for selection of Medical Superintendent and Nursing Superintendent on 19 January 2019 at New Delhi; Member for the master plan for AIIMS, Jammu at MoHFW, New Delhi on 22 January 2019; Member of the expert committee for setting of a Psychiatric and Mental Hospital at Juba, South Sudan from 2 to 5 November 2018; Member of National Executive Committee of Hemovigilance Programme of India at National Institute of Biological, Noida on 18 September 2018; Jury Member for the evaluation of prospective incubates to the Mediavalley and Biovalley incubation parks at Vishakhapatnam on 11 September 2018; Expert for the panel selection committee for recruitment of Faculty in the Department of Hospital Administration at AIIMS, Bhopal on 6 September 2018; Honored with Chairman position for FICCI Taskforce Chair for Costing of Select Medical Procedures and to share the outcome of AIIMS studies on costing with FICCI; Member of the Board of Directors for International Association for Applied Management (IAAM), USA, 2018; Expert for the selection of candidates for the promotion/selection in the speciality of Hospital Administration on 1 August 2017 at Soura, Srinagar, Jammu and Kashmir; Honorary Consultant for National Mineral Development Corporation Limited for establishing 200 Bedded Multi Specialty Hospital, New Nagarnar, Jagdalpur, Chhattisgarh; Programme Director for 3rd Lean Six Sigma Green Belt International Programme in Healthcare, New Delhi from 22 to 24 June 2018; Expert member for the standing selection committee for selection of “Faculty post” of NEIGRIHMS in the Department of Hospital Administration on 2 May 2018 at AIIMS, New Delhi; Attended Grand Finale of Healers of India Awards on 19 April 2018; Invited to “CME on Future of Healthcare Gen. Next” as Guest of Honor for inauguration of “Indo US Academy of Health and Hospital Administration” at Hyderabad on 15 April 2018; Attended the Symposium on Pharmacologists in Indian Healthcare System, Director’s Board Room, AIIMS, New Delhi on 15 April 2018; Attended CII Regional Lifesciences Summit 2018 at India Habitat Centre, New Delhi on 13 April 2018; Expert member of the Task Force in Healthcare at FICCI, New Delhi on 12 April 2018; Invited as an expert member for the selection committee for Casual Medical Officers at Institute of Liver and Biliary Sciences, Vasant Kung, New Dellhi on 9 April 2018; Honorary Board Member of the Patient Safety and Access Initiative of India Foundation.

VISITING SCIENTIST

1. Foreign Guest Faculty, Professor Christopher Liu OBE from UK visited on 16 November 2018
2. Foreign Guest Faculty, Professor James Chodosh, Professor Harvard Medical School visited on 28 January 2019
3. Dr Rainer Brockhaus, Chief Executive Officer (CEO) of CBM Germany was the chief guest of Inauguration Ceremony of Visual Rehabilitation and Training Centre at Community Ophthalmology, 7th Floor, Dr RP Centre, AIIMS on 12 February 2019
4. Professor Sarah Coupland, George Holt Chair of Pathology, Director of the NWCR Cancer Research Centre, Institute of Translational Medicine, University of Liverpool, UK presented guest lecture entitled “An update on Ocular Melanomas and Lymphomas” on 20 November 2018.

10.5. Jai Prakash Narayan Apex Trauma Centre

Chief

Rajesh Malhotra

Additional Medical Superintendent

Amit Lathwal

Professors

Anaesthesiology

Babita Gupta
Chhavi Sawhney

Laboratory Medicine

Arulselvi S
Purva Mathur

Radiodiagnosis

Shivanand Gamanagatti
Atin Kumar

Cardiology

Neeraj Parakh

Nephrology

Soumita Bagchi

Obstetrics and Gynaecology

Garima Kachawa

Trauma Surgery

Pratyusha Priyadarshini
Abhinav Kumar
Narendra Choudhary
Dinesh Kumar Bagaria

Emergency Medicine

Sanjeev K Bhoi

Neurosurgery

Deepak Agrawal
Deepak Kumar Gupta

Trauma Surgery

Sushma Sagar
Subodh Kumar
Amit Gupta
Biplab Mishra

Associate Professors

Neuroanaesthesia

Keshav Goyal
Navdeep Sokhal
Ashish Bindra
Gyanendra Pal Singh
Neeraj Kumar

Assistant Professors

Transfusion Medicine

Rahul Chaurasia

Orthopaedic

Samarth Mittal

Forensic Medicine

Sanjeev Lalwani
Adarsh Kumar

Orthopaedics

Kamran Farooque
Vijay Sharma
Buddhadev Chowdhry
Vivek Trikha

Burns and Plastic

Maneesh Singhal

Critical Care

Kapil Dev Soni
Richa Garg

Neurosurgery

Guru Dutta Satyarthee
Pankaj K Singh

Paediatric Surgery

Shilpa Sharma

Emergency Medicine

Tej Prakash Sinha

HIGHLIGHTS

Jai Prakash Narayan Apex Trauma Centre, AIIMS continues to provide holistic care to the victims of trauma. It continues to be flag bearer in quality patient care services, research, teaching and training. Trauma center constitutes dedicated team of doctors, paramedics and other supporting staff whose prime motto is to achieve excellence and develop novel ideas and techniques in field of trauma managements.

A total of 77,139 patients visited casualty in year 2018-2019, an increase of 1951 over the previous year. Among these, 7,080 patients were admitted; an increase of 170 over the previous year and 8,672 surgical intervention were performed. A total of 51,660 patients attended follow up clinic/OPD, an increase of 3,003 patients over last year.

The emergency department of the center has been designated as the WHO collaborating centre in Emergency and Trauma for the South East Asian region in January 2019.

Faculty members and residents are involved in various research projects. Over 200 research papers have been published in national and international journals an increase of 13 research papers over last year. The first batch of Mch (Trauma Surgery and Critical Care) successfully passed out in the year 2018. The JPNA Trauma Center is leading a multi-centric project on building capacities for Infection Control, Surveillance of HAIs and AMR, funded as a cooperative agreement by the CDC. A total of 36 hospitals, representing more than 120 ICUs are a part of this surveillance network. This is also a novel initiative to integrate the National Kaya Kalp Programme and the existing HAI surveillance framework.

EDUCATION

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered

Rajesh Malhotra: *For details, see 9.25 Orthopaedics*

Abhinav Kumar

1. Varicose veins: Recent advances in management regional refresher course, ASI, 6-8 July 2018, Patna
2. Role of bystander in road traffic injuries mega event by IRSC, 30 October 2018, DTU, New Delhi

Adrash Kumar

1. Latest trends in forensic medicine, IPS Induction Training Course, 4 April 2018, SVP National Police Academy, Hyderabad, Telangana
2. Emerging trends and technologies in forensic toxicology TOXOCON-12, 12th Annual Conference of Indian Society of Toxicology, 6-7 April 2018, Sikkim Manipal Institute of Medical Sciences, Gangtok, Sikkim
3. Defensive medicine as a plea of defense—How far justified mid term CME jointly organized by Department of Medicine and Forensic Medicine with Punjab Academy of Forensic Medicine and Toxicology, 12 May 2018, Punjab Institute of Medical Sciences, Jalandhar, Punjab
4. Latest trends in forensic medicine IPS induction training course, 28-29 August 2018, SVP National Police Academy, Hyderabad, Telangana
5. Legal aspects to be dealt by Medical Officers CME speaker for CHS Medical Officers, 19 September 2018, National Institute of Health and Family Welfare, Munrika, New Delhi
6. Forensic consultative forum meeting humanitarian forensics on dignified management of the dead including forensic human identification in India, 25-26 September 2018, Gujarat Forensic Science University, Gandhinagar, Gujarat
7. Legal aspects of medical records: Challenges and solutions national CME jointly organized by Medicolegal Society of Assam and IJHRMLP, 9 October 2018, Department of FMT, Tejpur Medical College, Tejpur, Assam
8. Human rights violation issues and crime against women in Indian perspective CME on “Crime Against Females: Problems and Solutions”, 12 October 2018, Department of FMT, Subharti Medical College, Meerut, UP
9. External expert faculty from India, Workshop on ‘Exhumation’, 28-29 November 2018, BPKIHS, Dharan, Nepal
10. Custodial death investigation—NHRC Experience, 15th Annual Conference of South India Medicolegal Association, 30 November-2 December 2018, Government Medical College, Thiruvananthapuram, Kerala
11. Forensic toxicology in India—Present scenario, 40th Annual National Conference of Indian Academy of Forensic Medicine, “FORENSIC MEDICON-2019”, 1-2 February 2019, SN Medical College, Jodhpur, Rajasthan

Amit Gupta

1. Initial Management of a Multiply Injured Patient, 26th NTPC Medical Professional Conference, 7-8 April 2018, Bongaingaon, Guwahati
2. Road Traffic Injuries—Prevention is better than cure safe riding initiative, 12-13 April 2018, CRR, New Delhi

3. Session on Trauma Care, 29th Road Safety Week: Conclave with Corporates on Road Safety, 26 April 2018, Pravasi Bharatiya Kendra, Chanakyapuri
4. Post-Crash Care—Filling in the Gaps 3rd Transport India 2018 Expo/One Mega Event—Smart Cities India Expo, 24 May 2018, Pragati Maidan, New Delhi
5. Post-crash care in session on public health, Sustainability and Road Casualty Reduction CII Conference on Road Safety—Safer Journey for All, 27 June 2018, India Habitat Centre, New Delhi, India
6. How various organs gets effected during accident, first aid and trauma care Meeting of Institute heads of IDTR's, 24 August 2018, Gurgaon
7. Planning for Emergency Department, Mass Gathering Care and Mass Fatality Management Training course on Hospital Preparedness for Health Emergencies for Senior Hospital Administrators, 29 August 2018, NIHFW, New Delhi
8. Planning of Disaster Risk Communication Training course on Hospital Preparedness for Health Emergencies for Senior Hospital Administrators, 29 August 2018, NIHFW, New Delhi
9. Panel Discussion on “Trauma Care for Accident Victims” Fast Tracking Road Safety, 1 September 2018, PHD House, Opp. Asian Games Village, New Delhi
10. Chair and Moderator: WTC Session on Geriatric Trauma and Outcomes, 77th Annual Conference of the American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery and 4th World Trauma Congress, 25-29 September 2018, San Diego, CA, USA
11. Planning for Emergency Department, Mass Gathering Care and Mass Fatality Management Orientation Workshop of Partner Institutions for Senior Hospital Administrators on Hospital Preparedness in Health Emergencies, 24 October 2018, NIHFW, New Delhi
12. Planning of Disaster Risk Communication Orientation Workshop of Partner Institutions for Senior Hospital Administrators on Hospital Preparedness in Health Emergencies, 24 October 2018, NIHFW, New Delhi
13. Injury Surveillance and Trauma Registry through the Integrated Health Information, Platform Road Safety Legislation and Multisectoral Action, 13 December 2018, New Delhi
14. Post-Crash Care—Filling in the Gaps, Uttar Pradesh State Road Safety Workshop, 18 December 2018, Indira Gandhi Pratishthan, Gomti Nagar, Lucknow
15. First aid care, Trauma Care Centre and Emergency related to Road Safety Certification Course on Road Safety Audit and Associated Road Safety Related Aspects, 22 December 2018, CSIR-CRRI, New Delhi
16. Basic concepts and principles of Incident Response System Training Programme on District Preparedness for Public Health Emergencies Management for District Health Officers at NIHFW, 9 January 2019, NIHFW, New Delhi
17. Coordination mechanism under the incident Response System Training Programme on District Preparedness for Public Health Emergencies Management for District Health Officers at NIHFW, 9 January 2019, NIHFW, New Delhi
18. Planning for Emergency Department and Mass Gathering Care and Hospital Internal Evacuation Plan during Disasters Orientation Workshop of Partner Institution for District Health Officers at NIHFW, 6-8 February 2019, NIHFW, New Delhi
19. Planning of Logistic Systems for Hospital in Public Health Emergencies and Capacity Building and Training systems in Hospital Orientation Workshop of Partner Institution for District Health Officers at NIHFW, 6-8 February 2019, NIHFW, New Delhi
20. Trauma Care Initiatives in India to save lives of road accident victims—Challenges in the nationwide implementation, 30th National Road Safety Week 2019: Conference on Trauma Care—A National Mission, 8 February 2019, India Habitat Centre, Lodi Road, New Delhi
21. Post Accident Trauma Care, 30th Road Safety Week: Seminar on Road Safety, 12 February 2019, Ranchi, Jharkhand
22. Planning and Management of Accident and Trauma Service Training Programme on District Preparedness for Public Health Emergencies Management for District Health Officers at NIHFW, 14 February 2019, NIHFW, New Delhi
23. Importance of Post-Crash Care in Road Safety Training Course of IPS Officers in Traffic Management, 30 March 2019, College of Traffic Management, Faridabad
24. Faculty for Session and Skills stations on Management of Paediatric and Adult Airway in Trauma Skill based Trauma Care Workshop 2018, 25 February-2 March 2019, BCPS Skills Lab, Mohakhali, Dhaka, Bangladesh
25. Trauma Registries—Tools for quality Improvement of Trauma Systems, CMC Trauma Symposium: Challenges in initiation of a New Trauma Centre, 9 March 2019, Christian Medical College, Vellore

Ashish Bindra

1. Trigeminal Neuralgia, Chronic Interventional Pain Management Course, Cadaveric Training and Research Facility, 13 October 2018, JPNATC, AIIMS, New Delhi
2. Laryngoscopy, Cadaveric Airway Management Course, Cadaveric Training and Research Facility, 23 October 2019, JPNATC, AIIMS, New Delhi
3. Chairperson: Management of Neuropathic Pain, Indian Society of Pain Clinicians Conference (ISSPCON), RMLIMS, 16 November 2019, Lucknow
4. Panel on Post Traumatic Epilepsy, Medanta Neurocritical Care Conference, 2 October 2019, New Delhi
5. Latest modalities in treatment of Trigeminal Neuralgia, International Conference of Pain, 28 October 2019, Jodhpur
6. Transfusion trigger in Neurotrauma ICU, “Annual AIIMS Neurotrauma Conference”, JPNATC, 28 November 2018, New Delhi
7. Transfusion trigger in Neurotrauma, “AIIMS Neuroanesthesia Update”, 3 November 2019, AIIMS, New Delhi
8. Management of Status Epilepticus, “Acute Neuro Care”, Artemis Hospital, 14 February 2019, Gurugram
9. Anaesthesia for Epilepsy Surgery, “India Society of Neuroanesthesiology and Critical Care”, 15 February 2019, Gurugram
10. Anaesthesia for Epilepsy Surgery, “ISNACC Webinar Classroom”, 9 September 2018, 7 October 2019, 23 December 2019, Broadcasted on YouTube through Google Hangout
11. Hypothermia ISNACC Webinar Classroom, 7 October 2019, Broadcasted on Youtube through Google Hangout
12. Anaesthesia in Intraoperative MRI suit ISNACC Webinar Classroom, 23 December 2019, Broadcasted on Youtube through Google Hangout

Atin Kumar *For details, see 9.36 Radiodiagnosis*

Babita Gupta *For details, see 9.1 Anaesthesiology*

Biplab Mishra

1. Managing the agitated patient National CME on Consultation-Liaison Psychiatry, 9 April 2018, AIIMS, New Delhi
2. Mass Casualty Management and Hospital Disaster Management Plan “Emergency Medical Response and Psychosocial Care in Disaster Situation” Organized by Haryana Institute of Public Administration (HIPA), 12 April 2018, JPNATC, AIIMS, New Delhi
3. I-SAFE—The Safer India Challenge, 2017-2018 Indian Road Safety Campaign (IRSC), 22 April 2018, IIT, Delhi
4. Initial Assessment of A Trauma Victim ICSIS-NZCON 2018, 12-13 May 2018, Agra, UP
5. X-ray Identification of Thoracic Trauma, Advanced Trauma Life Support Instructor Course, 24-25 May 2018, JIPMER, Pondicherry
6. Impact of road traffic injury in developing country, Talk show with Reuter’s News Agency, 18 July 2018, JPNATC, AIIMS, New Delhi
7. How Can Youth Contribute to Changing the Scenario of Road-Safety India, I-SAFE’17: The Safer India Challenge, 19 August 2018, IIT, Delhi
8. Reproductive Health in Disasters Training Programme on Gender and Disaster Management, 27-31 August 2018, NIDM
9. Post-Crash Management High Level Conference on Road Safety, 28-29 August 2018, Gurugram, Haryana
10. Nutritional Needs in Burns 2nd National Conference of Indian Society of Clinical Nutrition (INSCN), 31 August-2 September 2018, AIIMS, New Delhi
11. Facial Fractures 1st AIIMS Plastic Surgery Update 2018, 1-3 September 2018, JPNATC, AIIMS, New Delhi
12. Panel Discussion Role of Youth in Road Safety, Cum Launch of I-SAFE’18: The Safer India Challenge Ministry of Road Transport and Highways, Indian Road Safety Campaign, 9 September 2018, IIT, Delhi
13. Facial Injuries Challenges ICS-ISCON 2018, 64th Annual Conference of International College of Surgeons Indian Section, 14-16 September 2018, Varanasi, UP
14. A Brief On Sustainable Goal #3 – Good Health And Well Being GGJ Delhi 2.0, 21 September 2018, Delhi
15. Role of Bystander in Road Traffic Injuries Mega Event by IRSC, 30 October 2018, DTU, Delhi
16. Wound Care Nursing Programme Launch of on Job Enrichment Programme (OJEP) for Nurses, 27 November 2018, JPNATC, AIIMS, New Delhi
17. Disaster Planning in India Regional Health Emergencies in Large Populations Course, 3-14 December 2018, International Institute of Health Management Research (IIHMR), New Delhi

18. Role of Youth and Technology to Promote Multi-Sectoral Action in Road Safety Morth in Support with IRSC and NSS, 9 February 2019, IIT, Delhi

Chhavi Sawhney

1. Donor screening and management, In house training of nurses on deceased organs and tissue donation, AIIMS, New Delhi
2. Trauma Care Systems in India, PGIMER, AIIMS, RMLH, Resuscitation in Trauma and Preoperative Care, 29 March 2017, PGIMER, Chandigarh
3. Maintenance of brain dead potential organ donor, 16th Annual Delhi Critical Care Symposium, 19 August 2018, Gurugram

Deepak Kumar Gupta

1. Current status of organ donation in India and care of Brain Dead Autc 2018, October 2018, New Delhi
2. Is there a doctor in flight, Antc 2018, October 2018, New Delhi
3. Posterior Fossa Astrocytomas, Indspncon 2019, February 2019, New Delhi
4. First successful craniopagus twin separation surgery of India, Annual Conf API Association, Kakinada
5. Annual Conf of Plastic Surgeons of India (APSICON), NSSICON 2019, June 2018, September 2018, 28 February 2019, Andhra Pradesh, Lucknow, Assam
6. Current Status of Decompressive Craniectomy in TbiNsicon 2018, December 2018, Jaipur

Dinesh Kumar Bagaria

1. Chairperson, Endosurg 2018, Live operative workshops, 20-22 April 2018.
2. Organized following Trauma First Responder workshops for commoner in collaboration with IRSC (Indian Road Safety Campaign, IIT, New Delhi)
3. Organizing Secretary of 2nd National Conference of Indian Society of Clinical Nutrition at AIIMS, New Delhi (31 August-2 September 2018)
4. Faculty and Moderator, iSAFE Mega event, 30 October 2018, Delhi Technical University
5. Faculty, AIIMS—MAWE course, 18 September 2018
6. Faculty, AIIMS—MAWE course, 15 December 2018
7. Faculty, AIIMS—MAWE course, 29 January 2019
8. Faculty, AIIMS—MAWE course, 21 February 2019
9. Trauma Care expert, 3rd World Sustainable Development Summit on Road Safety Policies, New Delhi, 11-13 February 2019
10. Faculty, AIIMS Trauma Assessment and Management course, Badshah Khan Civil Hospital, Faridabad, 22 November 2019
11. Participated in Endosurg 2019 as chairperson for live operative workshops and for free paper session (28-31 March 2019)

Garima Kachhawa *For details, see 9.24 Obstetrics and Gynaecology*

Gyaninder Pal Singh

1. Anaesthesia in Intraoperative Neurophysiological Monitoring IONM 2018, 4 May 2018, Max Super Speciality Hospital, Sachet, New Delhi
2. Ideal Volatile for Neuro Anaesthesia, IV Annual Medina Neuron Critical Care Conference (MNCC) 2018, 31 August-2 September 2018, Gurugram
3. Postoperative Recovery Profile in Neurosurgical Patients: Which is the Better Choice? Inhalational vs TIVA, 2nd Annual Neurocritical Care Update 2018, 22-24 March 2018, Artemis, Gurugram
4. Child for Hydrocephalus for VP Shunt, AIIMS Anaesthesiology Post-Graduate Assembly, 18-21 October 2018, AIIMS, New Delhi
5. Airway, Breathing and Sedation in Neurocritical Care Patient Acute Neurological Care, 13-14 February 2019, Artemis Hospital, Gurugram
6. Early Goal Directed Therapy in Neurosciences: Where Do We Stand? 20th Annual Conference of Indian Society on Neuroanaesthesiology and Critical Care (ISNACC) 2019, 15-17 February 2019, Gurugram

7. Disorders of Osmolality in ICU, Update on Fluid, Electrolyte and Acid Base Disorders, 16-17 March 2019, AIIMS, New Delhi
8. Sitting Position in Neurosurgery, 6th World Conference on Neurology and Neurosurgery, 27-28 March 2019, Paris, France

Kamran Farooque

1. MIS Fixation of Thoraco Lumbar Fractures, 20th Asia Pacific Orthopaedic Association Congress, 14 April 2018, Antalya, Turkey
2. Tips and Tricks in Thoraco Lumbar Fractures, DOA Advanced Spine Symposium, 13 May 2018, Indian Spinal Injuries Center, New Delhi
3. Case Presentation on Thoraco Lumbar Trauma 'MIDCON- 2018', Delhi Orthopaedic Association, 8 July 2018, New Delhi
4. Orthotics, Prosthetics and Role of Traction in Spine ICS 2018, Association of Spine Surgeon of India, 10 August 2018, Amritsar
5. Faculty for Panel Discussion 'Miscellaneous Topics In Spine' ICS-2018, Association of Spine Surgeon of India, 10 August 2018, Amritsar
6. Complications in Anterior Cervical Spine Surgery, 'Spine First' Cadaveric Spine Skills Course, 14 August 2018, JPNATC, AIIMS, New Delhi
7. Thoracic Pedicle Screws, 'Spine First' Cadaveric Spine Skills Course, 15 August 2018, JPNATC, AIIMS, New Delhi
8. New Fixation Modalities in Intertrochanteric Fractures Geriatric Trauma Care Symposium-In GOSICON-FFN-CCA-Conference, 6 September 2018, AIIMS, New Delhi
9. Panel Discussion, Optimizing Perioperative Outcome in Spine Surgery in Elderly, Geriatric Trauma Care Symposium-In GOSICON-FFN-CCA-Conference, 8 September 2018, AIIMS, New Delhi
10. 'Old Unreduced Cervical Dislocation', A Management Dilemma, 'APCSS 2018' Asia Pacific Cervical Spine Society Meeting, 17 November 2018, Dwarka, New Delhi
11. Sometimes Less Is Enough: A Case of Thoracic Spondyloptosis Spine Session-DOACON 2018, 23 November 2018, AIIMS, New Delhi
12. ACL Graft Preparation DOACON 2018, 23 November 2018, AIIMS, New Delhi
13. All Posterior Corpectomy for Burst Fractures, 70th Annual Congress of the Egyptian Orthopaedic Association, 12 December 2018, Cairo, Egypt
14. Treatment Options for Thoraco Lumbar Burst Fractures, 70th Annual Congress of the Egyptian Orthopaedic Association, 12 December 2018, Cairo, Egypt
15. Neglected Cervical Dislocation with Intact Neurology—Which Approach, 70th Annual Congress of the Egyptian Orthopaedic Association, 12 December 2018, Cairo, Egypt
16. Video Presentation on 'TLIF' 'SPINECON 2019' 2nd Annual Master Course in Spine Surgery, 20 January 2019, Gurugram, Haryana

Keshav Goyal

1. Awake Craniotomy, Nuggets for Newbies Neuroanesthesiology and Neurocritical Care Update 2018, 18-19 August 2018, SGPGI Lucknow, UP
2. We Cannot 'Walk Our Talk', Steroids in Spinal Injury: Treating The Surgeon! Panel Discussion IVth Annual Medanta Neuro Critical Care Conference, 31 August-2 September 2018, Gurgaon, Haryana
3. The Gold Standard is Losing Its Shine: Airway Control in C Spine, Role of Vls Vs Awake: Panel Discussion, IVth Annual Medanta Neuro Critical Care Conference, 31 August-2 September 2018, Gurugram, Haryana
4. Prognostic Value of Serially Estimated Serum Procalcitonin Levels in Traumatic Brain Injury Patients with or Without Extra Cranial Injury—A Longitudinal Observational Study, International Conference on Spreading Depolarizations (ICSD), 22-24 September 2018, Florida, USA
5. Prognostic value of serially estimated serum procalcitonin levels in traumatic brain injury patients with or without extra cranial injury—A longitudinal observational study, 16th Annual Meeting of Neurocritical Care Society (NCS), "Neurocritical Care without Borders, 25-28 September 2018, Florida, USA
6. Facet Joint Block: Considerations and tips, 3rd Cadaveric Pain Workshop, 13 October 2018, JPNATC, AIIMS, New Delhi
7. Anaesthesia for craniotomy for aneurysm surgery and brain tumor, AIIMS Anaesthesiology Post-Graduate Assembly 2018 (APGA18), 18-21 October 2018, JLN Auditorium, AIIMS, New Delhi

8. Chin Chest Deformity (Case Discussion), AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, JLN Auditorium, AIIMS, New Delhi
9. Quiz Master AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, JLN Auditorium, AIIMS, New Delhi
10. Advances in Multimodality Neuromonitoring, Third Conference of Nepalese Society of Critical Care Medicine (NSCCM), 16-17 November 2018, Convention Centre, Kathmandu, Nepal
11. Recent Trial in Critical Care—Panelist Third Conference of Nepalese Society of Critical Care Medicine (NSCCM), 16-17 November 2018, In Convention Centre, Kathmandu, Nepal
12. Intracranial Hypertension ENLS in 3rd Conference of Nepalese Society of Critical Care Medicine (NSCCMCON 2018), 18 November 2018 Conference Hall (2nd Floor), Norvic International Hospital, Kathmandu, Nepal
13. Traumatic Brain Injury ENLS in 3rd Conference of Nepalese Society of Critical Care Medicine (NSCCMCON 2018), 18 November 2018, Conference Hall (2nd Floor), Norvic International Hospital, Kathmandu, Nepal
14. Sodium and Fluid Management in Surgical ICU Patients, 1st Acute Critical Care Course (ACCC) for Interns, 8-9 December 2018, SET Facility, AIIMS, New Delhi
15. Traumatic Brain Injury: Acute Emergency Management Course, Director and Coordinator Acute Neuro Care (ANC), 13-14 February 2019, Auditorium, Artemis Hospital, Gurugram, Haryana
16. Single Rescuer and Double Rescuer CPRACLS, 23-24 February 2019, 29 March 2019, SET Facility, Convergence Block, AIIMS, New Delhi

Narender Choudhary

1. Chest Injuries and Chest Tube Drainage—Review and Appraisal of Current Practice, VIII National Conference of the Indian Association of Traumatology and Critical Care

Navdeep Sokhal

1. Percutaneous Tracheostomy Airway Management Workshop: Cadaver Training and Research Facility, 23 September 2018, JPNATC, New Delhi
2. Stellate Ganglion Block, Cadaveric Pain Conference, 13 October 2018, JPNATC, New Delhi
3. Sepsis—What is New, AIIMS Neuroanesthesia Update, 4 November 2018, AIIMS, New Delhi
4. Respiration—Applied Physiology, AIIMS Critical Care Course for Interns, 8 December 2018, AIIMS, New Delhi
5. Meningitis and Encephalitis Acute Neuro Care, 14 February 2109, Artemis Hospital, Gurugram
6. Percutaneous Tracheostomy Live Airway Management Workshop: Cadaver Training and Research Facility, 23 September 2018, JPNATC, New Delhi
7. Trigeminal Ganglion Block, Cadaveric Pain Conference, 13 October 2018, JPNATC, New Delhi
8. Thoracostomy and Thoracocentesis, AIIMS Critical Care Course for the Interns, 8 December 2018, AIIMS, New Delhi
9. Meningitis and Encephalitis, Acute Neuro Care, 14 February 2109, Artemis Hospital, Gurugram

Neeraj Kumar

1. Vascular Access, AIIMS—EMSONO, 11 August 2017, JPNATC, AIIMS, New Delhi
2. Concepts on Head-to-Toe Secondary Management and Monitoring, AUTLS, 15 September 2018, JPNATC, AIIMS, New Delhi
3. Ultrasound as an aid to airway, Cadaver airway workshop, 23 September 2018, JPNATC, AIIMS, New Delhi
4. Caudal Block, Interventional pain management workshop, 13 October 2019, JPNATC, AIIMS, New Delhi
5. Workshop for Technologist, AIIMS Neuroanesthesia Update 2018, 4 November 2018, AIIMS, New Delhi
6. Point of care ultrasound, ACCC, AIIMS, 8-9 December 2018, AIIMS, New Delhi
7. Traumatic Spine Injury (TSI) and USG in Neurological Emergencies ANC (ISNACC), 13-17 February 2019, Gurugram
8. Role of Technologists in Cervical Spine Injury Management (Moderator) NCOTT, 2 December 2018, AIIMS, New Delhi

Pankaj Singh

1. Correction of radiological parameters and accuracy of C2 pedicle screw placement in unstable hangmans fracture with intraoperative navigation UP UKneurocon 2018, 13-15 April 2018, River View Retreat, Ram Nagar
2. Evolution in management of hangmans fracture, 8 AIIMS complex spine live operative workshop, 5-6 May 2018, AIIMS, Delhi

3. Long term outcome of pediatric vertebral hemangiomas treated surgically, Brain Spine 186th, 7 November, Maldives National University, Male
4. Evolution in management of hangmans fracture, APCSS 2018, 15-17 November, Delhi
5. Evolution in management of Paediatric hangmans fracture INDSNCON, 15-17 February 2019, AIIMS, New Delhi

Pratyusha Priyadarshini

1. Medullary carcinoma thyroid Surgery, MAMC Update 2018, 27 September 2018, New Delhi

Purva Mathur

1. Paediatric Sepsis—Implementation of CLABSI Bundle in NICU and PICU, Paediatric Sepsis Cause to Treatment Paediatric Sepsis Conference, Chacha Nehru Bal Chikitsalay, 4 May 2018, New Delhi
2. HISI Educational and Awareness Initiative, 19 May 2018, New Delhi
3. Consensus Building “Preventing Intravascular Device Related Infections”, HISI, Delhi NCR Chapter, 7 July 2018, New Delhi
4. Central Line Associated Blood Stream Infections International Conference on AMR, 27-28 October 2018, Kochi
5. Essentials of Infection Control MICROCON 2018, 28 November 2018, Bengaluru
6. Dr Ajita Mehta Oration Lecture on “Surveillance of HAI” IDCC, 17 September 2018, Hinduja Hospital, Mumbai
7. Candida Infections in ICU: Scenario in India and Asia ESCMID, Postgraduate Education Course Antifungal Resistance in *Candida* and *Aspergillus*: From Clinic to Clinical Laboratory, 19 September, VP Chest Institute, Delhi
8. Antimicrobial Resistance (AMR) and Its Implications in Antibiotic Policy in Severe Head Injury Undergoing DC 5, ANTC, 26 October 2018, AIIMS, New Delhi
9. HAI Surveillance and Preventing Spread of AMR Pathogens in Healthcare Settings MICROCON 2018, 28 November 2018, Bengaluru

Richa Aggarwal

1. Airway management acute critical care course, 11 August 2018, Maulana Azad Medical College, New Delhi
2. Airway skill station acute critical care course, 11 August 2018, Maulana Azad Medical College, New Delhi
3. Initial management in Advanced trauma life support, AIIMS, Anaesthesiology Post-Graduate Assembly 2018 (APGA18), 21 October 2018, AIIMS, New Delhi
4. Surgical site infection [as chairperson], Intensive Care—Clinical Microbiology and Infectious Disease Certification Course, Annual DCCS, 19 August 2018, Gurgaon
5. Recruitment Manouvers in ARDS-Controversies Chairperson Scientific Meeting [CME], Organized by Society of Critical Care Medicine, 17 September 2018, Gurgaon
6. Donor Screening and Maintenance Training Programme of MSc Nursing Student, 18 January 2019, CMET, AIIMS, New Delhi
7. Airway management ANLS course, Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care, 13 February 2019, Gurgaon
8. Initial assessment of the sick patient acute critical care course, 8 December 2018, SET facility, AIIMS, New Delhi
9. Renal dysfunction in surgical patient acute critical care course, 8 December 2018, SET facility, AIIMS, New Delhi
10. Approach to a surgical patient with altered sensorium acute critical care course, 9 December 2018, SET facility, AIIMS, New Delhi
11. Airway skill station acute critical care course, 8 December 2018, SET facility, AIIMS, New Delhi

Samarth Mittal

1. Role of new implant options in periprosthetic fractures, 24th Annual Conference of Punjab Orthopaedic Association (POACON), 10 November 2018, Chandigarh
2. Intertrochanteric fractures, Treatment options and outcomes AO Trauma Course—Advanced Principles of Fracture, 3 August 2018, Chandigarh
3. Intertrochanteric fractures, AO Trauma Course—Basic Principles of Fracture Management, 15 March 2019, Kochi
4. Case presentation using TFNA, 9th AO Trauma India National Conference, 19 April 2019, Chandigarh
5. Case presentation—Intertrochanteric Fractures Meet the Masters Depuy Course, 25 November 2018, New Delhi

6. KL approach with flip Cadaveric workshop on Pelvi acetabular fractures as part of DOACON 2018, 22 November 2018, New Delhi
7. Floating Shoulder, DOACON 2018, 24 November 2018, New Delhi
8. Floating clavicle CCR presentation from Department of Orthopaedics Trauma, 19 March 2019, AIIMS, New Delhi

Sanjeev Kumar Bhoi

1. Emergency Care System WHO meeting on Integration, 13 December 2017, AIIMS, New Delhi

Subodh Kumar

1. Damage Control Surgery in Trauma Patients Surgery Update 2018, 14 April 2018, Aligarh Muslim University, Aligarh
2. Damage Control Surgery in Trauma, AIIMS-FAM Joint Symposium in Trauma and Injury Prevention, 20 April 2018, JPNATC, AIIMS, New Delhi
3. Laparoscopic Anatomy of Groin Hernia in Training Course in Laparoscopic Hernia Surgery, 23-25 April 2018, AIIMS, New Delhi
4. Damage Control Surgery in Trauma Patients, ICSIS-NZCON 2018, 12-13 May 2018, Agra, UP
5. Imaging in Trauma Practical Approach, 8th National Conference of the Indian Association of Traumatology and Critical Care, 24-25 August 2018, Mangalore, Karnataka
6. Damage Control Resuscitation and Surgery, 8th National Conference of the Indian Association of Traumatology and Critical Care, 24-25 August 2018, Mangalore, Karnataka
7. Damage Control Resuscitation and Surgery, CS-ISCON 2018, 64th Annual Conference of International College of Surgeons Indian Section, 14-16 September 2018, Varanasi, UP
8. Laparoscopic Anatomy of Groin Hernia in Training Course in Laparoscopic Hernia Surgery, 24-26 September 2018, AIIMS, New Delhi
9. Laparoscopic Anatomy of Groin Hernia in Training Course in Laparoscopic Hernia Surgery, 26-28 November 2018, AIIMS, New Delhi
10. Triage HELP Course by ICRC, 3 December 2018, International Institute of Health Management Research, New Delhi
11. Initial Assessment and Management of A Trauma Victim CME on Polytrauma Management, 15-16 February 2019, Sir Guru Ram Das Institute of Medical Sciences and Research, Amritsar, Punjab
12. Emergency Management of Thoracic Injury CME on Polytrauma Management, 15-16 February 2019, Sir Guru Ram Das Institute of Medical Sciences and Research, Amritsar, Punjab
13. Laparoscopic Anatomy of GroinHernia in Training Course in Laparoscopic Hernia Surgery, 25-27 February 2019, AIIMS, New Delhi
14. Abdominal Compartment Syndrome AMU Surgery Update-2019, 1-3 March 2019, Aligarh Muslim University, Aligarh
15. Patient Extrication from Vehicle and Safe Transport Road Traffic Crash Training of Nursing Officers of Vice-President Medical Unit 8, March 2019, Dr RML Hospital, New Delhi

Sushma Sagar

1. Managing the Agitated Patient National CME on Consultation-Liaison Psychiatry, 9 April 2018, AIIMS, New Delhi
2. Mass Casualty Management and Hospital Disaster Management Plan “Emergency Medical Response and Psychosocial Care in Disaster Situation”, Organized by Haryana Institute of Public Administration (HIPA), 12 April 2018, JPNATC, AIIMS, New Delhi
3. Isafe—The Safer India Challenge, 17-18 Indian Road Safety Campaign (IRSC), 22 April 2018, IIT, New Delhi
4. Initial Assessment of a Trauma Victim ICSIS-NZCON 2018, 12-13 May 2018, Agra, UP
5. X-ray Identification of Thoracic Trauma, Advanced Trauma Life Support Instructor Course, 24-25 May 2018, JIPMER, Pondicherry
6. Impact of Road Traffic Injury in Developing Country, Talk Show with Reuters News Agency, 18 July 2018, JPNATC, AIIMS, New Delhi
7. How Can Youth Contribute to Changing the Scenario of Road-Safety India, I-SAFE’17: The Safer India Challenge, 19 August 2018, IIT, New Delhi

8. Reproductive Health in Disasters Training Programme on Gender and Disaster Management, 27-31 August 2018, NIDM Post-Crash Management High Level Conference on Road Safety, 28-29 August 2018, Gurugram, Haryana
9. Nutritional Needs in Burns, 2nd National Conference of Indian Society of Clinical Nutrition (INSCN), 31 August-2 September 2018, AIIMS, New Delhi
10. Facial Fractures, 1st AIIMS Plastic Surgery Update 2018, 1-3 September 2018, JPNATC, AIIMS, New Delhi
11. Panel Discussion Role of Youth in Road Safety Cum Launch of I-SAFE'18: The Safer India Challenge Ministry of Road Transport and Highways, Indian Road Safety Campaign, 9 September 2018, IIT, Delhi
12. Facial Injuries Challenges ICS-ISCON 2018, 64th Annual Conference of International College of Surgeons Indian Section, 14-16 September 2018, Varanasi, UP
13. A Brief on Sustainable Goal #3–Good Health and Well Being GGJ Delhi 2.0, 21 September 2018, New Delhi
14. Role of Bystander in Road Traffic Injuries Mega Event by IRSC at DTU, 30 October 2018, DTU, Delhi
15. Wound Care Nursing Programme Launch of On Job Enrichment Programme (OJEP) for Nurses, 27 November 2018, JPNATC, AIIMS, New Delhi
16. Disaster Plannin in India Regional Health Emergencies in Large Populations Course, 3-14 December 2018, International Institute of Health Management Research (IIHMR), New Delhi
17. Role of Youth and Technology to Promote Multi-Sectoral Action in Road Safety Morth in Support with IRSC and NSS IIT-Delhi, 9 February 2019, IIT, New Delhi

Tej Prakash Sinha

1. MEDINSPIRE 2019 (AUTLS), DY Patil University, 14 February 2019, Mumbai
2. Annual national conference of Pedi STARS shaping the safety culture, 27 February-3 March 2019, AIIMS, New Delhi

Vijay Sharma

1. Pelvic packing/Embolization/B/L internal iliac ligation, 3rd Pelvic Acetabulum Cadaveric Course, 14-15 April 2018, AIIMS, New Delhi
2. Definitive Management of Pelvic Fractures: D) Anterior Ring, 3rd Pelvic Acetabulum Cadaveric Course, 14-15 April 2018, AIIMS, New Delhi
3. Decision Making in Treatment of Acetabulum Fractures, 3rd Pelvic Acetabulum Cadaveric Course, 14-15 April 2018, AIIMS, New Delhi
4. Treatment Modalities in Fracture of Acetabulum, 14th DNG-JOS Meeting, 25 August 2018, DNG Ortho Hospital, Jaipur
5. Fixation of Acetabular Fractures in Elderly Current Concepts in Arthroplasty 2018, GOSICON- FFN-CCA, 6-9 September 2018, AIIMS, New Delhi
6. Pelvic Injuries: Road to Rehabilitation, POACON, 11 November 2018, Chandigarh, Punjab
7. Decision Making in Acetabular Fractures: Operate or Not Approach Rationale, DOACON 2018, 22 November 2018, AIIMS, New Delhi
8. Anterior Intra Pelvic Approach for Acetabular Fractures, DOACON 2018, 22 November 2018, AIIMS, New Delhi
9. Unusual Femoral Shaft Fracture (Case Presentation), DOACON 2018, 23 November 2018, AIIMS, New Delhi
10. Floating Knee Injuries North Zone Orthopaedics Association Conference (NZOACON 2019), 8-10 February 2019, Jammu and Kashmir
11. Muscular Skeletal Injuries-ATLS Way, 2nd National PG Meet-2019, 15-16 February 2019, Amritsar, Punjab
12. Essential Steps of Ilio Inguinal Approach, 3rd AOPAS Meeting, 29-31 March 2019, Bhubaneswar, Orissa

Vivek Trikha

1. Decision Making and Management Protocols for Calcaneal Fractures, Uttarakhand Annual Conference 2018, 6-8 April 2018, Dehradun
2. Management of Tibial Plateau Fractures: Current Concepts, Uttarakhand Annual Conference 2018, 6-8 April 2018, Dehradun
3. Anterior Acetabular Trauma Reduction and Fixation, Uttarakhand Annual Conference 2018, 6-8 April 2018, Dehradun
4. Definitive Stabilization Percutaneous Fixations Pelvis, Uttarakhand Annual Conference 2018, 6-8 April 2018, Dehradun

5. Associated Both Column Fracture, AIIMS-ACSST Pelvic Acetabulum Course, 14-15 April 2018, Delhi
6. Study Design, AOPEER Principles of Clinical Research Course, 27-28 April 2018, Lucknow
7. Why is Research Important in Daily Practice, AOPEER Principles of Clinical Research Course, 27-28 April 2018, Lucknow
8. Posterior Wall Fractures: Tips n Tricks Glenoid Fractures, AO Trauma National Conference, 27-29 April 2018, Lucknow
9. Crescent pelvic fractures, AO Trauma National Conference, 27-29 April 2018, Lucknow
10. Trochanteric Flip Osteotomy, Advanced Pelvi-Acetabular Course, 6-8 July 2018, Bengaluru
11. Quadrilateral plate comminution, Advanced Pelvi-Acetabular Course, 6-8 July 2018
12. Soft tissue lesions associated with pelvic trauma, Advanced Pelvi-Acetabular Course, 6-8 July 2018, Bengaluru
13. Difficult pelvic case, Advanced Pelvi-Acetabular Course, 6-8 July 2018, Bengaluru
14. Non-union cases, 5th AAOS-IOA Trauma Conclave, 20-21 July 2018, Mumbai
15. Tibial Plateau Fractures, 5th AAOS-IOA Trauma Conclave, 20-21 July 2018, Mumbai
16. Management Principles of Articular Fractures—How Do They Differ from Diaphyseal Fractures, AOA Basic Principles of Trauma Course, 9-11 August 2018, Colombo, Sri Lanka
17. Emergency management of pelvic fractures—A critical skill that can save lives, AOA Basic Principles of Trauma Course, 9-11 August 2018, Colombo, Sri Lanka
18. Influence of patient factors and injury mechanism on fracture management, AOA Basic Principles of Trauma Course, 9-11 August 2018, Colombo, Sri Lanka
19. Fractures of Olecranon and Patella, AOA Basic Principles of Trauma Course, 9-11 August 2018, Colombo, Sri Lanka
20. KL approach, National Symposium on Pelvic Acetabular Fractures, 25 August 2018, Raipur
21. Principles of acetabular fracture management, AOA Advanced Principles of Trauma Course, 13-15 September 2018, Kathmandu, Nepal
22. Talar neck fractures and complications, AOA Advanced Principles of Trauma Course, 13-15 September 2018, Kathmandu, Nepal
23. Early and definitive treatment of pilon fractures, AOA Advanced Principles of Trauma Course, 13-15 September 2018, Kathmandu, Nepal
24. Proximal humerus fractures to fix, to replace or treat nonoperatively? AOA Advanced Principles of Trauma Course, 13-15 September 2018, Kathmandu, Nepal
25. Sacroiliac screw fixation, Pelvi-Acetabular Cadaveric National Workshop, 9-10 November 2018, Vijayawada
26. Decision making in Acetabular fractures, Pelvi-Acetabular Cadaveric National Workshop, 9-10 November 2018, Vijayawada
27. Both column fractures, Pelvi-Acetabular Cadaveric National Workshop, 9-10 November 2018, Vijayawada
28. Associated Both Column Injuries, DOACON 2018 Cadaveric Course on Pelvi-Acetabular Injuries, 22 November 2018, Delhi
29. Stoppas Approach, Pelvi-acetabular Workshop in IOACON 2018, 27 November 2018, Coimbatore
30. Sequencing the Dual Approach in Acetabular Injuries, IOACON 2018, 29 November 2018, Coimbatore
31. Stoppas approach tips n tricks, GOACON 2019 Annual Conference of Gujarat Orthopaedic Association, 1-3 February 2019, Ahmedabad
32. Why PFNA failed in this case, GOACON 2019 Annual Conference of Gujarat Orthopaedic Association, 1-3 February 2019, Ahmedabad
33. Non-union Neck Femur: What went wrong, GOACON 2019 Annual Conference of Gujarat Orthopaedic Association, 1-3 February 2019, Ahmedabad
34. Masquelet Technique in Infective nonunions, GOACON 2019 Annual Conference of Gujarat Orthopaedic Association, 1-3 February 2019, Ahmedabad
35. Local Antibiotic Delivery System in Infected cases, GOACON 2019 Annual Conference of Gujarat Orthopaedic Association, 1-3 February 2019, Ahmedabad
36. Experimental studies; RCT (CONSORT Guidelines), IJO-JCOT Scientific Writing Workshop, 17 February 2019, Delhi
37. Scapular fractures being safe n successful, SESICON 2019 Conference of Shoulder and Elbow Society of India, 23-24 February 2019, Coimbatore

38. Proximal humerus fractures fixation tips n tricks, SESICON 2019 Conference of Shoulder and Elbow Society of India, 23-24 February 2019, Coimbatore
39. Emergency management of pelvic fractures a critical skill can save lives, AO Trauma Basic Principles of Fracture Fixation, 28 February-2 March 2019, Bhubaneswar
40. Femoral neck fractures, AO Trauma Basic Principles of Fracture Fixation, 28 February-2 March 2019, Bhubaneswar
41. Bone healing and the effect of patient factors and injury mechanism on fracture management, AO Trauma Basic Principles of Fracture Fixation, 28 February-2 March 2019, Bhubaneswar
42. ABC Fractures Reduction Techniques, 3rd AOPAS 2019, Association of Pelvi-Acetabular Surgeons Annual Conference, 29-30 March 2019, Bhubaneswar
43. Combined Pelvi-acetabular Injuries: Different Strokes, 3rd AOPAS 2019, Association of Pelvi-Acetabular Surgeons Annual Conference, 29-30 March 2019, Bhubaneswar
44. Preop Planning n Augmentation in Proximal Humerus Fractures, One Day One Topic on Proximal Humerus Fractures, 31 March 2019, Delhi

Oral papers/posters presented

1. Agarwal H, Gupta A, Kumar S, Mishra B, Sagar S, Kumar A, Evaluation of outcomes in patients with liver trauma—A Level 1 Trauma Centre observational study, 5th World Society of Emergency Surgery Congress, 28-30 June 2018, Bertinoro, Italy
2. Aggarwal R, Does real time ultrasonography confer any benefit during bronchoscopy guided percutaneous tracheostomy: A preliminary, randomised controlled trial conference IARS, AUA and SOCCA 2018 Annual Meetings, 27 April 2018, Chicago, USA
3. Albert V, Subramanian A, Dnrao inflammation-coagulation crosstalk in severe isolated Traumatic Brain Injury (TBI) Poster FIMSA, “Crosstalk Between Innate and Adaptive Immunity in Health and Disease”, 10-13 November 2018, Bangkok
4. Albert V, Subramanian A, Agrawal D, Pati HP, Correlation of microcytosis and hypochromia with neurocognitive impairment in Mild Traumatic Brain Injury Patients (MTBI) Poster, LMCE 2018 (Laboratory Medicine Congress and Exhibition) and KSLM, 59th Annual Meeting, 1-3 November 2018, Seoul, S Korea
5. Albert V, Subramanian A, Pati H, Agrawal D, Association of higher platelet to packed red blood cells transfusion ratios and decreased mortality in patients with isolated severe traumatic brain injury paper, 35th International Congress of the ISBT, ISBT-1285 Harold Gunson Fellowship, 2-6 June 2018, Toronto, Canada
6. Albert V, Subramanian A, Pati HP, Agrawal D, Study of immature fraction as a marker for platelet refractoriness in traumatic brain injury patients paper, AABB-AATM 2018, 7 December 2018, 6th Floor, National Highway 8, DLF Phase-3, Gurugram, Haryana 122 002, India
7. Albert V, Subramanian A, Pati HP, Mukhopadhyay AK, Assessing the efficiency of pre-hospital scoring system with conventional coagulation tests-based definition of acute traumatic coagulopathy poster, CCCLM 2018, 20th International Conference on Clinical Chemistry and Laboratory Medicine, 14-15 May 2018 (WASET), London, United Kingdom
8. Albert V, Subramanian A, Prakash S, Trikha V, Kumar A, Malhotra R, Association of microRNA’s signature in traumatic fractures of osteoporotic patients paper 2018, Nextgen Genomics, Biology, Bioinformatics and Technologies (NGBT) Conference, 30 September-2 October 2018, Fairmont, Jaipur, Rajasthan, India organized by SciGenom Research Foundation (SGRF)
9. Anwar M, Singh P, Singh TP, To determine the accuracy of FAST and its comparative analysis with CECT Torso in Paediatric Patients at Level 1 Trauma Centre of India (1st Prize), 5th AIIMS Neurotrauma Conference, 26-28 October 2018, Pain Despite Analgesia—Cured by Surgery Majid Anwar Delhi State Chapter, 23 February 2019, AIIMS, Delhi
10. Apoorva, Gupta S, Sood S, Dhawan B, Kachhawa G, Saxena AK, Association between dysbiosis of the vaginal microbiota and bacterial infections Keystone Symposia—Role of the Genital Tract Microbiome in Sexual and Reproductive Health Conference, 11-15 December 2018, Cape Town, South Africa
11. Arora A, Gamanagatti S, Sharma R, Shalimar, Verma R, Paul SB, Extrahepatic collateral supply to HCC: What radiologist needs to know ECR, 27 February-3 March 2019, Vienna
12. Bajpai V, Aravinda A, Mathur P, Malhotra R, Phenotypic and genotypic characterization of carbapenemases in Pseudomonas species, ECCMID Conference Spain, 19 April 2018, Spain
13. Bajpai V, Kumar D, Bindra A, Malhotra R, Mathur P, Prevalence of nosocomial meningitis in neurosurgical patients IAMM DC, 18 August 2017, San Francisco, California, USA
14. Bajpai V, Mathur P, Malhotra R, Utility of serum procalcitonin in critically ill pediatric patients, IAMM DC, 21 March 2018

15. Bhardwaj N, Khurana S, Mathur P, Gupta DK, Profile of CD14+ Monocytic Cytokines in Polytrauma patients, 5th AIIMS Neurotrauma Conference (ANTC 2018), 26-28 October 2018, JPNTC, AIIMS, New Delhi
16. Bhardwaj N, Khurana S, Mathur P, Malhotra R, Reduced monocytic TNF- α and IL- β in early stage of trauma lead to positive outcome in severely injured trauma patients, IMMUNOCON 2018, 1-3 November 2018, THISTI, Faridabad
17. Bindra A, A rare case of malpositioning of guidewire into external jugular vein during USG cannulation, Indian Society of Critical Care Medicine, 2 February 2019, Mumbai
18. Bindra A, Effect of Cerebral perfusion pressure augmentation on brain regional energy Metabolism, Medanta Neurocritical Care Update, Gurugram
19. Bindra A, Effect of cerebral perfusion pressure augmentation on brain regional energy metabolism, 6th Conference of Asian Society of Neuroanesthesia and Critical Care, 15 March 2019, Nara National Park, Japan
20. Bindra A, Evaluation of respiratory morbidity and outcome in Cervical Spine Injury, Indian Society of Neuroanesthesia and Critical Care, 15 February 2019, Gurugram
21. Bindra A, Paediatric Traumatic Brain Injury: Neurointensive Care Management in a Tertiary Care Trauma Centre, 10th Euro Neuro, 8 November 2018, Brussels, Belgium
22. Chaurasia R, Akhtar N, Subramanian A, Arya V, Karjee S, Transfusion of type specific red blood cell for immediate requests: An experience at level I trauma center, Poster AABB-AATM 2018, 7 December 2018, Gurugram, Haryana
23. Choudhary P, Verma K, Verguese LT, Jaiswal AK, Kumar A, Simultaneous determination and method validation for opioids, cannabinal and nicotine in postmortem whole blood using high performance thin layer chromatography—Mass spectrometry, HPTLC ASIA 2018—International Symposium for High-Performance Thin Layer Chromatography, 28-30 November 2018, Chulalongkom University, Bangkok, Thailand
24. Deepak R, Kumar A, Sharma R, Bhalla AS, Gamanagatti S, Gupta A, Kumar S, Can CEUS be an alternative to CECT for grading and triaging management of blunt traumatic solid abdominal organ injuries, 104th Annual Meeting of Radiology Society of North America, 25-30 November 2018 Chicago, USA
25. Deepak R, Kumar A, Sharma R, Bhalla AS, Gamanagatti S, Gupta A, Kumar S, The role of CEUS in detection and grading of renal injuries in blunt abdominal trauma, 104th Annual Meeting of Radiology Society of North America, 25-30 November 2018, Chicago, USA
26. Deepak R, Kumar A, Sharma R, Bhalla AS, Gamanagatti S, Gupta A, Kumar S, CEUS appearance of post-traumatic visceral pseudoaneurysms and active extravasations—An overview of vascular injuries, 104th Annual Meeting of Radiology Society of North America, 25-30 November 2018, Chicago, USA
27. Deoghare M, Kumari R, Kulshreshta V, Sahoo I, Mathur S, Kachhawa G, Mahey R, Sharma JB, Bhatla N, Case report on placental mesenchymal dysplasia: Rare but needs Care Annual Conference of AOGD, 24-25 November 2018, New Delhi
28. Gambhir M, Gamanagatti S, Sharma R, Manchanda S, Kumar A, Endovascular interventions in obstetric emergencies: A Game Changer European Congress of Radiology, 27 February-3 March 2019, Vienna, Austria
29. Govindaswamy A, Mathur P, Malhotra R, The incidence of catheter-related urinary tract infections in intensive care unit patients admitted at a Level 1 Trauma Center, IAMM DC, 21 March 2018
30. Govindaswamy A, Singh P, Malhotra R, Mathur P, Antimicrobial resistance pattern and attributable burden of pseudomonas aeruginosa in hospitalized patients from Level 1 Trauma Centre in India, IAMM DC at SSPGI Noida, 25 November 2018, Noida
31. Govindaswamy A, Singh P, Malhotra R, Mathur P, E-poster antimicrobial resistance pattern and attributable burden of pseudomonas aeruginosa in hospitalized patients from Level 1 Trauma Centre in India, AIIMS Research Day, 26 March 2019, Delhi
32. Goyal A, Sangwan A, Gamanagatti S, Kumar A, Singhal M, Radiofrequency ablation in the treatment of refractory pain in Fibroadipose Vascular Anomaly, 21st Annual Conference of ISVIR, 7-10 March 2019, Goa
33. Goyal A, Sangwan A, Kumar A, Kandasamy D, Sharma R, Bhalla AS, Sahu SA, Singhal M, Khandpur S, Sudheer A, Contrast-enhanced ultrasound in vascular anomalies: A new paradigm, 104th Scientific Assembly and Annual Meeting of Radiological Society of North America (RSNA), 25-30 November 2018, Chicago, USA
34. Goyal K, Tomar GS, Singh GP, Soni KD, Agarawal R, Mathur P, Kedia S, Prabhakar H, Chaturvedi A, Prognostic value of serially estimated serum procalcitonin levels in traumatic brain injury patients with or without extra cranial injury—A longitudinal observational study ICSD 2018 and 16th Annual Meeting of Neurocritical Care Society (NCS), Neurocritical Care without Borders, 25-28 September 2018, Florida, USA
35. Gunjiganvi M, Rattan A, Mir N, Siddiqui I, Sagar R, Gupta A, Kumar S, Sagar S, Plight of amputees in a developing nation: An evaluation of factors causing delay in early rehabilitation, 2nd International Symposium on Innovations in Amputation Surgery and Prosthetic Technologies Vienna, 10-12 May 2018, Vienna

36. Gupta B, Release of pro and anti-inflammatory cytokines and development of sirs with different anesthetic techniques in major Orthopaedic trauma surgeries, Cytometry Society of India Conference, 29-30 October 2018, AIIMS, New Delhi
37. Gupta S, Sengar K, Satyarthi GD, Subramanian A, Morquio syndrome presenting with dural band pathology: A case report, AIIMS Neurotrauma Conference 2018, 26-28 October 2018, AIIMS
38. Kachhawa G, Nihlani H, Mahey R, Kulshrestha V, Kumari R, Khadgawat R, et al. Compare insulin resistance and cardio vascular risk factors in lean versus overweight women with PCOS, Annual Conference of AOGD, 24-25 November 2018, India Habitat Centre, New Delhi
39. Kaul RP, Sagar S, Kumar S, Bhutia O, Singhal M, Gupta A, et al. 3D printing technology assisted surgery for maxillofacial trauma: Our experience at Level 1 Trauma Centre, First AIIMS Research Day, 25 March 2019, AIIMS, New Delhi
40. Kaul RP, Sagar S, Kumar S, Singhal M, Gupta A, Sagar R, Fat grafting surgery for post traumatic maxillofacial defects: Our experience at Level 1 Trauma Centre, First AIIMS Research Day, 25 March 2019, AIIMS, New Delhi
41. Kaundal A, Kachhawa G, Kulshrestha V, Kriplani A, Vanamail perumal medicolegal awareness among reproductive age, Women Attending Obstetrics and Gynaecology OPD, Annual Conference of AOGD, 24-25 November 2018, India Habitat Centre, New Delhi
42. Khandelwal A, Goyal K, Sokhal S, Dube S, Tandon V, Singh A, Chaturvedi A, Best poster award perioperative anaesthetic management of a patient with chin-on-chest deformity presenting for Reconstructive Spine Surgery: A case report, ISNACC 2019, 15-17 February 2019, Gurugram, Haryana
43. Khurana S, Bhardwaj N, Mathur P, et al. Role of regulatory T helper cells in outcome of polytrauma patients with head injuries, 5th AIIMS Neurotrauma Conference (ANTC-2018), 26-28 October 2018, Seminar Hall, First Floor, JPNTC, AIIMS, New Delhi
44. Khurana S, Mathur P, Bharadwaj N, et al. Interplay of nTreg, iTreg, and Th3: Regulatory T helper cell populations in major and minor trauma patients, MICRO-D-CON 2018, 10th Annual Conference of IAMM Delhi Chapter, 31 October-3 November 2018, New Delhi (Best Free Poster Award (II))
45. Khurana S, Mathur P, Bharadwaj N, Towards developing immunodiagnostic tests for septic polytrauma patients based on T helper-22 and regulatory T helper cells, MICRO-D-CON 2018, 10th Annual Conference of IAMM Delhi Chapter, 31 October-3 November 2018, New Delhi
46. Khurana S, Mathur P, Bhardwaj N, et al. Dynamics of T helper 9, T helper 22, and regulatory T helper cells in minor and major trauma AAAAI Annual Meeting, 2019 organized by American Academy of Allergy, Asthma and Immunology, 22-25 February 2019
47. Khurana S, Sharma V, Bhardwaj N, Kumari M, Malhotra R, Mathur P, Outcome of patients with Orthopaedic injuries and role of higher T helper-9 cells, IMMUNOCON 2018, 1-3 November 2018, THISTI, Faridabad
48. Kumar N, Pal GP, Goyal K, Sokhal N, Bindra A, A rare case of malposition of guidewire into external jugular vein during ultrasound guided internal jugular vein catheterization, ISCCM, 2 February 2019, Mumbai
49. Kumar N, Singh GP, Goyal K, Sokhal N, Bindra A, A rare case of malposition of guidewire into external jugular vein during ultrasound-guided internal jugular vein catheterisation, 25th Annual Conference of Indian Society of Critical Care Medicine (CRITICARE 2019), 1-3 February 2019, Mumbai
50. Kumar V, Gupta A, Agarwal H, Mishra B, Sagar S, Kumar S, Prehospital care in India—The need of the hour, 77th Annual Meeting of the AAST (American Association for the Surgery of Trauma) and Clinical Congress of Acute Care Surgery and 4th World Trauma Congress (WTC), 26-29 September 2018, San Diego, California, USA
51. Kumar V, Kumar A, Mishra B, Gupta A, Sagar S, Kumar S, Traumatic laryngotracheal injuries—7 year experience from A Level 1 Trauma Center, 77th Annual Meeting of the AAST (American Association for the Surgery of Trauma) and Clinical Congress of Acute Care Surgery and 4th World Trauma Congress (WTC), 26-29 September 2018, San Diego, California, USA
52. Kumari M, Bagaria V, Mathur P, Sagar S, Gupta A, Madan K, Soni KD, Bharadwaj N, Khurana S, Kumar S, Assessment of inflammatory cytokines in bronchoalveolar lavage fluid of mechanically ventilated chest trauma patients, The Federation of Immunological Societies of Asia-Oceania Congress (FIMSA 2018), 10-13 November 2018, Bangkok, Thailand
53. Kumari M, Khurana S, Bhardwaj N, Mathur P, et al. Role of Cytokines in the immunomodulation and immunotherapy of patients with traumatic chest injury, AAAAI Annual Meeting 2019, Organized by American Academy of Allergy, Asthma and Immunology, 22-25 February 2019, San Francisco, California, USA
54. Maji R, Tiwari A, Albert V, Subramanian A, Biochemical markers (Amylase and CRP) in Isolated Traumatic Brain Injury Poster, 16th Annual Meeting of the Society for Free Radical Research India-2018 (SFRRRI-2018) and

International Conference on Translational Research in Free Radicals Micronutrient Antioxidants and Functional Foods, 18-20 February 2018

55. Mir M, Sagar S, Sagar R, Bed sided grief counselling sessions to a patient with amputation international conference on cognitive behavioural intervention, 23-29 September 2018, SGT University
56. Mishra B, Joshi M, Lalwani S, Kumar A, Kumar A, Kumar S, Gupta A, Sagar S, A comparative analysis of the findings of post-mortem CT scan and traditional autopsy in traumatic deaths—Is technology mutually complementing or exclusive? 77th Annual Meeting of the AAST (American Association for the Surgery of Trauma) and Clinical Congress of Acute Care Surgery and 4th World Trauma Congress (WTC), 26-29 September 2018, San Diego, California, USA
57. Mittal S, Challenges of managing anterior acetabular fractures with the Stoppas approach in a developing country, 39th SICOT Orthopaedic World Congress, 10-13 October 2018, Montreal, Canada
58. Mittal S, Avoiding malalignment in proximal femur fractures treated with newer generation cephalomedullary nails: Some technical tips, DOACON 2018, 22-24 November 2018, JLN Auditorium, New Delhi, India
59. Mittal S, Radiologic CT study of trans sacra and Ilio sacral screws in the Pelvis in an Indian population, 39th SICOT Orthopaedic World Congress, 10-13 October 2018, Montreal, Canada
60. Mittal S, Total hip replacement in the active stage of Tuberculosis of the hip joint, DOACON 2018, 10-13 October 2018, Montreal, Canada
61. Moorthy AS, Sagar S, Kumar S, Sagar R, Trikha V, Sawhney C, Kalaivani effect of Virtual Reality Therapy (VRT) in improving balance and quality of life among the lower limb amputees—A randomized control trial, First AIIMS Research Day, 25 March 2019, AIIMS, New Delhi
62. Mukhopadhyay T, Albert V, Arulselvi S, Bhoi S, Mukhopadhyay AK, Assessment of platelet function in traumatic brain injury patients with thrombocytopenia using flowcytometry paper, ANTC 2018, AIIMS Neurotrauma Conference, 26-28 October 2018, AIIMS
63. Mukhopadhyay T, Albert V, Arulselvi S, Mukhopadhyay AK, Coagulopathy in presence of thrombocytopenia as a predictor of mortality in trauma patients: A prospective study poster, Second Hematology Update, 28-29 October 2018, Jodhpur
64. Mukhopadhyay T, Albert V, Arulselvi S, Mukhopadhyay AK, Flowcytometric analysis of platelet function in trauma patients with thrombocytopenia poster, The Cytometry Society-India, 11th Annual Conference and Workshops, 29-31 October and 1 November 2018, All India Institute of Medical Sciences, New Delhi
65. Mukhopadhyay T, Flowcytometry based platelet function analysis to rationalize platelet transfusion in trauma patient paper VISA, 10 November 2018, Madurai, Tamil Nadu
66. Niraj K, Pal SG, Keshav G, Navdeep S, Ashish B, A rare case of malpositioning of guidewire into External Jugular Vein (EJV) during Ultrasound-Guided Internal Jugular Vein (IJV) Catheterization, 25th Annual National Conference of Indian Society of Critical Care Medicine, 1-3 February 2019, Mumbai
67. Patidar RK, Kriplani A, Kachhawa G, Kulshrestha V, Kumari R, Mahey R., et al. A prospective randomized control study to compare the efficacy of ulipristal acetate versus GNRH agonist in women with symptomatic uterine myomas and post treatment follow up, First AIIMS Research Day, 25-26 March 2019, AIIMS, New Delhi
68. Paul S, Ekta DE, Sahu P, Gamanagatti S, Shalimar, Acharya SK, Management of Hepatocellular Carcinoma Associated with Hepatic Venous Outflow Tract Obstruction (HVOTO-HCC): A challenging task for an interventional radiologist, 59th Annual Conference of Indian Society of Gastroenterology, (Isgcon 2018), 28 November-1 December 2018, Kochi, Kerala
69. Paul SB, Ekta DE, Prasad V, Das P, Gamanagatti SR, Shalimar, Acharya SK, Combined Hepatocellular Cholangiocarcinoma: A diagnostic conundrum, Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR2018), 28-30 September 2018, New Delhi
70. Paul SB, Gamanagatti SR, Prasad V, Dhamija E, Shalimar, Acharya SK, Hepatocellular carcinoma with extrahepatic collateral supply: Diagnosis and impact on management with transarterial chemoembolization, Indian Society of Gastrointestinal and Abdominal Radiology (ISGAR 2018), 28-30 September 2018, New Delhi
71. Paul SB, Singh S, Yadav D, Dhamija E, Gamanagatti SR, Shalimar, Acharya SK, Spectrum of contrast enhanced ultrasound findings in hepatocellular carcinoma treated with locoregional therapy, 26th Annual Scientific Meeting Indian National Association for Study of the Liver, (INASL 2018), 2 May 2018, New Delhi
72. Prasad C, Khandelwal A, Singh GP, Chaturvedi A, Intraoperative generalized tonic-clonic seizure and consequent severe brain bulge during functional motor cortex mapping: A case report, AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, AIIMS, New Delhi
73. Ramot R, Kachhawa G, Kulshrestha V, Jyotsna VP*, Aggarwal R, Sreenivas V, Kandasamy D, Mohan A, Khadgawat R, Bone mass in Asian Indian New Born Subjects—A hospital based study, 19th Congress of PENZA 2018, 13-16 June 2018, Seoul, Korea

74. Ramot R, Kachhawa G, Kulshrestha V, Jyotsna VP, Gupta N, Aggarwal R, Satyarthee GD, Intraspinal pressure monitoring, 12th Asia Pacific Cervical Spine Society Meeting, 17 November 2018, New Delhi
75. Rattan A, Gupta A, Mishra B, Kumar S, Agarwal R, Soni KD, Sagar S, Interleukin-10 levels on day of injury predict late mortality in polytrauma patients, First AIIMS Research Day, 25 March 2019, AIIMS, New Delhi
76. Reddy V, Bajpai V, Gunjiyal J, Malhotra R, Mathur P, Prevalence of needle stick injury and splash injury in trauma health care workers, AIIMS Research Day, 26 March 2019, New Delhi
77. Routaray SK, Singh GP, Khandelwal A, Mishra CA, Intractable brain bulge during cerebral arteriovenous malformation surgery due to contralateral acute subdural haematoma, A case report, AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, AIIMS, New Delhi
78. Sagar S, Maqbool M, Sharma U, Mir N, Kumar S, Sagar R, Effectiveness of YOGA on QOL, Self esteem and psychopathology among patient with lower limb amputation admitted at Surgical Unit of Level 1 Trauma Center, AIIMS: A pilot study, ANCIPS 2019, 31 January-3 February 2019, Lucknow
79. Saha S, Singhal M, Chauhan S, Sahu S, Dave A, Goyal A, Sangwan A, Kumar A, FAVA: Misdiagnosis to diagnosis-role of interdisciplinary partnership, 53rd Annual Conference of Association of Plastic Surgeons of India (APSICON 2018), 21-25 November 2018, Lucknow
80. Sangwan A, Goyal A, Kandasamy D, Kumar A, Kimura's Disease: How to suspect this uncommon disease clinico-radiologically, 18th Annual Meeting of Asian Oceanian Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), September 2018, Chandigarh
81. Sangwan A, Goyal A, Kumar A, Kandasamy D, Sharma R, Bhalla AS, Role of TWIST and TRAK, MR angiography in characterization of vascular anomalies, ISMRM Workshop, 29-31 March 2019, Delhi
82. Sangwan A, Goyal A, Sharma R, Kandasamy D, Bhalla AS, Kumar A, Sahu SA, Contrast-enhanced ultrasound—A safe and novel modality to characterize vascular anomalies in children, 18th Annual Meeting of Asian Oceanian Society of Paediatric Radiology (AOSPR) and 16th Annual Meeting of Indian Society of Paediatric Radiology (ISPR), September 2018, Chandigarh
83. Sardana S, Bhardwaj N, Mathur P, Khurana S, et al. Memorial award (poster) in immunodiagnostic techniques, Decreased monocytic TNF-a, IL-6 and IL-b after 72 hours of injury lead to positive outcome in severely injured trauma patients, AAAAI Annual Meeting, Organized by American Academy of Allergy, Asthma and Immunology, 22-25 February 2019, Moscone Center, South Building, San Francisco, California, USA
84. Sengar K, Albert V, Setia M, Agrawal D, Subramanian A, Correlation of microalbuminuria with traumatic brain injury and its outcome—A longitudinal study at Level 1 Trauma Centre paper ANTC 2018, AIIMS Neurotrauma Conference, 26-28 October 2018, Held in AIIMS
85. Sengupta D, Singh GP, Kumar N, Bindu B, Khandelwal A, Multiple episodes of cardiac arrest following traumatic cervical spinal cord injury culminating into death: A series of 2 patients, AIIMS Neuroanaesthesia Update, 2-4 November 2018, AIIMS, New Delhi
86. Sharma M, Sengar K, Gupta S, Subramanian A, Lalwani S, Post Mortem histopathological study of axonal changes in a Post-Traumatic Brain Injury (TBI) patient poster ANTC 2018, AIIMS Neurotrauma Conference, 26-28 October 2018, AIIMS
87. Sharma U, Maqbool M, Mir N, Kumar S, Arulselvi, Sagar R, Sagar S, Impact of Yoga therapy on perceived quality of life, depression, anxiety and stress among patient with lower limb amputation, Admitted at Surgical Unit of Level 1 Trauma Centre, AIIMS International Yoga Conference on Yoga for Public Health, 12-13 November 2018, Goa
88. Singh A, Kachhawa G, Malik N, Mahey R, Kulshrestha V, Kumari R, Bhatla N, Kriplani A, To analyse maternal and fetal outcome in pregnancy with chronic kidney disease, Annual Conference of AOGD, 24-25 November 2018, India Habitat Centre, New Delhi
89. Singh A, Kachhawa G, Malik N, Mahey R, Kulshrestha V, Kumari R, Bhatla N, Kriplani A, Risk factors for induced preterm delivery in pregnant women with chronic kidney disease: A retrospective analysis, North Zone YUVA FOGSI 2019, 1-3 February 2019, Noida
90. Singh P, Govindaswamy A, Bajpai V, Malhotra R, Mathur P, Acinetobacter baumannii infections in ICU patients—Our experience, AIIMS Research Day Poster, 26 March 2019, Delhi
91. Singh P, Govindaswamy A, Malhotra R, Mathur P, Prevalence of acinetobacter baumannii infections in ICU patients from Level 1 Trauma centre in India IAMM DC at SSPGI Noida, 25 November 2018, Noida
92. Singh P, Josef L, Sawarkar D, Kumar A, Chandra PS, Kale S, Mahapatra A, Posterior circulation paediatric aneurysms management our experience, ESOC 2018, 16-18 June 2018, The Swedish Exhibition and Congress Centre, Gothenburg
93. Singh P, Malhotra R, Mathur P, Antimicrobial resistance pattern and attributable burden of acinetobacter baumannii infection in intensive care unit, Patients at Level 1 Trauma Centre in India, MICRODCON, 31 October-3 November 2018

94. Singh PK, Sawarkar DS, Chandra PS, Kale S, Verma S, Kumar A, Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy with long term follow up, ISPNO 2018, 29 June-3 July 2018, Denver
95. Singh PK, Sawarkar DS, Chandra PS, Kale SS, Verma S, Kumar A, Long term outcome of symptomatic paediatric vertebral haemangiomas treated surgically, NSSICON 2019, 1-2 March 2019, GMC, Guwahati
96. Singh PK, Sawarkar DS, Chandra PS, Kale SS, Verma S, Kumar A, Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy with long term follow up, ISPN 2018, 7-11 October 2018
97. Singh PK, Sawarkar DS, Kale SS, Kumar A, Management of paediatric traumatic thoracolumbar spondyloptosis, ISPN 2018, 7-11 October 2018
98. Sokhal S, Mahajan C, Rath GP, Singh GP, Mishra N, Bithal PK, Efficacy and safety of dexmedetomidine infusion for patients undergoing awake craniotomy: An observational study, AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, AIIMS, New Delhi
99. Subramanian A, Albert V, Arora M, Study of bone marrow response to injury using Hematopoietic Progenitor Cells (HPC) measurement in trauma patients poster, LMCE (Laboratory Medicine Congress and Exhibition) and KSLM 59th Annual Meeting, 1-3 November 2018, Seoul, S Korea
100. Subramanian A, Albert V, Bhoi S, Agrawal D, Mild Traumatic Brain (MTBI) induced coagulation abnormality and its association with Cognitive Impairment (CI) Poster ISBT-1339, 35th International Congress of the ISBT, 2-6 June 2018, Toronto, Canada
101. Subramanian A, Albert V, Pati HP, Agrawal D, Study of bone marrow response to platelet transfusion in severe traumatic brain injury patients paper AABB-AATM 2018, 7 December 2018, National Highway 8, DLF Phase -3, Gurugram, Haryana - 122002, India
102. Subramanian A, Venencia A, Bhoi S, Utility of Thromboelastography Derived MA-R ratio as a predictor of mortality in trauma patients poster CCCLM 2018, 20th International Conference on Clinical Chemistry and Laboratory Medicine, 14-15 May 2018 (WASET), London, United Kingdom
103. Tarang G, Harshna S, Jaya B, Garima K, Vidushi K, Rajesh K, Nandita G, Sreenivas V, Arul S, Vandana J, A randomized double blind controlled trial to investigate the effects of vitamin D supplementation on maternal and new-born baby's vitamin D status in Asian-Indian subjects ICE 2018 (18th International Congress of Endocrinology), 1-4 December 2018, Cape Town International Convention Centre, South Africa
104. Tiwari P, Gupta B, Arulselvi S, Mathur P, Gupta A, Release of pro- and anti-inflammatory cytokines and development of sirs with different anesthetic techniques in major Orthopaedic trauma surgeries poster The Cytometry Society-India, 11th Annual Conference and Workshops, 29-31 October and 1 November 2018, All India Institute of Medical Sciences, New Delhi
105. Tomar GS, Singh GP, Nigam R, Bhoi SK, Sangar K, Roy A, A novel method for diagnosing the severity of brain injury by rapid detection of UCHL-1 in the serum of brain trauma patients: A prospective case controlled parallel arm study, 4th Annual Medanta Neurocritical Care Conference (MNCC) 2018, 31 August-2 September 2018, Gurugram
106. Trikha V, Chowdhury B, Arulselvi S, Does surgical delay effect the temporal expression of bone turnover markers after intramedullary nailing of isolated femur shaft fracture, 19th EFORT Congress, 30 May-1 June 2018, Barcelona, Spain
107. Trikha V, Chowdhury B, Floating hip injuries: Sequence of fixation: A retrospective study, 19th EFORT Congress, 30 May-1 June 2018
108. Trikha V, Chowdhury B, Management of morel-lavalle lesion associated with pelvi-acetabular fractures, 19th EFFORT Congress, 30 May-1 June 2018, Barcelona, Spain
109. Trikha V, Chowdhury B, Management of morel-lavallee lesion associated with pelvi-acetabular fractures: A retrospective study, SICOT World Congress, 10-13 October 2018, Montreal, Canada
110. Trikha V, Chowdhury B, Proximal humeral fracture dislocations managed with locked plates: A retrospective study, SICOT World Congress, 10-13 October 2018, Montreal, Canada
111. Trikha V, Chowdhury B, Role of staged approach in functional and radiological outcome of high energy tibial plateau fractures, A retrospective study, SICOT World Congress, 10-13 October 2018, Montreal, Canada
112. Trikha V, DCO vs ETO How do I decide in India? 19th EFFORT Congress, 30 May-1 June 2018, Barcelona, Spain
113. Verma K, Ratnaprabhamaji, Selvi A, Chawla A, Mukherjee S, Lalwani S, Malhotra R, Histopathological damage assessment in cardiac muscle under dynamic impact poster, WCB 2018, World Congress of Biomechanics 2018, 8-12 July 2018, The Convention Centre, Dublin

114. Yadav R, Kulshreshtha V, Kachhawa G, Malla S, Gamanagatti S, Bhatla N, Management of AUB—A refractory to medical management by two sessions of uterine artery embolization, Annual Conference of AOGD, 24-25 November 2018, India Habitat Centre, New Delhi

RESEARCH

Funded projects

Ongoing

1. A country-level assessment of the current status of emergency and injury care at secondary and tertiary care centers in India—50 Tertiary care level and large Private Hospitals, NITI Aayog, India, Rs 38 lakhs
2. A country-level assessment of the current status of emergency and injury care at secondary and tertiary care centers in India—50 District Hospitals, NITI Aayog, India, Rs 35 lakhs
3. A prospective randomized study to compare the systemic emboli in computer assisted navigation vs conventional surgical technique of knee replacement, Rajesh Malhotra, ICMR, 3 years, 2018-2021, Rs 49 lakhs
4. A randomized control trial to study the impact of Yoga intervention in lower limb amputees following trauma in relation to postsurgical outcome, Behavior and quality of life at Level I Trauma Center, Sushma Sagar, DST, 3 years, 2017-2020, Rs 54 lakhs
5. ADAPT, Deepak Gupta, National Institute of Health, 7 years, 2015-2022, Rs 49,336
6. An Intervention Study on Comprehensive Emergency Care and Trauma Registry for Road Traffic Injuries in India, Amit Gupta, ICMR, 2 years, 2017-2019, Rs 32 lakhs/year
7. Capacity building and strengthening of hospital infection control to detect and prevent antimicrobial resistance in India, Purva Mathur, Centers for Disease Control and Prevention, 5 years, 2015-2020, Rs 33 crores
8. CENTER-TBI Deepak Gupta Universitair Ziekenhuis Antwerpen (UZA), Belgium, 4 years, 2016-2020, 5000 USD per year
9. Comparing the use of needle guidance versus free hand technique in performing ultrasound guided central venous cannulation: A prospective randomized trial, 2016 Ongoing, Rs 4.6 lakhs
10. Correlation between preoperative CSF melatonin levels and post-operative delirium in geriatric hip fractures, Samarth Mittal, AIIMS, 2 years, 2018-2020, Rs 4.6 lakhs per annum
11. CV 185-158: Phase IV, Open-label, multi-center study to evaluate the safety of apixaban in Indian subjects undergoing elective total knee replacement or total hip replacement surgery, Rajesh Malhotra, Bristol-Myers Squibb, 4 years, 2015-2019, Rs 3.3 lakhs
12. Development and validation of an electronic surveillance system for surgical site infections developing during hospital stay and after discharge: A multi-centric study, Purva Mathur, ICMR, 3 years, 2017-2020, Rs 1.3 crores
13. Effect of decompressive craniectomy on jugular venous oximetry in patients with severe traumatic brain injury, Navdeep Sokhal, AIIMS, 2 years, 2017-2018, Rs 2.5 lakhs
14. Estimation of occurrence of intra abdominal hypertension and its implication on non operative management protocol in patients with solid organ injury following blunt trauma abdomen, Dinesh Bagaria, AIIMS, 1 year, 2018-2019, Rs 4.80 lakhs
15. Evaluation of urinary biomarkers TIMP-2 and IGFBP7 for early prediction of acute kidney injury after traumatic crush injuries, Richa Aggarwal, AIIMS, 2 years, 2017-2019, Rs 3.5 lakhs
16. Impact of alcohol on dysregulation of inflammation and recovery of trauma hemorrhagic shock patients, AIIMS, Rs 9.5 lakhs
17. Incidence of heterotopic ossification in Pelvi-Acetabular fractures—Can it be predicted and prevented? Samarth Mittal, AO Trauma, 2018-2020, CHF 8000
18. Paroxysmal Sympathetic Hyperactivity (PSH) and its role in outcome in severe traumatic brain injury, S Arulselvi, AIIMS, 1 year, 2018-2019, Rs 10 lakhs
19. RESCUE ASDH Deepak Gupta Cambridge University, 3 years, 2017-2020, Consumables: 144 Pounds Per Randomised Patient CRF Completion Costs: 213 Pounds per Randomised Patient, Rs 9.52 lakhs
20. Role of Endocrine Disrupting Chemicals (EDCs) in Maternal and Child Health, ICMR, 3 years, 2018, Rs 35 lakhs
21. Role of Post-Trauma Lymphocyte—Monocyte Response and Programmed Death—1 Levels in Early Diagnosis of Sepsis and Prognosticating Outcome in Trauma Patients, Purva Mathur, ICMR, 2018-2021, Rs 45 lakhs
22. Study of osteogenic humoral factors on fracture healing in patients with head injury: Decoding the mystery, Vijay Kumar Digge, DST, 3 years, 2018-2021
23. To evaluate combination of biochemical endothelial markers and arterial stiffness in prediction of preeclampsia ICMR (DHR), 3 years, 2018, Rs 76 lakhs

24. To evaluate results of soft tissue reconstruction and augmentation with structural fat grafting in patients with post traumatic facial disfigurement, Sushma Sagar, DST (Women Scientist), 3 years, 2015-2018, Rs 30 lakhs
25. To study efficacy of amniotic membrane as an alternative wound dressing in patients with post traumatic raw area admitted in Trauma Surgery Unit, Abhinav Kumar, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
26. To study the impact of Yoga on pulmonary functions, immune response and quality of life in chest trauma patients at Level-1 Trauma Center, Subodh Kumar, DST, 3 years, 2016-2019, Rs 40 lakhs
27. Utility on Novel Coated Platelets as a Marker for Early Prognostication of Neurocognitive Impairment Following Traumatic Injury, S Arulsevi, DST–CSIR, 3 years, 2016-2019, Rs 37.11 lakhs

Completed

1. Cleft lip and palate anomaly in India: Clinical profile, Risk factors and current status of treatment—Hospital based surveys, Sushma Sagar, ICMR, 5 years, 2013-2018, Rs 35 lakhs
2. Reducing the burden of injury in India and Australia through development and piloting of improved systems of care, Amit Gupta, DST, 4 years, 2013-2018, Rs 2.74 crore
3. Assessment of effect of cerebral perfusion pressure augmentation in severe head injuries by monitoring of regional energy metabolism by cerebral microdialysis, Ashish Bindra, AIIMS, 2 years, 2016-2018, Rs 4.95 lakhs
4. Cerebroprotective role of dexmedetomidine in Epilepsy Surgery, Ashish Bindra, AIIMS, 2 years, 2012-2014, Rs 2.62 lakhs
5. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit: A preliminary Randomized controlled trial, AIIMS, Rs 0.83 lakhs
6. A multi-centre, prospective, uncontrolled Post Market Clinical Follow-Up Study (PMCFU) to monitor the survival and performance of the Delta Motion Cup System in subjects requiring a total hip replacement, Rajesh Malhotra, Johnson and Johnson Medical India, 5 years, 2013-2018, Rs 15.50 lakhs
7. Prospective, Multi-centre Outcomes Study of Persona Knee System in Total Knee Arthroplasty, Study Protocol # CSA2014-02K, Rajesh Malhotra, Zimmer India, 3 years, 2015-2018, Rs 23.5 lakhs
8. Comparison of yearly zoledronic acid versus weekly alendronate in preference, Convenience, compliance, persistence and bone turnover markers in Indian postmenopausal osteoporotic women, Rajesh Malhotra, ICMR, 3 years, 2015-2018, Rs 40 lakhs
9. A single blind cluster randomized controlled trial to compare the clinical and radiological outcomes in patients with ankylosing spondylitis with fused hips and spinopelvic deformity undergoing total hip arthroplasty using a Novel Computer Aided Design (CAD) model based protocol vs Conventional technique, Rajesh Malhotra, DBT, 3 years, 2015-2018, Rs 34 lakhs
10. Evaluation of Micro RNA (MiRNA) as a marker for bone healing in osteoporotic traumatic proximal femur fractures: Pilot study, S Arulsevi, AIIMS, 2 years, 2016-2018, Bioinformatic Analysis and Interpretation, Rs 5 lakhs
11. A country-level assessment of the current status of emergency and injury care at secondary and tertiary care centres in India, Niti Aayog, India, Rs 60 lakhs
12. To study the efficacy of Chitosan in achieving haemostasis in patients with acute traumatic wound presenting to Emergency Department, DRDO, India, Rs 55 lakhs

Departmental projects

Ongoing

1. A pilot study to evaluate the need of post operative systemic anticoagulation in patient with post traumatic medium size peripheral artery repair: A randomised control trial
2. A prospective randomised study to compare large console, Image less computer assisted navigation vs accelerometer based portable navigation technique of total knee replacement
3. A prospective randomized clinical trial to compare clinical, fluoroscopic and radiological outcome between medial pivot and lateral pivot knee
4. A prospective randomized controlled trial to study the effect of two different tidal volumes (6-8 ml/kg vs 12-15 ml/kg) on the time to wean from ventilator in patients with cervical spine injury (C1-C5)
5. A randomized controlled trial to study the clinical and radiological outcomes of a study comparing contrast enhanced computed tomography abdomen versus diagnostic laparoscopy in patients with penetrating abdominal trauma: A randomized controlled trial
6. A study comparing enhanced recovery protocol versus standard care in patients undergoing laparotomy following trauma—A randomized control trial

7. A study to evaluate utility of routine use of contrast enhanced computed tomography scan torso in patients presenting with dangerous mechanism of injury in Level I Trauma Centre
8. A study to find minimum effective volume of 0.5% ropivacaine for ultrasound guided costoclavicular block
9. A study to grade management related complications in acutely injured patients and their correlation with the outcomes at a Level 1 Trauma Center
10. Abbreviated discharge protocol in patients with blunt liver and splenic injury: A pilot study
11. Assessment of cardiac activity by bedside ultrasound to predict outcome in cardiac arrest patients in Emergency Department
12. Assessment of splenic immune function in patients with blunt splenic injury
13. Cardiovascular complications after traumatic spinal cord injury
14. Cellular prion protein as a potential bio-marker of traumatic brain injury and its co-relation with the severity of traumatic brain injury
15. Comparison of C-MAC video-laryngoscope with D-Blade, C-MAC video-laryngoscope with standard blade and Macintosh Laryngoscopes for intubation with cervical spine immobilization: A randomized study
16. Correlation of NIRS with intraoperative transfusion trigger in paediatric patients posted for posterior fossa tumour excision
17. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit a preliminary randomised controlled trial? Richa Aggarwal, AIIMS, 3 years, 2013-2016, Rs 83,000
18. Effect of Decompressive Craniectomy on Jugular Venous Oximetry (SJVO2) in patients with severe Traumatic Brain Injury (TBI), Funded by AIIMS, Rs 5 lakhs
19. Effect of different dose regimens of Tranexamic acid in pelviacetabular fracture surgery: Randomized clinical trial
20. Effect of ketamine infusion as neuroprotective agent on neurological outcome in patients with severe traumatic brain injury: A randomized controlled pilot study
21. Effect of neuroradiologic interventions on regional cerebral oxygenation in patients with anterior circulation aneurysms: An observational study
22. Effect of phrenic nerve stimulation on diaphragm strength and thickness: A randomized controlled trial
23. Effect of virtual reality therapy on lower limb amputee balance ADL and pain
24. Epidemiology and analysis of predictors of mortality in trauma patients at a Level I Trauma Centre
25. Evaluation of diagnostic characteristics of point of care ultrasound in identification of maxillofacial fractures as compared to CT scan
26. Evaluation of soft tissue vascular anomalies using CEUS and elastography
27. Feasibility and Implementation of Hospital Based Trauma Registry for RTI at different levels of health care setting and its effects on quality of patient care
28. Fibroadipose vascular anomaly: Comprehensive analysis of clinic-radiologic-pathological features and treatment outcomes of this new entity
29. Histology of lumbar inter vertebral disc in degenerative disc disease and its correlation with clinical and radiological findings
30. Imaging in infantile brachial plexopathy
31. Implant migration analysis using RSA and clinic-radiological outcome in Indian population undergoing mobile bearing UKR
32. Intertrochanteric Femur Fractures (Commenced in January 2019)
33. Intraoperative use of dexmedetomidine in large vascular meningiomas
34. Outcome correlation of initial arterial blood gas analysis in isolated thoracic injury
35. Primary versus delayed primary closure in patients undergoing lower limb amputation—A randomized controlled study
36. Prospective observational study of transfusion practices in severely injured trauma patients in Emergency Department in Level 1 Trauma Center
37. Randomized control trial: Comparative analysis of orbital volume in 3D-Model assisted mesh adaptation versus conventional technique in reconstruction of orbital floor fracture
38. Reconstruction of post traumatic facial defects using adipose tissue derived mesenchymal stem cells seeded on 3D Printed Hydroxyapatite Scaffold Guided by CAD Models in Zygomatico-Orbito-Maxillary Complex Fractures
39. Role of imaging for clinical outcome evaluation in pelvic fracture patients

40. Role of interventional radiology in obstetric related hemorrhage
41. Role of T-Helper cells and neurophills in the outcome of patients with chest trauma
42. Sclerotherapy in low-flow vascular malformations: Assessment of clinical effectiveness of the current practices in a tertiary care center
43. Serum lactate, base deficit and glucose levels as prognostic markers of severe traumatic brain injury
44. Study of role of biochemical parameters to determine outcome in elderly hip fracture patients
45. To compare the effect of goal directed fluid therapy versus standard fluid regimen on the cuff leak volume in patients undergoing spine surgery
46. To determine by ultrasound the optic nerve sheath diameter in pediatric patients with increased intracranial pressure compared with control group
47. To evaluate the effect of change in end tidal carbon dioxide on optic nerve sheath diameter under general anaesthesia
48. To study management, outcomes and quality of life in patients with pelvic fractures at Level 1 Trauma Center
49. To study the correlation between clinical parameters and intra-abdominal pressure and their effect on the non operative management of patients with blunt trauma abdomen at Level 1 Trauma Centre
50. To study the risk factors and causes of extubation failure in head injury patients
51. Use of intratracheal lignocaine to reduce emergence reaction in the patients undergoing endoscopic transphenoidal pituitary surgery: A randomized controlled study
52. Water bath evaluation technique for ultrasound of distal hand and foot injuries in emergency department

Completed

1. A study of the acceptability and feasibility of opportunistic cervical cancer screening in pregnancy by conventional pap smear and HPV DNA testing
2. A study to assess pancreatic endocrine and exocrine functions in patients with pancreatic trauma
3. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis
4. Clinical characteristics and outcome of patients with fat embolism syndrome in Level 1 Apex Trauma Centre—A prospective observational study
5. Comparative study of prevalence of human papilloma virus infection in premalignant lesion of vulva and cervix and comparison among HIV positive and negative women
6. Comparison of propofol and ketofol on transcranial motor evoked potentials in patients undergoing thoracolumbar spine surgery, Ongoing
7. Comparison of Propofol versus sevoflurane anaesthesia in subarachnoid haemorrhage patients undergoing clipping for aneurysm
8. Correlation between invasive and non-invasive technique of ICP measurement in children with traumatic brain injury: An observational study
9. Diagnostic and prognostic role of MRI in evaluation of acute traumatic cervical spine injuries
10. Elected as Joint Secretary in DOA in November 2018
11. Evaluation of effect of intravenous Dexmedetomidine on intraoperative blood loss during intracranial meningioma surgery: A randomized controlled study, Completed
12. Evaluation of the role of a capacity building programme for initial assessment and management of trauma patients in Emergency Department in improving knowledge, skills and attitude of Doctors and Nurses
13. Incidence and risk factors of deep vein thrombosis in patients undergoing intracranial tumor surgeries, A prospective study, Ongoing
14. Management and outcome of mesh laparostomy in patient with abdominal trauma at Level I Trauma Centre
15. Outcome of trauma patients with acute kidney injury with renal replacement therapy in surgical ICU: Our experience
16. Outcome of patients of chest trauma suffering from COPD—Our experience at Level 1 Trauma Centre
17. Post mortem histopathological study of post TBI Induced Axonal B APP Stains in Corpus Callosum, Thalamus and Brain Stem
18. Prospective evaluation of functional outcome along with histological features of induced membrane in patients with infective non-union managed with masquelet technique
19. QI project—To improve the compliance of VAP bundle in ICU
20. Randomized trial comparing two techniques of fiberoptic orotracheal intubation under general anaesthesia: Fiberoptic intubation with and without the use of air-Q intubating laryngeal airway

21. Role of Urinary Neutrophil Gelatinase Associated Lipocalin (U-NGAL) as early biomarker for prediction of acute kidney injury in patients treated with colistin
22. Study of association between insulin sensitivity and cardio-vascular risk factors in lean versus overweight subjects with polycystic ovarian syndrome
23. Study of platelet dysfunction in trauma patients requiring platelet transfusion
24. Study of TEG versus conventional coagulation tests in liver trauma (Retrospective)
25. To compare efficacy of Tolterodine and Solefanacin in patients with overactive bladder syndrome
26. To compare the efficacy of ulipristal acetate versus GnRH agonist in women with symptomatic uterine myoma and post treatment follow up: A prospective randomized control study
27. To compare the hormonal and metabolic outcomes in Metformin plus Myoinositol vs Metformin alone and fertility outcome in PCOS women undergoing OVI and IUI cycles
28. To evaluate the efficacy of Cabergoline as compared to GnRH agonist in women with Endometriosis: A prospective randomised controlled trial
29. To evaluate the functional outcome, histological and electron microscopic features of the induced membrane in patients of post traumatic bone defects managed with Masquelet technique
30. To evaluate the reproductive outcome of IVF ICSI Cycles using ejaculated sperm ICSI versus Percutaneous Epididymal sperm (PESA ICSI) in male factor infertility
31. To study clinical and immunological parameters in predicting short term outcomes in polytrauma patients admitted to Trauma Surgery
32. To study splenic functions and complications in patients with blunt splenic injury at Level 1 Trauma
33. To study the effect of Yoga on pulmonary functions, Respiratory muscle strength and endurance, chest wall mobility, inflammatory markers and quality of life in blunt chest trauma patients and their correlation with thoracic trauma severity score at Level 1 Trauma Centre
34. To study the efficacy of serratus anterior plane block in patients undergoing trunk based flap surgeries—A pilot study
35. To study the role of T helper-9, T helper-17, T helper-22, T-Regulatory lymphocytes in Post-Trauma Immunopathogenesis
36. Toxicological analysis and distribution pattern of alcohol and different drugs in various biological samples and their neurobiological effects in suicidal deaths

Collaborative projects

Ongoing

1. A comparative pilot study of autologous rectus fascia pubovaginal sling and transobturator vaginal tape procedure in women with stress urinary incontinence, Urology
2. A prospective randomized trial comparing laparoscopic versus endoscopic drainage for walled off necrosis following acute pancreatitis, Surgery
3. A randomized sham controlled clinical trial of targeted low frequency repetitive transcranial magnetic stimulation in childhood focal onset refractory epilepsy, Paediatrics
4. A week in Neurocritical Care Unit: Point prevalence observational study in Neurocritical Care: PRINCE Study, Baylor College of Medicine, Houston, Texas
5. Abbreviated discharge protocol in patients with liver and or splenic injury following blunt trauma abdomen, Trauma Surgery and Critical Care
6. An evaluation of diaphragmatic movement by M-mode sonography as a predictor of successful extubation during routine surgical procedures, Anaesthesia, Radiodiagnosis
7. Comparison of C-MAC video-laryngoscope with D-Blade, C-MAC video-laryngoscope with standard blade, and Macintosh Laryngoscopes for intubation with cervical spine immobilization: A randomized study, Neuroanesthesiology and critical care
8. Comparison of letrozole plus Gonadotropins versus Gonadotropins alone for Controlled Ovarian Stimulation in PCOS women undergoing IVF-ICSI Cycles—A randomized controlled trial
9. Comparison of various modalities to diagnose occult stress urinary incontinence in Pelvic Organ Prolapse
10. Correlation of first trimester metabolic parameters and maternal body fat indices with development of gestational diabetes mellitus in Asian Indian women—A comparative study
11. Correlation of the gastric residual volume determined by ultra sound and acceptance of enteral tube feed in medical/surgical ICU—An observational study, Anaesthesia and Critical Care

12. DTI, fMRI and qEEG correlates of cognition and behavior in children and adolescents with well controlled non-lesionalepilepsy: An observational study, Paediatrics
13. Effect of lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre randomized control trial, Anaesthesiology, Health Sciences Centre, University of Manitoba, Winnipeg, Canada
14. Evaluation of changes in measured GFR, echocardiography, markers of bone mineral metabolism and carotid intima media thickness after renal donation, Nephrology
15. Evaluation of Efficacy and feasibility of implementation of Enhanced Recovery after Surgery (ERAS) protocol in women undergoing gynaecological surgery
16. Histology of Lumbar Inter Vertebral Disc in Degenerative Disc Disease and its correlation with clinical and radiological findings, Orthopaedic
17. Incidence and risk factors of preterm brain injury (periventricular leukomalacia and/or intraventricular hemorrhage) in very low birth weight neonates (32 weeks gestation or less than 1500 gm birth weight): A prospective cohort study, Paediatrics
18. Minimally Invasive Autopsy (MIA) in the evaluation of fetal malformations and stillbirths, Paediatrics
19. Morphometric and morphoscopic study of ear and nose in Brahmin and Rajput Population of Mandi, Himachal Pradesh—A forensic anthropological investigation, Anthropology, Panjab University, Chandigarh
20. Muscle ultrasound in children with peripheral hypotonia in children aged 1 month–18 years, Paediatrics
21. Optimizing blood inventory management at a super speciality blood centre in India—A case study, CNC Blood Bank
22. Outcome correlation of initial arterial blood gas analysis in Isolated Thoracic Injury, Trauma Surgery and Critical Care
23. Primary versus delayed primary closure in patients undergoing lower limb amputation following trauma, A randomized controlled trial, Trauma Surgery and Critical Care
24. Prospective observational study of transfusion practices in severely injured trauma patients in Emergency Department at Level 1 Trauma Center, Laboratory Medicine
25. Risk factors and outcome of patients with ventilator associated events and complications in trauma ICU, Anaesthesia and Critical Care
26. Role of Gene Xpert in Diagnosis of Female Genital Tuberculosis as compared to other conventional diagnostic techniques
27. Role of T-helper cells and neutrophils in the outcome of patients with chest trauma
28. Study of Early Urine and Blood Biomarkers (IGFBP7 and TIMP2) for Acute Kidney Injury in Trauma ICU, Anaesthesia and Critical Care, JPNATC
29. Surveillance of Blood Stream Infections (BSI) at a referral Indian Hospital Surveillance of Blood Stream Infections (BSI) at a Referral Indian Hospital, Microbiology, JPNTC
30. To compare the effect of metformin plus myoinositol vs myo inositol alone in terms of clinical pregnancy rate in infertile PCOS women undergoing ovulation induction and IUI cycles
31. To evaluate exhaled air carbon monoxide level in pregnancy and correlate with maternal and fetal outcome: A pilot study
32. To evaluate the efficacy of Myoinositol in treatment of gestational Diabetes Mellitus in Asian Indian women: A pilot study
33. To study clinical and immunological parameters in predicting short term outcomes in polytrauma patients admitted to Trauma Surgery
34. To study splenic functions and complications following blunt splenic trauma at Level 1 Trauma Centre
35. To study the effect of Yoga on pulmonary functions, Respiratory muscle strength and endurance, Chest wall mobility, Inflammatory markers and Quality of life in blunt chest trauma patients and their correlation with Thoracic Trauma Severity Score at Level 1 Trauma Centre
36. To study the extent of variation in ridge characteristics and determining gender among twins using their fingerprint characteristics, Forensic Medicine and Toxicology, KMC, Manipal
37. To study the impact of Yoga on pulmonary functions, immune response and quality of life in chest trauma patients at Level 1 Trauma Centre
38. To study the role of Myo-Inositol-D-Chiro-Inositol Combination versus Combined Oral Contraceptives on Clinico-hormonal and Metabolic Parameters in Young Asian-Indian Girls with Polycystic Ovary Syndrome

39. Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome DST-UKIERI, IGIB, IIT
40. Whole body MRI in the assessment of metastatic disease of osteosarcoma and Ewing's sarcoma, Orthopaedics

Completed

1. A study on distribution of glucose tolerance among women with history of gestational diabetes mellitus by IADPSG criteria/overt diabetes in pregnancy and their spouses, Endocrinology and Metabolism
2. Metabolomics approach for identification of differentially regulated metabolites and pathway in Preeclampsia/ Gestational Hypertension and Gestational diabetes patients during pregnancy to assess the risks of pre-term delivery, International Centre for Genetic Engineering and Biotechnology
3. Post Mortem Histopathological Study of Post TBI Induced Axonal B APP Stains in Corpus Callosum, Thalamus and Brain Stem, Forensic Medicine and Neurosurgery
4. Prognostic Significance of Cytokines and Biomarkers in Patients with Traumatic Lung Injuries, Laboratory Medicine
5. Proposal for the Microstructural Analysis of Soft Tissue (Human Heart and Lung) after Dynamic Compression, IIT Mechanical Department, Delhi
6. Role of Metabolic imaging in patient's with undiagnosed abdominal pain, Surgery
7. Role of T-helper cells and neutrophils in the outcome of patients with chest trauma, Laboratory Medicine
8. The role of point of care ultrasound as an adjunct to diagnostic test in evaluation of acute dyspnoea patients presenting to Emergency Department, Emergency Medicine
9. To evaluate the functional outcome, histological and electron microscopic features of the induced membrane in patients of post-traumatic bone defects managed with Masquelet Technique, Orthopaedics

PUBLICATIONS

Journals: 177 Abstracts: 6 Chapters in Books: 8

PATIENT CARE

I. Total Bed Strength of facility:	278			
Ward beds:	194	ICU beds 2nd floor:	12	ICU beds 3rd floor: 20
Triage:	30	New Private Ward:	22	
Total functional beds:	248			
II. Statistics at a Glance				
Total no. of ED attendance:	77,139	Average per day:	211	
Total no. of admissions:	7,678	Average admissions per day:	21	
Average Length of Stay (ALS):	10			
Total no. of follow-up OPD cases:	51,660	Average follow up OPD attendance:	176	
Males:	51,271	Females:	17,662	
Male child:	5,332	Female Child:	2,858	
Other:	16			
MLC:	43,361	Non-MLC:	33,778	
Specialty Wise				
Yellow:	21,374	Green:	46,690	Red: 5,328
OPD:	3,613	Radiology:	37	Black: 97
III. Total No. of Follow-up OPD Cases:	51,660			
New:	20,040	Old (Re-visit):	31,620	
Male:	35,027	Male Child:	3,865	
Female:	10,734	Female Child:	2,034	
Specialty-wise break-up				
Trauma Surgery and Critical care:	6,051	Orthopaedics:	29,129	Neurosurgery: 6,961
Plastic and Reconstructive Surgery:	9,461	Brachial Plexus Injury:	58	
IV. Total No. of Admissions:	7,678			
Regular:	7,438	Short	- 240	
MLC:	5,229		- 116	
NMLC:	2,209		- 124	
Male:	5,515		- 173	

Female:	1,306	-36
Male child:	388	-18
Female child:	234	-13
Others:	1	

Speciality wise Break-up

Trauma Surgery and Critical care:	2146	Short	-81
Orthopaedics:	2,506		-14
Neurosurgery:	1,853		-7
PRS:	871		-137
ENT:	1		-1
Paediatric surgery:	61		-0

VI. Total No. of Operations performed: 8,672

Major:	8,372	Minor:	300
Specialty-wise break-up			
Trauma Surgery and Critical care:	1,985	Orthopaedics:	4,325
Neurosurgery:	1,315	Urology:	7
PRS:	1,040		

VII. Total Discharges: 7266

MLC:	4,929	NMLC:	2,337
Male:	5,313	Female:	1,209
Male Child:	490	Female Child:	253
		Others:	1

Department Wise Distribution

Trauma Surgery and Critical Care:	2,113	Orthopaedics:	2,474
Neurosurgery:	1,695	PRS:	936
ENT:	1	Paediatric surgery:	47

VIII. Days of Care: 72,142

Trauma Surgery and Critical Care:	20,265	Orthopaedics:	21,869
Neurosurgery:	24,666	P.R.S.:	4,903
ENT:	1	Paediatric surgery:	438

IX. Total Deaths Registered: 908

Brought Dead Cases:	110		
Total Deaths at TC (Deaths Registered–Brought Dead):			798 (908-110)
Deaths Under 48 Hours:	419	Deaths Over 48 Hours:	379
Gross Death Rate:	11%	Net Death Rate:	6%
Bed Occupancy Rate:	80%	Average length of stay:	10 days
Bed Turnover rate:	29%		

Tests conducted in Laboratory Medicine, JPNA Trauma Centre: 13,38,898

Haematology		MCHC:	50,830
Haemoglobin:	50,830	MCV:	50,830
TLC:	50,830	RDW:	50,830
Differential count:	50,830	Platelet count:	50,830
HCT:	50,830	ESR:	3,973
RBC:	50,830	RBC Morphology:	7,693
MCH:	50,830	Blood parasite:	7,693
		Total	5,27,659

Coagulation

PT:	30,369	Fibrinogen:	12
APTT:	30,369	D-dimer:	196
		Total	60,946

Clinical pathology

Urine routine and Microscopy:	2,374	CSF microscopy:	809
Urine myoglobin:	178	Fat globules:	67
		Total	3,428

Total tests done in Haematology section: 5,92,033

Biochemistry

Sugar:	16,649	Mg:	3,396
Urea:	52,845	Lipase:	12
Creatinine:	52,845	CK-MB:	24
Calcium:	49,267	CSF Sugar:	714
Phosphorous:	48,024	CSF Protein:	703
Uric Acid:	35,006	Peritoneal fluid sugar:	13
Sodium:	51,974	Peritoneal fluid Protein:	13
Potassium:	51,974	Ascetic Fluid Protein:	2
TBIL:	38,317	Pleural Fluid Sugar:	3
DBI:	38,252	Pleural fluid Amylase:	7
Total protein:	38,218	Pleural Fluid Protein:	3
Albumin:	38,217	Urinary spot Sodium:	138
SGOT:	38,266	Urine Ca:	35
SGPT:	38,266	Urinary creatinine:	81
ALP:	38,212	Peritoneal fluid amylase:	33
Cholesterol:	5,092	24 hrs. urine protien:	16
Amylase:	4,299	24 hrs urine sugar:	15
HDL:	773	Urine osmolality:	105
LDL:	718	S. osmolality:	23
TG:	1,152	Drain fluid amylase:	46
VLDL:	1,152	Lactate:	6
CK:	86	Chloride:	91
CRP:	3,079		

ABG

PO ₂ :	5475	Sodium (Na):	5475
PCO ₂ :	5475	Calcium (Ca):	5475
PH:	5475	CL:	5475
H+:	5475	Lactate:	200
Potassium (K):	5475	Glucose:	200

Total tests done in Biochemistry Section: 6,94,518

Histopathology

Specimen processed:	580	Total No. of slides:	3519
No. of blocks:	2,178		

Microbiology samples

Total Culture:	18,952	HIV (Spot+Vidas):	1,738
Positive:	5,161	HBsAg (Spot+Vidas):	1,647
Sensitivity:	5,161	HCV: 1,461	
Procalcitonin:	7,395	Hospital Infection Control:	4,555
		Total:	46,070

Radiology

Month	CT scan	USG	MRI	X-ray			Fluoro	DSA
				Casualty	OPD/Ward	Portable		
April 2018	2,077	2,674	94	6,184	1,405	1,763	18	6
May 2018	2,065	2,760	123	6,672	1,414	1,759	17	15
June 2018	1,808	2,488	86	6,198	1,364	1,566	16	11
July 2018	1,947	2,738	105	6,494	1,512	1,730	23	13
August 2018	2,064	2,968	94	7,057	1,476	1,945	18	12
September 2018	1,919	2,722	105	6,427	1,322	1,932	14	9
October 2018	1,917	2,931	79	6,850	1,428	1,965	18	12
November 2018	1,928	2,506	90	6,037	1,361	1,675	11	8
December 2018	1,966	2,573	108	6,065	1,390	1,714	16	10

January 2019	2,120	2,396	80	6,275	1,549	1,726	18	11
February 2019	2,180	2,459	90	5,920	1,451	1,670	21	7
March 2019	2,012	2,220	82	5,195	1,465	1,618	12	7
Total	24,003	31,435	1,136	75,374	17,137	21,063	202	121

Blood Bank, JPNATC, AIIMS

Blood Donation

Month	Donor screened	Donor Bled	Replacement donors			Voluntary donors			Indoor voluntary donor	Outdoor voluntary donor camp
			Male	Female	Total	Male	Female	Total		
April 2018	1,009	864	654	6	660	200	4	204	153	51
May 2018	973	806	706	2	708	93	5	98	98	nil
June 2018	1,094	917	720	7	727	186	4	190	68	122
July 2018	957	785	697	6	703	74	8	82	82	nil
August 2018	1,316	1039	771	13	784	216	30	246	131	115
September 2018	1,048	846	696	7	703	117	26	143	98	45
October 2018	1,149	907	769	22	791	109	7	116	116	nil
November 2018	1,193	945	830	14	844	97	4	101	101	nil
December 2018	1,156	876	698	16	714	63	7	70	19	51
January 2019	1,122	937	831	11	842	83	12	95	95	nil
February 2019	1,016	794	683	7	690	103	1	104	104	nil
March 2019	1,083	887	770	4	774	105	8	113	113	nil
Total	13,116	10,606	8,130	115	8,940	1,446	116	1,562	1,178	384

No. of voluntary blood donation camps: 6

Infectious Marker Laboratory and Donor Counselling

Month	HIV		HBsAg		HCV		VDRL		MP	
	Done	Reactive	Done	Reactive	Done	Reactive	Done	Reactive	Done	Reactive
April 2018	867	1	869	9	870	5	915	1	866	nil
May 2018	969	3	916	14	926	12	885	nil	830	nil
June 2018	1,044	nil	1,000	20	998	7	989	6	918	nil
July 2018	900	nil	854	10	854	7	824	4	767	nil
August 2018	1,178	4	1,130	11	1,139	15	1,104	1	1,050	nil
September 2018	953	1	912	11	914	6	899	4	837	1
October 2018	1,028	1	987	17	986	12	959	nil	905	1
November 2018	1,091	1	1,053	16	1,054	8	1,025	2	969	Nil
December 2018	1,024	4	970	11	981	13	958	3	891	nil
January 2019	1,037	2	993	21	996	10	959	4	908	nil
February 2019	871	1	817	7	826	7	803	3	746	nil
March 2019	936	2	899	12	904	7	867	4	824	1
Total	11,898	21	11,400	159	1,148	109	11,187	32	10,511	3

Number of Donor and Patient Grouping done

Month	Donor grouping	Patient grouping	Total
April 2018	864	1,187	2,051
May 2018	806	1,345	2,151
June 2018	917	1,176	2,093
July 2018	785	1,355	2,140

August 2018	1,039	1,497	2,536
September 2018	846	1,295	2,141
October 2018	907	1,355	2,262
November 2018	945	1,440	2,385
December 2018	876	1,329	2,205
January 2019	937	1,301	2,238
February 2019	794	1,332	2,126
March 2019	887	1,239	2,126
Total	10,603	15,851	26,454

Emergency Issue Counter

Month	No. of PRBC issued	FFP issued	PRC issued	Cryo issued
April 2018	909	965	619	10
May 2018	912	392	428	11
June 2018	841	822	556	26
July 2018	886	754	651	34
August 2018	1,048	780	855	83
September 2018	903	570	784	118
October 2018	889	567	760	89
November 2018	1,031	948	871	133
December 2018	965	609	776	44
January 2019	995	621	868	57
February 2019	763	452	595	56
March 2019	825	1,058	521	31
Total	10,967	8,538	8,284	692

Blood and components issued to other hospital Blood Banks (Main AIIMS, CNC, GB Pant, LNH, ESI, Dr Hedgewar)

Month	Blood		FFP		PRC		Cryo	
	Issued	Recieved	Issued	Recieved	Issued	Recieved	Issued	Recieved
April 2018	6	65	0	0	0	0	0	0
May 2018	49	19	0	0	0	0	0	0
June 2018	0	0	350	0	15	0	0	0
July 2018	14	0	205	0	15	0	0	0
August 2018	0	18	250	0	12	65	0	0
September 2018	31	2	60	nil	20	18	nil	nil
October 2018	25	26	0	0	14	0	0	0
November 2018	0	56	0	0	12	43	0	0
December 2018	81	58	225	0	2	0	0	0
January 2019	55	9	145	0	0	121	0	0
February 2019	12	5	0	0	0	0	0	0
March 2019	8	0	550	0	10	0	0	0
Total	281	258	1,785	nil	100	247	nil	nil

Emergency Department patient's data

MLC	Non-MLC	Criticality				Mode of Injury				Medical examination	Total
		Red	Yellow	Green	Black	Fall	RTA	Assault	Other		
44,175	34,349	5,502	18,229	51,099	117	24,201	20,258	17,971	15,913	181	78,524

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Abhinav Kumar participated as Faculty at Suturing workshop organized by Department of Surgical Disciplines, AIIMS, 7 April 2018; Chaired the session for Competitive paper presentation at ENDOSURG 2018 (19-22 April 2018), organized by Department of Surgical Disciplines, AIIMS, New Delhi; Chaired the session in MEDSICON 2018 (26-29 April 2018) organized by Department of Surgery, VMMC and Safdarjung Hospital, New Delhi; Participated as Fellow in the International Course on Trauma System and Mass Casualty Management (3-14 June 2018), organized by RAMBAM Health Care Campus, Haifa, Israel; Participated as Fellow in training programme on “Building Organizational Excellence Focus: Synergy of IT and HR” (28 January-1 February 2019), by National Productivity Council, Under Ministry of Commerce and Industry, Government of India.

Professor Adarsh Kumar was elected Governing Council Member of International Academy of Legal Medicine (IALM) for 2019-2021; Award of Excellence in View of Outstanding Service to Medical Profession by MN Barman Charitable Trust, Guwahati at Government Medical College, Tezpur, Assam, 9 October 2018; Elected as Governing Council Member of Indo-Pacific Association of Law Medicine and Science (INPALMS) for 2016-2019; Nominated as Board of Studies-External Expert Member (Forensic Medicine and Forensic Sciences) by Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka for 2017-2019; Member, Asia Pacific Medicolegal Association (APMLA) for another term of 2 years, 2018-2020; Medicolegal Expert to National Human Rights Commission, Central Bureau of Investigation; Member, Editorial Board of Various Journals: International Editorial Board Member—HSOA Journal of Forensic, Legal and Investigative Sciences (USA); Egyptian Journal of Forensic Sciences, Egypt, Adli Tip Bulletin, Turkey; The Egyptian Journal of Forensic Sciences and Applied Toxicology; Associate Editor, Medicolegal Update, Journal of Research in Medical Education and Ethics; Web Editor, International Journal of Health Research and Medicolegal Practice; Member, Editorial Board, Journal of Indian Society of Toxicology; Journal of Karnataka Medicolegal Society; Indian Journal of Community and Family Medicine; Indian Journal of Forensic Medicine and Toxicology; Journal of Forensic Chemistry and Toxicology; Chairman, Scientific Committee, 9th International Conference “IAMLE-2018” held at Dr DY Patil Medical College, Pune, Maharashtra on 26-28 October 2018 and organized workshop on “Sudden Cardiac Death Investigations” as preconference activity.

Professor Amit Gupta was member, International Relations Committee: American, Association for Surgery of Trauma (AAST), American College of Surgeons—Committee on Trauma, USA; Member Expert Committee for Faculty Selection: Institute of Medical Sciences, Banaras Hindu University; Member Technical Resource Group: For Finalization of Minimum Standards for Trauma Care Facilities in India, Trauma and Burns Care Division, Ministry of Health and Family Welfare, Government of India, 2018-till date; Member Technical Group: Drafting and Review of Curriculum for the First Aid Module for the Community; WHO and Ministry of Health and Family Welfare, Government of India, 2018-2019; Member Expert Group: For development of materials under the IEC activities of National Programme for Trauma Care, Ministry of Health and Family Welfare, Government of India, 2018; Member Expert Group: Handbook on Prevention of Accidents and Awareness on First Aid, National Programme for Trauma Care, Ministry of Health and Family Welfare, Government of India, 2018; Member, Steering Committee for Commissioning of Trauma Centre at SGPGI, Lucknow, 2018 Onwards; Member, Expert Committee CATS: To formulate the tender documents for outsourcing the operations and maintenance of CATS Ambulance Services, Government of NCT Delhi, 2018-2019; Member, Experts Group NIHFW, For the standardization of training material on Hospital preparedness for Health Emergencies for Senior Hospital Administrators, 2018; Member, Experts Group NIHFW, For the standardization of training material on Hospital preparedness for Health Emergencies for District Health Officers, 2018; Member, Expert Group: Establishing the feasibility of a taxi-based dispatcher coordinated layperson emergency medical system for use in low- and middle-income countries; University of Chicago and TRIPP IIT Delhi, 2018; Member, Committee for purchase of First Responder Vehicles to improve the emergency response service in Delhi, Government of NCT Delhi, 2017-2019; Member, Medical Board for Medical/Psychological Examination at AIIMS for Antarctic Expedition Team, 2016 to till date; Member, Committee on Hindi Rajbhasha, Jai Prakash Narayan Apex Trauma Centre, AIIMS, New Delhi, 2016 to till date; Member, Technical Committee to revise the “Protective Helmets for Two Wheeler Riders-Specification” (IS 4151:2015) to develop acceptable Helmet design for India, MoRTH, Government of India, 2016-2018; Member, (RTAG-RTS) Regional Technical Advisory Group on Road Traffic Safety WHO South East Asian Region Office, 2015-2018; Member, Technical sub-committee for developing National Trauma System Plan, Dte. General of Health Services, MoHFW, Government of India, 2014 to till date; Regular Member, H-1 Committee, Transport Planning, Traffic engineering of the Indian Roads Congress, 2015-till date.

Dr Ashish Bindra conducted Cadaveric Interventional Pain Management Workshop on October 2018 at Cadaveric Training and Research Facility, JPNA Trauma Centre, New Delhi.

Professor Atin Kumar delivered NG Gadekar Oration of Indian College of Radiology and Imaging 2018; Elected ‘President Elect’ of Delhi Chapter of Indian Radiological and Imaging Association for 2019; Worked as Treasurer of Delhi Chapter of Indian Radiological and Imaging Association for 2018; Organising Secretary of CME on IR Primer on Basics of Angiography, Embolisation and Sclerotherapy.

Professor Deepak Kumar Gupta: First book on Craniosynostosis as Editor written by Dr Deepak Kumar Gupta: Tenets of Craniosynostosis: Surgical principles and advanced multidisciplinary care, 2018 (Thieme Medical and scientific publishers private limited) (Editor: Deepak Kumar Gupta, Ashok Kumar Mahapatra); ANTC 2018, 26-28 October, 5 AIIMS NEUROTRAUMA CONFERENCE, October 2018, New Delhi; AIIMS Annual Micro neurosurgery Workshop, 13-14 February 2019, New Delhi; INDSNCON 2019, 15-17 February; Annual Conference of Indian Society for Paediatric Neurosurgery, February 2019, New Delhi.

Dr Dinesh Kumar Bagadia participated in Endosurg 2018 as chairperson for live operative workshops (20-22 April 2018); Organized following Trauma First Responder workshops for commoner in collaboration with IRSC (Indian Road Safety Campaign, IIT New Delhi) at KIIT University, Gurugram, Vidya Mandir Public School, New Delhi, Suman Vidya Mandir, IIT, New Delhi and DTU; Organizing Secretary of 2nd National Conference of Indian Society of Clinical Nutrition at AIIMS, New Delhi (31 August-2 September 2018); Participated as Faculty and Moderator in iSAFE Mega event on 30 October 2018 at Delhi Technical University; Participated in WHO conference on Road Safety Legislation and Multisectoral Action at New Delhi (13-14 December 2018); Participated as Trauma Care expert in 3rd World Sustainable Development Summit on Road Safety Policies at New Delhi (11-13 February 2019); Participated as faculty in AIIMS Trauma Assessment and Management course at Badshah Khan Civil Hospital, Faridabad on 22 November 2019.

Dr Guru Dutta Satyarthee received Faculty Research Awards 2018 in Neurosciences Conferred by Honorable Union HRD; Minister Mr Prakash Javadekar; Lifetime Achievement Award 2019, Marquis Who's Who, America; Whos Who in World 2019, Marquis Who's Who, America.

Dr Gyaninder Pal Singh organised the "AIIMS Neuroanaesthesia Update 2018" from 2-4 November 2018 at AIIMS, New Delhi; Cadaveric Airway Workshop, 23 September 2018, JPNATC, AIIMS, New Delhi; Cadaveric Interventional Pain Workshop, 13 October 2018, JPNATC, AIIMS, New Delhi.

Professor Kamran Farooque was Course Director of "Basic Spine Workshop" in DOACON 2018 on 22 November 2018 at JPNATC, AIIMS, New Delhi

Dr Keshav Goyal was awarded preceptorship in Neurocritical Care and Visiting Neurological intensive care as an observer to Cleveland Clinic, Ohio, USA from March-May 2018; Awarded preceptorship in Anaesthesiology institute and Visiting Neuroanaesthesiology Department as an observer to Cleveland Clinic, Ohio, USA from May to June 2018; Awarded ISNACC Travel Grant for 2018-2019 by National Society of Neuroanaesthesiology and Critical Care (ISNACC); Member of Core Faculties of AIIMS Advanced Care Life Care Support (ACLS); Introductory course in September 2015 at JPNATC, New Delhi; Renewed ACLS and BLS instructor status, November 2018; Emergency Neurological Life Support (ENLS) Instructor Recertification, November 2018; Course director cum Coordinator of 1st Acute Neuro Care (ANC) affiliated by National Society (ISNACC) February 2019 at Artemis Hospital, Gurgaon; Member of Trainee Engagement Committee of SNACC, USA; Reviewer of International Journal of Respiratory and Pulmonary Medicine; Executive member of organizing committee of AIIMS Neuroanaesthesia Update 2018, 3rd Cadaveric Chronic Pain Workshop, 1st Acute Neuro Care (ANC), Course Director and Coordinator.

Dr Narender Choudhary participated as Faculty at Suturing workshop organized by Department of Surgical Disciplines, AIIMS on 7 April 2018; Chair the session for competitive paper presentation at ENDOSURG 2018 (19-22 April 2018) organized by Department of Surgical Disciplines, AIIMS, New Delhi; Chair the session in MEDSICON 2018 (26-29 April 2018), organized by Department of Surgery, VMMC and Safdarjung Hospital, New Delhi; Participated as Fellow in the International Course on Trauma System and Mass Casualty Management (3-14 June 2018), organized by RAMBAM Health Care Campus, Haifa, Israel; Participated as coordinator for workshop on primary survey in trauma victim at OIL India Medimeet (2-3 February 2019), organized at Duliajan, Assam.

Dr Navdeep Sokhal successfully organised "AIIMS Critical Care Course for Interns" as Course Director on 8-9 December 2018. In this course Interns were trained for various lifesaving skills on mannequins and taught basic concept of critical care; Conducted cadaveric pain workshop as a course coordinator on 13 October 2018; Organised 5th Cadaveric Airway Management Workshop as Course Coordinator on 23 September 2018; Participated as faculty in AIIMS Neuroanesthesia Update held in AIIMS on 2-4 November 2018; Participated as faculty in Acute Neuro Care (ANC) course on 13-14 February 2019 held at Artemis Hospital, Gurugram; Participated as faculty in 20th Annual Conference of ISNACC 2019 on 15-17 February 2019 in Gurugram; Trained residents to do Percutaneous Tracheostomy (PCT).

Dr Neeraj Kumar pursuing Part Time Clinical Research Methodology and Evidence Based Medicine at AIIMS, New Delhi, January 2019; Instructor (Faculty) of ANLS, ACCC, AIIMS—EM-SONO, AUTLS, AIIMS cadaver airway, Interventional pain management workshop courses; As a faculty of ORBO team facilitates knowledge, awareness amongst the hospital staff and also actively involved in procedures related to organ procurement; AIIMS Neuroanesthesia Update 2018, 2-4 November 2018 at AIIMS, New Delhi

Dr Pratyusha Priyadarshini chaired live operative workshop on Breast and Endocrine Surgery at ENDOSURG 2018 (19-22 April 2018), organized by Department of Surgical Disciplines, AIIMS, New Delhi; Organizing Secretary of 2nd National Conference of Indian Society of Clinical Nutrition at AIIMS, New Delhi (31 August-2 September 2018).

Professor Purva Mathur delivered Dr Ajita Mehta Oration on “Surveillance of HAI”, IDCC, Hinduja Hospital, 17 September 2018.

Dr Richa Garg was Course Director of the 2 days course “Acute critical care course” held for interns at AIIMS in December 2018; Core faculty of the Quality Improvement Programme at AIIMS; Regular faculty for the organ donation teaching with ORBO at AIIMS.

Professor Arulselvi S Co-Authored a Paper Presentation on A Study “Assessment of Platelet Function in Traumatic Brain Injury Patients with Thrombocytopenia Using Flowcytometry” in ANTC 2018, 4th AIIMS Neurotrauma Conference, Held in AIIMS, New Delhi, 27-28 October 2017 and Won the First Paper Award; Co-Authored a Paper Presentation on a Study “Correlation of Microalbuminuria with Traumatic Brain Injury and Its Outcome—A Longitudinal Study at Level 1 Trauma Centre” in ANTC 2018, 4th AIIMS Neurotrauma Conference, Held in AIIMS, New Delhi, 27-28 October 2017 and Won the Second Award; Co-Authored a Paper Presentation on a Study “Flowcytometric Analysis of Platelet Function in Trauma Patients with Thrombocytopenia” In the 11th Annual Conference and Workshops organized by the Cytometry Society, India, 29-31 October and 1 November 2018, held in All India Institute of Medical Sciences, New Delhi, held in AIIMS, New Delhi, 27-28 October 2017 and Won the Second Best Paper Award.

Professor Sanjeev Kumar Bhoi did AIIMS Ultrasound Trauma Life Support (AUTLS) to train the doctors to empower trauma resuscitation; AIIMS Ultrasound Trauma Life Support Course for Nurses (AUTLSN) to train the nurses to empower trauma resuscitation; AIIMS Basic Emergency Care Course (AIIMS-BECC) to train Doctors, Nurses, Paramedics and lay persons in basic emergency skills and CPR; In Hospital management of Mass Casualty Incidents (A module for disaster responsiveness and mitigation prepared by us in collaboration with CDC Atlanta); AIIMS Emergency Sonography Course (EM SONO); AIIMS Disaster Ultrasound Course for Doctors, Nurses and Paramedics; AIIMS Paediatric Ultrasound Course for Paediatricians and Emergency Physicians; Ultrasound guided vascular access for doctors; Ultrasound in Primary Health Care for Primary Care Physicians; Ultrasound Guided Nerve Block in Emergency for doctors; AIIMS Trauma Life Support with Power of Ultrasound for doctors; AIIMS Triage Protocol Workshop for Doctors, Nurses and Paramedics; Basic ECG Workshop for Nurses; Tactical Combat Casualty Care Course for CRPF Jawans; Capacity building for the strengthening emergency care in primary health care setting for Doctors, Nurses and Paramedics; AIIMS first responder course for paramedics and lay persons; participated/conducted 1st International Conference and Workshop on Cost Effective Use of Technology in Health Neuroscience, 28-31 March 2019, Goa; Advance Ultrasound trauma life support ATSSF, 14-15 September 2018, JPNATC, New Delhi; Annual National Conference of Pedi STARS shaping the safety culture, 27 February-3 March 2019, AIIMS, New Delhi; Basic ECG for Nurses JPN Apex Trauma Centre, 23 June 2018, AIIMS, New Delhi; Basic ECG for Nurses New Emergency, 25 July 2018, AIIMS, New Delhi; Basic Emergency Care Course ATSSF, 20 September 2018, JPNATC, New Delhi; Basic Emergency Care Course ATSSF, 25 October 2018, JPNATC, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 22 November 2018, JPNATC, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 13 December 2018, JPNATC, New Delhi; Basic Life Support JPN Apex Trauma Centre, 9 July 2018, AIIMS, New Delhi; BECC/BLS Training for CRPF ATSSF, 8-9 August 2018, JPNATC, New Delhi; Cadaveric advanced ultrasound guided preoperative and regional anaesthesia workshop, 1-13 January 2019, New Delhi; Comprehensive Life Support Course for BRO ATSSF, 26 October 2018, JPNATC, New Delhi; Comprehensive Life Support Course, JPN Apex Trauma Centre, 12 April 2018, AIIMS, New Delhi; EM India 2018 Banaras Hindu University, 21-22 July 2018, Varanasi, UP; EM Sono ATSSF, 10-11 August 2018, JPNATC, New Delhi; Emergency Medicine (Department Class) ATSSF, 4 August 2018, JPNATC, New Delhi; Emergency Medicine Sonography EMSONO Course, 14-15 April 2018 JIPMER, Puducherry; First Aid in Trauma Course Seminar Room, 27 September 2018, JPNATC, New Delhi; First Aid in Trauma Course Seminar Room, 30 July 2018, JPNATC, New Delhi; Inaugural Ceremony of THIHMS Medical College and Emergency Department Site Visit, 1 August 2018, THIHMS, Arunachal Pradesh; Indosurg 2019 (13th AIIMS Surgical Week), 28-31 March 2019, AIIMS, New Delhi; Instructor and leadership meeting of nursing of instructors, JPN Apex Trauma Centre, 13 June 2018, AIIMS, New Delhi; Instructor Course for Rajasthan Doctors ATSSF, 26 November 2018, JPNATC, New Delhi; Meeting of programme managers for road safety and injury prevention to support implementation of the PHUKET Commitment, 12-14 November 2018, Kathmandu, Nepal

Professor Shivanand Gamanagatti was Fellow of Indian College of Radiology; Dr Diwan Chand Agarwal Memorial Oration: Imaging, Interventions and future in hepatocellular carcinoma, 72nd Annual Conference of IRIA, PGIMER, Chandigarh.

Professor Subodh Kumar was nominated as Member of Oversight Committee of Bhopal Memorial Hospital and Research Centre (BMHRC), Bhopal by Department of Health Research, MOHFW Government of India; Nominated as Member of Oversight Committee for Institute of Medical Sciences, Banaras Hindu University, Varanasi by NITI Ayog, Government

of India; External Examiner for MS (Surgery) at MLB Medical College, Jhansi, Bundelkhand University, UP; Expert Member of Faculty Selection Committee of Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow; Member of Ethics Sub Committee of Medical Council of India, Government of India; Member of Institutional Ethics Committee of All India Institute of Medical Sciences, New Delhi; Member of AIIMS Endowment Fund Scientific Advisory Committee and Fund Promotion and Investment Committee, AIIMS, New Delhi; Assessor for National Board of Examination, Government of India.

Professor Sushma Sagar led the training of 800 students for first responder programme organized by Indian Road Safety Campaign run by Delhi IIT students at DTU Delhi on 30 October 2018; Member Dean Committee for DM student re-dressal, AIIMS, Delhi; Member Intramural Research Project Grant Committee, AIIMS, Delhi; Member Women Grievance Cell Committee, AIIMS, Delhi; Member Research Committee to approve selection of research scholars at AIIMS, Delhi; Member Poster Exhibition Committee for 1st AIIMS Research Day Celebration; Internal examiner for 1st AIIMS MCh examination of Trauma Surgery and Critical Care at AIIMS, Delhi; External expert for selection committee for faculty recruitment at AIIMS, Rishikesh; MOHFW nominee as Secretary for Delhi Organ Transplant Committee; Expert member to inspect for starting of academic courses in Trauma and Critical Care at AIIMS Patna; Chief Guest on the occasion of World Trauma Day, organized by Department of Trauma Surgery at AIIMS, Rishikesh; Core teaching faculty member for NIDM (National Institute of Disaster Management); Medical expert member for iSafe, an initiative by IRSC (Indian Road Safety Campaign) by IIT Delhi students; Medical expert member for initiative on safer roads for Gurugram in collaboration with UNITAR AB InBev; Member Technical Group for Drafting and Review of Curriculum for the First Aid Module for the Community, WHO and MOHFW Government of India.

Dr Tej Prakash Sinha participated/conducted AIIMS Ultrasound Trauma Life Support (AUTLS) to train the doctors to empower trauma resuscitation; AIIMS Basic Emergency Care Course (AIIMS-BECC) to train doctors, nurses, paramedics and lay persons in basic emergency skills and CPR; Emergency Sonography Course (EM SONO); Disaster Ultrasound Course for doctors, nurses and paramedics; Ultrasound guided vascular access for doctors; Triage protocol workshop for doctors, nurses and paramedics; Basic ECG workshop for nurses; Capacity building for the strengthening emergency care in primary health care setting for Doctors, Nurses and Paramedics; AIIMS first responder course for paramedics and lay persons; Advance Ultrasound trauma life support course, ATSSF, 14-15 September 2018, JPNATC, New Delhi; AUTLS course at MEDINSPIRE 2019 conference, 14 February 2019, DY Patil University, Mumbai; Basic ECG for Nurses JPN Apex Trauma Centre, 23 June 2018, AIIMS, New Delhi; Basic ECG for Nurses New Emergency, 25 July 2018, AIIMS, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 8-9 August 2018, JPNATC, New Delhi; Basic Emergency Care Course ATSSF, 20 September 2018, JPNATC, New Delhi; Basic Emergency Care Course ATSSF, 25 October 2018, JPNATC, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 13 December 2018, JPNATC, New Delhi; Basic Emergency Care Course for CRPF ATSSF, 22 November 2018, JPNATC, New Delhi; Basic Life Support Course JPN Apex Trauma Centre, 9 July 2018, AIIMS, New Delhi; Cadaveric advanced ultrasound guided preoperative and regional anaesthesia workshop, 11-13 January 2019, New Delhi; Comprehensive Life Support Course for BRO ATSSF, 26 October 2018, JPNATC, New Delhi; Comprehensive Life Support Course JPN Apex Trauma Centre, 12 April 2018, AIIMS, New Delhi; EM SONO Course ATSSF, 10-11 August 2018, JPNATC, New Delhi; Emergency Department Site Visit and Inaugural Ceremony of THIHMS Medical College, 1 August 2018, TRIHMS, Naharlagun, Arunachal Pradesh; EMINDIA 2018 National Emergency Medicine Conference, Banaras Hindu University, 21-22 July 2018, Varanasi, UP; First Aid in Trauma Course Seminar Room, 27 September 2018, JPNATC, New Delhi; First Aid in Trauma Course Seminar Room, 30 July 2018, JPNATC, New Delhi; Medwork 2018 conference, Rohilkhand Medical College and Hospital, 7-8 April 2018, Bareilly, UP; Meeting of programme managers for road safety and injury prevention to support implementation of the PHUKET Commitment, 12-14 November 2018, Kathmandu, Nepal; Meeting to develop "Regional Strategy to integrate Emergency and Trauma Care into Primary Health Care (PHC) in SEAR", 23-25 August 2018, Bangkok, Thailand; Preparatory meeting for Promulgation of Emergency Nursing in SEAR, 2-4 April 2018, AIIMS, New Delhi; Rajasthan Capacity Building Programme Instructor Course ATSSF, 26 November 2018, JPNATC, New Delhi; Rajasthan Capacity Building Programme, Provider Course ATSSF, 16-18 November 2018, JPNATC, New Delhi; SIMULUS 4 the 4 Annual National Conference of PediSTARS India, 27 February-3 March 2019, AIIMS, New Delhi; Symposium on Trauma Management and Injury Prevention, JPN Apex Trauma Centre, 20-21 April 2018, AIIMS, New Delhi; Tactical Combat Casualty Care (CRPF) ATSSF, 15 February 2019, JPNATC, New Delhi; Tactical Combat Casualty Care Course for CRPF, JPN Apex Trauma Centre, 18 April 2018, AIIMS, New Delhi; Tactical Combat Casualty Care Course for CRPF, JPN Apex Trauma Centre, 11 May 2018, AIIMS, New Delhi.

Professor Vijay Sharma: 3rd AIIMS Cadaveric Pelvic-Acetabulum Course on 14-15 April 2018 at JPNATC, AIIMS, New Delhi; Pre Conference Cadaveric Pelvic-Acetabulum workshop, DOACON 2018 on 22 November 2018 at ACSST, AIIMS, New Delhi.

Professor Vivek Trikha was Associate Editor of Indian Journal of Orthopaedics, National Journal of Indian Orthopaedic Association (Pubmed Indexed Journal); Associate Editor of Journal of Clinical Orthopaedics and Trauma (Pubmed indexed journal).

10.6. National Drug Dependence Treatment Centre

Professor and Chief

RK Chadda

Professors

Raka Jain
Sonali Jhanjee

Rakesh Lal

Anju Dhawan
Atul Ambekar

Associate Professor

Yatan Pal Singh Balhara
Ashwani K Mishra

Gauri Shanker Kaloiya

Ravindra Rao
Rachna Bhargav

Assistant Professor

Prabhu Dayal
Rizwana Quraishi

Biswadip Chatterjee
Piyali Mandal
Roshan Bhad

Alok Agrawal
Siddharth Sarkar

Scientist

Monica Mongia

Medical Social Service Officer

Braham Prakash
Ratnesh Kumar

Deepak Yadav
Dinesh Kumar

Senior Administrative Officer

Ajay Kumar (upto May 2018)

Renu Bharadwaj (From October 2018)

Administrative officer

Anita Tete (May–October 2018)

Accounts Officer

Meenakshi Dabral

Assistant Nursing Superintendent

Radhamani Nair

Assistant Store Officer

ML Arya (upto July 2018)
Manohar Lal Arya (October 2018–March 2019)

RP Rai JSO (July–September 2018)
Yatendra Kumar (March 2019)

HIGHLIGHTS

NDDTC continues to be the WHO Collaborating Centre on Substance Abuse since 2012. During 2018-2019, the centre has progressed with regard to treatment, training and research in area of drug abuse. A total of 2,21,947 patients were seen: 10,681 new patients and 2,11,266 old patients inclusive of regular OPD, 4 community clinics and 3 speciality clinics. The

NDDTC laboratory attended to more than 90,000 samples during the year in its toxicology, haematology, biochemistry and HIV screening labs. The laboratory has currently the facility to detect 19 types of addictive substances.

Some major ongoing of NDDTC activities involve: Developing and implementing training mechanism for use of Essential Narcotic Drugs (ENDs) for treatment of opioid dependence, and detection of new psychoactive substances among substance abuse treatment seekers in India, funded by the Department of Revenue, Ministry of Finance, Government of India. NDDTC continued to be a ADR Monitoring Centre for Pharmacovigilance Programme of India.

Many faculty members are technical experts and are also holding key positions in national and international professional bodies and editorial boards in prestigious peer-reviewed journals. Several faculty members are recipient of professional honors and awards.

Currently, many National and International agencies are funding ongoing research projects in the centre. More than 100 articles in various peer reviewed national and international journals and many books/chapters in books/reports have been published during this period.

NDDTC also offers PhD in Addiction Psychiatry. The centre is also running Doctorate of Medicine (DM) course in Addiction Psychiatry. First batch passed out in December 2018.

NDDTC started CL addiction psychiatry service from 1 February 2019. Mobile Methadone Clinic of NDDTC, one of the first of its kind in Asia has been launched on 22 March 2019 at Seemapuri, East Delhi.

A Symposium was organized by the DM and MD residents on the occasion of International Day Against Drug Abuse and Illicit Trafficking on 26 June 2018 at AIIMS. Target audience was UG and PG students at AIIMS.



(Director, AIIMS dispensing methadone at the mobile dispensing van)



Report of the “National Survey on Extent and Pattern of Substance Use in India”, Supported by the MSJE, GOI, was released in February 2019. This survey is one of the largest epidemiological study on substance use disorders in the world. It included all States and UTs.

EDUCATION

Undergraduate

MBBS students are posted for a day in the centre during their Psychiatry posting.

Postgraduate

Residents doing MD (Psychiatry) are posted for in the centre for 6 months. Eleven candidates are doing DM in Addiction Psychiatry.

PhD and Postgraduate teaching

- *Journal club—Weekly joint activity with psychiatry
- *CCR and CGR, two in every semester at AIIMS
- Seminar—Weekly
- Case Conference—Weekly
- Seminars/Journal Club

**Joint activities of the Department of Psychiatry and the National Drug Dependence Treatment Centre*

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered

RK Chadda

1. C-L Psychiatry in low resource settings: Meeting the challenge, National CME on Consultation Liaison Psychiatry, 9 April 2018, New Delhi
2. Management of substance use: Public health approach, Mid Term CME of Indian Association of Private Psychiatrists—Delhi Chapter, 24 June 2018, New Delhi
3. Panel discussion on substance use, Panel International Day on Drug Use, UNODC ROSA, 21 June 2018, New Delhi
4. Capacity assessment in criminal cases, PG Development Programme, Indian Psychiatric Society, 30 June 2018, New Delhi
5. Sensitization of mental health issues: An overview of the legal framework, Orientation programme on Mental Health, 28 July 2018, New Delhi
6. Developing a module for home based psycho-social care in Schizophrenia, International Conference on Schizophrenia, 30 August-1 September 2018, Chennai
7. Metabolic syndrome: Guideline development and focus on evidence based approach and cultural issues, Annual Conference of the Indian Psychiatric Society, North Zone, 6-7 October 2018, Chandigarh
8. Principles and possibilities of prevention in psychiatry, Annual Conference of Indian Psychiatric Society, East Zone, 26-28 October 2018, Bodh Gaya
9. Drug addiction and indian culture: Preventive approaches for drug addiction, 20th Annual Meeting of the International Society of Addiction Medicine, 2-5 November 2018, Busan, South Korea
10. Prescription drug abuse—Challenges, 20th Annual Meeting of the International Society of Addiction Medicine, 2-5 November 2018, Busan, South Korea
11. Substance use disorders: Need for public health Initiatives: Venkoba Rao Oration, 25th Annual Conference of the Indian Association for Social Psychiatry, 16-18 November 2018, Rohtak
12. Family and caregiver: The silent yet essential pillars for psychotherapy delivery? 25th Annual Conference of the Indian Association for Social Psychiatry, 16-18 November 2018, Rohtak
13. Treatment-Resistant Bipolar Disorder: Case Vignette Approach, National Workshop on Treatment Resistance in Psychiatry, 24 November 2018, Kolkata
14. Youth and mental health: Challenges in LAMI countries, Regional Congress of the World Association of Social Psychiatry, 8-9 December 2018, Kochi
15. Home based rehabilitation: Tertiary prevention with least restriction, Annual Conference of the Indian Psychiatric Society, 31 January-2 February 2019, Lucknow
16. New psychoactive substances: Background and overview, Annual Conference of the Indian Psychiatric Society, 31 January-2 February 2019, Lucknow
17. Youth and mental health: Challenges ahead, National Conference on 'Health and Well Being of Children and Adolescents', 14 March 2019, Gaya
18. Mental health: Concept and policy initiatives, National Seminar on Health Policy Research: Current Scenario, 15 March 2019, New Delhi
19. Substance use in children in NE states: Existing scenarios and strategies, Regional Level Consultation on Drug/ Substance Use among Children in NE States, 26 March 2019, Guwahati

Raka Jain

1. Facing the challenge of newer psychoactive substances, 15th Annual Day celebration of NDDTC, 13 April 2018, Ghaziabad
2. Drug addiction and Indian culture title: Cultural causes and related issues: 20th International Society of Addiction Medicine (ISAM 2017), 3-6 November 2018, Busan, South Korea
3. Role of *Delphinium denudatum* (Jadwar) in Nicotine Addiction, National Conference on Unani Medicine “Unani Day Celebration”, 12 February 2019, New Delhi

Rakesh Lal

1. Attitudes of medical personnel towards opioid prescription, CMC Alumni Meeting, 4-7 October 2018, Houston, USA

Anju Dhawan

1. Adolescent substance abuse: Intervention across settings, Annual Day Symposium on “Strengthening the National Program for Drug Addiction Treatment”, 13 April 2018, Ghaziabad
2. Substance use disorders in adolescents and children, National CME Psychiatry on Substance Use Disorders: Newer Dimensions by Department of Psychiatry, Base Hospital, Delhi Cantt, 14 April 2018, New Delhi
3. Identification and Management of Substance Use among School Children, Capacity Building Programme on Substance Abuse by SCERT, 8 August 2018, New Delhi
4. Annual Conference of the International Society of Addiction Medicine 2019 in Delhi, Annual Conference of the ISAM 2018, 2 November 2018, Busan, South Korea
5. Adolescent substance use in school settings, Consultation meeting of SCERT for Drug Demand Reduction, 3 January 2019, New Delhi
6. Substance use in school settings, Sensitization of pre service trainee teachers, 21 February 2019, New Delhi
7. Preventive counseling: A hands on perspective for issues related to substance abuse among youth, VIVECHANA, The Counselling Space by Sri Sri University, 23-24 March 2019, Bhubaneswar
8. Vulnerability of children and students to substance use, 7th National FINGODAP Conference, 30 March 2019, New Delhi

Sonali Jhanjee

1. Overview of treatment and pharmacological management of tobacco dependence, Symposium on Tobacco Cessation, 16 November 2018, New Delhi
2. Tobacco cessation and substance abuse, The National Seminar on Tobacco Cessation: Beyond the 5As, 2 August 2018, New Delhi
3. E-cigarettes as an emerging policy concern, ISAM Annual Meeting, 4 November 2018, Busan, Korea

Atul Ambekar

1. Cannabis: The final word, RISE 2018, organized by the Behavioural and Neurosciences Academy of India, 11 May 2018, Goa
2. Data collection and analysis for drug use epidemiology: An overview, Training Programme on “Planning and designing of large scale sample surveys” for officers of Indian Statistical Service, National Statistical Systems Training Academy (NSSTA), 19 June 2018, Greater Noida
3. Cannabis: From neurobiology to policy, Mid Term CME of IPS East Zone, 18 August 2018, Dibrugarh
4. Changing legal and policy scenario for drugs: Implications for psychiatrists, National CME of Addictive Disorder Specialty of IPS, 19 August 2018, Dibrugarh
5. Sleep and opioids: Neurobiology and clinical aspects, Global Conference of Biological Psychiatry, 25 August 2018, Mumbai
6. Drug laws and policies: Scientific arguments for criminalization and de-criminalization, Training programme for judiciary, Delhi Judicial Academy, 15 September 2018, New Delhi
7. Abuse of pharmaceutical drugs in India, Training programme for Drug Law Enforcement officers National Academy of Customs, Indirect Tax and Narcotics (NACIN), 19 September 2018, Faridabad
8. Pharmaceutical drug use—South Asia, Training programme for officers from Department of Narcotics Control, Bangladesh, National Academy of Customs, Indirect Tax and Narcotics (NACIN), 26 September 2018, Faridabad

9. Treatment of opioid dependence: Policy and legal issues, National Conference of Society for Rural Mental Health, 29 September 2018, Karnal
10. Drug demand reduction strategies, Anti Addiction Day Symposium organized by SKIMS, Srinagar, 2 October 2018, Srinagar
11. MHCA 2017: Implications for addiction treatment in India, Annual Conference of Indian Psychiatric Society—Rajasthan State, 20 October 2018, Bikaner
12. Addiction in North East: Opportunities, challenges and the way forward, North East Health Care Leadership Summit 2018, 29 October 2018, Shillong
13. Drug laws and policies, What works and what doesn't, Law Economics Policy Conference (LEPC 2018), organized by the National Institute of Public Finance and Policy (NIPFP), 27 November 2018, New Delhi
14. Intervention strategies for alcohol use disorders, National Conference of Indian Society of Gastroenterology, 30 November 2018, Kochi
15. Opioid Substitution Treatment (OST) is the best strategy for management of Opioid Use Disorders, (*Debate – For*), National Conference of Indian Association of Private Psychiatry (ANCIAPP), 1 December 2018, Hyderabad
16. Abuse of pharmaceutical drugs in India, Training programme for Drug Law Enforcement Officers from Myanmar, National Academy of Customs, Indirect Tax and Narcotics (NACIN), 6 December 2018, Faridabad
17. Preventing substance use: What works, what doesn't, National CME of Preventive Psychiatry Section of Indian Psychiatric Society, 8 December 2018, Patna
18. Policy and legal issues related to opioid analgesics in palliative care and addiction treatment, Workshop "opioids in palliative care" organized by FDA, Punjab, 18 December 2018, Chandigarh
19. Opioid pharmaceuticals: Policy and legal issues, Indian Pharmaceutical Congress, 22 December 2018, Noida
20. Drug use and HIV: Interface with law enforcement: National Consultation with Police Training Academies, organized by NACO, Government of India, 10 January 2019, New Delhi
21. Management of opioid dependence, CME update organized by the Jammu and Kashmir Psychiatric Society, 18 January 2019, Jammu
22. Drug abuse scenario in India, vulnerable population and treatment services, Interactive Workshop under National Action Plan for Drug Demand Reduction organized by the National Institute of Rural Development and Panchayati Raj, 1 February 2019, Hyderabad
23. Magnitude of substance use in India, Panel Discussion on '10 years of Drug Policy in Asia: How far we have come?', 20 February 2019, New Delhi
24. Drug use situation in India, Training programme for Drug Law Enforcement Officers from NCB, National Academy of Customs, Indirect Tax and Narcotics (NACIN), 25 February 2019, New Delhi
25. Magnitude of substance use in India, National Conference of Principle Secretaries of State Governments, organized by MoSJE, Government of India, 26 February 2019, New Delhi
26. Preventing substance use: What works what doesn't, Annual Psychology Festival, Aryabhata College, Delhi University, 1 March 2019, New Delhi
27. Magnitude of substance use in India, Annual Meeting of NARCORD, Ministry of Home Affairs, 12 March 2019, New Delhi

YPS Balhara

1. Opioid use disorders, CME of Indian Psychiatric Society, Odisha State Branch, 16 September 2018, Bhubaneswar, Odisha
2. Neurobiology of the brain, Training on the Universal Treatment Curriculum for Substance Use Disorders (UTC) by The Colombo Plan Drug Advisory Programme (CPDAP), 12 December 2018, Nairobi, Kenya
3. Medications used to treat alcohol dependence, Training on the Universal Treatment Curriculum for Substance Use Disorders (UTC) by The Colombo Plan Drug Advisory Programme (CPDAP), 13 December 2018, Nairobi, Kenya
4. Comprehensive MAT program, Training on the Universal Treatment Curriculum for Substance Use Disorders (UTC) by The Colombo Plan Drug Advisory Programme (CPDAP), 14 December 2018, Nairobi, Kenya
5. Evolving field of co-occurring disorders, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 7 May 2018, Ulaanbaatar, Mongolia
6. Key concepts for co-occurring disorder treatment, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 7 May 2018, Ulaanbaatar, Mongolia
7. Co-occurring anxiety disorders and SUD, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 8 May 2018, Ulaanbaatar, Mongolia

8. Co-occurring ADHD and SUD, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 9 May 2018, Ulaanbaatar, Mongolia
9. Common co-occurring medical disorders, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 10 May 2018, Ulaanbaatar, Mongolia
10. Treatment engagement and retention, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 10 May 2018, Ulaanbaatar, Mongolia
11. Assessment for SUD, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 11 May 2018, Ulaanbaatar, Mongolia
12. Addiction severity Index, The training of Mongolian National Trainers by the Colombo Plan Drug Advisory Programme (CPDAP), 12 May 2018, Ulaanbaatar, Mongolia
13. Psychoactive substances and how they affect the CNS, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 16 May 2018, Ho Chi Minh City, Vietnam
14. Categories of factors affecting treatment outcome, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 16 May 2018, Ho Chi Minh City, Vietnam
15. Continuum of care, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 17 May 2018, Ho Chi Minh City, Vietnam
16. Ways of looking at evidence-based practice, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 17 May 2018, Ho Chi Minh City, Vietnam
17. Contingency Management, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 18 May 2018, Ho Chi Minh City, Vietnam
18. Co-occurring disorder, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 18 May 2018, Ho Chi Minh City, Vietnam
19. Common co-occurring medical disorders, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 19 May 2018, Ho Chi Minh City, Vietnam
20. Core counseling skills, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 19 May 2018, Ho Chi Minh City, Vietnam
21. Essential forms for documentation in SUD treatment, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 20 May 2018, Ho Chi Minh City, Vietnam
22. Rationale for screening and brief intervention, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 20 May 2018, Ho Chi Minh City, Vietnam
23. Administering the ASI, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 21 May 2018, Ho Chi Minh City, Vietnam
24. Case management, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 21 May 2018, Ho Chi Minh City, Vietnam
25. Crisis intervention, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 23 May 2018, Ho Chi Minh City, Vietnam
26. Counselor safety, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 23 May 2018, Ho Chi Minh City, Vietnam
27. NAADAC ethical principles, The training at University of Medicine and Pharmacy, Ho Chi Minh City by the Colombo Plan Drug Advisory Programme (CPDAP), 24 May 2018, Ho Chi Minh City, Vietnam
28. Treatment of clients with SUDs and the role of cognitive behavioral therapy, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 8 October 2018, Hanoi, Vietnam
29. Historical and Research Foundations of CBT, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 8 October 2018, Hanoi, Vietnam
30. Techniques and Tools for CBT, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 9 October 2018, Hanoi, Vietnam
31. Case conceptualization, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 10 October 2018, Hanoi, Vietnam
32. Evidence for all Clinical Application of CBT for SUDs, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 11 October 2018, Hanoi, Vietnam
33. The relationship between Substance Use Disorders (SUD) and Mental Health Disorders, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 12 October 2018, Hanoi, Vietnam

34. Understanding the co-occurring disorders, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 12 October 2018, Hanoi, Vietnam
35. Co-occurring disorders bipolar and related disorders, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 12 October 2018, Hanoi, Vietnam
36. Common co-occurring medical conditions, 10th Recovery Symposium of the Drug Advisory Programme (DAP) of the Colombo Plan, 13 October 2018, Hanoi, Vietnam
37. Panel discussion 'सूचनाक्रांती: बरदान और चुनौतियाँ', The Dainik Jagran Forum, 7 December 2018, New Delhi
38. Use of TeleMedicine facility for provision of services for treatment of addictive disorders, Training workshop on the use of TeleMedicine facility for provision of services for treatment of addictive disorders, 13 January 2019, Bhubaneswar, Odisha
39. Indian perspective on services from management of HIV/ AIDS among person with SUD, 2nd Advisory Board meeting of the Southeast Asia—HIV Addiction Technology Transfer Center (SEA-HATTC), 15 May 2018, Chiang Mai, Thailand
40. Strengthening services for SUD for persons living with HIV/ AIDS, 4th Advisory Board meeting of the Southeast Asia—HIV Addiction Technology Transfer Center (SEA-HATTC), 19 December 2018, Chiang Mai, Thailand
41. Behavioral addictions: Caught in the web, Wellness Program for Post-Graduate Trainees at AIIMS, 4 May 2018, New Delhi
42. WHO SEA regional collaborative framework for a coordinated response to MHPSS in emergencies, The Regional Capacity Building Workshop on Mental Health in Emergencies organized by WHO, 28 August 2018, Kathmandu, Nepal

Gauri Shanker Kaloyia

1. Cognitive behavior therapy and management of substance addiction, Three days Continuing Rehabilitation Education (CRE) Program, 6-8 February 2019, Chandigarh
2. Co-morbidity of personality disorders in patients with substance use disorder, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 31 January-3 February 2019, Lucknow
3. "Do I think about thinking?": Recent Trends in Metacognition, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 31 January-3 February 2019, Lucknow
4. Workshop on: CBT in Nicotine Dependence, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 31 January-3 February 2019, Lucknow
5. Management of substance use among youth, 81st Orientation Course (17 November-14 December) UGC-HRDC, BHU, Varanasi, 30 November 2018, Varanasi
6. Paying attention to family members of patients with SUD, 25th National Conference of Indian Association for Social Psychiatry, 16-18 November 2018, Rohtak
7. Workshop on: CBT for Substance Use Disorders, 3rd International Conference of Cognitive Behavioural Interventions (ICCBI-2018), 26 and 29 September 2018, Gurugram

Ravindra V Rao

1. Scientific basis of addiction, Lecture delivered at LNJNI National Institute of Criminology and Forensic Sciences, 14 May 2018, New Delhi
2. Scientific basis of addiction, Lecture delivered at LNJNI National Institute of Criminology and Forensic Sciences, 29 October 2018, New Delhi
3. Drug use, health and human rights: Regional overview, problems and challenges, Advancing Health and Rights based approaches and Harm reduction services amongst people who use drugs organized by SAARC Secretariat, Government of Nepal, 10 December 2019, Kathmandu
4. New psychoactive substances: Issues and challenges, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 1 February 2019, Lucknow
5. Principles of addiction treatment, Training course on 'Drug De-addiction, counselling skills and Rehabilitation', organized by National Institute of Social Defence, Ministry of Social Justice and Empowerment, Government of India, 8 October 2018, New Delhi
6. Introduction to psychoactive substance use, Drug Abuse Prevention and Counselling skills, organized by National Institute of Social Defence, Ministry of Social Justice and Empowerment, Government of India, 27 August 2018, New Delhi

Ashwani Kumar Mishra

1. Practical applications of the parametric and non-parametric test, on 9 May 2018, Postgraduate Class for MSc Biotech and Nursing, 9 May 2018, Delhi
2. Elements of descriptive statistics, VIII Refresher Course in Medical Sciences, University Grant Commission (UGC), Human Resource Development Centre, 2 June 2018, Varanasi
3. Elements of inferential statistics, VIII Refresher Course in Medical Sciences, University Grant Commission (UGC), Human Resource Development Centre, 2 June 2018, Varanasi
4. Presented scientific talk on Concepts of Drug Abuse Survey-Household Survey, Training programme on planning and designing of large-scale sample surveys for officers of States/UTs, at the National Statistical Systems Training Academy (NSSTA), 25 September 2018, Noida
5. Concepts of Drug Abuse Survey-Respondent Driven Sampling, Training programme on planning and designing of large-scale sample surveys for officers of States/UTs, at the National Statistical Systems Training Academy (NSSTA), 25 September 2018, Noida
6. Findings for National Survey on Extent and Pattern of Substance use in India-2019, Dissemination meeting for results on National Survey on Extent and Pattern of Substance Use in India, 4 February 2019, New Delhi
7. National Survey on Extent and Pattern of Substance use in India 2019-Recommendations, Release of report for National Survey on Extent and Pattern of Substance Use in India by the Union Minister of Ministry of Social Justice and Family Empowerment, Government of India, 18 February 2019, New Delhi
8. National Survey on Extent and Pattern of Substance use in India 2019-Policy Implications, Dissemination meeting for results on National Survey on Extent and Pattern of Substance Use in India, Ministry of Home Affairs, Government of India, 12 March 2019, New Delhi

Rachna Bhargava

1. Substance abuse in children: Current scenario, State level meeting for children, 20 April 2018, Manipur
2. Mental health issues, Professional Development Program for Teachers of Amity Schools, 27 June 2018, Noida
3. Mental health issues, Professional Development Program for Teachers of Amity Schools, 29 June 2018, AIS Mayur Vihar, Delhi
4. Identification and management of substance use among school children, Capacity building program for schoolteachers by Delhi Government and SCERT, 8 August 2018, New Delhi
5. Managing children in techno world, Public Lecture, 18 August 2018, Agra
6. Understanding human psychology in dispute resolution, Training of judicial and advocate mediators from different states in India, Delhi Judicial Academy, 30 August 2018, Dwarka, Delhi
7. Factors contributing to violence and impact of violence against children, National Consultation on Creating Awareness on Violence against Children through Curriculum, 7 September 2018, Thane
8. Sexual violence and sexual abuse, Panel Discussion in 43rd Annual Conference of North Zone Indian Psychiatric Society, 6 October 2018, Chandigarh
9. Excessive gaming/internet use in young people, Public lecture on World Mental Health Day, AIIMS, 9 October 2018, New Delhi
10. Psychology of children with *substance* use, 3-month training program for counsellors, NISD, 9 November 2018, New Delhi
11. Counselling in substance use, 3-month training program for counsellors, NISD, 14 November 2018, New Delhi
12. Internet use: Emerging issues and implications, National Conference of IASP, 17 November 2018, Rohtak
13. Conflict resolution, Workshop on working towards excellence for nurses, AIIMS, 15 February 2019, New Delhi
14. Behavioral addiction in children and adolescents, CME on Child and Adolescent Psychiatry, 16 February 2019, Ludhiana

Biswadip Chatterjee

1. Screening and assessment of person with addiction, Six Days Training on “Treatment and Rehabilitation on Drug Abuse Prevention” for Cambodian participants, 6 February 2019, New Delhi

Alok Agrawal

1. Drug demand reduction, Specialized Workshop on “Precursor and Chemical Control” and “Licit Opium Plantation and Control” for Officials from Thailand, 17-20 April 2018 organized by National Academy of Customs and Indirect Taxes, (NACIN), 20 April 2018, Faridabad, Haryana

2. Management of opioid dependence with methadone, Induction training workshop on Methadone Maintenance Therapy, 23-25 May 2018, organized by National AIDS Control Organization, 23 May 2018, Amritsar, Punjab
3. Treatment and rehabilitation of drug abuse, Training on Drug Abuse Prevention, Treatment and Rehabilitation for Cambodian Officers, 3-9 February 2019, organized by National Institute of Social Defense, 5 February 2019, New Delhi
4. Overview of drugs and drug-use disorders, 3rd National Youth Forum on Drug Abuse Prevention organized by SPYM and Vishwa Yuwak Kendra, 23 March 2019, New Delhi
5. Findings of the national survey on extent and pattern of substance use in India, 7th National FINGODAP Conference, 29-31 March 2019, organized by SPYM and National Institute of Social Defense, 29 March 2019, New Delhi
6. Treatment and rehabilitation of drug users: Models for service delivery, 7th National FINGODAP Conference, 29-31 March 2019, organized by SPYM and National Institute of Social Defense, 30 March 2019, New Delhi

Rizwana Quraishi

1. Genetics of alcohol and opioid dependence: Prevalence, association and implications in treatment outcome, 3rd Global Conference of Biological Psychiatry, 26 August 2018, Mumbai

Siddharth Sarkar

1. Emerging issues in substance use in India: Club drugs—under the carpet, peeping out sporadically, 20th International Society of Addiction Medicine Annual Meeting, 4 November 2018, Busan, South Korea
2. Prescription drug abuse in the elderly, IPS Geriatric Psychiatry Specialty Section CME, 17 December 2018, Bengaluru
3. rTMS perspective in addiction medicine, Workshop and Certificate Course on repetitive Transcranial Magnetic Stimulation, 15 December 2018, Delhi
4. Urbanisation and family with focus on mental health care, National Mid-Term CME 2018 of the Indian Psychiatric Society, 12 August 2018, Orchha
5. Optimizing outpatient case discussion for clinical training of psychiatry residents, First National Conference on Mental Health Education, 6 April 2018, Bengaluru

Piyali Mandal

1. National training of trainers and operational planning workshop for Focused Thematic Studies, National Drug Use Survey, 20 December 2018, New Delhi
2. Substance use disorders in women: Assessment and management issues, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 2 February 2019, Lucknow
3. Women in addiction; issues, concerns and service gaps, 7th National FINGODAP conference organized by SPYM and National Institute of Social Defense, 30 March 2019, New Delhi

Roshan Bhad

1. Psycho active substances—characters and consequences, Invited lecture by NISD, 29 May 2018, New Delhi
2. Psychosocial management of substance use disorders, Invited lecture by NISD, 31 May 2018, New Delhi
3. Assessment of perceived barriers affecting adherence to Methadone Maintenance Treatment (MMT) in India: A retrospective cohort study, 20th Annual Conference of International Society of Addiction Medicine (ISAM), 6 November 2018, Busan, South Korea
4. Substance use in Lesbian, Gay, Bisexual and Transgender (LGBT) population: Management issues and challenges, First Regional Congress of World Association of Social Psychiatry (WASP-RC), 9 December 2018, Kochi
5. National training of trainers and operational planning workshop for focused thematic studies, National Drug Use Survey, 20 December 2018, New Delhi
6. OST training programme for programme managers of TI, Invited lecture by India-HIV Alliance & DSACS, Greater Kailash, 28 December 2018, New Delhi
7. Symposium: Harm reduction in substance use disorders, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 2 February 2019, Lucknow
8. Workshop: Nuts and bolts of peer review, 70th Annual National Conference of Indian Psychiatric Society (ANCIPS), 9 February 2019, Lucknow
9. Training programme for Cambodian officials, Invited lecture by National Institute of Social Defense, 6 February 2019, New Delhi

Oral Papers/Posters Presented

1. Ambekar A, Mishra AK, Rao R, Agrawal A, Dhawan A, Chadda R, Epidemiology of Substance Use in India-A Compilation from Multiple Sources, XX Annual Conference of International Society for Addiction Medicine, 3 November 2018, Busan, South Korea
2. Ambekar A, Modak T, Rao R, Mishra A, Agrawal A, Economic Cost (and benefit) of Scale-up of Opioid Substitution Treatment in National AIDS Control Program, India: Comparison of three scenarios, International Society for the Study of Drug Policy Conference 2018 (ISSDP 2018), 16-18 May 2018, Vancouver, Canada
3. Bhad R, George A, Substance use in Lesbian, Gay, Bisexual and Transgender (LGBT) population: Management issues and challenges, First Regional Congress of World Association of Social Psychiatry (WASP-RC), 9 December 2018, Kochi
4. Bhad R, Rao R, Ambekar A, Dhawan A, Assessment of perceived barriers affecting adherence to Methadone Maintenance Treatment (MMT) in India: A Retrospective Cohort Study, 20th Annual Conference of International Society of Addiction Medicine (ISAM), 6 November 2018, Busan, South Korea
5. Bhad R, Rao R, Agrawal A, Singh A, Harm reduction in Substance Use Disorders: Global perspective, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 2 February 2019, Lucknow
6. Bhad R, Sarkar S, Verma R, Ranjan R, Nebhiani N, Kar S, Nuts and bolts of peer review, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 2 February 2019, Lucknow
7. Bhargava R, Problematic Internet use in adolescents: An update, International Association for Child and Adolescent Psychiatry and Allied Professions, 23-27 June 2018, Prague
8. Dhawan A, Sarkar S, Singh V, Kaloiya GS, Paying attention to the family members of individuals with Substance Use Disorders, 25th National Conference of Indian Association for Social Psychiatry, 18 November 2018, Rohtak
9. Dhawan A, Inhalant abuse—Is it a problem of the underprivileged only in the Symposium on Emerging Issues in Substance Use in India, Annual Conference of the International Society of Addiction Medicine, 3-6 November 2018, Busan, South Korea
10. Dhawan A, Therapeutic approaches for drug addiction in the Symposium on Drug addiction and Indian culture, Annual Conference of the International Society of Addiction Medicine, 3-6 November 2018, Busan, South Korea
11. George A, Chatterjee B, Substance use and road traffic accidents: A review of critical aspects, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 3 February 2019, Lucknow
12. Kumar V, Sood M, Sarkar S, The linkages between creativity and mental illness, 43rd Annual Conference of the Indian Psychiatric Society—North Zone, 6 October 2018, Chandigarh
13. Lal R, Management of substance use—Public health strategies, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 3 February 2019, Lucknow
14. Mishra AK, Analytical methods in clinical studies, I National Symposium on Biostatistical Techniques and its Application in Clinical Studies, 11 March 2019, Chandigarh
15. Mishra AK, Sampling designs and statistical analysis for data on National Survey on Extent and Pattern of Substance Use in India 2019, VII National Federation of Indian NGOs for Drug Abuse Prevention FINGODAP Conference, 29 March 2019, Delhi
16. Mongia M, Sadhu R, Neuropsychological and behavioural deficits in Indian children with specific developmental disorders of scholastic skills, The 2018 HKC Psych International Mental Health Congress, 15 December 2018, Hong Kong
17. Quraishi R, Singh D, Ambekar A, Jain R, Rao R, Gamma glutamyl transferase measurement in dried serum spots, 19th congress of international society for biomedical research on alcoholism (ISBRA2018), 9-13 September, Kyoto, Japan
18. Raghav R, Jain R, Roy TS, Dhawan A, Kumar P, Co-administration of mixed μ/κ -agonist attenuate the opioid dependence, Society for Neuroscience, 3-6 November 2018, San Diego, USA
19. Shah B, Chatterjee B, Patnaik P, A narrative review on neurobiology of adolescent substance use problems: Implications for prevention and management, International conference on Child and Adolescent Mental Health, 2-3 November 2018, Kathmandu, Nepal
20. Singh S, Balhara YPS, The extent and pattern of internet gaming disorder among medical college students: An exploratory study from India, 71st Annual Conference of Indian Psychiatric Society (ANCIPS), 1 February 2019, Lucknow

21. Verma K, George A, Chatterjee B, Inhalant use disorders: A critical review, 71st Annual National Conference of Indian Psychiatric Society (ANCIPS), 3 February 2019, Lucknow

RESEARCH

Funded projects

Ongoing

1. NIHR Global Health Research Group on Psychosis Outcomes: The Warwick-India-Canada (WIC) Network, RK Chadda, National Institute of Health Research, UK, 3 years, 2017-2020, Rs 2.44 crores
2. Detection of new psychoactive substances among substance abuse treatment seekers in India—Multi centric study, RK Chadda, Department of Revenue, Government of India, 3 years, 2017-20120, Rs 6.51 crores
3. Role of *Delphinium denudatum* (Jadwar) in a Rat Model of Nicotine Dependence, Raka Jain, AYUSH, 3 years, 2017-2019, Rs 29.16 lakhs
4. Extent of mental health issues and addictive behavior among adolescents seeking help in Adolescent Friendly Health Clinics in Delhi, Anju Dhawan, Adolescent Health Division, Directorate of Family Welfare, Government of NCT of Delhi, 1 year, 2019-2020, Rs 18.85 lakhs
5. Survey on substance use among School and College Students, Anju Dhawan, Ministry of Social Justice and Empowerment, Government of India, 6 months, 2019, Rs 14.85 lakhs
6. National survey on Extent and Pattern of Substance Use in India, Atul Ambekar, Ministry of Social Justice and Empowerment, Government of India, 3 years, 2016-2019, Rs 22.41 crores
7. Field testing of ICD-11 classification for disorders related to substance use and addictive behaviours, Atul Ambekar, WHO, 2 years, 2017-2019, Rs 3.25 lakhs
8. Developing training mechanisms for use of Essential Narcotic Drugs (Methadone) for the treatment of opioid dependence, Atul Ambekar, Department of Revenue, Ministry of Finance, Government of India, 2 years, 2017-2019, Rs 76.21 lakhs
9. Bone mineral density and chronic alcoholism and changes following disulfiram deaddiction therapy, Yatan Pal Singh Balhara, DBT, 3 years, 2017-2019, Rs 8.3 lakhs
10. Strengthening cross-border and community responses to illicit drugs in South Asia, Yatan Pal Singh Balhara, UNODC, 2 years, 2017-2019, Rs 5.94 lakhs
11. Portrayal of psychoactive substance use in Bollywood movies: A mixed methods study, Ravindra Rao, AIIMS, 18 months, July 2016-March 2019, Rs 1.44 lakhs
12. Assessment of HIV, other Blood-borne Viruses, TB and risk behaviours among prison inmates in Gujarat, Ravindra Rao, UNODC, Regional Office for South Asia, 7 months, August 2018-March 2019, Rs 21 lakhs
13. Rates and pattern of psychoactive substance use among prisoners in India, Ravindra Rao, Ministry of Social Justice and Empowerment, Government of India, 6 months, January 2019-June 2019, Rs 30 lakhs
14. Developing and testing an online training programme for medical officers on treatment of substance use disorders, Ravindra Rao, Ministry of Social Justice and Empowerment, Government of India, 14 months, January 2019-March 2020, Rs 14.59 lakhs
15. Brain Stimulation as a Novel Technique for Cognitive Dysfunction and Craving Management to Enhance Treatment Outcome in Patients with Alcohol Dependence: A Prospective, Randomized Controlled Trial, Prabhoo Dayal, DST, 3 years, 2018-2021, Rs 25.80 lakhs
16. Comparison of serum Corticotrophin Releasing Factor (CRF) level in detoxified Opioid-dependent subjects with healthy controls, Biswadip Chatterjee, AIIMS, 2 years, 2017-2020, Rs 2 lakhs
17. Study on substance use among homeless population in India, Alok Agrawal, Ministry of Social Justice and Empowerment, Government of India, 1 year, 2018-2019, Rs 5.2 lakhs
18. A study among emerging opioid using populations in India, Alok Agrawal, The Colombo Plan, 5 years, 2018-2023, Rs 3.5 crores,
19. A functional polymorphism of dopamine beta-hydroxylase gene and disulfiram treatment response in patients with alcohol dependence: A pilot exploratory study, Rizwana Quraishi, AIIMS, 2 years, 2018-2020, Rs 4.5 lakhs
20. Relationship of serotonin pathway polymorphisms with self-harm behaviour among patients with opioid dependence, Siddharth Sarkar, DST, 2 years, 2017-2019, Rs 20.68 lakhs
21. Psycho-social correlates of drug use among attendees of Women's Clinic of National Drug Dependence Treatment Centre, Piyali Mandal, AIIMS, 3 years, 2017-2020, Rs 0.5 lakhs

Completed

1. Establishment of regional resource hub for South-East Asia on behavioral addictions, Yatan Pal Singh Balhara, WHO, 1 year, 2018-2019, Rs 3.51 lakhs
2. To develop WHO South-East Asia Regional collaborative framework for a coordinated response to MHPSS in Emergencies, Yatan Pal Singh Balhara, WHO, 1 year, 2018, Rs 1.44 lakhs
3. Comparative assessment of stress and coping among adolescent with recent inhalant abuse: A case control study, Roshan Bhad, AIIMS, 2 years, 2017-2019, Rs 3.5 lakhs
4. Feasibility of transporting blood/serum samples onto filter paper to screen for biomarkers of harmful alcohol use among opioid dependent patients on agonist maintenance treatment: A pilot study in community setting, Rizwana Quraishi, AIIMS, 1 year, 2016-2017, Rs 2.8 lakhs

Departmental projects

Ongoing

1. A clinical trial to find the effect of transcranial Direct Current Stimulation (tDCS) on craving to smoke tobacco among opioid dependent smokers maintained on Buprenorphine
2. A comparative study of alcohol biomarkers and their clinical applicability in alcohol dependence
3. A comparative study of Ethyl Glucuronide (EtG) and Fatty Acid Ethyl Ester (FAEE) with other conventional biomarkers in alcohol dependent subjects
4. A comparative study of serum brain-derived neurotrophic factors levels in-patients with alcohol dependence, depression and co-morbid alcohol dependence and depression
5. A comparative study to assess the psycho-social correlates of gaming disorder among college students
6. A cross-sectional survey of medical personnel in India to assess their knowledge, attitude and barriers towards opioid analgesic preparations
7. A pilot follow-up study on retention and outcome of patients with opioid dependence
8. A prospective study to assess the factors associated with short term retention of opioid dependent syndrome on oral Naltrexone
9. A study of internalized stigma and pathways of care among primary cannabis use disorders patients seeking treatment at tertiary care drug treatment centre of India
10. Adult ADHD in patients with opioid dependence: An exploratory study
11. An exploratory study to assess the association between Nicotine Metabolite Ratio (NMR) and smokeless tobacco use parameters
12. Assessing client perceived barriers to initiate opioid substitution therapy among injecting drug users a cross-sectional, comparative, community-based study
13. Assessment of biochemical measures in adolescent inhalant users
14. Assessment of sexual behavior among patients seeking treatment for opioid dependence at NDDTC
15. Assessment of stress biomarkers in opioid dependent youth in response to correlates of stress: An exploratory study
16. Association between serum C-reactive protein level and alcohol consumption among patients of alcohol use disorders: A cross-sectional, exploratory study
17. Behavioral and biological assessment of vulnerabilities to acquisition of HIV, blood borne viruses and Tuberculosis among prison inmates of Gujarat
18. Cognitive functioning in buprenorphine maintained opioid dependent patients at peak and trough buprenorphine levels: An experimental study
19. Cognitive representation and efficacy of cognitive therapy in individuals with alcohol dependence syndrome
20. Comparison of different anti-platelets drug regimes on platelet aggregation and urinary 11-Dehydrothromboxane B2 levels in stable ischemic heart disease patients
21. Correlates of family functioning in adolescent substance users
22. Depression, anxiety, quality of sleep and mental adjustment style among adult myeloma patients in active treatment and maintenance phase
23. Development of cognitive behavioral based intervention module for adolescents in conflict with law

24. Development of Indian anxiety and mania questionnaire
25. Development of psychological intervention module among adolescents with dissociative disorder
26. Effect of cannabis on serum brain derived neurotrophic factor level and its relation with psychosis, A cross-sectional exploratory study
27. Effectiveness of reminders using Phone call versus Short Message Service on treatment retention in patients with Substance Use Disorders: An open label randomised trial
28. Experience with treatment among patients with substance use disorders
29. Factors associated with treatment retention amongst alcohol dependent patients
30. Family functioning and parental styles in adolescent substance use: Case control study
31. Family interventions addressing expressed emotions in treatment seeking men with opioid dependence
32. Gambling disorder and its socio-demographic correlates among treatment seeking patients with alcohol use disorders
33. Indigenously produced psychoactive substances in India, Patterns of use and profile of users
34. Knowledge, risk factors and experience of non-fatal overdose among Injecting Drug users, A community-based, cross-sectional study
35. Neurological soft signs and their correlates among patients with cannabis use disorder with and without psychosis, A cross-sectional comparative study
36. Prevalence and characteristics of self-harm and suicidal attempts among patients with substance use disorder at a tertiary care hospital
37. Psychosocial correlates of caregiving experience among caregivers of patients with Schizophrenia
38. Psychosocial factors associated with internet use behaviour among Medical and Engineering undergraduate students, A comparative study
39. Rates and pattern of psychoactive substance use among prison inmates in India
40. Stigma among men and women seeking treatment for substance use disorder and their family members, A cross-sectional comparative study
41. Substance use among homeless men receiving services from shelter homes in Delhi
42. Substance use among school and college students
43. Substance use among transport workers
44. Substance use in children and adolescents with Attention Deficit Hyperactive Disorder, An exploratory study
45. The clinical and laboratory predictors of alcohol withdrawal syndrome
46. To explore and compare the association of various demographic, clinical and laboratory factors with Delirium Tremens (DT) among patients with Alcohol Dependence (AD), admitted with and without a diagnosis of DT, based upon review of clinical records
47. Tobacco use in alcohol dependent patients
48. Trazodone for sleep disturbance in opioid dependent patients maintained on buprenorphine, A double-blind placebo control trial

Completed

1. A comparative study of pattern and severity of substance use and co-morbidity among out-patient youth and older adult opioid users
2. A cross-sectional observational study to assess help seeking behavior for alcohol use disorders among patients with alcoholic liver disease
3. A retrospective study of concurrent non-prescribed medicinal and illicit drug use by opioid dependent patients prescribed with buprenorphine
4. A study of internalized stigma and pathways of care among primary cannabis use disorder patients seeking treatment at tertiary care drug use treatment centre in North India
5. A study of Serum BDNF levels in patients with alcohol dependence during withdrawal
6. An exploratory study of cannabis use pattern and treatment seeking in patients attending a tertiary care centre
7. An exploratory study of stigma and pathways of care among natural opiate users seeking treatment at tertiary de-addiction centre of India

8. Cross-sectional comparative study of clinical profile, severity of dependence and quality of life in treatment-seeking opioid users
9. Development of cognitive retraining module for improving cognitive deficits of abstinent patients with alcohol, cannabis and opioid dependence syndrome in a tertiary care De-addiction Centre of Northern India
10. Effectiveness of intravenous Naloxone in attenuating agonist effects of intravenous buprenorphine: A double blind, within-subject, randomized, cross-over study in opioid dependent subjects
11. Knowledge, risk factors and experience of non-fatal overdose among Injecting Drug Users: A community-based, cross-sectional study
12. Laboratory profile of women substance users seeking treatment at Tertiary Care Center in North India, A retrospective study
13. National Survey on Extent and Pattern of Substance use in India-Household and Respondent Driven Sampling
14. Oral methadone versus sublingual buprenorphine for treatment of acute opioid withdrawal, A randomized, double-blind, double-dummy, controlled study
15. Out-patient management of acute opioid withdrawal with buprenorphine in community-based setting, A retrospective chart review
16. Serum BDNF levels in patients of First Episode Schizophrenia, A pilot study
17. Serum brain derived neurotrophic factor levels in alcohol dependent patients during withdrawal
18. Study of sleep parameters in opioid dependent patients maintained on buprenorphine

Collaborative projects

Ongoing

1. A vignette based cross-sectional study to assess health care professional's perspective on various ethical dilemma clinical situation, Medical Oncology
2. Default Mode Network of addictive disorders, A Quantitative EEG study, Physiology
3. Comparison of Double "J" and infant feeding tubes as stents in open Cohen's ureteric reimplantation in terms of hospital stay, A randomized study, Paediatric Surgery
4. Comparison of Different Anti-platelet Drug Regimes on Platelet Aggregation and Urinary 11-Dehydrothromboxane B2 levels in Stable Ischemic Heart Disease Patients, Cardiology
5. Genetic polymorphisms of serotonergic pathways genes and their association studies with disease severity and response to escitalopram treatment in patients with major depressive disorder, Institute of Genomics and Integrative Biology (IGIB), funded by ICMR
6. Extent of problematic internet use in Nursing students at AIIMS, College of Nursing

Completed

1. Comparative appraisal of data collection methods and related epidemiological models for smoking, drinking and tobacco chewing among adolescent children in India, Biostatistics
2. Study of aspirin and clopidogrel resistance by Platelet Aggregation and its Association with Adverse Outcomes in Indian Stable Coronary Artery Disease Patients, Cardiology
3. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of schizophrenia and Parkinson's Disease, funded by DST, Biophysics
4. A study to assess personality, psychological distress, and adjustment difficulties among nursing students at AIIMS, College of Nursing
5. The effect of prosthodontic rehabilitation of completely edentulous geriatric patients on Their Working Memory Process, A functional MRI based pilot study, CDER

PUBLICATIONS

Journals: 50

Abstracts: 12

Chapters in books: 8

Books: 3

PATIENT CARE

OUTPATIENT SERVICES

OPD	New cases	Follow-up visits	Total
1. General OPD, NDDTC	9,543	66,948	76,401

2. Specialty clinics			
i) Children and Adolescents	96	549	645
ii) Dual Diagnosis	135	605	740
iii) Tobacco Cessation	45	547	592
iv) Women	40	230	270
v) Family Empowerment	42	45	87
Total for Specialty clinics	358	1976	2334
3. Community clinics in New Delhi			
i) Trilok Puri	295	26,339	26,634
ii) Sunder Nagri	302	81,081	81,383
iii) Kotla Mubarakpur	273	34,922	35,195
Total for Community clinics	870	1,42,412	1,42,912
4. Grand Total (1+2+3)	10,681	2,11,266	2,21,947

WARD SERVICES

1. Total number of admissions	1,341
2. Bed occupancy	99%
3. Average length of stay	13 days
4. Total patients visiting day-care ward	3,104

OTHER PATIENT CARE STATISTICS

1. Total deaths	0
2. Average admissions per working day	5
3. Average OPD attendance per working day	
a. NDDTC (new patients)	32
b. NDDTC (old patients)	227
c. Trilok Puri community clinic (new patients)	1
d. Trilok Puri community clinic (old patients)	89
e. Sunder Nagri community clinic (new patients)	1
f. Sunder Nagri community clinic (old patients)	275
g. Kotla Mubarakpur community clinic (new patients)	92
h. Kotla Mubarakpur community clinic (old patients)	118

BIOCHEMISTRY LABORATORY

1. Biochemistry tests 43,128
2. Haematological tests 17,758
3. HIV screening 313

DRUG SCREEN LABORATORY

S. No.	Drug	No.	S. No.	Drug	No
1.	Morphine Test	3,175	8.	Benzodiazepines Test	5,630
2.	Codeine Test	2,515	9.	Cotinine Test	80
3.	Buprenorphine Test	3,435	10.	Cannabis Test	560
4.	Proxylon Test	2,595	11.	Barbiturate Test	80
5.	Avil Test	2,515	12.	Cocaine Test	80

6.	Naltrexone Test	2,515	13.	Inhalant Test	15
7.	Pentazocine Test	2,515	14.	Tramadol	288
Total number of drugs tested in urine					29,285

AWARDS, HONOURS AND SIGNIFICANT EVENTS

- Swacchata award 2018 at AIIMS—Best stall award for the daycare stall, NDDTC
- Received second prize in the Senior Resident category on the occasion of 1st AIIMS Research Day celebrations on 26 March 2019

Professor Rakesh Chadda was expert member, Government of India Team to design mental hospital in South Sudan; Visited South Sudan on 2-5 January 2019 for site inspection as a member of team; Venkoba Rao Oration delivered at the 25th National Conference of the Indian Association for Social Psychiatry, Rohtak, 16-18 November 2018; Member, Editorial Board, BJP International; Chair, Awards Committee, Indian Association for Social Psychiatry, 2018-2021; Chair, Technical Resource Group on Injection Drug Users; Member, Nasha Mukti Abhiyan Task Force under National Health Policy (Ministry of Health and Family Welfare); Member, Selection Committee for National Awards for Outstanding Services in the field of Prevention of Alcoholism and Drug Abuse (Ministry of Social Justice and Empowerment); Was member selection committee for AIIMS, Jodhpur, Bhubaneswar, Gorakhpur; University of Health Sciences, Rohtak; KGMU, Lucknow; Has been advisor to UPSC in selection committee; Assisted NBE in different roles; Member, Dean (Research) Committee.

Professor Raka Jain worked as an Expert Committee member of the WHO Expert Advisory Panel on Drug Dependence (Dependence Liability Evaluation), attended and participated in the World Health Organization (WHO) “40th Expert Committee Meeting on Drug Dependence (40th ECDD), 4-8 June 2018, WHO Headquarters, Geneva, Switzerland; As an Expert Committee Member of the WHO Expert Advisory Panel on Drug Dependence (Dependence Liability Evaluation), attended and participated in the 5th WHO/UNODC Expert Consultation on New Psychoactive Substances on 24-25 September 2018 followed on 26 and 27 September by a Working Group to prepare the forthcoming 41st ECDD, WHO Headquarters, Geneva, Switzerland; As an Expert Committee Member of the WHO Expert Advisory Panel on Drug Dependence (Dependence Liability Evaluation), attended and participated in the World Health Organization (WHO) “41st Expert Committee Meeting on Drug Dependence (41st ECDD), 12-16 November 2018, WHO Headquarters, Geneva, Switzerland; Appointed as Examiner for evaluation of MD thesis Dissertation in Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS), MOH&FW, Government of India in the year 2018; Appointed as External Expert for the selection of faculty position at National Institute of Mental Health and Neurosciences (NIMHANS), MOH&FW, Government of India (February 2019); Life Member of Society for Promotion of Research and Education in Mental Health and Substance Use.

Professor Rakesh Lal was advisor to Ministry of Railways to set up a Drug Dependence Management Centre with training to one of their doctors; Colombo plan: Member of Treatment Expert Advisory Group.

Professor Anju Dhawan received membership of International Society of Addiction Medicine (ISAM) Training and Education Committee; Developed Standard Treatment Workflow on Alcohol Use Disorders for Indian Council of Medical Research and Department of Health Research, Ministry of Health and Family Welfare, Government of India; Developed draft Action Plan document and brochure for Substance Use Prevention and Treatment in Children in various settings; Review of research proposal for Medical Research Council, UK; Lecture on Drug Abuse among Children in the Public Lecture on Young People and Mental Health in a Changing World, 9 October 2018, AIIMS, New Delhi; Sensitization about Substance Use in the Student Wellness Programme on 27 September 2018 and 9 March 2019 at AIIMS, New Delhi; Development of a Brochure about NDDTC and its activities; Conducted DM Addiction Psychiatry examination in NIMHANS on 22 November 2018.

Professor Sonali Jhanjee was invited as an expert in WHO FCTC Secretariat /WHO Addictiveness Reduction Meeting 15-16 May 2018, Berlin; Part of an Advisory Committee convened by MOH and FW to finalize “Guidelines for setting up Tobacco Cessation Centers at Dental Colleges and the technical specifications of the Breath Carbon Monoxide Monitor” and contributed to the following report: “Establishment of Tobacco cessation centres in Dental Institutes: An integrated approach in India, MOH&FW, 2018”; Part of an Advisory Committee convened by MOH&FW to develop guidelines for establishment of Tobacco Cessation Centres in Medical Colleges.

Professor Atul Ambekar provided expert advice to World Health Organization (Geneva) on Public Health Issues related to Addictive Behaviours and attended the Expert Group Meeting at Changsha, China (November 2018); Nominated as

member Scientific Committee, International Society for Study of Drug Policy Conference (2019), Paris; Nominated as Chairperson, Addictive Disorder Sub-specialty, Indian Psychiatric Society (IPS).

Dr YPS Balhara was awarded OSF Asian Scholarship by International Society for the Study of Drug Policy (ISSDP) to attend the 2018 ISSDP Conference held in Vancouver, Canada from the 16-18 May 2018; Member, Expert Working Group for finalising the Advanced Level Universal Treatment Curriculum (UTC) for Substance Use Disorders of the Colombo Plan Drug Advisory Programme (CPDAP); Member, Advisory Panel on Cyber Awareness Ambassador Program, South-East District, Delhi Police, India; Member, WPA Committee on Psychiatric Education for Medical Students; Nominated as Zonal Representative of World Association of Dual Disorders (WADD); Elected Member, Advisory Committee of World Association of Dual Disorders (WADD), 2018-2021.

Dr GS Kaloyia was Hon. General Secretary of Indian Association of Clinical Psychologists (IACP): 2018-2020; Participated in Regional Workshop on TOT on Family Interventions for youths dependent on substances for South Asia organized by UNODC Regional Office for South Asia (UNODC ROSA) from 10 to 14 December 2018, Colombo, Sri Lanka; Member of NOC Expert Group of Central Adoption Resource Authority (CARA), Ministry of Women and Child Development, GOI.

Dr Ravindra Rao was expert for building capacity of service providers of Opioid Substitution Therapy for Gujarat State AIDS Control Society; Training of service providers of Opioid Substitution Therapy for Punjab State AIDS Control Society; Assessment of Outpatient Opioid Agonist Treatment clinics supported by the Department of Health, Government of Punjab; Technical expert in review-cum-orientation meeting of service providers of Opioid Substitution Therapy organized by Punjab State AIDS Control Society; Expert, Accreditation Committee, NABH Accreditation Programme for 'Integrated Rehabilitation Centre for Addicts' by National Accreditation Board of Hospitals and Health Care Providers.

Dr Ashwani Kumar Mishra was associate Editor for the journal Tobacco Regulatory Science; External examiner for: Institute of Liver and Biliary Sciences (ILBS) for Nursing examination on paper on Research Methodology and Biostatistics, Paper of Research Methodology for examination of MPhil course in Clinical Psychology, at the Institute of Human Behavior and Allied Sciences (IHBAS); Member of: International Society for Clinical Biostatistics, International Statistical Institute, International Association for study of Statistical Education, Indian Society for Medical Statistics, Indian Association for Study on Population.

Dr Biswadip Chatterjee was reviewer of: Journal of Psychosocial Rehabilitation and Mental Health, Indian Journal of Psychological Medicine; Received Swacchata Award 2018 at AIIMS—Best Stall Award for the Daycare Stall, NDDTC, as the faculty-in-charge of rehabilitation facilities, NDDTC.

Dr Alok Agrawal conducted 2 training workshops on management of substance use disorders for doctors and nurses working in government healthcare facilities on invitation of the Government of Himachal Pradesh; Provided expert advice to Ministry of Social Justice and Empowerment, Government of India for accreditation of Integrated Rehabilitation Centres for Addicts through National Accreditation Board for Hospitals and Healthcare Providers (NABH); Provide expert advice to State AIDS Control Society, Government of Punjab on improving quality of harm reduction services for Injecting Drug Users; Provide expert advice to State AIDS Control Society, Government of Haryana on improving quality of harm reduction services for Injecting Drug Users; Provide expert advice to DG, Tihar Prisons on strengthening of treatment and rehabilitation services for drug users in prison settings; Member, Editorial Board, National Journal of Social Defense, National Institute of Social Defense, Ministry of Social Justice and Empowerment, Government of India.

Dr Piyali Mandal was selected for participation in Regional Workshop on piloting "United Nations Family Treatment Package for Youth with drug use disorder" in Colombo, Sri Lanka (10-14 December 2018); Peer reviewer for: Journal of Substance Use, International Journal of Psychiatry in Medicine.

Dr Roshan Bhad was recipient of International Travel Grant Award for Non-ICMR Scientist by ICMR for attending 20th ISAM, 2018, Busan, South Korea; Instrumental in operationalizing South Asia's First Mobile Methadone Dispensing Unit at Seemapuri, East Delhi, inaugurated on 22 March 2019 by Director, AIIMS.

10.7. Neurosciences Centre

Chief

Kameshwar Prasad (up to 31 January 2019)

MV Padma Srivastava (from 1 February 2019)

Neurology

Professor and Head

Kameshwar Prasad (up to 31 January 2019)

MV Padma Srivastava (from 1 February 2019)

Professors

Manjari Tripathi
Garima Shukla (on leave)

Vinay Goyal
Rohit Bhatia

Achal Srivastava
Mamta Bhushan Singh

Associate Professor

Deepti Vibha

Assistant Professors

Vishnu VY
Awadh Kishor Pandit

Roopa Rajan

Deepa Dash
Rajesh Kumar Singh

Neurosurgery

Professor and Head

Shashank Sharad Kale

Emeritus Professors

Prakash Narain Tandon

Ajit K Banerji

Professors

P Sarat Chandra
Manmohan Singh

Ashish Suri
Deepak Agrawal (JPNATC)

Rajinder Kumar
Deepak Gupta (JPNATC)

Associate Professors

Gurudutt Satyarthee (JPNATC)
Vivek Tandon

Pankaj Kumar Singh (JPNATC)
Sachin Borkar

Assistant Professors

Hitesh Gurjar
Rajeev Sharma
Dattaraj Sawarkar
Amol Raheja

Aman Jagdewan
Shweta Kedia
Kanwaljeet Garg
Satish Verma
Santanu Bora

Shashwat Mishra
Ramesh Doddamani
Manoj Phalak
Rajesh Meena

Neuroimaging and Interventional Neuroradiology

Professor and Head

SB Gaikwad

Professor

Ajay Garg

Associate Professor

S Leve Joseph Devarajan

Assistant Professor

Anuj Prabhakar

Neuroanaesthesiology

Professor and Head

Arvind Chaturvedi

Professors

Mihir Prakash Pandia
Girija Prasad Rath

Rajendra Singh Chouhan
Hemanshu Prabhakar

Associate Professors

Gyaninder Pal Singh (JPNATC)
Keshav Goyal (JPNATC)

Ashish Bindra (JPNATC)

Niraj Kumar (JPNATC)
Navdeep Sokhal (JPNATC)

Assistant Professors

Charu Mahajan
Surya Kumar Dube

Indu Kapoor
Vanitha Rajgopalan

Clinical Neuro-psychology

Additional Professor

Ashima Nehra

Neurobiochemistry

Assistant Professor

Ashok Sharma

Neuropathology

Professors

Chitra Sarkar

Mihir Chand Sharma

Vaishali Suri

Hospital Administration

IB Singh

Chief Medical Officer

Anjali Hazarika

HIGHLIGHTS

In this academic year, the Department of Neurology participated in the second AIIMS-PGI Update in Neurology: A continuing medical education programme intended at imparting recent advances on a variety of neurological conditions to residents in training. Professor Kameshwar Prasad retired as chief of center and head of Neurology in January 2019. Professor MV Padma Srivastava took over the reigns as the Chief of Neurosciences Center and Head, Department of Neurology from February 2019. Many CMEs, workshops and conferences were organized by the department.

Department of Neurosurgery organized many workshops, CMEs and conferences. Three international conferences were organized. Very eminent neurosurgeons like Professor Richard Wohms and Dachling Pang from USA participated in these

workshops to teach advanced neurosurgical procedures. Professor Deepak Agarwal has been instrumental in developing an indigenous ventilator which is very economical and is a boon for developing nation like ours.

In the Department of Neuroimaging and Interventional Neuroradiology, state-of-art 128 slice dual energy CT scanner was installed replacing the 10-year-old 6-slice CT scanner which has low-dose CT protocols and faster acquisition in clinical routine are now possible with the best image quality ensured. The existing 1.5T MR was upgraded to 'silent MR' system with reduced claustrophobia in patients significantly.

Neuroanaesthesia department organized many workshops, conferences. Some talks were organized as a part of Lecture series on Psychological Sciences by eminent international and national speakers by the Department of Clinical Neuropsychology.

Neurobiochemistry introduced new diagnostic test TPMT screening and other tests. Corpus fund was allocated for the care of poor patients of the neurological emergency.

Neurology

HIGHLIGHTS

The Department of Neurology continued to scale new heights in patient care, research and training. Professor MV Padma Srivastava took over as the Head, Department of Neurology. This year was notable for the initiation of a poor patient's fund for provision of emergency services to neurological patients. It enables the department to provide all acute care within 24 hours of emergency admission free of cost to the patients. This includes expensive treatments such as mechanical thrombectomy for acute stroke and therapeutic plasma exchange. In the research arena, the department continued to excel with publications in high impact journals. As part of ongoing efforts to provide comprehensive training to Neurology residents, novel initiatives including a student-led teaching programme were spearheaded.

EDUCATION

The teaching and training capacities were upgraded with the induction of six new Senior Residents, which is designed to raise the number of qualified neurologists graduating to twelve per year. In addition to the routine teaching responsibilities, faculty from the Department of Neurology were involved in conduct of several interdisciplinary workshops and training sessions within AIIMS.

CMEs/Workshops/Symposia/National and International Conferences organized by department

1. World Parkinson's Disease Day Programme, 1 April 2018, New Delhi
2. 4th Rural Epilepsy Workshop for the Nepal Epilepsy Society, 4-8 April 2018, Dadeldhura, Nepal
3. World Multiple Sclerosis Day Programme, 30 May 2018, New Delhi
4. Workshop 'Diagnosis and treatment of Epilepsy', 9 August 2018, New Delhi
5. Epilepsy diagnosis and treatment workshop, 15-16 October 2018, Lucknow
6. World Stroke Day Programme, 29 October 2018, New Delhi
7. Workshop on Management of Common Neurological Problems in Low-resource Settings, 12-16 November 2018, Ganiyari, Chattisgarh
8. 15th National EEG workshop and Masterclass for Epilepsy Surgery and Epilepsy Neurobiology, 21-23 November 2018, Varanasi
9. 4th Movement Disorder Society of India Annual Conference (MDSICON 2019), 22-24 February 2019, New Delhi
10. 5th Rural Epilepsy Workshop for the Nepal Epilepsy Society, 16-18 March 2019, Gorkha, Nepal

Lectures delivered

MV Padma Srivastava

1. Stroke care and delivery systems for developing countries, Stroke Perceptorship Programme, 8-9 April 2018, Dhaka, Bangladesh
2. Stroke management, Global NCD Summit, 20 April 2018, Rishikesh
3. Approach to stroke, IAN Summer School, 12 May 2018, Bengaluru
4. Case studies and lectures, Visiting Professor at AIIMS Rishikesh, 25-28 May 2018, Rishikesh
5. Pregnancy and Multiple Sclerosis, ICTRIMS, 15 July 2018, Kochi
6. Status of Intravenous Thrombolysis in Acute Ischemic Stroke, Annual Congress of Society of Neurovascular Intervention (SNVICON-18), 17 June 2018, Ahmedabad
7. Early Intensive Therapy versus escalation for Multiple Sclerosis, East MS Summit, 28-29 July 2018, Kolkata
8. Frontiers of stroke recovery, 3rd Annual Cell Gene Therapy Symposium, 6-7 September 2018, Vellore

9. Management of acute ischemic stroke, Indian Stroke Association Summer School, 1-2 September 2018, Goa
10. Management of cerebral venous thrombosis, Indian Stroke Association Summer School, 1-2 September 2018, Goa
11. Improving stroke care in India, 4th Annual Health Care Summit, 28 September 2018, Jaipur
12. Update on management of Acute Ischemic Stroke, India International Science Festival, 7 October 2018, Lucknow
13. Acute Ischemic Stroke care in resource poor countries panelist: Global stroke care in developing countries, Global Summit on NCDs by WHO, World Stroke Congress, 17-20 October 2018, Montreal, Canada
14. Improving stroke care: Specific needs in India, International Public Health Conference, 2 November 2018, Kochi
15. Management of PFO, Stroke Update Meeting, 3 November 2018, New Delhi
16. Stem cell therapy in stroke, Annual Army Neurosciences Update, 3 November 2018, New Delhi
17. Medical management of Acute Ischemic Stroke, Neurovision 2018, 11 November 2018, Odisha
18. Stroke in Young, International Conference on Essentials of Stroke Care, 7-18 November 2018, Thiruvananthapuram
19. Intravenous therapy vs Mechanical thrombectomy in Acute Ischemic Stroke, European Academy of Neurology Meeting, 8-9 December 2018, Mumbai
20. Optimising DMT in RRMS, CME on Multiple Sclerosis Summit, 23 December 2018, Vishakhapatnam

Manjari Tripathi

1. Refractory Epilepsy, Brain and Mind, 14 June 2018, Nepal
2. Presurgical evaluation in resource limited countries, 16th Asian Oceanian Congress of Neurology, 8 November 2018, Seoul, South Korea
3. MEG and Hd EEG In Epilepsy, ECON-2019, 8 February 2019, New Delhi
4. Days of Future Past: Timeless Phenytoin, ECON-2019, 9 February 2019, New Delhi
5. MEG in Epilepsy, 16th Annual World Congress Society for Brain Mapping and Therapeutics, 16-17 March 2019, Los Angeles, California

Vinay Goyal

1. EBM: PD and drug induced MD, 7th Neuro Vision, 11 November 2018, Bhubaneswar
2. Management of Parkinson's Disease, CME: Movement disorders, 23 and 24 June 2018, Surat
3. Parkinson's Disease, Public Health Awareness of Parkinson, 12 April 2018, Rishikesh

Achal K Srivastava

1. Spinocerebellar Degeneration in Tropics, Annual Conference of Tropical Neurology, 1 April 2018, Lucknow
2. Transcranial magnetic stimulation: A Neurologist's perspective, Neuromodulation Society of India Meeting, 13 May 2018, Delhi
3. Gait and imbalance, NEUROQUEST: Practical Neurology, 20 May 2018, Delhi
4. Gait assessment in ataxia and NPH', 67th Annual Conference of Neurological Society of India (NSICON 2018), 13 December 2018, Jaipur
5. Treatable Dementias, 21st Annual Conference of Delhi Neurological Association (DNAICON 2019), 3 February 2019, Delhi
6. Mimics and chameleons of Motor Neuron Disease, International Workshop on Nerve Muscle Disorders, 16 February 2019, Delhi
7. Evaluation of ulnar nerve, International Workshop on Nerve Muscle Disorders, 17 February 2019, Delhi
8. Workup of a patient with ataxia—Where should we stop? 4th I-NK Movement Disorder Update and Botulinum Toxin Workshop, 8 April 2018, Kolkata
9. Progressive Ataxia to MSA-C, 26th Annual Conference of Indian Academy of Neurology (IANCON 2018), 28 September 2018, Raipur
10. What is new in Spinocerebellar Ataxias, 4th Annual Conference of Movement Disorder Society of India MDSICON-2019, 23 February 2019, New Delhi
11. Management of Parkinson's Disease, 4th RIMACON, 2 March 2019, Rae Bareilly, UP

Rohit Bhatia

1. NMOSD-Clinical Spectrum ICTRIMS 2018, 13-15 July 2018, Kochi
2. Current management of acute ischemic stroke, 16th International Conference on Cardiology, Diabetology, Electrocardiology, Echocardiography and Critical Care, 13-14 October 2018, Bhopal

3. Management of acute migraine, Delhi Headache Symposium, 19 August 2018, Delhi
4. MS what is new, UPUK CON 2018, 13-15 April 2018, Uttarakhand
5. NMO/D and MOG pathophysiological and treatment updates, MS Summit Gujarat, 7-8 July 2018, Gujarat
6. Acute and long-term treatment of CNS demyelinating disorders, Neurology Update Ahmedabad, 1-2 December 2018, Ahmedabad
7. Cardioembolic stroke, Neurology Update Ahmedabad, 1-2 December 2018, Ahmedabad
8. IV thrombolysis: Indications and difficult situations, Neurology update, 14 October 2018, Delhi
9. From TIME to TISSUE: Changing paradigms in Acute Stroke Therapy, Neuroquest 2018, May 2018, Delhi
10. Therapeutics—Goals, Current and Emerging Therapy in Multiple Sclerosis, IANCON 2018, September 2018, Ahmedabad
11. Decompressive craniectomy, Evidence, clinical practice and guidelines, INSC 2018, March 2019, Ahmedabad

Mamta Bhushan Singh

1. Rural Epilepsy Workshop, Nepal Epilepsy Society Meeting, 4-8 April 2018, Dadeldhura, Nepal
2. Epilepsy diagnosis and treatment, Epilepsy Diagnosis and Treatment Workshop, 15-16 October 2018, Lucknow
3. Management of Common Neurological Problems in Low-resource Settings, Jan Swasthya Sansthan Workshop, 12-16 November 2018, Chattisgarh
4. 5th Rural Epilepsy Workshop, Nepal Epilepsy Society, 16-18 March 2019, Gorkha, Nepal
5. Diagnosis and treatment of Epilepsy, CMET Workshop, 9 August 2018, New Delhi

Deepti Vibha

1. Diagnosis and Certification of Brain Stem Death Criteria, In Service Training Programme on Deceased Organ and Tissue Donation, ORBO, 17 April 2018, New Delhi
2. Systematic Review/Meta-Analysis, Research Methodology, Writing and Communication, 2 May 2018, New Delhi
3. Design, conduct and analysis of diagnostic test studies, Research Methodology, Writing and Communication, 3 May 2018, New Delhi
4. Formulation of a research question, Objectives and hypothesis Group Task, 2nd PG Course on Research Methodology, Writing and Communication, 24 September 2018, New Delhi
5. An overview of study designs; Group task, 2nd PG Course on Research Methodology, Writing and Communication, 25 September 2018, New Delhi
6. Design, conduct and analysis of diagnostic test studies, 2nd PG Course on Research Methodology, Writing and Communication, 26 September 2018, New Delhi
7. Migraine, Workshop for Neuronurses in Neurocritical Care Conference, 23 October 2018, New Delhi
8. Study designs, National research conference cum workshop by Physician Research Foundation, 12 January 2019, New Delhi
9. MS Therapies: When, what and how to choose? 21st Annual Conference of Delhi Neurological Association and 17th Neuro-Nurses Update (DNACON 2019), 2 February 2019, New Delhi
10. Diagnosis and Certification of Brain Stem Death Criteria, In Service Training Programme on Deceased Organ and Tissue Donation by ORBO, 18 February 2019, New Delhi
11. Diagnosis and Certification of Brain Stem Death Criteria, In Service Training Programme on Deceased Organ and Tissue Donation by ORBO, 18 March 2019, New Delhi

Vishnu VY

1. How I wrote my first paper? Institute Research Day: DMC Ludhiana, 19 January 2019, Ludhiana
2. Association or Causation, CME on Neuroimmunology, PGI Chandigarh, 28 July 2018, Chandigarh

Roopa Rajan

1. Principles of handling psychiatric comorbidities in non-communicable diseases, National CME on Consultation-Liaison Psychiatry, 9 April 2018, New Delhi
2. Recent updates in the management of Parkinson's Disease, CME, IMA Thrissur, 26 May 2018, Thrissur
3. Immune-mediated movement disorders, CME on Neuroimmunology, 28 July 2018, Chandigarh
4. Dystonia clinical registry and biobank: Indian scenario, Luxembourg-German Indian Alliance for Neurodegenerative Diseases and Therapeutics (Lux-GIANT) Symposium, 14 September 2018, Tübingen, Germany

5. rTMS- place in movement disorders, Workshop on Repetitive Transcranial Magnetic Stimulation, 14 December 2018, New Delhi
6. A cryptic cause of chorea, MDSICON 2019, Video Akhada, 23 February 2019, New Delhi
7. Device assisted therapies in PD, MDSICON 2019, 24 February 2019, New Delhi

Deepa Dash

1. Interesting video case, 4th Movement Disorders Update of Institute of Neurosciences Kolkata, April 2018, Kolkata
2. Movement disorders: The way forward, APICON Delhi Chapter, December 2018, New Delhi
3. Panelist on role of cannabis in neurological disorders, Annual Conference on Cannabis R&D in India (CSIR), December 2018, New Delhi
4. Challenges in Medical management of Parkinson Disease, Annual Conference of Neurological Society of India, December 2018, Jaipur
5. Parkinson Disease: Management, Armed Forces Neurology and Neurosurgery Update, November 2018, New Delhi
6. Anti-biogram and its applications, Hospital Infection Control Committee Workshop AIIMS, November 2018, New Delhi
7. Immune Mediated Movement Disorders, Annual Conference of Movement Disorder Society of India, February 2019, New Delhi
8. Grand round case, Annual Conference of Movement Disorder Society of India, February 2019, New Delhi
9. Autoimmune Epilepsy: Annual Conference of Epilepsy Society of India, March 2019, New Delhi
10. Advanced Parkinson's Disease: Challenges and solutions, Annual Conference of Delhi Neurology Association, January 2019, New Delhi
11. Current approaches to medical treatment of Parkinson's Disease, Recent advances in Parkinson Disease, Maulana Azad Medical College, February 2019, New Delhi

Awadh Kishor Pandit

1. An interesting case—The Mystery of Brainstem, Annual Conference of Delhi Neurological Association, 2-3 February 2019, Dr Ambedkar International Centre, Janpath, New Delhi

Rajesh Kumar Singh

1. Nursing responsibility in acute stroke management, Nursing and Healthcare Innovations: Sharing the Learning, 15 March 2019, New Delhi
2. Epilepsy, AIIMS Neuroanaesthesia Workshop, 2 November 2018, New Delhi

Oral papers/posters presented

1. Pandit AK, Prasad K, Talwar P, Kumar A, Pathak M, Gupta P, An exploratory study to investigate the association between short-term exposure to air-pollution on the occurrence of ischemic or hemorrhagic stroke in a case crossover design, 11th World Stroke Congress, Montreal, 17-20 October 2018, Canada
2. Agarwal A, Vishnu VY, Bhatia R, Goyal V, Singh MB, Joseph L, Garg A, Srivastava MVP, Citicoline in Acute Ischemic Stroke—A Randomized Control Trial, World Stroke Conference 2018, 17-20 October 2018, Montreal, Canada
3. Srivastava A, Dixit A, Dodamanni R, Banerjee, Tripathi M, Chandra PS, Expression Profile of Histone Deacetylases in Patients with Hippocampal Sclerosis, ECON-2019, 9 March 2019, New Delhi
4. Bhatia R, Puri I, Vibha D, Singh M, Srivastava MVP, Aggarwal P, et al., Stroke Related Education to Emergency Department (ED) Staff—An Acute Stroke Care Quality Improvement Initiative, 70th Annual Congress of the American Academy of Neurology, 21-28 April 2018, Los Angeles, USA
5. Bhat P, Goyal V, Kumaran S, Goyal C, Srivastava AK, Behari M, Dwivedi S, Neuromodulation by rTMS in Parkinsons Disease: A fMRI Study, 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
6. Prajapati C, Agrawal A, Vishnu VY, Srivastava MVP, Goyal V, Singh MB, Garg A, Singh MM, Cerebral venous sinus thrombosis presenting with features of raised intracranial tension and en plaque meningeal thickening: A case report, Indian National Stroke Conference, 15-17 March 2019, Ahmedabad, India
7. Dash D, Rare case of immune mediated movement disorder, 4th Movement Disorders Update of Institute of Neurosciences Kolkata, April 2018, Kolkata

8. Dash D, Bhatia R, Tripathi M, Garg A, Sharma MC, Singh RK, Myelopathy as presenting feature of Primary Central Nervous System Vasculitis (PCNSV): Case series, (E-poster and Oral Presentation), ICTRIMS 2018, 14 July 2018, New Delhi
9. Dash D, Tripathi M, Thtisham K, Spectrum of movement disorders in patients of autoimmune encephalitis of non-neoplastic aetiology, International Congress of Parkinson's Disease and Movement Disorders, 2018, 7 October 2018, Hong Kong
10. Garg D, Srivastava AK, Prasad K, Shukla G, Vibha D, Pandit AK, Rajan R, Jaryal AK, Differentiation of autonomic dysfunction in multiple system atrophy subtypes and Parkinson's Disease, 26th Annual Conference of Indian Academy of Neurology, 27-30 September 2018, Raipur
11. Goyal V, Bhat P, Goyal C, Srivastava AK, Kumaran S, Behari M, Dwivedi S, Effects of rTMS on three cortical areas in Parkinson's Disease, 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
12. Gulati A, Agrawal ND, Vibha D, Misra UK, Paul BS, Kumar R, et al., Efficacy of PMZ-1620 (IRL-1620), an endothelin-B agonist, in patients with cerebral ischemic stroke, Annual Conference of International Stroke Conference 2019, 6-8 February 2019, Honolulu, Hawaii
13. Rashid H, Katyaj J, Tripathi M, Sood M, Gupta YK, Depression in persons with epilepsy: A comparative study of different screening tools in Indian population, ECON-2019, 9 March 2019, New Delhi
14. Ihtisham K, Ramanujam B, Srivastava S, Mehra NK, Kaur G, Khanna N, et al, Association of cutaneous adverse drug reactions due to antiepileptic drugs with HLA alleles in a North Indian population, ECON-2019, 8 March 2019, New Delhi **Star paper Award 1st Prize**
15. Kapoor N, Prasad K, Shukla G, Srivastava AK, Vibha D, Association between gender, involved hemisphere and outcome after stroke and influence of socioeconomic status on stroke outcome: An ambispective cohort study, 26th Annual Conference of Indian Academy of Neurology, 27-30 September 2018, Raipur
16. Kumar K, Banerjee Dixit A, Tripathi M, Chandra PS, Banerjee J, Differential GABA Receptor Subunit Levels in Resected Brain Specimens Obtained from Low-grade Glioma Patients with and Without Epileptic Seizures ECON-2019, 9 March 2019, New Delhi
17. Misra S, Kumar A, Kumar P, Talwar P, Mohania D, Vibha D, et al., Role of Copeptin as a Biomarker for Predicting Outcome after Spontaneous Intracerebral Hemorrhage: A Prospective Cohort Study, 70th Annual Congress of the American Academy of Neurology, 21-28 April 2018, Los Angeles, USA
18. Misra S, Talwar P, Kumar A, Sagar R, Kumar P, Vibha D, et al., Blood Based Protein Biomarkers for the Differentiation of Ischemic Stroke from Stroke Mimics: A Systematic Review and Meta-Analysis, 11th World Stroke Congress, 17-20 October 2018, Montreal, Canada
19. Misra S, Kumar A, Talwar P, Sagar R, Kumar P, ... Vibha D, et al., Diagnostic Accuracy of Total Leucocyte Count and C-Reactive Protein as Blood Based Protein Biomarkers in Differentiating Hemorrhagic Stroke from Ischemic Stroke, 11th World Stroke Congress, 17-20 October 2018, Montreal, Canada
20. Kaur N, Sarangi SC, Tripathi M, Need for Pharmacoeconomic Impact between Conventional and Newer AEDs Monotherapy Treatment in PWE, ECON-2019, 8 March 2019, New Delhi
21. Pandit AK, Kumar A, Sagar R, Low dose statin pretreatment is associated with the favorable functional outcome in patients with acute ischemic stroke at discharge: A meta-analysis, XIII Annual Conference of Indian National Stroke Association (INSC 2019), 14-17 March 2019, Ahmedabad
22. Puneeth UM, Bhatia R, Sreenivas V, Joseph R, Singh N, Dash D, Singh RK, Tripathi M, Padma MV, Prasad K, Validation of ICH and ICH-GS scores in an Indian cohort: Impact of medical and surgical management, INSC 2018, March 2019, Ahmedabad
23. Rajan R, Pandit A, Venugopalan V, Vibha D, Krishnan S, Srivastava AK, Prasad K, Kishore A, An automated algorithm for detection and quantification of tremor from pen-on-paper Archimedes spirals', 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
24. Rajan R, Pandey S, Reghu A, Srivastava AK, Interrater and intrarater agreement on the 2018 consensus statement on classification of tremors', 26th Annual Conference of Indian Academy of Neurology, 27-30 September 2018, Raipur
25. Joseph R, Vishnu VY, Bhatia R, Kohli S, Agarwal A, Srivastava MVP, Demographic, Clinical and Imaging Profile, Etiologic Classification, Management Strategies and Outcomes of Strokes in Elderly (80 Years and above)—A Five Year Retrospective Study, World Stroke Conference 2018, 17-20 October 2018, Montreal, Canada
26. Bhatia R, Singh N, Saxena R, Bali P, Padma MV, Singh V, Clinical Features, Disease Course and Outcome in Chronic Relapsing Inflammatory Optic Neuropathy (CRION), ICTRIMS 2018, July 2018, Kochi

27. Bhatia R, Sharma G, Garg A, Roy A, Patel C, Sreenivas V, Singh N, Padma MV, Prasad K, Bali P, Sisodia P, Prevalence of symptomatic and asymptomatic coronary artery disease in patients with stroke and transient ischemic attack, World stroke congress, October 2018, Montreal
28. Bhatia R, Warriar A, Garg A, Srivastava MVP, Dash D, Tripathi M, Singh V, Sreenivas V, Are Cerebral Small Vessel Disease Markers Related to Hematoma Volume, Expansion and Outcome in Intracerebral Hemorrhage? INSC 2018, March 2019, Ahmedabad
29. Sagar R, Kumar A, Yadav AK, Raj R, Misra S...Vibha D, et al., Association Between Methylenetetrahydrofolate Reductase (MTHFR) Gene Polymorphism and Risk of Intracerebral Hemorrhage (ICH) In North Indian Population: A Case Control Study, 11th World Stroke Congress, 17-20 October 2018, Montreal, Canada
30. Sharma H, Vishnu VY, Kumar N, Sreenivas V, Rajeswari MR, Bhatia R, Sharma R, Padma MV, Efficacy of low frequency repetitive Transcranial Magnetic Stimulation (rTMS) in Ischemic Stroke—A double blind randomised controlled trial, World Stroke Conference 2018, 17-20 October 2018, Montreal, Canada
31. Singh N, Srivastava AK, Kumar A, Pandit AK, Rajan R, Vibha D, Sharma MC, To study clinical, histological, and radiological features of adult neurological mitochondrial disorders amongst Indian patients', 26th Annual Conference of Indian Academy of Neurology, 27-30 September 2018, Raipur
32. Singh I, Verma A, Suroliya V, Hooda U, Faruq M, Ahuja V, Makharia G, Srivastava AK, Gluten sensitivity in progressive cerebellar ataxia patients from India, 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
33. Singh I, Swarup V, Shakya S, Goyal V, Srivastava AK, A robust and rapid method of PCR amplification to confirm triplet repeat disorders: Single-step blood direct PCR, 4th Movement Disorder Society of India Conference, 22-24 February 2019, Delhi
34. Singh RK, Swarup V, Faruq M, Srivastava AK, Differential expression of micro-RNA in SCA2 patients and its association with other neurodegenerative diseases, 4th Movement Disorder Society of India Conference, 22-24 February 2019, Delhi
35. Singh H, Swarup V, Singh R, Singh I, Faruq M, Vivekanandhan S, Srivastava AK, Transcriptional profiling of peripheral blood monocytes from child Friedreich's ataxia patient: New molecules and patterns of gene expression, 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
36. Kohli S, Vishnu VY, Bhatia R, Pandit AK, Joseph R, Agarwal A, Gaikwad SB, Srivastava MVP, Descriptive analysis of re-perfusion strategies in Acute Ischemic Strokes admitted in tertiary care centre, World Stroke Conference 2018, 17-20 October 2018, Montreal, Canada
37. Srivastava AK, Narang M, Rajan R, Shukla G, Mohammad M, Pandit A, Vibha D, Singh MB, Prasad K, Electrophysiological characteristics of tremor in spinocerebellar, ataxia type 12 (SCA-12) and essential tremor, 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
38. Shakya S, Faruq M, Srivastava AK, Singh I, Garg A, Rajan R, Goyal V, Clinical and mutation spectrum of Ataxia with oculomotor apraxia-2: An Indian perspective, 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
39. Suroliya V, Faruq M, Srivastava AK, A strategic approach to understand microsatellite repeat loci among Indian Spinocerebellar Ataxia patient, 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
40. Swarup V, Singh RK, Singh HN, Faruq M, Srivastava AK, Transcriptional profiling of peripheral blood in Friedreich's ataxia affected children: New targetable molecules and patterns of gene expression, 4th Movement Disorder Society of India Conference, 22-24 February 2019, Delhi
41. Swarup V, Singh R, Singh H, Singh I, Faruq M, Vivekanandhan S, Srivastava AK, MicroRNAs Unveil Metabolic Imbalance in Spinocerebellar Ataxia Type-2, 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
42. Pattnaik SS, Sarangi SC, Tripathi M, Mahey R, Association of antiepileptic drugs with abnormalities in physical fitness, reproductive status and quality of life in women with epilepsy, ECON-2019, 9 March 2019, New Delhi
43. Sonakar AK, Srivastava AK, Faruq M, Clinico-genetic profiling of a case of adult onset Cerebellar ataxia: Tracing the origin of mutation to an ancestral founder population of Saharanpur district of Uttar Pradesh India, 4th Movement Disorder Society of India Conference, 22-24 February 2019, Delhi
44. Singh N, Srivastava AK, Pandit AK, Vibha D, Shukla G, Prasad K, To study clinical, histological and radiological features in neurological mitochondrial disorders, 70th Annual Congress of the American Academy of Neurology, 21-28 April 2018, Los Angeles, USA
45. Dey S, Dixit A, Tripathi M, Chandra PS, Banerjee J, Role of pyridoxal phosphate in modulation of Endogenous kynurenic acid synthesis associated with hippocampal sclerosis, ECON-2019, 9 March 2019, New Delhi

46. Srivastava AK, Raj K, Shukla G, Garg A, Electrophysiological and MRI correlate in 21 patients of non-traumatic ulnar neuropathy, 31st International Congress of Clinical Neurophysiology (ICCN) of the International Federation of Clinical Neurophysiology (IFCN), 1-6 May 2018, USA
47. Sarangi SC, Tripathi M, Tapering pattern and risk of seizure recurrence in persons with epilepsy undergoing AED tapering, ECON-2019, 8 March 2019, New Delhi **Star paper Award 2nd Prize**
48. Takkar A, Ahmed I, Shakya S, Srivastava AK, Clinico-genetic correlation in Indian Spinocerebellar ataxia Type 1 (SCA1) patients', 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
49. Tamuli D, Kaur M, Kumaran S, Jaryal A, Srivastava AK, Deepak KK, Cortical and brainstem neurodegeneration associate with the clinical severity in spinocerebellar ataxia patients', 22nd International Congress of Parkinson's Disease and Movement Disorders, 5-8 October 2018, Hong Kong
50. Thomas A, Srivastava AK, Vibha D, Takkar A, Kumar A, Pandit AK, Rajan R, Vivekanandan S, Prasad K, Evaluation of clinical parameters and vascular endothelial growth factor in relation to disease progression in Amyotrophic lateral sclerosis', 26th Annual Conference of Indian Academy of Neurology, 27-30 September 2018, Raipur
51. Vishnu VY, Pulikottil V, Lal V, Sylaja P, Narasimhan L, Nair P, Gupta A, Iype T, Patil A, Padma V, Comparison of diagnostic accuracy in clinical vascular neurology between neurology residents and a novel neurology app on an ios platform: A multi-center cross-sectional observational study, World Stroke Conference 2018, 17-20 October 2018, Montreal, Canada **Young Investigator Award, World Stroke Congress, Montreal 2018**
52. Vibha D, Misra S, Prasad K, Srivastava AK, Rajan R, Pandit AK, Fever and antibiotic use in patients with acute stroke: A cohort study, 11th World Stroke Congress, 17-20 October 2018, Montreal, Canada
53. Vibha D, Prasad K, Ikram MA, et al., Brain volumes and longitudinal cognitive change: A population-based study, 70th Annual Congress of the American Academy of Neurology, 21-28 April 2018, Los Angeles, USA
54. Vishnu VY, Srivastava MVP, Sharma J, Bhatia R, Rajan R, Singh RK, Goyal V, Mamta BS, Garg A, 'Prehospital' Delay in acute stroke reperfusion therapy in Delhi: Time for introspection, Indian National Stroke Conference, 15-17 March 2019, Ahmedabad, India
55. Vinny PW, Padma MV, Lal V, Sylaja PN, Narasimhan L, Nair PP, Iype T, Gupta A, Patil A, Comparison of diagnostic accuracy between neurology residents and a novel neurology app in vascular neurology on an iOS platform, Indian National Stroke Conference, 15-17 March 2019, Ahmedabad, India
56. Vishnu VY, Srivastava MVP, Sharma J, Gupta YK, Singh MB, Dwivedi SN, Bhatia R, Goyal V, Garg A, Prophylactic Levetiracetam for the prevention of post stroke Seizures (PROLEVIS): A randomized, double blind, placebo-controlled trial protocol, Indian National Stroke Conference, 15-17 March 2019, Ahmedabad, India

RESEARCH

Funded projects

Ongoing

1. Development of diagnostic grid for prediction of infarction in patients with tuberculous meningitis, MV Padma Srivastava, DST, 4 years, 2015-2019, Rs 59.99 lakhs
2. Randomized, double-blind evaluation in secondary stroke prevention comparing the efficacy and safety of the thrombin inhibitor dabigatranexilate 110 or 150 Mg (Twice 3 daily) versus acetylsalicylic acid (100 Mg once daily) in patients with embolic stroke of undetermined source, MV Padma Srivastava, BI, 3 years, 2016-2019, Rs 51 lakhs
3. Mapping, researching and addressing the gaps in scientific awareness and health practices regarding stroke in Hp: Applying novel, interactive/demonstrative science communication, MV Padma Srivastava, DST, 3 years, 2016-2019, Rs 40.45 lakhs
4. Effect of dual-task exercise in conjunction with fluoxetine and Transcranial Direct Current Stimulation (tDCS) on postural stability and gait in stroke patients, MV Padma Srivastava, ICMR, 3 years, 2017-2020, Rs 50.60 lakhs
5. Effect of Yoga on physical, physiological and functional health in post stroke recovery: A RCT, MV Padma Srivastava, DST, 2 years, 2017-2019, Rs 43.23 lakhs
6. Elucidating the pathobiology of classical ayurvedic interventions in post stroke recovery using magnetic resonance and other techniques based structural, functional and chemical biomarkers, MV Padma Srivastava, DST, 3 years, 2018-2021, Rs 31.33 lakhs
7. Secondary prevention by structured semi-interactive stroke prevention package in INDIA (SPRINT INDIA) study and establishment of the Indian Stroke Clinical Trial Network (INSTRuCT), MV Padma Srivastava, ICMR, 3 years, 2017-2020, Rs 3.29 lakhs and Rs 12.11 lakhs

8. Role of normobaric oxygen therapy, Fluoxetine and Transcranial Direct Current Stimulation (rTCDS) in Hypoxic Ischemic Brain Injury—HIBI initiative, MV Padma Srivastava, DBT, 5 years, 2018-2023, Rs 106.03 lakhs
9. Randomised, double-blind, placebo-controlled, international, multicenter, phase III study to investigate the efficacy and safety of ticagrelor and ASA in the prevention of stroke and death in patients with acute ischemic stroke or transient ischemic attack (THALES-Acute stroke or transient ischemic attack treated with Ticagrelor or and ASA for prevention of stroke and death), MV Padma Srivastava, ASTRA-ZENA, 1 year, 2018-2019, Rs 3.92 lakhs
10. Is air pollution and climate change a stroke risk factor? With special reference to Stroke in Young Indians and ischemic stroke subtypes: A multi-center study, MV Padma Srivastava, DST, 3 years, 2018-2021, Rs 59.11 lakhs
11. A 12-week double blind, randomized multi-centric study comparing the efficacy and safety of once monthly subcutaneous AMG 334 against placebo in adult episodic migraine patients (EMPOWER), MV Padma Srivastava, NOVARTIS, 1 year, 2018-2019, Rs 0.9 lakhs
12. The National Institute for Health Research Global Health Research Group on improving stroke care in India at The University of Central Lancashire, IMPROVing Stroke CarE in India (IMPROVISE), MV Padma Srivastava, NIHR-UCLAN-UK, 2 years, 2018-2020, Rs 42 lakhs
13. Center of Excellence—EPILEPSY—Magnetoencephalography (MEG) Programme, Manjari Tripathi, DBT, 3 years, 2018-2021, Rs 3,00 lakhs
14. CRISPR-based Editing of Regulatory Region and Expanded Triplet repeats as Therapeutic Approach in India's Most Common Hereditary Ataxias, Achal K Srivastava, DBT, 3 years, 2018-2021, Rs 125.35 lakhs
15. Targeting Repressor Sites in fxn Gene and Associated Transcription Factors as Potential Therapeutic Approach in Friedreich's Ataxia, Achal K Srivastava, ICMR, 3 years, 2019-2022, Rs 62.27 lakhs
16. Targeting specific sleep abnormalities in patients with temporal lobe epilepsy, to improve their cognitive performance—A randomized controlled study, Achal K Srivastava, DHR, 3 years, 2017-2020, Rs 45.60 lakhs
17. Understanding pathobiology of multiple sclerosis; biomarker, phenotypic and genotypic signatures, Rohit Bhatia, ICMR, 5 years, 2018-2023, Rs 1.2 crores
18. Genetic and clinical factors associated with aspirin resistance in Indian population with Ischemic Stroke, Rohit Bhatia, DBT, 3 years, 2017-2020, Rs 58 lakhs
19. Genomic and Proteomic Characterization of Indian Patients with Amyotrophic Lateral Sclerosis, Rohit Bhatia, AIIMS, 2 years, 2019-2021, Rs 20 lakhs
20. Genetic and clinical factors associated with aspirin resistance in Indian population with Ischemic Stroke, Rohit Bhatia, DBT, 3 years, 2017-2020, Rs 58 lakhs
21. A Prospective, Multicentric, Randomized, Double Blind, Parallel, Saline Controlled Phase II Clinical Study to Compare the Safety and Efficacy of PMZ-1620 Therapy along with Standard Supportive Care in Subjects of Acute Ischemic Stroke, Deepti Vibha, Pharmazz India Pvt Ltd, 3 years, 2017-2019, Rs 4 lakhs
22. A randomized double blind study of prophylactic leviteracetam for the prevention of post stroke seizures (PROLEVIS), Vishnu VY, DST-SERB, 3 years, 2018-2021, Rs 29 lakhs
23. Citicoline in Acute Ischemic Stroke undergoing revascularization therapy, Vishnu VY, AIIMS, Intramural, 2 years, 2018-2019, Rs 5 lakhs
24. Automated hand-drawn spiral analysis platform as a tool to differentiate tremor syndromes, Roopa Rajan, DST-SERB, 3 years, 2017-2020, Rs 42 lakhs
25. Botulinum Toxin injection for treatment of dystonic hand tremor: A randomized, placebo- controlled, parallel group trial, Roopa Rajan, AIIMS, 1 year, 2018-2019, Rs 4.82 lakhs
26. The Indian Movement Disorder Registry and Biobank: Clinical and genetic evaluation in Indian patients with movement disorders, Roopa Rajan, DBT, 2 years, 2019-2021, Rs 73.37 lakhs
27. Association of host leukotriene A4 hydrolase gene polymorphism with the clinical outcome of patients with Tubercular meningitis, Deepa Dash, AIIMS, 1 year, 2018-2019, Rs 49 lakhs
28. An exploratory study to identify candidate CSF biomarkers in Idiopathic Intracranial hypertension with vision loss, Awadh Kishor Pandit, AIIMS, New Delhi, 2 years, 2017-2019, Rs 2.5 lakhs
29. Deciphering the role of ATF3 and TGF β signaling in Mesial Temporal Lobe Epilepsy (MTLE) patients, Rajesh K Singh, AIIMS, New Delhi, 2 years, 2018-2020, Rs 9.44 lakhs

Completed

1. An International multi-centre, open parallel group, prospective, randomized, controlled trial to determine the effectiveness of treatment with Continuous Positive Airways Pressure (CPAP) in addition to standard care in reducing Cardiovascular (CV) severe obstructive sleep apnea (OSA) Manjari Tripathi, University, Australia, 5 years, 2013-2108, Rs 60 lakhs

2. A multicenter, randomized, double-blind, parallel-group, placebo-controlled study to evaluate the efficacy and safety of PEGylated Interferon Beta-1a (BIIB017) in subjects with relapsing Multiple Sclerosis, Manjari Tripathi, Biogen Idec Ltd, 5 years, 2013-2018, Rs 5 lakhs
3. Identification of MicroRNAs Signatures and Their Target Genes Modulating Spinocerebellar Ataxia Type-2 (SCA-2) Pathogenesis, Achal K Srivastava, DBT, 2 years, 2015-2018, Rs 86.95 lakhs
4. Deep targeted clinical sequencing of mitochondrial genome and exomes to unravel the causal and modifier variations in patients with cerebellar ataxias, Achal K Srivastava, ICMR, 3 years, 2016- 2019, Rs 82 lakhs
5. Identification of genetic causal and risk alleles in Amyotrophic lateral sclerosis and ALS-frontotemporal dementia, Deepti Vibha, AIIMS, 3 years, 2016-2018, Rs 4 lakhs

Departmental projects

Ongoing

1. A clinical trial to evaluate the role of education to care givers in reducing complications and improving outcomes of hospitalized stroke patients
2. A study of relationship between brain functioning and financial decision making
3. Assessment of impact of physical exercise as complementary management strategy in people with epilepsy
4. Assessment of sleep dysfunction and its correlation with autonomic function test and severity of disease in apparently idiopathic sporadic progressive cerebellar ataxia
5. Characterization of tremor and gait in spinocerebellar ataxia type 12
6. Clinical spectrum and natural course of hypokinetic and hyperkinetic movement disorders in a tertiary referral hospital
7. Comparison of CECT and NCCT in the investigation of focal epilepsy patients—A prospective observational study
8. Comparison of regimens of dexamethasone in tubercular meningitis—A randomized control trial
9. Customized vs regular testing battery during ictal phase in lateralizing and localizing seizures in Epilepsy Monitoring Unit (EMU)
10. ESCALATE: Linezolid as An Add on Treatment in the Intensive Phase of Tubercular Meningitis—A randomised controlled trial
11. Evaluating the role of structured education to care givers in reducing complications in hospitalized stroke patients and improving their outcomes—A cluster randomized trial
12. Identification of novel unstable tandem nucleotide repeat loci by genome wide screening and their implication in the pathogenesis of genetically uncharacterized progressive cerebellar ataxias
13. Interventions for stigma for persons in epilepsy in India
14. Ketogenic diet in patients with epilepsy
15. NAC as an add on therapy in acute ischemic stroke, Randomised trial
16. Non ataxic manifestations of spinocerebellar ataxia
17. Prophylactic antiepileptic in Intracranial Hemorrhage
18. Randomised controlled trial comparing efficacy of intranasal versus intramuscular midazolam in terminating seizures during pre surgical epilepsy—VEEG monitoring
19. Randomized investigation of the role of repetitive transcranial magnetic stimulation in Parkinson's Disease
20. Role microRNAs in pathophysiology of neurodegenerative disorder: Spinocerebellar ataxia type 2 (SCA2)
21. Social cognition in drug refractory epilepsy and effect of epilepsy surgery
22. Study of efficacy of Fluoxetine in post-stroke anxiety—A randomized controlled trial
23. To determine the diagnostic performance characteristics of blood-based protein biomarkers for the differentiation of stroke using high—Throughput proteomics approach
24. To identify functional genetic elements in triplet repeats flanked haplotype region and mitochondrial genome in spinocerebellar ataxias
25. To study the molecular correlation of Friedreich's ataxia (FRDA) phenotype through mitochondrial genome and transcriptome analysis
26. Utility of 8-channel EEG in detecting interictal generalised spike and wave discharges in epilepsy—A diagnostic study
27. Utilization of a seizure helpline via SMS text message in patients with epilepsy—A randomized controlled trial
28. Validation of FXTAS rating scale in SCA 12 patients

Completed

1. A Randomized Controlled Trial (RCT) of early versus late surgery in childhood intractable Epilepsy
2. Citiculline in patients with ischemic stroke undergoing interventions, Randomised trial
3. Deconvolution of autosomal recessive cerebellar ataxias: Clinicogenetic approach and phenotypic genotypic correlation
4. Effect of add on yoga in migraine, A randomized controlled trial (CONTAIN)
5. Effect of mobile and internet use on headache: A cross-sectional study
6. Efficacy of modified Atkins diet versus ketogenic diet in children with refractory epilepsy aged 1 year to 18 years
7. Elucidate the role of semaphoring in epileptogenesis and hyper-excitability associated with temporal lobe epilepsy
8. Evaluation of Autonomic Dysfunction in Patients with Multiple System Atrophy
9. Evaluation of Clinical profile and VEGF in relation to disease progression in ALS
10. Immunogenetic mechanisms in epilepsy patients taking anti-epileptic medications
11. Immunogenetic Mechanisms in Epilepsy Patients taking antiepileptic medications
12. Leukoaraiosis and microbleeds and relationship to hematoma expansion and outcome
13. Musk Myasthenia gravis
14. Role of mediodorsal thalamic nuclei in sleep
15. Role of sertin protein and its therapeutic implication in neurodegenerative disease
16. Study of Clinical, Histological and Radiological Features in Neurological Mitochondrial Disorders
17. Study of cognition and Quality of life in Chronic Intractable Epilepsy using Functional Magnetic Resonance Imaging (fMRI)
18. Triamcinolone in meralgia paresthetica
19. Validation of ICH and ICHGS scores in an Indian cohort with ICH

Collaborative projects

Ongoing

1. A randomised controlled trial to study the efficacy of exercises in early stage Parkinson's Disease, PMR
2. A temporal evaluation of weight management in reduction of disc edema in cases of acute idiopathic intracranial hypertension, Department of Ophthalmology, AIIMS, New Delhi
3. An international pilot study of an internet-based platform to run epilepsy trials, (EPINET), University of Auckland
4. Cryptococcal antigenemia in people living with HIV and AIDS, Medicine
5. Dementia Science Programme: Prevalence / Risk / Intervention Analysis of Dementia and Basic Research thereof, NBRC, Manesar, Gurugram, HR
6. Depression in person with Epilepsy (PWE): Correlation with Serum biomarkers and CYP2C19 polymorphism, A pilot study, Intramural collaborative
7. Effect of angiotensin receptor modulation in rat middle cerebral artery occlusion, 2017, Anatomy
8. Genomic and proteomic characterization of Indian patients with amyotrophic lateral sclerosis, IIT, Delhi
9. Identification of biomarker in PD using MRI techniques 2016, NMR
10. Mapping functional and biochemical correlates in brain of patients with Parkinson's Disease with mild cognitive decline, 2016, NMR
11. Neural Basis of Decision Making: Lateralization of Cognitive Function in medial Temporal Lobe Epilepsy Patient, IIT Delhi
12. Plasticity options for financial decision-making-theory and experimental evidence, Technische Universitat Dresden, Germany and Department of Economics, GGSIP University, Delhi
13. Proteomic study on Parkinson's Disease and schizophrenia, Biophysics
14. Proteomics of CSF for the identification of Protein signatures in dopamine dictated states of Parkinson's Disease and Schizophrenia 2014, Biophysics
15. To study the effect of platelet rich plasma in leprosy induced peripheral neuropathy, Dermatology and Venereology
16. Understanding pathobiology of multiple sclerosis: Biomarkers, genetic and phenotypic signatures, IGIB, Delhi

Completed

1. Comprehensive neuropsychological rehabilitation in post stroke aphasia, Neuropsychology

2. Effect of acute deep brain stimulation of subthalamic nucleus on selective attention in Parkinson's Disease, Physiology
3. Efficiency of microbiological techniques in aiding clinical diagnosis of adult tuberculous meningitis and drug resistance, Microbiology
4. Global audit of treatment of refractory status epilepticus, UK-Italy
5. Role of pc-ASL with multiple post labelling delays in evaluation of resting state cerebral perfusion in patients with severe proximal cervical ICA stenosis, before and after CAS
6. The study of mitochondrial DNA mutation and reactive oxygen species in Parkinson's Disease, Laboratory Medicine
7. Myasthenia Gravis, School of Nursing

PUBLICATIONS

Journals: 52

Abstracts: 40

Chapters in books: 6

Books: 1

PATIENT CARE

The Department of Neurology provides outpatient, inpatient and emergency care to patients suffering from neurological illnesses. In addition to general neurology care, subspecialty services are provided in the fields of Stroke, Epilepsy, Movement Disorders, Neuromuscular disorders. The department provides state of the art care in throughout the subspecialties of neurology and is one of the highest volume centers in the country for acute stroke care, epilepsy surgery and functional neurosurgery for movement disorders. All the acute care for stroke in the emergency setting including thrombolytic therapy is being provided free of cost to the patient. Neurology OPD saw 29,334 new registrations and 46,320 old registrations (total 75,654 patients) in the year 2018-2019.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor MV Padma Srivastava was awarded the Fellowship to Royal College of Physicians (FRCP) in the year 2018; Awarded the "Baldev Singh Oration" by National Academy of Medical Sciences for the year 2018; Awarded the IUSSTF project on Virtual Networked Center on "Homocysteine Lowering Stroke Patients in India: Strategic Planning", University of Iowa, USA.

Professor Manjari Tripathi received 1st Prize for AIIMS Excellence Research Award 2018 for the year 2017-2018, AIIMS, New Delhi; Extraordinary contribution to Epilepsy an outstanding Achievement Epilepsy Award in 11th Asian and Oceania Epilepsy Congress Hong Kong.

Professor Achal K Srivastava received Poster Award-Second Prize for research work entitled 'Differentiation of autonomic dysfunction in multiple system atrophy subtypes and Parkinson's Disease' during 26th Annual Conference of Indian Academy of Neurology at Raipur in September 2018; Received Best Paper Award-Second Prize for 'Need of next generation sequencing technology to de-convolute AR cerebellar Ataxias in India' during 21st Annual Conference of Delhi Neurological Association (DNAICON-2019) at New Delhi on 2-3 February 2019.

Professor Rohit Bhatia received Poster Prize for Oral Presentation INSC 2018; Member National Stroke Guidelines, Government of India; PhD student selected for young investigator award, World stroke congress 2018; Invited Reviewer, Abstract grading, International Stroke Conference, American Heart Association; Member Institute Ethics Committee for Postgraduate Research; Member, Centre for Integrative Medicine and Research (CIMR) AIIMS; Member Dean Research Committee, AIIMS.

Dr Deepti Vibha was selected for traineeship in Neurosonology at Yong Loo Lin School of Medicine, National University of Singapore; Selected for the Indian Academy of Neurology-Association of Indian Neurologists in America (IAN-AINA) observer fellowship for stroke at Stroke Services, University of Pittsburgh Medical Center (UPMC); Member of Technical Committee at Institute of Liver and Biliary Sciences, New Delhi; Member of expert panelist for public awareness programmes conducted by AIIMS on Stroke and Multiple Sclerosis; Invited as expert at Doordarshan and Aakashwani on topics related to neurological disorders.

Dr Vishnu VY received Young Investigator Award, World Stroke Congress, Montreal 2018.

Dr Roopa Rajan was selected for the International Parkinson and Movement Disorder Society—LEAP Programme 2019; Second Runner up in Video Akhada, MDSICON 2019.

Dr Deepa Dash received David Sackett Memorial Award for the outstanding performance in International course in Health Research Methodology and Evidence based Medicine 2018, Bengaluru; Second Best Poster Award in ICTRIMS 2018, Kochi, India.

Dr Awadh Kishor Pandit received International Travel Grant by Department of Biotechnology, Government of India to attend and present paper at 11th World Stroke Congress, Montreal, Canada.

Dr Rajesh Kumar Singh presented and moderated Clinical Combined Round (CCR) in AIIMS 14 August 2018 on the topic “The Curious case of errant hypothalamus”; Coordinated AIIMS German collaborative visit at AIIMS on 29 October 2018; Participated as faculty in charge for conducting AIIMS MBBS examination on 26 August 2018 at Patna and Nursing officers examination on 16 September 2018; Chaired session in MDSICON, 22-24 February 2019; Chaired session in 20th Joint Annual Conference of Indian Epilepsy Society 8-10 March 2019.

Neurosurgery

HIGHLIGHTS

The department organized many workshops, CMEs and conferences. These were focused on specialty branches of neurosurgery and stalwarts from various parts of the world came to AIIMS to perform surgeries with us and teach. Three international conferences were organized by our department focusing on different aspects of neurosurgery. Indian Society of Neuro-Oncology Conference was organized in April, followed by Asia Pacific Cervical Surgery Society meeting in November and Indian Society of Pediatric Neurosurgery Conference in February 2019. Annual spine and microneurosurgery workshops were held prior to the cervical surgery and pediatric neurosurgery conferences respectively. Eminent neurosurgeons like Professor Richard Wohns and Dachling Pang from USA participated in these workshops to teach advanced neurosurgical procedures. Professor Ashish Suri's paper on “Simulation in skull-base neurosurgery” was judged as the Best paper in 29th Annual Conference of North American Skull Base Society at Orlando, Florida, USA. He was also made an executive member of the prestigious World Federation of Neurosurgical Societies Skull Base Committee.

Professor Deepak Agarwal has been instrumental in developing an indigenous ventilator which is very economical and is a boon for a developing nation like ours. He was also elected as Editor in Chief of Indian Journal of Nerve Surgery and Indian Journal of Neurotrauma. Professor Deepak Gupta edited and authored a book on Craniostyosis. Dr Gurudutt Satyarthee received the prestigious faculty research award in Neurosciences conferred by Honourable HRD minister. Dr Sachin Borkar was nominated as AO spine delegate from Indian subcontinent.

CMEs/Workshops/Symposia/National and International Conferences

1. 3rd Japan-India Advanced Skull Base and Neurovascular Workshop, 17 October 2018, AIIMS, New Delhi
2. Neurosurgery Simulation-based Short Term Skills Training Programme: Neurosurgery Skills Training Facility (NSTF) and Neurosurgery Education and Training School (NETS)
3. Faculty for CME on annual neurotrauma, skull base workshop, neuro endoscopy course, minimally invasive neurosurgery workshops, spine workshop
4. 8th Live Operative Workshop and Symposium on Complex Spinal Trauma held, May 2018, JPNATC, AIIMS, New Delhi
5. 8th International CME and Workshop on Cost Effective Use of Technology in e-health care held at, October 2018, AIIMS, New Delhi
6. Cadaveric workshop on Endoscopic Skull Base, 8-9 December
7. ANTC 2018: 5th AIIMS Neurotrauma Conference, October 2018, 26-28 October 2018, New Delhi
8. AIIMS Annual Microneurosurgery Workshop 2019, 13-14 February 2019, New Delhi
9. INDSPNCON 2019 Annual Conference of Indian Society for Pediatric Neurosurgery, 15-17 February 2019, New Delhi
10. Joint organizing secretary for Indian Society for Neuro-Oncology Conference, AIIMS, 4-7 April 2018, New Delhi
11. Co-Chairman of Scientific Committee for Asia Pacific Cervical Spine Society Annual Meet, 14-17 November 2018, New Delhi
12. Co-organizing Secretary for AIIMS Annual Microneurosurgery Workshop 2019, 13-15 February, New Delhi
13. Co-organizing Secretary for Annual Conference of Indian Society for Pediatric Neurosurgery INDSPNCON 2019, 15-17 February, New Delhi
14. Organizing Secretary: 15th National EEG Workshop and Masterclass for Epilepsy Surgery and Neurobiology, 21-23 November 2018, BHU, Varanasi

Lectures delivered

SS Kale

1. 360° fusion for syndromic cervical kyphosis, 33rd Annual Meeting of the Neurospinal Society of Japan, 14-15 June 2018, Japan

2. 1. Cervical Kyphosis—A short series, 2. Complications of odontoid fracture fixation, Instructional course in Spine 2018 (ICS 2018), 9-11 August 2018, Amritsar
3. Complications in odontoid screw fixation, 27th Annual Conference of Neurotrauma Society of India, 17 August 2018, Lucknow
4. Faculty in workshop, Neurosurgery Skills Training Lab Workshop, 19 August 2018, Chandigarh
5. Syndromic cervical kyphosis, Neuro Spinal Surgeons Association (SPINE 2018), 28-30 September 2018, Maharashtra
6. Upper Cervical Spine injuries, AO Spine Principles Seminar 2018, 5-7 October 2018, Bangladesh
7. Intra-operative video on laminoplasty and corpectomy, AO Spine Principles Seminar 2018, 5-7 October 2018, Bangladesh
8. Principles of management of Tubercular Spondylodiscitis, AO Spine Principles Seminar 2018, 5-7 October 2018, Bangladesh
9. Only laminectomy for lumbar canal stenosis, AO Spine Principles Seminar 2018, 5-7 October 2018, Bangladesh, AO Spine Principles Seminar 2018, 5-7 October 2018, Bangladesh
10. Intercoasting cases, Indo American Spine Summit, 11 December 2018, Uttar Pradesh
11. CVJ tuberculosis—A New treatment paradigm, 67th Annual Conference of the Neurological Society of India, 13-16 December 2018, Rajasthan
12. Live surgery faculty, Annual Master Course on Spine Surgery, SPINECON-2019, 18-20 January 2019, Haryana
13. Fusion in lumbar spine surgery, 25th Annual Meeting of the UP-UK Neuroscience Society, 2-3 February 2019, Uttar Pradesh
14. Tumor of CV Junction, 29th Annual North American Skull Base Society Meeting, 15-17 February 2019, USA
15. Biomechanics of cervical spine, Minimally Invasive Spine Surgery Workshop with Annual Oration-2019, 22-24 February 2019, Uttar Pradesh
16. Tips to prevent post laminectomy kyphosis, 8th Annual Conference of Neurological Surgeon's Society of India, NSSICON-2019, 28 February-1 March 2019, Assam
17. Correction of chin-on-chest deformity, Asian Australasian Society of Neurological Surgeon Education Course and Minimally Invasive Live Neurosurgery Workshop, 3 March 2019, Rajasthan

Ashish Suri

1. Special considerations in Giant Pituitary Adenomas, 20th Hands on Endoscopic Transnasal Approaches to the skull base, 11-13 April 2018, Trier, Germany
2. Surgical treatment of Cushing Disease: Series of 123 patients, Prague Neurosurgical Week-2018, 29 August-2 September 2018, Prague, Czech Republic
3. Endoscopic endonasal approach for giant pituitary adenoma: A single surgeon experience of 47 cases, Prague Neurosurgical Week-2018, 29 August-2 September 2018, Prague, Czech Republic
4. Moya Moya disease: Experience of 133 patients, Prague Neurosurgical Week-2018, 29 August-2 September 2018, Prague, Czech Republic
5. Simulation in neurosurgery: Proposal for skills training curriculum, Prague Neurosurgical Week-2018, 29 August-2 September 2018, Prague, Czech Republic
6. Spheno-petro-clival meningiomas operated by modified anterior transpetrous rhomboid approach: A single surgeon experience of 43 patients, Prague Neurosurgical Week-2018, 29 August-2 September 2018, Prague, Czech Republic
7. Simulation in skull-base neurosurgery, 29th Annual Conference of North American Skull Base Society-NASBS-2019, 15-17 February 2019, Orlando, Florida, USA
8. Surgical treatment of Cushing Disease, 29th Annual Conference of North American Skull Base Society-NASBS-2019, 15-17 February 2019, Orlando, Florida, USA
9. Petro-clival meningiomas operated by modified anterior transpetrous rhomboid approach: A single surgeon experience of 43 patients, 29th Annual Conference of North American Skull Base Society-NASBS-2019, 15-17 February 2019, Orlando, Florida, USA
10. Endonasal approach for giant pituitary adenoma: A single surgeon experience of 60 cases, 29th Annual Conference of North American Skull Base Society-NASBS-2019, 15-17 February 2019, Orlando, Florida, USA
11. Giant pituitary adenomas: Extended endonasal endoscopic vs transcranial microscopic approaches, 12th International 3D Neuroanatomy and Neurosurgical Approaches WFNS Workshop, 28 February-2 March 2019, Alicante, Spain

12. Transcavernous anterior transpetrous rhomboid approach, 12th International 3D Neuroanatomy and Neurosurgical Approaches WFNS Workshop, 28 February-2 March 2019, Alicante, Spain
13. Giant pituitary adenomas, 20th Hands on Endoscopic Transnasal Approaches to the Skull Base, 27-29 March 2019, Trier, Germany
14. Training in Neuro-Endoscopy, CeMAST Neurosurgery Course, 20-21 April 2018, Mumbai
15. Cadaver demo-endoscopic endonasal skull base approach, CeMAST Neurosurgery Course, 20-21 April 2018, Mumbai
16. Endoscopic Endonasal Pituitary Surgery, CeMAST Neurosurgery Course, 20-21 April 2018, Mumbai
17. When to do clip reconstruction in Giant Aneurysms, 18th Annual Meeting of the Cerebrovascular Society of India (Neurovascon-2018), 7-9 September 2018, Chennai
18. When to do Bypass for Complex and Giant Aneurysms, 18th Annual Meeting of the Cerebrovascular Society of India, 7-9 September 2018, Chennai
19. Microvascular Anastomosis, 18th Annual Meeting of the Cerebrovascular Society of India, 7-9 September 2018, Chennai
20. Surgical Strategies for Complex and Giant Aneurysms, PARAS NEUROCON-2018, 1st Annual Masterclass in Neurosurgery, 15-16 September 2018, Paras Hospital, Gurgaon
21. 3D Video: Giant Aneurysms, PARAS NEUROCON-2018 1st Annual Masterclass in Neurosurgery, 15-16 September 2018, Paras Hospital, Gurgaon
22. Endoscopic Endonasal Extended Skull Base approach, 3rd Neurosurgery Workshop, 30 September 2018, Tirupati
23. Cadaver demo: a) FTOZ craniotomy b) Microscopic approaches: Anterior clinodectomy, cavernous sinus, anterior transpetrous, 3rd Neurosurgery Workshop, 30 September 2018, Tirupati
24. Giant Pituitary Adenoma, 20th Annual Conference of the Skull Base Surgery Society of India-Skullbasecon-2018, 1-3 November 2018, Ludhiana
25. Video presentation on skull approach to complex aneurysm, 20th Annual Conference of the Skull Base Surgery Society of India-Skullbasecon-2018, 1-3 November 2018, Ludhiana
26. Cadaver demo: Extended endonasal endoscopic skull base approach, 20th Annual Conference of the Skull Base Surgery Society of India-Skullbasecon-2018, 1-3 November 2018, Ludhiana
27. Bypass in Giant Aneurysm, 67th Annual Conference of Neurological Society of India NSICON-2018, 13-16 December 2018, Jaipur
28. Simulation Training in Neurosurgery—Towards Complication Avoidance and Management, 2nd International Conference of Complications in Neurosurgery, 25-27 January 2019, Mumbai
29. Experience with Giant Pituitary Tumors, WFNS Neuroendocrinology Symposium and 15th Endoscopic Skull Base Workshop, 27-28 January 2019, Mumbai
30. Extended endonasal endoscopic skull base approach, ACNS and WFNS Foundation Live Surgery, 16-17 March 2019, Hyderabad

Rajinder Kumar

1. Minimally invasive spinal procedures, Techniques, Spine Surgery workshop-AIIMS, 26-28 October 2018, Delhi
2. Approaches to 3rd ventricular tumours, Technical Nuances, Microneurosurgery Workshop-AIIMS, 13-14 February 2019, Delhi

Manmohan Singh

1. Gamma Knife radiosurgery for AVMs, 6th Nepalese Society of Neurosurgeons Meeting, 5-7 April 2018, Kathmandu, Nepal
2. Complications in suprasellar surgery, CME on Management of Suprasellar Surgery, 5 May 2018, Chennai, Tamil Nadu
3. Transbasal approach for anterior skull base tumors as a standalone procedure, Skull Basecon 2018, 1-3 November 2018, Ludhiana, Punjab
4. Large aggressive nasopharyngeal tumors with intracranial extension: Is transbasal approach is the ideal approach for complete tumor resection, NSICON 2018, 12-16 December 2018, Jaipur, Rajasthan
5. Management of complex intracranial aneurysms, NSSICON 2019, 28 February-1 March 2019, Guwahati, Assam
6. Role of clipping in the era of coiling, Asian Australasian Society of Neurological Surgeons Education Course, 2-3 March 2019, Jaipur, Rajasthan

Deepak Gupta

1. Current status of organ donation in India and care of brain dead, ANTC 2018, October 2018, Delhi
2. Is there a doctor in flight, ANTC 2018, October 2018, Delhi
3. Posterior fossa astrocytomas, INDSPNCON 2019, February 2019, Delhi
4. First successful craniopagus twin separation surgery of India, Annual Conference API Association, Kakinada, June 2018, Andhra Pradesh
5. First successful craniopagus twin separation surgery of India, Annual Conference of Plastic Surgeons of India (APSICON), September 2018, Lucknow
6. First successful craniopagus twin separation surgery of India, NSSICON 2019, 28 February 2019, Assam
7. Current status of decompressive craniectomy in TBI, NSICON 2018, December 2018, Jaipur

Vivek Tandon

1. Odontoid fixation technique, Hands on cadaver course in Spine skills, 14-15 August 2018, New Delhi
2. Cervical OPLL diagnosis and management, Hands on cadaver course in Spine skills, 14-15 August 2018, New Delhi
3. MIS thoracic pedicle screws, Hands on cadaver course in Spine skills, 14-15 August 2018, New Delhi
4. Posterior foraminotomy and cervical laminoplasty, Hands on cadaver course in Spine skills, 14-15 August 2018, New Delhi
5. Moderated a debate on EDH—Minimally invasive vs craniotomy, Neurotrauma Conference, 28 October 2018, New Delhi
6. Cranioplasty in poor GCS patients, Neurotrauma Conference, 28 October 2018, New Delhi
7. Challenging cases in Neuro-Oncology—Moderated the Tumor Board Discussion, ISNOCON 2018, 6 April 2018, New Delhi
8. Current surgical management of Gliomas—Role of adjuncts for maxima resection and effect of EOR on survival—Evidence based consensus, Paras Neurocon 2018, 14 September 2018, Gurgaon
9. Role of intraoperative MRI in pituitary adenoma surgery, Brainspine 2018, 6-7 November 2018, Maldives National University, Male, Maldives
10. Optimizing the extent of resection in Glioma Surgery, NSICON 2018, 12 December 2018, Jaipur
11. How many adjuncts do we need for glioma for Glioma Surgery, NSICON 2018, 14 December 2018, Jaipur
12. Necessity of fusion in degenerative spinal diseases, PARAS Spine Congress, 19 January 2019, Gurgaon
13. Optimizing the extent of resection in Glioma Surgery, NSSICON, 28 February 2019, Guwahati
14. Intraoperative navigation, Glioma Masterclass at Tata Memorial Hospital, 7 March 2018, Mumbai

Pankaj Kumar Singh

1. Correction of radiological parameters and accuracy of C2 pedicle screw placement in unstable hangmans fracture with intraoperative navigation, UP UK NEUROCON 2018, 13-15 April 2018, River View Retreat
2. Evolution in management of hangmans fracture, 8th AIIMS Complex Spine Live Operative Workshop, 5-6 May 2018, AIIMS
3. Long term outcome of pediatric vertebral hemangiomas treated surgically, Brainspine 2018, 6-7 November 2018, Maldives National University, Male
4. Evolution in management of hangmans fracture, APCSS 2018, 15-17 November 2018
5. Evolution in management of Paediatric hangmans fracture, INDSPNCON 2019, 15-17 February 2018, AIIMS

Sachin Borkar

1. O-arm navigation—Necessity or luxury? Annual meeting of Minimally Invasive Spine Surgeons' Association of Bharat (MISSICON-2018), 26-28 September 2018, Hyderabad
2. Evidence based management of Recurrent Gliomas, Paras NEUROCON, 14-16 September 2018, Gurgaon
3. ACDF complication avoidance, Preconference Cadaveric Workshop DOACON 2018 (Delhi Orthopedic Association Annual Conference), 22 November 2018, Delhi
4. Overview of various surgical strategies in AIS, 2nd SPINECON-2019 Annual Master Course in Spine Surgery, 18-20 January 2019, Gurgaon
5. Minimally invasive spine surgery for Intradural tumours, Instructional Course in Spine-2018, 9-11 August 2018, Amritsar

Hitesh Gurjar

1. Transcavernous pretemporal approach to giant suprasellar tumors, NSICON 2018, Jaipur, 15 December 2018

Shashwat Mishra

1. Clearing the cervical spine, Neurotrauma 2018, 18 August 2018, Lucknow
2. Learning Bypass surgery, Annual Conference of Neurological Society of India (NSICON 2018), 15 December 2018, Jaipur

Shweta Kedia

1. Amino acid PET as an imaging modality for gliomas complementary to MRI, Monthly Brain Tumor Meet, 17 May 2018, Cleveland, USA
2. Hydrocephalus and Neural tube defects, 4th Instructional course in Neurosurgery, 6 October 2018, Delhi
3. Percutaneous fixation in Dorso-Lumbar trauma, 5th ANTC, 26 October, Delhi
4. Spine Radiosurgery: All in a Day' work, APCSS 2018, 17 November, Delhi
5. Career path of women in Neurosurgery, NSICON, 2018, 15 December, Jaipur
6. Timing of Brachial Plexus Surgery in Adults? How early is early? 8th Annual Conference of Indian Society of Peripheral Nerve Surgery, ISPNS 2019, 9 February, Chennai
7. Role of Radiosurgery in Craniopharyngiomas, IndsPN 2019, 17 February, Delhi

Dattaraj Sawarkar

1. Diagnosis and certification of Brain stem death criteria, CME on Brain Stem Death, January 2019, Delhi

Manoj Phalak

1. Anterior vs posterior surgical approach in TB spine, Brain Spine 2018, 7 November 2018, Male, Maldives
2. Interesting case discussion, APCSS 2018, 15 November 2018, Delhi
3. Electrical injuries to the brachial plexus, ISPNS 2018, 10 February 2019, Chennai
4. Spine instrumentation—nursing care, Neurocritical Care Conference 2018, 26 October 2018, Delhi
5. Combined skull base approaches for malignancies of skull and brain, Post Graduate Teaching Programme—Surgical Oncology Seminar, 24 October 2018, Delhi

Ramesh Doddamani

1. Minimally invasive management of Hypothalamic Hamartomas, 15th National EEG Workshop and Masterclass for Epilepsy surgery and Neurobiology, 21-23 November 2018, Varanasi
2. Robotic guided radiofrequency ablation of Hypothalamic Hamartomas, INDSPNCON-2019, 15-17 February 2019, Delhi

Kanwaljeet Garg

1. Role of Gamma Knife in parasagittal meningiomas, ISNOCON, New Delhi, April 2018, Annual Conference of Indian Society of Neuro-Oncology, 5-8 April 2018, Jaipur
2. Introduction to Professor Graham Teasdale, ANTC, New Delhi, October 2018, Annual AIIMS Neurotrauma Conference, 26-28 October 2018, New Delhi
3. Ankylosing Spondylitis and Cervical Spine: Nuances, Asia Pacific Cervical Spinal Society Meeting, 16 November 2018, New Delhi

Amol Raheja

1. Traumatic brain injury in anticoagulated elderly patient: A lethal combination, 5th Annual AIIMS Neurotrauma Conference, 26 October 2018, AIIMS, New Delhi
2. Insurance and Flow alteration STA-MCA bypass in the management of complex intracranial anterior circulation aneurysms in post-endovascular era, Maldives Brain and Spine Conference, 6 November 2018, ADK Hospital Male, Maldives

Rajesh Meena

1. Advances in MIS Instrumentation, First international Conference and Workshop on Cost-Effective Use of Technology in Health-Neurosciences, 28-31 March 2019, GOA

Oral papers/posters presented

1. Agarwal M, Phalak M, Complex Paediatric Chiari Malformation—Is Fixation Necessary? ISPN 2018, 9 October 2018, Tel Aviv, Israel
2. Ajay K, Manoj P**, Orbital Growing skull fracture, IndSPN 2019, 16 February 2019, Delhi
3. Bajaj J, Singh M, Goyal V, Garg K, Impact of Virchow-Robin spaces on outcome of STN DBS in PD, 23rd congress of European society of stereotactic and functional Neurosurgery held at royal college of surgeons of Edinburgh, September 2018, Dublin
4. Boorgula M, Doddamani RS, Meena R, et al, Paediatric Supratentorial Ependymomas, INDSPNCON-2019, 15-17 February 2019, AIIMS, New Delhi
5. Borkar SA, Kale SS, Paediatric CVJ and cervical spine anomalies: Complication avoidance and bailout, Annual Conference of Indian society of pediatric neurosurgery, 15-17 February 2019, Delhi
6. Borkar SA, Samala R, Kale SS, Extramedullary foramen magnum tumors: Technical nuances and outcome analysis, Global Spine Congress, Singapore, 2-5 May 2018, Singapore
7. Borkar SA, Samala R, Suri A, Gupta D, Kumar R, Kale SS, Facial nerve DTI tractography in Large Vestibular schwannoma: Is it really helpful? WFNS Symposium, 16-19 August 2018 (Awarded best paper award), Kuala Lumpur, Malaysia
8. Dash A, Agrawal D, Kedia S, Singh M, Kale SS, Gamma Knife Radiotherapy for Arteriovenous Malformations Located in Midbrain Region of the Brain, WFNS 2019 International Meeting, 23 March 2019, Belgrade, Serbia
9. Doddamani RS, Girishan S, Chandra PS, Robotics in Epilepsy Surgery, ECON-2019, 8-10 March 2019, New Delhi
10. Doddamani RS, Meena R, Sawarkar D, et al., Robotic guided VP shunt in Slit Like Ventricles: Technical Note, NSSICON-2019, 28 February-2 March 2019, GMC, Guwahati
11. Garg K, Case discussion in Spine-Wine-Dine session—Interactive case discussion, Asia Pacific Cervical Spinal Society Meeting, 16 November 2018, New Delhi
12. Garg K, Meet the masters (Interesting case discussions), Asia Pacific Cervical Spinal Society Meeting, 15 November 2018, New Delhi
13. Garg K, Singh M, Goyal V, Pallidotomy in dystonia—Our experience from a developing country, MDS International Congress 2018, 6 October 2018, Hong Kong
14. Garg K, Singh M, Goyal V, Role of pallidotomy in Secondary Dystonia, INDSPNCON 2019, 17 February 2019, New Delhi
15. Garg K, Singh P, Chandra PS, Kale SS, Intraventricular pilocytic astrocytomas: Our experience, NSSICON 2019, 28 February 2019, Guwahati
16. Kale SS, Garg K, Outcome parameters in cervical spondylotic myelopathy, WFNS Consensus Committee Meeting, September 2018, Pune, India
17. Kale SS, Garg K, Role of steroids in acute spinal cord injury, Annual AIIMS Neurotraum Conference, October 2018, New Delhi
18. Kale SS, Garg K, Surgical management of extradural tumors at the craniovertebral junction—A 9-year AIIMS Delhi Study, Instructional Spine Course, August 2018, Amritsar
19. Kedia S, Agarwal D, Singh M, Kumar R, Kale SS, Gamma Knife Radiosurgery for Vestibular Schwannomas: Single center experience, 6th Meeting of Asian Leksell Gamma Knife Society, 19 January 2019, Sendai, Japan
20. Kedia S, Agarwal D, Singh M, Kumar R, Kale SS, Long term (>10 years) outcomes of Gamma Knife Radiosurgery for Vestibular Schwannomas, 29th North American Skull Base Meet, 15-17 February 2019, Orlando, USA
21. Krishnan S, Manoj P, Complex Split cord malformation—Case series, ISPN 2018, 10 October 2018, Tel Aviv, Israel
22. Kumar A, Singh M, Agrawal D, Singh PK, Chandra PS, Kale SS, Intracranial Meningeal Hemangiopericytomas: An Analysis of factors affecting outcome from multimodality treatment of 39 cases, The Joint Annual Meeting 2018 of the Swiss Society of Neurosurgery and the Swiss Society of Neuroradiology, 23-26 May 2018, Lugano, Switzerland
23. Mahakul D, Doddamani RS, Meena R, et al, Analysis of surgical outcomes in patients with firearm injury to the spine, Neurotrauma-2018, 17-19 August 2018, KGMU, Lucknow
24. Manoj P, Kale SS, Deepak G*, Post-traumatic hydrocephalus in pediatric patients: Presentation, management and outcome—An apex trauma centre experience, ISPN 2018, 10 October 2018, Tel Aviv, Israel
25. Manoj P, Kale SS, Unusual case of PRES following surgery for cervicodorsal intramedullary cyst, ISPN 2018, 8 October 2018, Tel Aviv, Israel

26. Manoj P, Paediatric post traumatic hydrocephalus—Analysis of risk factors, IndSPN 2019, 16 February 2019, Delhi
27. Meena R, Doddamani RS, Sawarkar DP, Chandra PS, Kale SSK, Remote cerebellar hemorrhage following surgery for Supra-tentorial Pathology, WFNS 2019, 21-25 March 2019, Belgrade, Serbia
28. Meena R, Doddamani RS, Sharma R, Contiguous Diastometomyelia with Lipomyelomeningocele in each hemicord: An exceptional case of Spinal Dysraphism, INDSPNCON-2019, 15-17 February 2019, New Delhi
29. Meena R, Gujjar HK, Aggarwal D, Kale SSK, Vertebral Artery Injury During ACDF: Sequelae of Trauma or Iatrogenic? ICCN 2018, 25-27 January 2019, Mumbai, India
30. Meena R, Interesting case discussion—Hirayama disease, APCSS 2018, 15-17 November 2018, New Delhi, India
31. Mishra S, Kale SS, An algorithmic approach to complication avoidance in cranial microsurgery, Annual Conference of Neurological Society of India (NSICON 2018), 15 December 2018, Jaipur
32. Niveditha M, Jha P, Raheja A, Suri A, Suri V, Garg A, Sarkar C, Jyotsna, Kaur K, Kalaivani M, Midline gliomas: A study of clinical outcome and associated molecular alterations, 21st Annual Meeting of Delhi Neurological Association, 2 February 2019, New Delhi
33. Niveditha M, Jha P, Raheja A, Suri A, Suri V, Garg A, Sarkar C, Jyotsna, Kaur K, Kalaivani M, Analysis of PDL1 expression and T cell infiltration in different molecular subgroups of midline diffuse gliomas, 30th Annual Indian Society of Paediatric Neurosurgery Conference, 17 February 2019, New Delhi
34. Phalak M, Kale SS, Does choice of approach translate into surgical outcomes for Tb spine—a radiologic study, WFNS 2019, 23 March 2019, Belgrade, Serbia
35. Raheja A, Sinha S, Mansoori N, Selvi A, Kale SS, Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury, 24th Uttar Pradesh-Uttarakhand NEUROCON, 14 April 2018, Ramnagar
36. Raheja A, Sinha S, Mansoori N, Selvi A, Kale SS, Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury, Joint annual meeting Swiss Society of Neurosurgery and Swiss Society of Neuroradiology, 24 May 2018, Lugano, Switzerland
37. Raheja A, Sinha S, Mansoori N, Selvi A, Kale SS, Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury, 27th Annual Conference of Neurotrauma Society of India, 18 August 2018, Lucknow
38. Raheja A, Sinha S, Mansoori N, Selvi A, Kale SS, Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury, World Federation of Neurosurgical Societies International Meeting, 23 March 2019, Belgrade, Serbia
39. Raheja A, Suri A, Sreenivasan SA, Singla R, Insurance and Flow alteration STA-MCA bypass in the management of complex intracranial anterior circulation aneurysms in postendovascular era, 18th Annual conference of CVS, India, 8 September 2018, Chennai
40. Raheja A, Suri A, Sreenivasan SA, Singla R, Insurance and Flow alteration STA-MCA bypass in the management of complex intracranial anterior circulation aneurysms in postendovascular era, World Federation of Neurosurgical Societies International Meeting, 23 March 2019, Belgrade, Serbia
41. Raheja A, Suri A, Transventricular, Trans-aqueductal scope-in-scope minimally invasive neuroendoscopic retrieval of fourth ventricular neurocysticercosis cyst, Himalayan Cysticercosis Conference, 8 December 2018, Kathmandu, Nepal
42. Satyarthee GD, Intraspinial pressure monitoring, 12th Asia Pacific Cervical Spine Society Meeting, 11 November 2018, New Delhi
43. Sawarkar D, Sharma BS, Suri A, Chandra PS, Kale SS, 3-D endoscopic pituitary surgery: Tips and tricks and our preliminary experience, Neuroendocon 2018, 31 March-4 April 2018, Jabalpur, MP
44. Sawarkar D, Singh P, Agrawal D, Gupta D, Satyathree GD, Kale SS, Management of Paediatric odontoid fractures, APCSS 2018, 15-17 November 2018, Delhi
45. Sawarkar D, Singh P, Chandra PS, Kumar R, Kale SS, Long term follow up of Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy ISPN 2018, 7-11 October 2018, Tel Aviv, Israel
46. Sawarkar D, Singh P, Chandra PS, Kumar R, Kale SS, Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy with long term follow up, ISPNO 2018, 30 June-3 July 2018, Denver, USA
47. Sawarkar D, Singh P, Kale SS, Anterior odontoid screw fixation—How I Do it, Spinecon 2019, 29-30 January 2019, Delhi
48. Sawarkar D, Singh P, Kale SS, Anterior odontoid screw fixation—Recommendations for management, Spinecon 2019, 29-30 January 2019, Delhi

49. Sawarkar D, Singh P, Kale SS, Presentation of failed odontoid screw fixation, APCSS 2018, 15-17 November 2018, Delhi
50. Sawarkar D, Status of Brachial plexus surgery in Apex Tertiary Care Center, ISPNS 2019, 8-10 February 2019, Chennai
51. Sawarkar D, Tips and tricks in Neuroendoscopy, Neurocon 2018, 14-16 September 2018, Delhi
52. Sawarkar D, Verma S, Sharma BS, Singh P, Kale SS, Management of Intraventricular NCC, IndSPN 2019, 14-17 February 2019, Delhi
53. Sharma R, Case based discussion—children with raised ICP, 5th AIIMS Annual Neurotrauma Conference, 28 October 2018, New Delhi
54. Sharma R, Gupta D, Kale SS, Water sports related cervical injuries—A report of 5 cases (PAPER), APCSS-2018, 16 November 2018, New Delhi
55. Sharma R, Mahajan S, Suri V, Gupta D, Bhardwaj M, Gupta LN, Concurrent Thoracic Spinal Intradural Epidermoid and Neurenteric Cyst in a Spinal Dysraphism Child (Eposter), INDSPNCON 2019, 15 February 2019, New Delhi Won Second Prize in Best Poster Award
56. Sharma R, Sawarkar D, Gupta D, Kale SS, Complications of cranioplasty (PAPER), 5th AIIMS Annual Neurotrauma Conference, 28 October 2018, New Delhi
57. Singh P, Josef L, Sawarkar D, Kumar A, Chandra PS, Kale S, Mahapatra A, Posterior circulation pediatric aneurysms management our experience, ESOC 2018, 16-18 June 2018, Gothenburg
58. Singh PK, Sawarkar DS, Chandra PS, Kale SS, Verma S, Kumar A, Long term outcome of symptomatic paediatric vertebral haemangiomas treated surgically, NSSICON 2019, 1-2 March 2019, Guwahati
59. Singh PK, Sawarkar DS, Chandra PS, Kale SS, Verma S, Kumar A, Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy with long term follow up, ISPN 2018, 7-11 October 2018, Tel Aviv, Israel
60. Singh PK, Sawarkar DS, Kale SS, Kumar A, Management of Paediatric traumatic thoracolumbar spondyloptosis, ISPN 2018, 7-11 October 2018, Tel Aviv, Israel
61. Singh PK, Sawarkar DS, Chandra PS, Kale SS, Verma S, Kumar A, Surgical management of symptomatic paediatric vertebral haemangiomas presenting with myelopathy with long term followup, ISPN 2018, 29 June-3 July 2018, Denver
62. Tandon V, Raheja A, Suri A, Chandra SP, Kale SS, Randomized trial to assess the utility of IOMRI in Pituitary Surgery, Brainspine 2018, 6 November 2018, Male, Maldives
63. Tandon V, Sharma R, Gupta D, Singh M, Agarwal D, Kale SS, Post traumatic hydrocephalous: Role of ETV, NTSI 2018, 17 August 2018, Lucknow

RESEARCH

Funded projects

Ongoing

1. Centre of Excellence for Epilepsy, Phase II, P Sarat Chandra, DBT, Ministry of Science and Technology, India, 3 years, 2018-2021, Rs 502 lakh
2. Advanced Epilepsy Research: A multidisciplinary approach, P Sarat Chandra, Principal Scientific Advisor (PSA), Government of India, 3 years, 2018-2021, Rs 377.47 lakhs
3. Collaborative Neuro-engineering platform for excellence in innovation and translational research, Ashish Suri, DBT, Ministry of Science and Technology, Government of India AIIMS+ CSE- IIT-D, 3 years, 2018-2021, Rs 657 lakhs
4. Neurosurgery Skills Training Facility with 3D Endoscopic and 3D Microscopic Facility and Central Repository Server for Archival, Streaming and Teleconferencing, Ashish Suri, DST, Ministry of Science and Technology, Government of India AIIMS+CSE-IIT-D, 5 years, 2013-2018, Rs 650 lakhs
5. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, Ashish Suri, DHR, ICMR, Ministry of Health and Family Welfare, Government of India, AIIMS+CSE-IIT-D, 4 years, 2014-2018, Rs 211 lakhs
6. Support to Indian Institutes to Conduct Training Programme in the Area of Operational Research Neurosurgery Skills Training, Professor Ashish Suri, DHR, ICMR, Ministry of Health and Family Welfare, Government of India, AIIMS+ CSE- IIT-D, 5 years, 2016-2020, Rs 99 lakhs
7. National Bioscience Award for Career Development 2015, Ashish Suri, DBT, Ministry of Science and Technology, Government of India, 2 years, 2016-2018, Rs 17 lakhs

8. TATA Innovation Fellowship Award 2015, Ashish Suri, DBT, Ministry of Science and Technology, Government of India, 4 years, 2016-2020, Rs 45 lakhs
9. Optic Nerve Ultrasound in Severe Traumatic Brain Injury, Deepak Agrawal, DBT, 2 years, 2015-2017, Rs 36.07 lakhs
10. Paroxysmal Sympathetic Activity and its role in severe TBI, Deepak Agrawal, AIIMS, 2 years, 2018-2019, Rs 10 lakhs
11. ADAPT, Deepak Gupta, National Institute of Health, 7 years, 2015-2022, Rs 105.49 lakhs
12. Center-TBI, Deepak Gupta, Universitair Ziekenhuis Antwerpen (UZA), Belgium, 4 years, 2016-2020, 5000 USD per year
13. Rescue ASDH, Deepak Gupta, Cambridge University, 3 years, 2017-2020, Consumables: 144 pounds per randomised patient CRF completion costs: 213 pounds per randomised patient
14. Role of diffusion tensor imaging in degenerative lumbar spine diseases, Vivek Tandon, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
15. Lateral approaches to Lumbar Spine: Cadaveric Feasibility study in Indian population, Sachin Borkar, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
16. Investigating the Role of GABA a Receptor Subunits Alteration in Focal Cortical Dysplasia, Hitesh Kumar, AIIMS, 2 years, 2018-2019, Rs 5 lakhs
17. The feasibility of endoscopic Anterior Odontoid screw fixation—A cadaveric pilot study, Shweta Kedia, Extramural Grant, 1 year, 2018, Rs 6 lakhs
18. Lateral approaches to lumbar spine—Cadaveric study, Sachin Borkar, AIIMS, 1 year, 2017, Rs 2 lakhs
19. Deciphering the role of Histone Deacetylases (HDACs) in mesial temporal lobe epilepsy, Ramesh S Doddamani, AIIMS, 2 years, 2016-2018, Rs 5 lakhs
20. Microsurgical comparison of operative exposure of internal acoustic canal through middle fossa and retrosigmoid hearing preservation skull base approaches—A laboratory investigation, Amol Raheja, AIIMS, 1 year, 2018-2019, Rs 5 lakhs
21. Quantitative analysis of the variants of the Far Lateral Condylar approaches, Rajesh Kumar Meena, AIIMS, 2 years, 2017-till now, Rs 4.75 lakhs

Completed

1. Injury mechanisms in Blast and Blunt Traumatic Brain Injuries—A comparative study based on Clinical data and numerical analysis, SS Kale, Science and Technology Office of Naval Research Global, 3 years, 2015-2018, Rs 29.68 lakhs
2. Centre of Excellence for Epilepsy, P Sarat Chandra, DBT, Ministry of Science and Technology, India, 5 + 2 years extension, 2011-2018, Rs 40 crores
3. VEGF: As a potential systemic marker of local angiogenic activity and response to gamma knife surgery, Deepak Agrawal, AIIMS, 1 year, 2016-2017, Rs 5 lakhs
4. Early versus Delayed Decompression for Traumatic High Cervical Spinal Cord Injury in Acute Spinal Cord Injury Study, Deepak Agrawal, DST, 4 years, 2014-2018, Rs 24.52 lakhs
5. Determination of the reference range for the elevated PT/INR with normal coagulation factor level and its association with plasma transfusion therapy in head injury patients, Deepak Agrawal, ICMR, 2 years, 2015-2017, Rs 25 lakhs

Departmental projects

Ongoing

1. A study on the effect of GABA A receptor alterations in cortical dysplasias
2. Analysis of PDL1 expression and T-cell infiltration in different molecular subgroups of Midline Gliomas and the clinical outcome
3. Arnold chiari malformation in Craniovertebral Junction (CVJ) anomaly, clinical and prospective outcome
4. Assessment of secondary spinal curvatures in patients with cranio-vertebral junction anomaly and its improvement following DCER
5. Cervical alignment following cervical laminoplasty
6. Cervical alignment following laminoplasty for Cervical Spondylitic Myelopathy (CSM)

7. CVJ anomalies with Chiari malformation
8. Deciphering the role of Casein Kinase 2 in Mesial Temporal Lobe Epilepsy
9. Deciphering the role of Transforming Growth Factor β signalling and Matrix Metalloproteinase 9 in Epileptogenesis in Mesial Temporal Lobe Epilepsy
10. Outcome of craniopharyngioma patients following radiosurgery
11. Efficacy of comparative Magnetoencephalography Source Localisation and propagation of interictal epileptic discharges in patients with Drug Resistant Epilepsy
12. Gamma-Knife for giant intracranial (>20cc) lesions
13. Impact of cervical decompression typical and atypical symptoms of cervical spondylosis
14. Intraoperative MRIs role in improving extent of resection in Gliomas
15. Investigating the role of GABA A receptor alteration in Cortical Dysplasia
16. Long term follow up of gamma knife for Vestibular Schwannoma
17. Management of craniovertebral junction anomaly
18. Midline Gliomas: A study of clinical outcome and associated molecular alterations
19. Outcome following Gamma knife therapy for trigeminal neuralgia at AIIMS, Delhi
20. Outcome of surgically clipped anterior circulation aneurysms with good grade SAH
21. Paediatric intracranial neoplasm—Incidence, outcome and prognostic factors
22. Preoperative and postoperative evaluation of radiographic features in Chiari I malformation with special emphasis on perimeter, diameter and volume at C1 level and atlanto-axial dislocation
23. Prognostic factor affecting outcome of traumatic spinal injury
24. Prospective randomized trial to compare the efficacy of foramen magnum decompression with duroplasty vs posterior instrumented fixation for chiari malformation
25. Role of fibrin sealants in preventing CSF leak
26. Role of Gamma Knife in Craniopharyngiomas
27. Role of kynurenic acid on hyperexcitability associated with Mesial Temporal Lobe Epilepsy
28. Role of MRI in Cervical Spondylitic Myelopathy (CSM)
29. Role of MRI in predicting outcome in cervical spondylotic myelopathy
30. To study the effect of kynurenic acid on modulation of synaptic transmission in patients with Mesial Temporal Lobe Epilepsy

Completed

1. A prospective comparative study between day care spine surgery and conventional Spine Surgery
2. Congenital craniospinal dysraphism
3. Day care spine surgery: Feasibility and outcome
4. Effectiveness of facial nerve DTI tractography in Large Vestibular Schwannoma: A prospective randomized study
5. Management of traumatic cervical spine
6. Morphometric evaluation of C₂ body and odontoid process and determination of hypothetical entry points for double anterior odontoid screw in Indian adult population
7. Outcome of spinal surgery in patients above 75 years
8. Pituitary dysfunction following stereotactic radiosurgery for secretory pituitary adenomas
9. Primary extradural spinal lesions
10. Primary Gamma-Knife with concurrent Temozolomide for GBM
11. Standard MRI imaging is inadequate in drug resistant epilepsy, Retrospective analysis
12. Study of Fibrillin (FBN1) and Paired Box (PAX1) gene mutations and autonomic functions in patients with developmental bony crania-vertebral junction anomalies
13. Study of Traumatic brain injury induced secondary gastrointestinal changes
14. Therapeutic Application of Bone Marrow Derived Stem Cell in Complete Spinal Cord Injury
15. Utility and diagnostic yield of image guided brain biopsy
16. Utility of postoperative CT scans in elective postoperative neurosurgical patients

Collaborative projects

Ongoing

1. Assessment of Cerebral Autoregulation using NIRS in severe traumatic brain injury patients, Neuroanaesthesia
2. BIRAC BIG project 2018-2020, IIT Delhi, Department of Mechanical Engineering
3. Collaborative Neuro-engineering platform for excellence in innovation and translational research, Anatomy, Forensic Medicine, Neuroradiology, Neuropathology and IIT-D: CSE
4. Deciphering the role of ATF3 and TGF β signaling in mesial temporal lobe epilepsy patients, Neurology
5. Development of 3D/stereoscopy based virtual reality simulation platform for endoscopic neurosurgery training and pre-operative neurosurgical planning, Anatomy, Forensic Medicine IIT-D: CSE
6. Development of a surgical suction cannula with an integrated surgeon controlled touch activated irrigation system for use in surgeries performed under the surgical microscope
7. Effect of plasma jet on tumor tissues resected from patients with tumor linked refractory epilepsy, Institute of Plasma Research, Gandhinagar
8. Neurosurgery skills training facility with 3D Endoscopic and 3D Microscopic Facility and Central Repository Server for Archival, Streaming and Teleconferencing, Anatomy, Forensic Medicine and IIT-D: CSE
9. Role of alpha7 and alpha4-beta2 subtypes of nicotinic receptors in abnormal synaptic transmission associated with hippocampal sclerosis, Biophysics

PUBLICATIONS

Journals: 124

Abstracts: 3

Chapters in books: 7

Books: 1

PATIENT CARE

Department of Neurosurgery has two units with general neurosurgical ward under each unit (35X2 beds). There are two ICUs with 23 beds. There are now 7 elective operation theatres and one exclusive operation theatre in trauma centre. We offer world class neurosurgical facilities in all neurosurgical sub-specialties, which include—Vascular surgery, epilepsy surgery, minimally invasive cranial and spinal neurosurgery, pediatric neurosurgery, functional neurosurgery, neuro-oncosurgery, skull base and complex spinal surgeries. Following number of patients were treated by us during the year 2018-2019

S.No.	Treatment facility	Number
1.	Outpatient department	
	a) Total new cases	16,766
	b) Total old cases	31,334
	c) Paediatric new cases	2,086
	d) Paediatric old cases	4,862
	e) Total cases	48,100
3.	Gamma knife performed	653
4.	Total number of surgeries CNC	3,345
5.	Total Number of cases in Brain Suite	284
6.	Number of elective surgeries (JPNATC)	1,314
7.	Total number of surgeries	4,659

Apart from this Department of Neurosurgery also run speciality clinics like Gamma Knife Clinic and Spine Clinic. Dr Deepak Agarwal has been instrumental in developing an indigenous ventilator which eventually led to discharge of 2 chronic ventilator dependent patients who were admitted in Department of Neurosurgery for a very prolonged period. He was also instrumental in improving the processes in Gamma-Knife centre leading to the highest number of Gamma-Knife surgeries in a single year in 2018.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shashank Sharad Kale received Doctor of Science from Amity University, Uttar Pradesh for his contributions in the field of Neurosurgery.

Professor Ashish Suri received Best International Paper Award for “Simulation in skull-base neurosurgery” in the 29th Annual Conference of North American Skull Base Society, 15-17 February 2019 at Orlando, Florida, USA; Adjunct Professor, School of Information Technology, Indian Institute of Technology-Delhi; Executive Member: World Federation of Neurosurgical Societies, Skull Base Committee; Secretary General: Skull Base Surgery Society of India.

Professor Manmohan Singh: Extradural transcavernous approach to cavernous sinus hemangioma: An institutional experience—1st Prize, Annual Skull Base Surgery Society of India, 1-3 November 2018, Ludhiana-PB, Raghav Singla, Ashish Suri, Manmohan Singh, Deepak Aggarwal, SS Kale.

Professor Deepak Agarwal was elected Editor-in-Chief of Journal of Peripheral Nerve Surgery (JPNS); Made interim Editor-in-Chief of Indian Journal of Neurotrauma (IJNT).

Professor Deepak Gupta: First book on Craniosynostosis as Editor written by Dr Deepak Kumar Gupta: Tenets of Craniosynostosis: Surgical principles and advanced multidisciplinary care, 2018 (Thieme Medical and scientific publishers private limited) (Editor: Deepak Kumar Gupta, Ashok Kumar Mahapatra).

Dr Gurudutt Satyarthee received Faculty Research Awards 2018 in Neurosciences conferred by Honorable Union HRD Minister Mr Prakash Javadekar; Lifetime Achievement Award 2019, Marquis Who's Who, America; Who's Who in World Award-2019, Marquis Who's Who, America.

Dr Vivek Tandon visited Leh to treat patients of remote areas in a charity camp organized by Asoka Mission; Chairing session at Brainspine 2018, Maldives on Neuro-Oncology.

Dr Sachin Borkar was nominated as AO Spine delegate in AO Spine Indian Subcontinent Council (AOIN) for the term 2018-2020; Nominated as treasurer of Indian Society of Peripheral Nerve Surgery for the term 2018-2020; Awarded Best Paper Award during WFNS Symposium in Kualaumpur-2018; Awarded Gold Medal for DNB Neurosurgery (December 2013 session) by the National Board of Examinations (NBE) during the convocation held in September 2018.

Dr Amandeep Jagdevan attended the training programme on the Japan-India Neurosurgical Collaboration Project, 22-26 February 2019 at Osaka, Nagano and Tokyo, Japan.

Dr Amol Raheja: March 2019—Awarded *WFNS Young Neurosurgeons grant* for presenting original work in the field of traumatic spinal cord injury, entitled “Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury” at WFNS International Meeting 2019, Belgrade, Serbia; February 2019—Niveditha M (Thesis candidate) won first prize for award paper presentation (co-authored) in the field of Neuro-Oncology, entitled “Analysis of PDL1 expression and T-cell infiltration in different molecular subgroups of Midline Gliomas and the clinical outcome” at 30th INDSPNCON, New Delhi, India; February 2019—Niveditha M (Thesis candidate) won first prize for award paper presentation (co-authored) in the field of Neuro-Oncology, entitled “Midline Gliomas: A study of clinical outcome and associated molecular alterations” at 21st DNACON, New Delhi, India; April 2018—Won 2nd prize for Neurosurgery Oral Presentation (free paper session) in the field of traumatic spinal cord injury, entitled “Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury” at 24th UP-UK NEUROCON, Ramnagar, Uttarakhand.

Dr Dattaraj Sawarkar received ‘The Alder Hey 2018 ISPNO International Traveling Fellowships Award’ for presenting paper on vertebral hemangioma in International Symposium on Paediatric Neuro-Oncology (ISPNO) 2018—Denver CO, USA (30 June-3 July 2018); as a course faculty successfully coordinated cadaver endoscopic endonasal skull base workshop (December 2018) in the AIIMS organized by Department of Neurosurgery in AIIMS Cadaver Surgical Skill Training facility (ACSST).

Dr Rajeev Sharma received second prize in best poster award category in INDSPNCON 2019 from 15-17 February 2019.

Dr Shweta Kedia completed Landislaue and Steiner's fellowship in Neuro-Oncology and Gamma Knife at Cleveland Clinic, June 2018.

Dr Ramesh Doddamani was awarded ICMR Travel Fellowship for attending WFNS Annual Meeting 2019, Belgrade, Serbia; Participated as one of the faculty incharge in hands-on cadaveric skull base workshop conducted at CTRF laboratory.

Dr Manoj Phalak received ISPN 2018-Epstein travelling scholarship; was Chairing session at Brainspine 2018, Maldives for recent technological advances; Chairperson for recent technological advances—NSCOTT 2018, Delhi, December 2018; received Best Outgoing Student Award and Medal for diploma of Applied Epidemiology 2016-2017, awarded by NIHFW, New Delhi.

Dr Satish Verma attended short term training programme at Japan under India-Japan Collaboration Project (Conducted by AOTS, Japan)—Observership at three neurosurgical centres at Japan.

VISITING SCIENTIST

15-17 October 2018: Japanese delegation of senior Japanese Neurosurgeons

1. Professor Kenji Ohata, Osaka, Japan
2. Professor Katsumi Takizawa, Asikawa, Japan
3. Professor Hiroyoshi Akutsu, Tsukuba, Japan
4. Professor Shuho Tanaka, Tsukuba, Japan

Neuroimaging and Interventional Neuroradiology

HIGHLIGHTS

A state-of-art 128 slice dual energy CT scanner installed replacing the 10-year-old 6-slice CT scanner.

With the new CT low-dose CT protocols with modelled iterative reconstruction, a dose reduction potential of up to 60% and faster acquisition in clinical routine are now possible with the best image quality ensured. This has enhanced patient compliance, especially in children and where breath hold acquisition is required.

CT Fluoroscopy to help guided-biopsies and CT perfusion to assess cerebral perfusion especially in acute stroke have been started with the installation of the new CT scanner.

The existing 1.5T MR was upgraded to 'silent MR' system which has helped perform silent MR protocols which reduce patient's anxiety during scan; reduce scan time and incidence of rescans as the patients are relaxed and cooperate to stay still during long examinations. The high gradient coil switching noise of previous system was a serious bother for many patients, especially during high-end acquisition techniques. With the upgrade, this irritant is largely removed and wide bore of the magnet has reduced claustrophobia in patients significantly.

PACS network operational in wards and OPD rooms of NSC with upgrade of the PACS server and installation of viewing stations in wards, ICUs and thin clients in OPD rooms with Wi-Fi access. Reporting of all neuro-imaging procedures made on-line with improved organization of the reporting room, making it easier to report, edit, sign out and network all studies on-line. Auto-requisitioning enabled from NSC wards on-line for CTs, MRIs, US and DSAs etc. Auto fetching of case records from PACS enabled for neuroradiology conferences. Private imaging films digitized and integrated into PACS on registration of patient UHID.

EDUCATION

Undergraduates

Provided materials and guidance to faculty for UG lectures and seminars for 6th semester MBBS students on topics: Introduction to Neuroradiology techniques, basics of brain tumour imaging, stroke imaging and congenital anomalies of the CNS. Basics of neuro imaging interpretation taught during their elective posting in neuroradiology.

Postgraduates

Postgraduate students of MD Radiology posted in the Department of Neuroradiology on rotation are trained on reporting neuroimaging (CT and MRI) and introduced to all neuroimaging protocols and are encouraged to perform them under supervision of the faculty. DM (Neuroradiology) students are trained to perform all neuroimaging procedures and assist in interventional therapeutic neuroradiology procedures, which are then discussed with them on daily basis. They are also trained to take post procedure care and management of patients undergoing neuro-interventional therapeutic procedures in the ICUs and wards. Seminars, journal clubs and case discussions are organized routinely for their orientation to the current developments and improve their iterative skills. Senior residents regularly present neuro-radiological findings in interdepartmental conferences with Neurology and Neurosurgery Departments daily which allow them to understand clinical neuroimaging interpretation skills and the art of presentation. They are posted in the biplane Neuro-interventional suites for at least one year on a rotational basis and are trained on neuro-angiographic and neuro-interventional skills.

CMEs/Workshops/Symposia/National and International Conferences Lectures delivered

SB Gaikwad

1. Endovascular Management of Intracranial Aneurysms, AIIMS MAMC PGI Neuroradiology Course, 1 April 2018, Chandigarh
2. Imaging and Interventions in Cerebral Ischaemia, AIIMS MAMC PGI Neuroradiology Course, April 2018, Chandigarh
3. Neuro-Interventions in Spinal Vascular Lesions, AIIMS MAMC PGI Neuroradiology Course, 1 April 2018, Chandigarh

4. What monitoring and which drugs do I have to have available? Pre- and Post-procedural management, heparin, heparin reversal, vasovagal reaction, ICCA STROKE-2018, 20-21 April 2018, Warsaw, Poland
5. How to deal with carotid dissections, ICCA STROKE -2018, 20-21 April 2018, Warsaw, Poland
6. Sinus and Venous occlusions, ICCA STROKE-2018, 20-21 April 2018, Warsaw, Poland
7. Imaging approach and Intervention in subarachnoid haemorrhage, Indian Imaging Academy, CT/MRI Update 2018, 26-28 July 2018, Goa
8. Spinal vascular malformations: Classification, Imaging and Interventions, 20th Annual Conference of Indian Society of Neuroradiology, 27-30 September 2018, New Delhi
9. Neurological Emergencies-Moderator, AIIMS Neuroanesthesia Update-2018, 2 November 2018, New Delhi
10. Advances in Vascular and Interventional Radiology-Chairperson, Mini Symposium on International Day of Radiology, 8 November 2018, New Delhi
11. Stroke-Moderator, 3rd Annual Congress of Society of Therapeutic Neurointervention, 28 November-2 December 2018, Mumbai
12. Thrombectomy vs thromboaspiration-Panellist, 3rd Annual Congress of Society of Therapeutic Neurointervention, 28 November-2 December 2018, Mumbai
13. Today's ICAD, 3rd Annual Congress of Society of therapeutic Neurointervention, 28 November-2 December 2018, Mumbai
14. Spinal vascular malformation, 72nd Annual Conference of Indian Radiological and Imaging Association, 20 January 2019, Chandigarh
15. Acute Ischemic Stroke Symposium, India Neuro Intervention Foundation, 18 January 2019, Mumbai
16. Stenting vs Endarterectomy in carotid disease—Which to chose and when? Brain and Heart Conclave, 26 January 2019, Nepal
17. Interventions in stroke, CME, Neuro-Imaging and Neuro-Interventions Update, 3 March 2019, Bhopal
18. Interventions in Aneurysms, CME, Neuro-Imaging and Neuro-Interventions Update, 3 March 2019, Bhopal
19. Epilepsy imaging, CME, Neuro-Imaging and Neuro-Interventions Update, 3 March 2019, Bhopal
20. Symposium on Imaging of Epilepsy, 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association—ECON 2019, 8-10 March 2019, New Delhi
21. How to manage complications of carotid stenting-case based lecture, ICCA Stroke 2019, 11-12 March 2019, New Delhi
22. Carotid stenting: Difficult aortic arch and challenges in accessing the target artery, ICCA Stroke 2019, 11-12 March 2019, New Delhi
23. Complications during carotid stenting, ICCA Stroke 2019, 11-12 March 2019, New Delhi
24. Intervention in acute stroke, Rajasthan Neurosciences Update 2019, 23-24 March 2019, Jodhpur

Ajay Garg

1. Imaging in Aggressive Meningioma, 10th Annual Conference of Indian Society of Neurooncology, ISNOCON 2018, 6 April 2018, Delhi
2. Imaging in sleep disorders—How can it help, Ace School of Sleep medicine: Sleep Update 2018, 22 April 2018, Delhi
3. Glial tumors: Radiological evaluation, Neuropathology CME Bangladesh 2018, 28 April 2018, Dhaka
4. Radio imaging of pediatric glioma and embryonal tumor, Neuropathology CME Bangladesh 2018, 28 April 2018, Dhaka
5. Epilepsy imaging, Neuropathology CME Bangladesh 2018, 28 April 2018, Dhaka
6. Brain Tumors, Integrated Workshop on Neuroradiology, 30 April 2018, Dhaka
7. Imaging of Non compressive myelopathy, Integrated Workshop on Neuroradiology, 30 April 2018, Dhaka
8. Approach to ring enhancing lesions, Integrated Workshop on Neuroradiology, 30 April 2018, Dhaka
9. Imaging of Spinal Tumors, Integrated Workshop on Neuroradiology, 30 April 2018, Dhaka
10. Neuroquiz, Integrated Workshop on Neuroradiology, 30 April 2018, Dhaka
11. MR Imaging in Refractory Epilepsy, 2018 CME of Indian Society of Neuroradiology, 12 May 2018, Trivandrum
12. Brain Tumor Imaging, CMS WHO 2016 Update, 2018 CME of Indian Society of Neuroradiology (ISNR), 12 May 2018, Trivandrum
13. Must Know Radiology for Neurologists: Basic and Advance Radiology / MRI, Neuro Quest 2018, 18 May 2018, New Delhi

14. Recent advances in Brain Tumors, CME Body Imaging Update, 28 July 2018, New Delhi
15. Epilepsy protocols and imaging substrates of refractory epilepsy, 15th National EEG Workshop and Masterclass for Epilepsy Surgery, 21 November 2018, Varanasi, UP
16. Imaging in dementia, 71st Annual State Conference of Indian Radiological and Imaging Association—Tamilnadu and Pondicherry Chapter, 15 December 2018, Chennai
17. Imaging in Infection, Inflammation and Demyelination, SHINE 2019, 9th Annual International Conference of Clinical Neurology, 22 and 23 February 2019, Chennai, Tamil Nadu
18. Cranial Nerve Imaging, SHINE 2019, 9th Annual International Conference of Clinical Neurology, 22 and 23 February 2019, Chennai, Tamil Nadu
19. Imaging in Movement Disorders, 4th Annual Conference of Movement Disorders Society of India—MDSICON 2019, 23 February 2019, New Delhi
20. MRI—Epilepsy protocol (Temporal and Extratemporal), 20th Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association—ECON 2019, 8-10 March 2019, New Delhi

Leve Joseph Devarajan

1. Spinal Vascular Malformations, Annual Conference of Nepalese Society of Neurosurgery-NESONCON-2018, 6 and 7 April 2018, Kathmandu, Nepal
2. Machine Learning: Clinical Imaging Perspective (Neuroimaging), Machine learning in medical imaging—An introductory workshop, 8 September 2018, NRC Room, AIIMS, New Delhi
3. Intracranial Dural Arterio-venous Fistulae—Management Strategies, 19th Annual Conference of the Indian Society of Neuroradiology, 27-30 September 2018, New Delhi
4. Neurological Emergencies—Basics of Radiological Evaluation and Intervention- Preconference Workshop, AIIMS Neuroanesthesia Update-2018, 2 November 2018, JLN Auditorium and CMET, AIIMS, New Delhi
5. Endovascular management of Acute Stroke: Changing Paradigms, 5th Annual Conference of the Indian Society of Emergency Radiology, 3 and 4 November 2018, Hyderabad
6. CSF Imaging—When and How, 72nd Annual Conference of the Indian Radiological and Imaging Association (IRIA), 17-20 January 2019, PGIMER, Chandigarh

Anuj Prabhakar

1. Neurological Emergencies—Basics of Radiological Evaluation and Intervention- Preconference workshop, AIIMS Neuroanesthesia Update-2018, 2 November 2018, JLN Auditorium and CMET, AIIMS, New Delhi
2. Functional MRI—How I do it and how I use it, ISNR-i-ABCNR Programme, 27 September 2018, New Delhi, India
3. Normal cerebral angiography, AIIMS MAMC PGI Neuroradiology Course, 30 March-1 April 2018, Nehru Hospital PGIMER, Chandigarh
4. Functional MR imaging, AIIMS MAMC PGI Neuroradiology Course, 30 March-1 April 2018, Nehru Hospital PGIMER, Chandigarh

Oral papers/posters presented

1. Boski N, Devarajan LJS, Prabhakar A, Garg A, Gaikwad SB, CV Junction anomalies—An embryological perspective, 20th Annual Conference of the Indian Society of Neuroradiology, 27-30 September 2018, New Delhi
2. Jeyaseelan, Devarajan LJS, Prabhakar A, Garg A, Gaikwad SB, Progressive multifocal leucoencephalopathy (PML)—MR Imaging features, 20th Annual Conference of the Indian Society of Neuroradiology, 27-30 September 2018, New Delhi
3. Mohan M, Devarajan LJS, Prabhakar A, Garg A, Gaikwad SB, Endovascular management of life threatening epistaxis—An institutional experience, 20th Annual Conference of the Indian Society of Neuroradiology, 27-30 September 2018, New Delhi
4. Parthiban B, Devarajan LJS, Prabhakar A, Garg A, Gaikwad SB, Rosette forming glioneural tumour—A case series, 20th Annual Conference of the Indian Society of Neuroradiology, 27-30 September 2018, New Delhi
5. Phuyal S, Devarajan LJS, Prabhakar A, Garg A, Gaikwad SB, Aneurysms in Moya Moya Disease: Incidental vs Causative, 20th Annual Conference of the Indian Society of Neuroradiology, 27-30 September 2018, New Delhi

RESEARCH

Funded projects

Ongoing

1. Correlation of Imaging traits with region-specific gene expression profiles in Glioblastoma Multiforme, Ajay Garg, DST, 3 years, 2018-2021

Departmental projects

Ongoing

1. Characterization of geometry of intracranial atherosclerotic lesions using computed tomographic angiography and its clinic-imaging correlations
2. Efficiency of intravenous milrinone versus intra-arterial nifedepine in the management of clinical vasospasm secondary to aneurysmal sub-arachnoid hemorrhage

Completed

1. Role of Pseudocontinuous Arterial Spin Labelling in the evaluation of resting state cerebral perfusion in patients with critical cervical ICA stenosis before and after carotid artery stenting
2. Clinical and Angiographic Features of Moya-Moya Disease and their Implications in Predicting Severity, Progression and Outcome in Our Set of Patients.

Collaborative projects

Completed

1. Morphometric evaluation of C2 body and odontoid process and determination of hypothetical entry points for double anterior odontoid screw in Indian adult population, Neurosurgery
2. Role of citicoline in acute ischemic stroke-A randomized control trial, Neurology

PUBLICATIONS

Journals: 21

Chapters in books: 11

PATIENT CARE

The department works 24x7, 365 days for patient care work and regularly attends to emergencies like subarachnoid haemorrhage, stroke, acute encephalopathies, myelopathies, traumatic or iatrogenic cerebrovascular injuries etc. All requests for CT scan from outpatients and in-patients are done the same day and often immediately, so that decision can be promptly taken for patient management. There is no waiting for CT scans in this department. DSAs are regularly done for cerebral and spinal vascular studies for patients attending the Neurosciences Centre and also other departments like ENT and Ophthalmology. Similarly neurointerventional therapeutic management is routinely carried out for patients of the Neurosciences Centre as well as those referred from ENT, Ophthalmology, Paediatrics, Cardiology, Orthopaedics among others. Besides, CT scans are done in the ICUs for patients on life support or ventilator using the mobile CT scanner. Bedside x-rays are routinely done using digital portable x-ray unit or CR unit and images are uploaded to the PACS network. Portable Ultrasound is done whenever required for sick and immobile patients in the wards and ICUs of the Neurosciences Centre. All consultants and residents access PACS images through IP enabled protocol and hence can view the images from home or anywhere using internet or even using their smart phones. The departmental conference room has been upgraded for multimodality image viewing using high resolution Dicom compatible projection system, so that clinical consultants and residents can easily see their patient's images in chronological sequence and in comparison mode on the large projection screen. Even old images and scanned private images can be viewed efficiently instantaneously which helps quick decision making.

Neuroimaging and Interventional procedures performed during the year 2018-2019

CT Scan	Routine	14,967
	Emergency	4,547
	CT Angiography	1,257
	Image Guided	1,592
	PERFUSION	25
	HRCT	69
	Total	22,457

Digital Subtraction Angiography	Therapeutic Neuro-Interventional procedures (Cerebral Aneurysms, Cerebral and Spinal AVM embolizations, Carotid revascularization etc.)	384
	Diagnostic DSA	965
	Total	1,349
Ultrasound Examinations/Doppler studies		2,594
MRI	NSC MRI	
	Gama Knife planning	4,329
	Intra-Operative MRI (OT)	65
	NMR facility	1,987
	Total	6,321
X-rays		7,473
Portable x-rays		6,123
Vidar		20,180
Data Migration		1,786
Total for the year		68,283

Cases discussed and reviewed in Neuroradiology conferences for patient care decision making

Conference	No. of cases	Weekly frequency	Total
Epilepsy Cases	10@	2	20/week
Neurosurgery	40@	4	160/ week
Neurology	25@	6	150/ week
Neuropathology	4@	Biweekly	8/week
		Total	338/ week
Total = 17,576 cases per year			

AWARDS, HONOURS AND SIGNIFICANT EVENTS

20th Annual conference of Indian Society of Neuroradiology was successfully organized by Professor Shailesh B Gaikwad (Organizing secretary) in association with Drs Ajay Garg, Joseph Leve and Anuj Prabhakar on 27-30 September 2018 at "The Lalit", Connaught Place, New Delhi. The former President of India, his excellency, Shri Pranab Mukherjee inaugurated the conference on 27 September 2018. Over 300 physicians from around the world including 15 international and 45 national faculty attended the conference. Apart from didactic lectures, hands on workshop on neuroimaging and neurointervention techniques were taught to the participants. Grand Quiz was also conducted and winners were suitably awarded with prizes and citations.

On 11-12 March, the ICCA Stroke 2019 Conference, organized by the World Federation for Interventional Stroke Treatment, under the leadership of Professor Shailesh Gaikwad, took place at the All India Institute of Medical Sciences in New Delhi. The Director, AIIMS, New Delhi, inaugurated the meeting and delivered the welcome address highlighting the importance of stroke and its treatment, especially in Asia, where embolic stroke is even more frequent than in the rest of the world.

Stroke is the 3rd cause of death and the leading cause of disability worldwide. Recently new treatment options have been developed to remove clots from the brain vessels using minimal invasive catheter techniques. This helps to reverse acute stroke patients and prevent disability.

ICCA Stroke is a conference designed to deliver knowledge and training in acute stroke interventions. Almost 200 hundred physicians from around the world came to the All India Institute of Medical Sciences (www.aiims.edu) AIIMS, New Delhi, to learn about the latest developments in this field. Technologies and techniques how to open occluded brain vessels and how to triage patients (Mobile Stroke Unit) were discussed in detail. Interventions were trained on simulators and large numbers of difficult cases were reviewed and discussed. Procedures were live transmitted from the stroke center in Buffalo, New York.

The All India Institute of Medical Sciences (Professor Shailesh Gaikwad and his team, www.aiims.edu) is the leading center in neuro-interventions in India, with more than 1,000 procedures performed annually. It is a tertiary comprehensive

stroke center where the postdoctoral structured degree course (DM) in Neuroimaging and interventional Neuroradiology is offered. It will become a WIST Training center. Professor Gaikwad is acting as the Ambassador of WIST for India.

WIST (WIST - mywist.org) aims to provide information and training to interventionists from all fields, specializing in acute stroke intervention, so that stroke patients have better access to the treatment they need to give them the best quality of life. WIST strives to ensure that acute catheter-based stroke intervention procedures are only performed by well-trained specialists.

Certificate of Appreciation was awarded to Dr Shailesh B Gaikwad by the World Federation for Interventional Stroke Treatment (WIST) for volunteering his insights, time and tireless efforts to the organization of the ICCA Stroke 2019 Congress, held on 11-12 March at AIIMS.

VISITING SCIENTIST

1. Alexander Coon, MD, Director of Endovascular and Cerebrovascular Neurosurgery, Co-Director of Comprehensive Stroke Programme, St. Joseph Hospital, Tucson, Arizona, USA

Neuroanaesthesiology

HIGHLIGHTS

Anaesthetic management for 4,342 (3,027 at the Neurosciences centre and 1,315 at the JPNATC) neurosurgical procedures was performed. Anaesthetic management for 636 neuroradiological procedures (428 in Angiography lab and 208 in MRI suite) was performed. Anaesthetic management for 9 patients receiving gamma knife therapy was performed. Intensive care management of 4,430 ICU patients (3510-NSC; 920-TC3 ICU, JPNATC) was performed. A total of 5,499 patients were seen in Pre-Anaesthesia Check-up (PAC) clinic OPD at NSC. A total of 833 patients (139 new and 694 old) were seen in pain clinic OPD, NSC and 412 of them were treated with nerve blocks. Five patients received nerve blocks in trauma centre.

EDUCATION

Six candidates were awarded DM (Neuroanaesthesiology) degree and one candidate was awarded fellowship in Neurocritical Care. Eight new candidate joined DM course and three candidates joined the Neurocritical care fellowship cases. Thirty-seven senior residents (both academic and non academic) received training in the department. Twenty one postgraduate students (including 9 from Lady Harding Medical College) and 24 senior residents from other anaesthesia departments received neuro-anaesthesia training.

CMEs/Workshops/Symposia/National and International Conferences

The department successfully organized AIIMS Neuroanaesthesia Update-2019, AIIMS Cadaveric Airway workshop and AIIMS Cadaveric Chronic Pain Management Course.

Lectures delivered

Arvind Chaturvedi

1. Anaesthetic Challenges in Intracranial Aneurysm Surgery, Central Zone ISA Meeting, September 2018, Ujjain, MP
2. Anaesthetic Challenges in Pituitary Surgery in Jaipur (RAJ), RSACP CON, 6-8 April 2018, Jaipur (RAJ)

MP Pandia

1. Coagulation and bleeding, Medanta Neuro Critical Care Conference-2018 (MNCC-208), 2 September 2018, Gurgaon
2. Anesthetic concerns in the surgical separation of craniopagus twins—The AIIMS experience, First International Conference on Conjoined twins, 14 February 2019, New Delhi
3. Anesthetic concerns in the surgical separation of craniopagus twins—The AIIMS experience, 11th Annual National Conference of Indian Anaesthesiologists (IAPA-2019), 9 February 2019, New Delhi
4. Difficult airway in Paediatric Neurosurgery, 6th Congress of Asian Society for Neuroanaesthesia and Critical Care, 15 March 2019, Nara, Japan

Girija Prasad Rath

1. Care and management of Brain-dead patient for organ donation, 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA), 23 March 2019, Dhaka, Bangladesh

2. Awake Craniotomy, 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA), 23 March 2019, Dhaka, Bangladesh
3. Cerebral Microdialysis, 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA), 22 March 2019, Dhaka, Bangladesh
4. Near Infrared Spectroscopy (NIRS), 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA), 22 March 2019, Dhaka, Bangladesh
5. Perioperative Management of Revascularization in Moyamoya Disease, SNACC Panel; 6th Congress of Asian Society for Neuroanaesthesia and Critical Care (ASNACC 2019), 16 March 2019, Nara, Japan
6. Recent Trials in Perioperative Neurosciences: Where We Stand? 20th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC 2019), 15 February 2019, Gurugram, India
7. Anaesthetic Considerations of Awake Craniotomy in Children, 11th Annual Conference of Indian Association of Paediatric Anaesthesiologists (IAPA 2019), 10 February 2019, New Delhi, India
8. Anaesthetic Considerations for Awake Craniotomy for Epilepsy and Functional Neurosurgery, Annual Conference of Indian Society of Anaesthesiologists (ISACON 2018), 29 November 2018, Agra, India
9. Clinical Applications of TCD, AIIMS Neuroanaesthesia Update 2019, 5 November 2019, New Delhi, India
10. Principles of TCD, AIIMS Neuroanaesthesia Update 2019, 5 November 2019, New Delhi, India
11. Diagnosis of Brain Death and Management of Deceased Organ Donor, AIIMS Anaesthesiology PG Assembly, 20 October 2018, New Delhi, India
12. Management of Cerebral Vasospasm, Annual Conference of South-Zone Indian Society of Anaesthesiologists (SZISACON 2018), 9 September 2018, Tirupati, India
13. Transcranial Doppler, NICE Symposium, 12 August 2018, Secunderabad, India

Hemanshu Prabhakar

1. Near Misses in Awake Craniotomy, 20th Annual Conference of SAN, SANCON 2019, 16 March 2018, Kathmandu
2. Neurological examination, 2nd Neurocritical Care Refreshercourse, ENLS and Simulations, Indraprastha Apollo Hospitals, 16 November 2018, New Delhi
3. PBLD on Traumatic cervical spine management, Indraprastha Apollo Hospitals, 16 November 2018, New Delhi

Gyaninder Pal Singh

1. Anaesthesia in Intraoperative Neurophysiological Monitoring, IONM 2018, 4 May 2018, New Delhi
2. Ideal Volatile for Neuro Anaesthesia, IV Annual Medanta Neuro Critical Care Conference (MNCC) 2018, 31 August-2 September 2018, Gurugram
3. Postoperative recovery profile in Neurosurgical Patients: Which is the better choice, Inhalational vs TIVA, 2nd Annual Neurocritical Care Update 2018, 22-24 March 2018, Gurugram
4. Child for Hydrocephalus for VP Shunt, AIIMS Anaesthesiology Post-Graduate Assembly, 18- 21 October 2018, New Delhi
5. Airway, Breathing and Sedation in Neurocritical Care Patient, Acute Neurological Care, 13-14 February 2019, Gurugram
6. Early goal directed therapy in Neurosciences: Where do we stand? 20th Annual Conference of Indian Society on Neuroanaesthesiology and Critical Care (ISNACC) 2019, 15-17 February 2019, Gurugram
7. Disorders of Osmolality in ICU, Update on Fluid, Electrolyte and Acid Base Disorders, 16-17 March 2019, New Delhi
8. Sitting position in Neurosurgery, 6th World Conference on Neurology and Neurosurgery, 27-28 March 2019, Paris, France

Ashish Bindra

1. Trigeminal Neuralgia, Chronic Interventional Pain Management Course, 13 October 2018, New Delhi
2. Laryngoscopy, Cadaveric Airway Management Course, 23 October 2018, New Delhi
3. Panel on Post Traumatic Epilepsy, Medanta Neurocritical Care Conference, 2 October 2018, New Delhi
4. Latest modalities in treatment of Trigeminal Neuralgia, International Conference of Pain, 28 October 2018, Jodhpur
5. Transfusion trigger in Neurotrauma ICU, Annual AIIMS Neurotrauma Conference, 28 November 2018, New Delhi
6. Transfusion trigger in Neurotrauma, AIIMS Neuroanaesthesia Update, 3 November 2018, New Delhi
7. Management of Status Epilepticus, Acute Neuro Care, 14 February 2019, Gurugram

8. Anaesthesia for Epilepsy Surgery, India Society of Neuroanesthesiology and Critical Care, 15 February 2019, Gurugram
9. Anaesthesia for Epilepsy Surgery, ISNACC Webinar Classroom, 9 September 2018
10. Hypothermia, ISNACC Webinar Classroom, 7 October 2018
11. Anaesthesia in IntraoperativeMRI Suit, ISNACC Webinar Classroom, 23 December 2018

Niraj Kumar

1. Vascular access, AIIMS -EMSONO, 11 August 2017, New Delhi
2. Concepts on Head-to-Toe Secondary Management and Monitoring, AUTLS, 15 September 2018, New Delhi
3. Ultrasound as an aid to airway, Cadaver Airway Workshop *Course Director, 23 September 2018, New Delhi
4. Caudal block, Interventional pain management workshop, 13 October 2019, New Delhi
5. Workshop for technologist, AIIMS Neuroanesthesia Update 2018, Course coordinator*, 2-4 November 2018, New Delhi
6. Point of care ultrasound, ACCC AIIMS, 8-9 December 2018, New Delhi
7. Traumatic Spine Injury (TSI) and USG in Neurological Emergencies, ANC (ISNACC), 13-17 February 2019, Gurugram
8. Role of technologists in cervical spine injury management (Moderator), NCOTT-2018, 2 December 2018, New Delhi

Keshav Goyal

1. Awake Craniotomy, Nuggets for newbies, Neuroanesthesiology and Neuro Critical Care Update 2018, 18-19 August 2018, Lucknow (UP)
2. We cannot 'Walk Our Talk'. Steroids in Spinal Injury: Treating the Surgeon! Panel discussion, IVth Annual Medanta Neuro Critical Care Conference 2018, 31 August-2 September 2018, Gurugram, Haryana
3. The Gold Standard is losing its Shine: Airway Control in C Spine, Role of VLs vs Awake: Panel discussion, IVth Annual Medanta Neuro Critical Care Conference 2018, 31 August-2 September 2018, Gurugram, Haryana
4. Prognostic value of serially estimated serum procalcitonin levels in traumatic brain injury patients with or without extra cranial injury—A longitudinal observational study, International Conference on Spreading Depolarizations (ICSD), 22-24 September 2018, Boca Raton, Florida (USA)
5. Prognostic value of serially estimated serum procalcitonin levels in traumatic brain injury patients with or without extra cranial injury—A longitudinal observational study, 16th Annual Meeting of Neurocritical Care Society (NCS) "Neurocritical Care Without Borders", 25-28 September 2018, Boca Raton, Florida (USA)
6. Facet Joint Block: Considerations and tips, 3rd Cadaveric Pain Workshop, 13 October 2018, New Delhi
7. Anaesthesia for Craniotomy for aneurysm surgery and brain tumor, AIIMS Anaesthesiology Post-Graduate Assembly 2018 (APGA18), 18-21 October 2018, New Delhi
8. Chin Chest Deformity (Case discussion), AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, New Delhi
9. Quiz Master, AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, New Delhi
10. Advances in Multimodality Neuromonitoring, Third Conference of Nepalese Society of Critical Care Medicine (NSCCM), 16-17 November 2018, Kathmandu, Nepal
11. Recent trial in Critical Care—Panelist, Third Conference of Nepalese Society of Critical Care Medicine (NSCCM), 16-17 November 2018, in Kathmandu, Nepal
12. Intracranial Hypertension, ENLS in 3rd Conference of Nepalese Society of Critical Care Medicine (NSCCMCON 2018), 18 November 2018, Kathmandu, Nepal
13. Traumatic Brain Injury, ENLS in 3rd Conference of Nepalese Society of Critical Care Medicine (NSCCMCON 2018), 18 November 2018, Kathmandu, Nepal
14. Sodium and fluid management in Surgical ICU patients, 1st Acute Critical Care Course (ACCC) for Interns, 8-9 December 2018, New Delhi
15. Traumatic Brain Injury: Acute Emergency Management *Course Director and coordinator, Acute Neuro Care (ANC), 13-14 February 2019, Gurugram, Haryana
16. Single Rescuer and Double Rescuer CPR, ACLS, 23-24 February, 29 March 2019, New Delhi

Navdeep Sokhal

1. Percutaneous Tracheostomy, Airway Management Workshop: Cadaver Training and Research

2. Facility, 23 September 2018, New Delhi
3. Stellate Ganglion Block, Cadaveric Pain Conference, 13 October 2018, New Delhi
4. Sepsis—What is new, AIIMS Neuroanaesthesia Update, 4 November 2018, New Delhi
5. Respiration—Applied physiology, AIIMS Critical Care Course for the Interns, 8 December 2018, New Delhi
6. Meningitis and Encephalitis, Acute Neuro Care, 14 February 2109, Gurugram

Charu Mahajan

1. Acute management of patients having Traumatic brain injury, Neuroanaesthesiology and Neurocritical Care Update, 2018, 19 August 2018, SGPGIMS, Lucknow
2. Aneurysmal SAH, Neurocritical Care and Emergency Neurological Life Support Refresher and Certificate Course, 16 November 2018, Indraprastha Apollo Hospitals, New Delhi
3. Clearing the Visibility of this Gaseous Conundrum: Do we have one Ideal Volatile in Neuroanaesthesia? Annual Medanta Neuro Critical Care Conference 2018, 31 August-2 September 2018, Medanta, The Medicity, Gurugram

Indu Kapoor

1. Transcranial Doppler [TCD], Advanced Neuromonitoring Workshop during 6th Annual MIND Update 2018, Max Institute of Neurosciences, Dehradun in association with Indian Society of Neuroanaesthesia and Neurocritical Care, 12 May 2018, Dehradun
2. Massive hemorrhage in Neuroendoscopic procedures, Neuroanaesthesiology and Neurocritical Care Update 2018, Department of Anaesthesiology, Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow, 19 August 2018
3. Basic of Neuropharmacology in Neurocritical Care, Indraprastha Apollo Hospitals, 16 November 2018, New Delhi

Surya Kumar Dube

1. Donor Screening and Optimization, In Service Training Course of Resident doctors on Deceased Organ and Tissue Donation, Organized by ORBO, 17 April, 22 May, 10 August, 19 November and 10 December 2018, AIIMS, New Delhi
2. Brain protection during and after cardiac resuscitation, Practices and Advances in Cardiac Anaesthesia, 21 September 2018, AIIMS, New Delhi
3. Double Lumen Tube, AIIMS Cadaveric Airway Workshop, 23 September 2018, JPNATC, New Delhi
4. Trans Cranial Doppler (Indices and Ratios) as a part of faculty for the Transcranial Doppler workshop, 6th AIIMS Neuroanaesthesia Update, 2 November 2018, AIIMS, New Delhi
5. Current Strategies for Neuro-protection in Cervical spine injury, 6th AIIMS Neuroanaesthesia Update, 3 November 2018, AIIMS, New Delhi
6. Potassium Imbalance, Acute Critical Care Course, 8 December 2018, AIIMS, New Delhi
7. Diabetic Ketoacidosis, Acute Critical Care Course, 9 December 2018, AIIMS, New Delhi
8. Goal Directed Fluid therapy in Neurosurgery, Quarterly ISNACC Delhi Chapter Meeting, AIIMS, 19 December 2018, New Delhi
9. Paroxysmal Sympathetic Hyperactivity, ISNACC 2019, 17 February 2019, Gurugram, NCR

Oral papers/posters presented

1. Bindra A, Mishra RK, Khandelwal A, Sharma D, Goyal K, Rath GP, Gupta D, Effect of cerebral perfusion pressure on brain regional energy metabolism in patients with severe head injury, 6th Congress of Asian Society for Neuroanaesthesia and Critical Care (ASNACC 2019), 14-16 March 2019, Nara, Japan
2. Bindu B, Bindra A, Rath GP, Prabhakar H, Kulkarni SS, Kumar S, Practical Issues in Anaesthesia: A Nationwide Survey in India, **SNACC 2018, 12-14 October 2018, San Francisco**
3. Chavali S, Kapoor I, Prabhakar H, Mahajan C, Changes in Thromboelastometry in Patients Undergoing Epilepsy Surgery, EURONEURO, November 2018, Brussels
4. Dhanda A, Dhakal R, Bindra A, Singh GP, Rath G, Gupta D, Paediatric traumatic brain injury: Neuro-intensive care management in a tertiary care trauma centre, 10th EuroNeuro, 8 November 2018, Belgium
5. Goyal K, Tomar GS, Singh GP, Soni KD, Agarawal R, Mathur P, et al, Prognostic value of serially estimated serum procalcitonin levels in traumatic brain injury patients with or without extra cranial injury—A longitudinal observational study, ICSN 2018 and 16th Annual Meeting of Neurocritical Care Society (NCS) “Neurocritical Care Without Borders”, 25-28 September 2018, Boca Raton, Florida (USA)

6. Jena BR, Rath GP, Chouhan V, Gupta N, Chavali S, Chaturvedi A, Pleth variability index versus stroke volume variation as predictors of fluid responsiveness in prone position, 6th Congress of Asian Society for Neuroanaesthesia and Critical Care (ASNACC 2019), 14-16 March 2019, Nara, Japan
7. Jena BR, Rath GP, Chouhan V, Gupta N, Chavali S, Chaturvedi A, Pleth variability index versus stroke volume variation as predictors of fluid responsiveness in prone position, 20th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC 2019), 15-17 February 2019, Gurugram, India
8. Khandelwal A, Goyal K, Sokhal S, Dube S, Tandon V, Singh A, Chaturvedi A. *Best Poster Award, Perioperative Anaesthetic Management of a Patient with Chin-on-Chest Deformity Presenting for Reconstructive Spine Surgery: A Case Report, ISNACC 2019, 15-17 February 2019, Gurugram, Haryana
9. Kumar N, Singh GP, Goyal K, Sokhal N, Bindra A, A rare case of malposition of guidewire into external jugular vein during ultrasound-guided internal jugular vein catheterisation, 25th Annual Conference of Indian Society of Critical Care Medicine (CRITICARE 2019), 1-3 February 2019, Mumbai
10. Kumar S, Mishra N, Dube SK, Rath GP, Anaesthesia for children with tetralogy of Fallot undergoing craniotomy and evacuation of cerebral abscess, 6th Congress of Asian Society for Neuroanaesthesia and Critical Care (ASNACC 2019), 14-16 March 2019, Nara, Japan
11. Mishra RK, Bindra A, Khandelwal A, Goyal K, Rath G, Gupta D, Effect of cerebral perfusion pressure augmentation on brain regional energy metabolism, 6th Conference of Asian Society of Neuroanesthesia and Critical Care, 15 March 2019, Nara, Japan
12. Mishra RK, Bindra A, Khandelwal A, Sharma D, Goyal K, Rath GP, Gupta D, Effect of cerebral perfusion pressure augmentation on brain regional energy metabolism in patients with traumatic brain injury, Medanta Neurocritical Care Conference 2018, 31 August-2 September 2018, Gurugram, India
13. Pandia MP, Mishra RK, Kalaivani M, Kumar S, Singh GP, The effect of anaesthetic exposure in presurgical period on neurological outcome in patients with aneurysmal subarachnoid haemorrhage undergoing surgical management, 10th Euro Neuro, Brussels 2018, 7-9 November 2018, Brussels, Belgium
14. Prabhakar H, Kapoor I, Mahajan C, Assessment of Airway in Patients with Acromegaly Undergoing Surgery: Predicting Successful Tracheal Intubation, SNACC 2018, 12-14 October 2018, San Francisco
15. Prasad C, Khandelwal A, Singh GP, Chaturvedi A, Intraoperative generalized tonic-clonic seizure and consequent severe brain bulge during functional motor cortex mapping: A case report, AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, New Delhi
16. Rath GP, Lamsal R, Chavali S, Pleth Variability index versus stroke volume variation as predictors of fluid responsiveness in prone position, Anesthesiology 2018, American Society of Anesthesiologists (ASA) Annual Meeting, 14 October 2018, San Francisco, USA
17. Rath GP, Mishra N, Chaturvedi A, Bithal PK, Effect of goal-directed intraoperative fluid therapy on hospital stay in patients undergoing excision of supratentorial tumors, SNACC 2018, Society for Neuroscience in Anesthesiology and Critical Care Annual Meeting, 12 October 2018, San Francisco, USA
18. Routaray SK, Singh GP, Khandelwal A, Chaturvedi A, Mishra RK, Intractable brain bulge during cerebral arteriovenous malformation surgery due to contralateral acute subdural haematoma, A case report, AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, New Delhi
19. Sen Gupta D, Bindra A, Chaturvedi A, Routary S, Evaluation of respiratory morbidity and outcome in Cervical Spine Injury, Indian Society of Neuroanesthesia and Critical Care, 15 February 2019, Gurugram
20. Sen Gupta D, Pal Singh G, Kumar N, Bindu B, Khandelwal A, Multiple episodes of cardiac arrest following traumatic cervical spinal cord injury culminating into death: A series of 2 patients, AIIMS Neuroanesthesia Update 2018, 2-4 November 2018, New Delhi
21. Sengupta D, Singh GP, Multiple episodes of cardiac arrest following traumatic cervical spinal cord injury culminating into death: A series of 2 patient, AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, New Delhi
22. Sokhal S, Mahajan C, Rath GP, Singh GP, Mishra N, Bithal PK, Efficacy and safety of dexmedetomidine infusion for patients undergoing awake craniotomy: An observational study. AIIMS Neuroanaesthesia Update 2018, 2-4 November 2018, New Delhi
23. Sokhal S, Rath GP, Goyal K, Mahajan C, Chandra PS, A comparison of the effectiveness of dexmedetomidine versus propofol infusion for sedation during awake craniotomy, AIIMS Neuroanaesthesia Update 2018, 5-7 November 2018, New Delhi, India
24. Tomar GS, Singh GP, Nigam R, Bhoi SK, Sangar K, Roy A, A novel method for diagnosing the severity of brain injury by rapid detection of UCHL-1 in the serum of brain trauma patients: A prospective case controlled parallel arm study, 4th Annual Medanta Neurocritical Care Conference (MNCC) 2018, 31 August-2 September 2018, Gurugram

RESEARCH

Funded projects

Ongoing

1. A randomized control trial for evaluation of transfusion related immuno-modulation in patients with meningioma, Girija Prasad Rath, AIIMS, 2 years, 2018-2020, Rs 5 lakhs
2. Comparing the use of needle guidance versus free hand technique in performing ultrasound guided central venous cannulation: A prospective randomized trial, Niraj Kumar, AIIMS, 1 year, 2016 ongoing, Rs 4.6 lakhs
3. Assessment of Cerebral Autoregulation using NIRS in severe traumatic brain injury patients, Keshav Goyal, AIIMS, 2 years, January 2016, Rs 5 lakhs
4. Effect of decompressive craniectomy on jugular venous oximetry in patients with severe traumatic brain injury, Navdeep Sokhal, AIIMS, 2 years, 2017-2018, Rs 2.5 lakhs
5. Study of muscle enzyme elevation in neurosurgery and its relevance in postoperative acute kidney injury: A pilot study, Surya Kumar Dube, AIIMS, New Delhi, 1 year, 2018-2019, Rs 3 lakhs
6. Comparison of fiber-optic endotracheal intubation with and without the use of air-Q as a conduit in patients with cervical spine injury: A pilot study, Gyaninder Pal Singh, AIIMS, New Delhi, 3 years, 2015-2018, Rs 2 lakhs
7. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit: A preliminary Randomized controlled trial, AIIMS, Rs 0.83 lakhs

Completed

1. Use of indirect calorimetry to assess outcome in stroke patients: A comparison of standard versus weight-based formula, Girija Prasad Rath, GE Health Care Pvt Ltd, 2 years, 1 March 2016-29 February 2018, Equipment
2. Assessment of effect of cerebral perfusion pressure augmentation in severe head injuries by monitoring of regional energy metabolism by cerebral microdialysis, Ashish Bindra, AIIMS, 2 years, 2016-2018, Rs 4.95 lakhs
3. Cerebroprotective role of Dexmedetomidine in Epilepsy Surgery, Ashish Bindra, AIIMS, 2 years, 2012-2014, Rs 2.62 lakhs

Departmental projects

Ongoing

1. A comparison of two non-invasive methods for intraoperative estimation of cardiac output in neurosurgical patients under general anaesthesia
2. A prospective randomized controlled trial to study the effect of two different tidal volumes (6-8 mL/kg vs 12-15 mL/kg) on the time to wean patients from ventilator having cervical spine injury (C1-C5)
3. Cardiovascular complications after traumatic spinal cord injury
4. Comparison between Transcranial Sonography [TCS] and Computerized Tomography [CT] scan to assess the Midline Shift [MLS] in traumatic brain injury patients
5. Comparison of C-MAC video-laryngoscope with D-Blade, C-MAC video-laryngoscope with standard blade, and Macintosh Laryngoscopes for intubation with cervical spine immobilization: A randomized study
6. Comparison of fibreoptic endotracheal intubation with and without the use of air-Q as a conduit in patients with cervical spine injury: A pilot study
7. Comparison of propofol and ketofol on transcranial motor evoked potentials in patients undergoing thoracolumbar spine surgery
8. Correlation of NIRS with intraoperative transfusion trigger in paediatric patients posted for Posterior Fossa Tumour Excision
9. Decompressive craniectomy on Jugular Venous Oximetry (SJVO2) in patients with severe Traumatic Brain Injury (TBI)
10. Effect of ketamine infusion as neuroprotective agent on neurological outcome in patients with severe traumatic brain injury: A randomized, controlled, pilot study
11. Effect of neuroradiologic interventions on regional cerebral oxygenation in patients with anterior circulation aneurysms: An observational study
12. Effect of percutaneous Tracheostomy on Optic Nerve Sheath diameter [TONS trial]
13. Effect of propofol versus sevoflurane on cerebral oxygenation in childhood Moyamoya Disease—A Near Infrared Spectroscopy [NIRS] Study

14. Effect of stellate ganglion block for cerebral vasospasm following aneurysmal subarachnoid haemorrhage on cardiac rhythm, A holter-based study
15. Effect of surgical revascularization on regional cerebral oxygenation in patients with Moyamoya disease
16. Evaluation of effect of intravenous Dexmedetomidine on intraoperative blood loss during intracranial meningioma surgery: A randomized controlled study
17. Evaluation of intratracheal lignocaine as compared to normal saline to reduce emergence reactions in the patients undergoing Endoscopic Transphenoidal Pituitary Surgery: A double blind randomized controlled trial
18. Evaluation of the GCS-Pupils score for prognosis in traumatic brain injury—The COMA study
19. Incidence and risk factors for delayed extubation after Posterior Fossa Surgery—A prospective observational study
20. Incidence and risk factors of deep vein thrombosis in patients undergoing intracranial tumor surgeries—A prospective study
21. Intraoperative use of dexmedetomidine in large vascular Meningiomas
22. Perioperative anesthetic management and factors affecting outcome in Robotized Stereotactic Assisted (ROSA) intracranial procedures: A retrospective analysis
23. Role of urinary neutrophil gelatinase associated lipocalin (U-NGAL) as early biomarker for prediction of acute kidney injury in patients treated with colistin
24. Serum lactate, base deficit and glucose levels as prognostic markers of severe traumatic brain injury
25. The effect on Dexmedetomidine on ECoG in patients undergoing epilepsy surgery under desflurane anesthesia
26. To compare the effect of goal directed fluid therapy versus standard fluid regimen on the cuff leak volume in patients undergoing spine surgery
27. To evaluate the effect of change in end tidal carbon dioxide on optic nerve sheath diameter under general anaesthesia
28. To study the effect of Goal Directed Therapy (GDT) based fluid regimen on the cuff leak volume in patients undergoing thoracic, Lumbar and Thoraco-Lumbar Spinal Surgery
29. To study the risk factors and causes of extubation failure in head injury patients
30. Use of non-invasive hemoglobin estimation for blood transfusion in spine surgeries; a comparison with conventional hemoglobin estimation method—A pilot study

Completed

1. Anesthetic management in patients with Tetralogy of Fallot (TOF) with cerebral abscess: A retrospective study
2. Assessment of airway in patients with acromegaly undergoing surgery: Predicting successful tracheal intubation
3. Changes in Thromboelastometry in Patients Undergoing Epilepsy Surgery
4. Comparison of Full Outline of Unresponsiveness [FOUR] score and conventional scores in predicting outcome in aneurysmal subarachnoid hemorrhage
5. Comparison of propofol versus sevoflurane anaesthesia in subarachnoid haemorrhage patients undergoing clipping for aneurysm
6. Correlation between invasive and non-invasive technique of ICP measurement in children with traumatic brain injury: An observational study
7. Effect of dexmedetomidine on dynamic cerebral autoregulation in patients with supratentorial tumors under sevoflurane anesthesia
8. Effect of magnesium and lignocaine on postcraniotomy pain: A comparative, randomised, double-blinded, placebo-controlled study
9. Effect of neuroradiologic interventions on regional cerebral oxygenation in patients with anterior circulation aneurysm: An observational study
10. Effect of two anaesthetic regimes with dexmedetomidine as adjuvant on transcranial electrical motor evoked potentials during spine surgery: A pilot study
11. Evaluation of effect of intravenous Dexmedetomidine on intraoperative blood loss during intracranial meningioma surgery: A randomized controlled study
12. Measurement of Neutrophil Gelatinase Associated Lipocalin (N-GAL) for contrast-induced nephropathy/acute kidney injury following neuroradiological procedure/s in patients with aneurysmal subarachnoid hemorrhage: A preliminary study
13. Perioperative anesthetic management and factors affecting outcome in Robotised Stereotactic Assisted (ROSA) intracranial procedures: A retrospective analysis

14. Randomized trial comparing two techniques of fiberoptic orotracheal intubation under general anaesthesia: Fiberoptic intubation with and without the use of air-Q intubating laryngeal airway
15. Role of Urinary Neutrophil Gelatinase Associated Lipocalin (U-NGAL) as early biomarker for prediction of acute kidney injury in patients treated with colistin
16. The effect of anaesthetic exposure in presurgical period on delayed cerebral ischemia, and neurological outcome in patients with aneurysmal subarachnoid haemorrhage undergoing clipping of aneurysm—A prospective observational study
17. To compare the effects of Dexmedetomidine and Lignocaine on intracranial and systemic pressure dynamics after chest physiotherapy and tracheal suctioning in patients with severe traumatic brain injury, A randomized, blinded pilot study

Collaborative projects

Completed

1. A week in neurocritical care unit: Point prevalence observational study in Neurocritical care: PRINCE Study, July 2014, (IEC/NP-190/2014 RP -03/2014), Baylor College of Medicine, Houston, Texas
2. An evaluation of diaphragmatic movement by M-mode sonography as a predictor of successful extubation during routine surgical procedures, Anaesthesia, Radiodiagnosis
3. Comparison of C-MAC video-laryngoscope with D-Blade, C-MAC video-laryngoscope with standard blade, and Macintosh Laryngoscopes for intubation with cervical spine immobilization: A randomized study, Neuroanaesthesiology and critical care
4. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial, Department of Anaesthesiology, Health Sciences Centre, University of Manitoba, Winnipeg, Canada
5. Effect of magnesium and lignocaine on postcraniotomy pain: A comparative, randomised, double-blinded, placebo-controlled study, Biochemistry
6. Effect of two anaesthetic regimes with dexmedetomidine as adjuvant on transcranial electrical motor evoked potentials during spine surgery: A pilot study, Physiology
7. Prospective study on the effectiveness of chlorhexidine gluconate impregnated patch (BIOPATCHR) in reducing the incidence of central line associated blood stream infection (CLABSI), Department of Microbiology, JPNATC, AIIMS
8. Surveillance of Blood Stream Infections (BSI) at a referral Indian hospital surveillance of Blood Stream Infections (BSI) at a referral Indian hospital, Department of Microbiology, JPNTC, AIIMS

PUBLICATIONS

Journals: 72

Abstracts: 7

Chapters in books: 5

Books: 3

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Arvind Chaturvedi was selected in Selection Committee of ESI Medical College, Faridabad; Reviewer of Sultan Quaboos University Medical Journal (SQUMJ), Oman, JOACP; Continued as Executive Council Member of ISNACC.

Professor Mihir Prakash Pandia chaired a research paper session in 66th Annual Conference of Indian Society of Anaesthesiologists held at Agra on 26-29 November 2018; Chaired a session in the 20th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC-2019) held at Gurgaon on 16 February 2019; Chaired a research paper session in the 6th Congress of Asian Society for Neuroanaesthesia and Critical Care held from 14 to 16 March 2019, held at Nara, Japan.

Professor Girija Prasad Rath organized the “2nd AIIMS TCD Workshop”, and actively contributed for the ‘AIIMS Neuroanaesthesia Update 2018’ as Member of Organizing (Scientific) Committee; Nominated as the Member of Scientific Committee of the Society for Neuroscience in Anesthesiology and Critical Care (SNACC, USA); Continued to be its member of Communications Committee and Assistant Editor of SNACC Newsletters; Continued to hold the post of Executive Editor, Journal of Neuroanaesthesiology and Critical Care (JNACC), Editorial Board Member of Indian Journal of Anaesthesia (IJA), The Indian Anesthetists’ Forum, Associate Editor of Indian Journal of Clinical Anaesthesia (IJCA), and Web Editor, Indian Society of Neuroanaesthesiology and Critical Care (ISNACC); Continued to serve as the International Advisory Board Member of Anaesthesia Essays and Researches (AER) and Anesthesiology and Pain Medicine (AAPM), and peer-reviewer of reputed international journals such as Minerva Anestesiologica, Journal of Neurosurgical Anesthesiology, Neurocritical Care, BMC Anesthesiology, and Journal of Clinical Anaesthesia; Continued to be involved (Core

faculty) in the in-service training programme (Organized by ORBO, AIIMS) of nurses and resident doctors for deceased organ and tissue donation; Nominated as EXCO member (India) for Asian Society of Neuroanaesthesia and Critical Care (ASNACC) and initiated its website being the web editor; Invited faculty/speaker for the international scientific meetings such as Pre-ASNACC Meeting at Nara, Japan; SNACC Annual Meeting at San Francisco, USA; SNACC Panel speaker during 6th Congress of ASNACC held at Nara, Japan; and speaker at 1st International Conference on Neuroanaesthesia and Neurocritical Care and 36th Annual Conference of Bangladesh Society of Anaesthesiologists (BSA).

Professor Hemanshu Prabhakar was featured in Limca Book of Records 2019.

Dr Ashish Bindra conducted Cadaveric Interventional Pain Management Workshop on October 2018 at Cadaveric Training and Research Facility, JPNA Trauma Centre, New Delhi; Chairperson: Management of Neuropathic Pain, Indian Society of Pain Clinicians Conference (ISSPCON), 16 November 2018, Lucknow

Dr Niraj Kumar got admission in fellowship programme: (CMETI—Part Time Clinical Research Methodology and Evidence Based Medicine) at AIIMS, New Delhi for the session January 2019; Based Medicine Instructor (Faculty) of ANLS, ACCC, AIIMS—EM-SONO, AUTLS, AIIMS cadaver airway, Interventional pain management workshop courses; As a faculty of ORBO team facilitates knowledge, awareness amongst the hospital staff and also actively involved in procedures related to organ procurement; **Course director of Cadaveric Airway Management Course** (23 September 2018) at JPNATC, New Delhi; **Executive member of organizing committee of AIIMS Neuranaesthesia Update 2018**; AIIMS, CADAVERIC—Interventional pain management workshop.

Dr Keshav Goyal was awarded preceptorship in Neurocritical Care and Visiting Neurological intensive care as an observer to Cleveland Clinic, Ohio, USA from March to May 2018; Awarded preceptorship in Anaesthesiology Institute and Visiting Neuroanaesthesiology Department as an observer to Cleveland Clinic, Ohio, USA from May to June 2018; Awarded ISNACC Travel Grant for 2018-2019 by National Society of Neuroanaesthesiology and Critical Care (ISNACC); Member of Core Faculties of AIIMS Advanced Life Care Support (ACLS); Introductory course in September 2015 at JPNATC, New Delhi; Renewed ACLS and BLS instructor status: November 2018; Emergency Neurological Life Support (ENLS) Instructor Recertification, November 2018; Course director cum Coordinator of 1st Acute Neuro Care (ANC) affiliated by National Society (ISNACC), February 2019 at Artemis Hospital, Gurgaon; Member of Trainee Engagement Committee of SNACC, USA

Reviewer of International Journal of Respiratory and Pulmonary Medicine; Organized: Executive member of organizing committee of AIIMS Neuroanaesthesia Update 2018; 3rd Cadaveric chronic pain workshop; 1st Acute Neuro Care (ANC); Course Director and Coordinator.

Dr Navdeep Sokhal successfully organized “AIIMS Critical Care Course for Interns” as Course Director on 8-9 December 2018. This course was much appreciated by Dr Randeep Guleria, Director AIIMS and Dr Ashok Deorari, Chairman SET facility for its paperless design and was supported by Chief JPNATC and HOD Neuro Anaesthesia and Critical Care. In this course Interns were trained for various lifesaving skills on mannequins and taught basic concept of critica.

Clinical Neuropsychology

HIGHLIGHTS

Clinical Neuropsychology (CNP), Neurosciences Center, has made an honest attempt to provide Continuum of Health Care as per WHO. All of this has been possible with the support of team comprising of esteemed seniors, colleagues and students of AIIMS. The enthusiasm and willingness of the PhD students has played a major part in delivering ‘standard of care’. The faculty had an honor to be invited as Chairperson at conferences and present as an invited speaker or otherwise in this conference and many more. Talks were organized as a part of Lecture series on Psychological Sciences by eminent international and national speakers. It was a pleasure addressing the Neuropsychology Concerns of the Clinicians for their patients and was able to deliver value added ‘standard of care’. Together we were able to show a good outcome of this discipline.

Lectures delivered

Ashima Nehra

1. Neuropsychological Disability: A Latent Perspective in Neurological Conditions, 76th Annual Conference of International Council of Psychologists, 23-26 June 2018, MONTREAL QC, Canada
2. Post-traumatic stress disorder and management, NEUROTRAMA 2018, 27th Annual Conference of Neurotrauma Society of India, 17-19 August 2018, Lucknow

3. Importance of psychological interventions in the rehabilitation of brain injury and trauma patients—AIIMS Experience (Invited Symposium), 3rd International Conference on Cognitive Behavioural Intervention and Pre-Conference workshop on ‘Positive CBT’, 25-29 September 2018, SGT University, Gurugram
4. Understanding cognitive decline amongst elderly subjects: Biennial conference on Cognitive and Clinical Neuropsychology BCCCN 2018, 18-20 October 2018, Chennai, India,
5. Neuropsychological disability: A hidden epidemic of neurological conditions, National Congress on “Developing a Model Curriculum on Disability Studies for Higher Education in Indian Universities”, 7 October 2018, Organized by Society for Disability and Rehabilitation Studies-SDRS, India Auditorium, Indian Spinal Injuries Centre, New Delhi
6. Management of Post Concussion Syndrome, Multidisciplinary care in TBI Part 1, 5th AIIMS Neurotrauma Conference (ANTC 2018), 26-28 October 2018, New Delhi, India
7. A road to Neuropsychology in India, PSYCON-2018; National Conference on Psychology Today—The Road Ahead, Shobhit University, Meerut
8. Clinical Neuropsychology: Demystifying the Science and Art: An AIIMS Experience, 67th Annual Conference of the Neuropsychological Society of India, 13-16 December 2018, Jaipur

RESEARCH

Funded projects

Ongoing

1. To study the effectiveness of Repetitive Transcranial Magnetic Stimulation (rTMS) on Activities of Daily Living, Behavioural and Cognitive Ability (A-B-C) of Parkinson’s Disease patients, Ashima Nehra, DBT, 3 years, 2018-2021, Rs 30.33 lakhs

Departmental projects

Ongoing

1. Development of a neurocognitive remediation package and Phase II trial for assessment of its efficacy in cognitive functions among patients with Schizophrenia
2. Development and efficacy of comprehensive neuropsychological rehabilitation for improving cognition and quality of life in persons with drug refractory epilepsy: A randomized controlled clinical trial
3. To study the effectiveness of Repetitive Transcranial Magnetic Stimulation (rTMS) on activities of daily living, Behavioral and Cognitive Ability (A-B-C) of Parkinson’s Disease patients
4. Social cognition in drug refractory epilepsy and effect of epilepsy surgery
5. An assessment of neurodevelopment outcomes in children with transposition of great arteries with intact ventricular septum who underwent primary arterial switch operations in infancy with integrated ECMO support compared to children who underwent surgery without integrated ECMO support
6. Assessment of Cognitive, Neuroanatomical and Neurofunctional abnormalities in adults with Type 1 Diabetes
7. To study the impact of Laparoscopic Mini Gastric Bypass (MGB) on Weight Loss, Comorbidities and quality of life in obese patients undergoing bariatric surgery, A prospective and retrospective non randomized observational study

Completed

1. Development and effectiveness of ‘Comprehensive Neuropsychological Rehabilitation’ as an adjunct to standard pharmacological treatment for improving language and quality of life in patients with Post Stroke Aphasia: A randomized controlled clinical trial
2. Study of cognitive function in patients with chronic kidney disease and the effect of renal transplantation
3. A study to assess the lived in experiences of critically ill patients who were on mechanical ventilation in medical-surgical ICU
4. A cross sectional study to evaluate the correlation of gross motor functions, Hand functions and quality of life of family of children with cognition in Cerebral Palsy
5. A descriptive study to assess the cognitive function and quality of life of post traumatic brain injury patients attending neuro surgery OPD at JPNATC with a view to develop an informational booklet at AIIMS, Delhi
6. Correlation between improved cerebral perfusion and neuro-cognitive changes following surgical revascularization in Moya Moya Disease

Collaborative projects

Ongoing

1. Development of a neurocognitive remediation package and Phase II trial for assessment of its efficacy in cognitive functions among patients with Schizophrenia, Clinical Neuropsychology, Psychiatry, Biostatistics
2. Development and efficacy of comprehensive neuropsychological rehabilitation for improving cognition and quality of life in persons with Drug Refractory Epilepsy: A randomized controlled clinical trial, Clinical Neuropsychology, Neurology, Biostatistics
3. To study the effectiveness of Repetitive Transcranial Magnetic Stimulation (rTMS) on Activities of Daily Living, Behavioral and Cognitive Ability (A-B-C) of Parkinson's Disease patients, Clinical Neuropsychology, Neurology, Biostatistics
4. Social cognition in Drug Refractory Epilepsy and Effect of Epilepsy Surgery, Neurology, Clinical Neuropsychology
5. An assessment of neurodevelopment outcomes in children with transposition of great arteries with intact ventricular septum who underwent primary arterial switch operations in infancy with integrated ECMO support compared to children who underwent surgery without integrated ECMO support, Cardiothoracic and Vascular Surgery, Cardiac Anaesthesia, Clinical Neuropsychology
6. Assessment of cognitive, Neuro-anatomical and Neuro-functional abnormalities in adults with Type 1 Diabetes, Endocrinology and Metabolism, Psychiatry, Clinical Neuropsychology
7. To study the impact of Laparoscopic Mini Gastric Bypass (MGB) on Weight Loss, Co-morbidities and quality of life in obese patients undergoing bariatric surgery, A prospective and retrospective non randomized observational study, General Surgery, Gastroenterology, Anesthesiology, Clinical Neuropsychology

PUBLICATIONS

Journals: 2

Abstracts: 1

PATIENT CARE

Facilities available in the department

Psychological assessment includes neuropsychological assessment/evaluation including clinical diagnosis (as per the Gold Standards), comprehensive interview; behavioural observations, assessment with series of neuropsychological tests, interpretation, report writing neuropsychological formulation including General Intellect (Hemispheric Assessment), Cognition, Higher Level Executive Skills (e.g. problem solving, reasoning) Attention and Concentration, Memory and Learning, Motor and Sensory Skills, Perceptuo-motor Functioning/Visuo-spatial skills, Mood and Personality (Orbito Frontal Functions), Language/ Aphasia Assessment. Neuropsychological retraining including basic function approach to improve the functional skills improving basic pre morbid functions of persons daily life; neuropsychological reorganization including compensation for the deficit when deficient function can neither be reorganized nor restored, Clinic Based Therapy; Home Based Therapy. Neuropsychological retraining including basic function approach to improve the functional skills improving basic pre morbid functions of persons daily life; Neuropsychological reorganization including compensation for the deficit when deficient function can neither be reorganized nor restored, clinic based therapy; home based therapy.

Community services/camps etc

Neuropsychological Rehabilitation, Vocational Guidance, Supportive Psychotherapy, Directive Counselling to the patients and family members which is an important aspect of patient care in terms of management of any neurological condition. All these services are covered under the specialized clinics of Neuropsychological Rehabilitation (NR) and Cognitive Disorders and Memory Clinic (CD&M).

Outpatient service (OPD): There are 4 Clinical Neuropsychology OPDs/week, with 3 registries:

1. **Clinical Neuropsychology (CNP) Clinic:**
2. **Specialized Clinics:**
 - a. Neuropsychological Rehabilitation (NR) Clinic

Neuropsychological Rehabilitation, Cognitive Retraining/Restructuring, Basics Skill Training, Functional Re-training, Speech and Language Rehabilitation, Psychosocial Therapy, Guidance and Counselling, Individual Therapy, Family Therapy, Vocational Guidance, Holistic/eclectic Approach Therapy (depending on the patient's needs).

- b. Cognitive Disorders and Memory (CDM) Clinic

Cognitive Disorders and Memory Clinic, Memory Assessment, Screening for Cognitive Decline, Cognitive Rehabilitation for Dementia/ Alzheimer's Dementia, Cognitive Re-training for decline in Memory/Executive Functioning, Management of Cognitive/Memory Disorders, Identify and treat pseudo-dementia, Education: Patients, carers, trainees, colleagues, and the general public, Family guidance, Monitoring of progress and response to therapy.

Referrals

Patients are referred from Neurology, Paediatric Neurology, Neurosurgery, Psychiatry, JPN Trauma Centre, Gamma Knife Unit, Neuroanaesthesia, Physical rehabilitation and medicine(PMR), ENT, Nephrology, Dermatology, Gynaecology, Endocrinology, Nuclear Medicine, Medical superintendent's office (for medico legal cases), etc.

Referrals are given to establish a 'baseline' of skills/weaknesses in order to measure change in the future, to identify strengths and weaknesses in specific areas, to differentiate among illnesses, which can then direct appropriate treatment, to plan for treatment to use strengths to compensate for weaknesses, to assess everyday functional skills to plan for assistance or treatment, etc.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Nominated by International Council of Psychologists (ICP) to take up the position to be a Member and to participate in WHO Rehabilitation Competence Framework Working Group. The Working Group is mandated to support the development of Rehabilitation Competence Framework, provide expert opinion on its structure, language, scope and content to ensure that it achieves its intended aims. Furthermore, the working group is tasked with helping Coordinate the dissemination of drafts for peer review by their respective organizations or specialist groups and support the translation of feedback into concrete and meaningful recommendations; Nominated as Member Ethics Board. Institute of Home Economics, University of Delhi; Member and Chaired Session: National Congress on "Developing a Model Curriculum on Disability Studies for Higher Education in Indian Universities" on 7 October 2018 (Sunday); Invited as resource person by CSIR National Institute of Science, Technology and Development Studies (NISTADS). One of the constituent laboratories under Council of Scientific and Industrial Research (CSIR) working as policy research institute, on 'Mind consciousness and beyond: building on vedantic metaphysics' (Attended the meeting); Invited to be panelist of Expert group meeting on aphasia in India, Under the Chairpersonship of Professor Apoorva Pauranik (under the Indian Academy of Neurology initiative); Invited to be a member of Governing Board for the Alzheimer's and Related Disorders Society of India, Delhi.

VISITING SCIENTIST

1. Lecture as a part of lecture series on Advances in Psychological Sciences by Professor Ashum Gupta, Director, Gandhi Bhawan, Former Head, Department of Psychology, University of Delhi
2. Professor Vaishna Narang, Professor of Linguistics, Former Dean School of Language, Literature and Culture Studies, Jawahar Lal Nehru University, New Delhi, India. Dr Mel Kaushansky from Vancouver, British Columbia.

Neurobiochemistry

HIGHLIGHTS

- One master student and two PhD students pursuing their dissertation under my supervision
- Introduced new diagnostic test TPMT screening in Biochemistry, NSC, Diagnostic Division
- Participating as a content provider for MOOCs-SWAYAM, an MHRD, National Mission on Education that will help to improve the education system in India

EDUCATION

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered

Ashok Sharma

1. Epigenetic regulation of POTE genes in Epithelial Ovarian Cancer, Integrating Cancer Research into Comprehensive Disease Management: Recent Breakthroughs, 28 February-3 March 2019, Chandigarh

Oral papers/posters presented

1. Jha S, Das D, Mehra T, Mathur S, Karpf AR, Sharma A. Epigenetic regulation of POTE genes in Epithelial Ovarian Cancer, Integrating Cancer Research into Comprehensive Disease Management: Recent Breakthroughs, 28 February-3 March 2019, PGIMER, Chandigarh
2. Qazi S, Karpf AR, Sharma A, In-silico Identification of Structural and Functional Divergence of POTE gene Paralogs, Symposium on Accelerating Biology 2019: Towards Thinking Machines, 4-7 February 2019, C-DAC, University of Pune

RESEARCH

Funded projects

Ongoing

1. Genome—Wide DNA methylation and genomic instability profiling and evaluating its potential as a biomarker and immunotherapeutic target for Ovarian Cancer, Ashok Sharma, DBT—Ramalingaswami Project, 5 years, 2015-2020, Rs 32.5 lakhs
2. Nuclear architecture as an epigenetic regulator in pericentromeric localized cancer-testis/germline antigen POTE expression in Ovarian Cancer, Ashok Sharma, DST, Ministry of Science and Technology, 3 years, 2017-2020, Rs 55 lakhs
3. A pilot study to analyze serum levels and intra-tumour expression of cancer-testis antigen POTEE as a new biomarker for ovarian cancer, Ashok Sharma, DHR-ICMR, 2 years, 2018-2020, Rs 25 lakhs
4. Molecular characterization of endometrial cancer and its correlation with clinicopathological features, Ashok Sharma, AIIMS, 2 years, 2018-2020, Rs 10 lakhs
5. Epigenetic regulation of pro-inflammatory and anti-inflammatory cytokine gene in posttraumatic sepsis and septic shock-defined by sepsis-3 classification. A exploratory study in major trauma patients, Kapil Dev Soni, AIIMS, 2 years, 2019-2021, Rs 10 lakhs
6. Estimate the serum levels of cancer-testis antigen POTE as a biomarker in Epithelial Ovarian Cancer, Dr Ashok Sharma, AIIMS, 2 years, 2016-2018, Rs 10 lakhs

Departmental projects

Ongoing

1. Cloning and functional analysis of cancer testis antigen POTEE in Epithelial Ovarian Cancer
2. Functional characterization, expression, and clinical significance of cancer-testis/ germline antigen POTEB in Ovarian Cancer
3. Role of 3D genome architecture as epigenetic regulator of pericentromeric localized cancer- testis/germline antigen POTE in Cancer

Completed

1. Effect of DNA methylation in expression of cancer-testis/germline gene POTEE in Ovarian Cancer
2. DNA methylation effect on POTEB expression in Epithelial Ovarian Cancer

Collaborative projects

Ongoing

1. Role of PARP1 and γ -Glutamylcysteine Synthetase Inhibitor in Cisplatin Sensitivity and Correlation with DNA Methylation in Ovarian Cancer, Medical Oncology
2. Impact of Yoga and Meditation on Epigenetic Profile in Rheumatoid Arthritis, Anatomy
3. The role of Leukotriene A₄ hydrolase gene polymorphism and clinical outcome correlate in corticosteroids treated tubercular meningitis patients, Neurology
4. One carbon metabolism and cognitive impairment in older Indians, Geriatric Medicine
5. Estimation of novel proteins among older subjects as biomarker for cognitive impairment, Geriatric Medicine
6. To evaluate the effect of intralipid supplementation on implantation rate in women with two or more failed IVF/ ICSI with elevated natural killer cell levels—A pilot randomized controlled trial, Obstetrics and Gynaecology
7. Expression of cancer testis antigen POTE in Ovarian Tumors and its clinical significance: A pilot study, Obstetrics and Gynaecology
8. Molecular characterization of Endometrial Cancer and its correlation with clinicopathological features, Pathology

Completed

1. Role of peroxisome proliferator activated receptor Alpha (Ppar Alpha) in trophoblast invasion, Biochemistry

PUBLICATIONS

Journals: 3

PATIENT CARE SERVICES

Providing routine diagnostic services in Biochemistry Division, NSC. Have introduced TPMT screening diagnostic test in Biochemistry Division, NSC.

Statement of Ward and OPD tests done

	Ward Haematology	OPD Haematology	PT	APTT
Total	60,706	35,696	67,916	6,895

Statement of Catecholamines, VMA, Vitamin D, PTH, HbA1c, NMO

Month	Catecholamines	VMA	Vitamin D	PTH	HbA1c	NMO
Total	490	490	4,320	119	9,301	664

Statement of Ward Chemistry tests done in Centralised Lab CNC

S. No	Description	No. of Tests
1	Glucose	31,433
2	Urea	57,478
3	Creatinine	57,478
4	Calcium	56,120
5	Phosphorous	56,130
6	Uric Acid	57,115
7	Sodium	57,128
8	Potassium	57,120
9	Bilirubin	56,390
10	Direct Bilirubin	55,540
11	Total Protien	56,160
12	Albumin	56,890
13	AST	60,140
14	ALT	60,140
15	ALP	58,140
16	Cholestrol	36,180
17	Amylase	26,110
18	Cyclosporin	215
19	Techcrolimus	476

Statement of OPD Chemistry tests done in Centralised Lab CNC

S. No	Description	No. of Tests
1	Glucose	46,840
2	Urea	45,810
3	Creatinine	45,750
4	Calcium	44,105
5	Phosphorous	43,990
6	Uric Acid	44,220
7	Sodium	44,550
8	Potassium	44,550
9	Bilirubin	44,840
10	Direct Bilirubin	45,450
11	Total Protien	45,340

12	Albumin	45, 110
13	AST	45,110
14	ALT	45,220
15	ALP	44,740
16	Cholestrol	7,115
17	Amalyse	7,101

Lipids and Enzymes done in Centralised Lab CNC

S. No	Description	Total Numbers of Test
1	Lipid Profile	96,440
2	CK-NAC	16,552
3	CK-MB	5,296
4	LDH	19,480
5	ASLO	4,815
7	Digoxin	826

Hormones, Drugs and other Neurological tests done in Centralised Lab CNC

Hormones

S. No	Description	No. Test
1	T3	13,000
2	T4	13,500
3	TSH	14,000
4	Prolactin	1,650
5	Cortisol	1,700
6	LH	1,600
7	FSH	1,600

Drugs

S. No	Description	No. Test
1	Phenytoin	1,400
2	Valporate	1,300
3	Phenobarbitone	200
4	Carbamazepine	800

Others

S. No	Description	No. Test
1	Vit B12	5,000
2	Folate	3,000
3	Homocysteine	1,500
4	Ferritin	1,300
5	Ceruloplasmin	400
6	Serum Copper	450
7	Urine Copper	250
8	ACHR	200
9	OCB	400
10	Neuronal Ag	12
11	Ganglioside	03

Sanger-Sequencing based test:

S. No	Description	No. Test
1	TPMT	120
2	BRCA	15
3*	SCA, MND-ALS, CAH	160
4*	MND, Stroke, AML	456

*Professor Achal Srivastava

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Ashok Sharma Chaired the Session “Young Speaker Programme” as well as examiner for the poster session, Symposium on Accelerating Biology 2019: Towards Thinking Machines, 4-7 February 2019, Pune, Epigenetics and Human Diseases; Elected as a Joint-Secretary in DSI for the period of 2018-2020, DNA Society of India, 24 April 2018, Kolkata; Working as coordinating member for Indian Cancer Research Consortium (ICRC), ICMR, New Delhi; Member of National Consultation for Strengthening Cancer Screening Intervention, Ministry of Health and Family Welfare, Government of India; Expert member of project review committee of “Innovative Translational Research (ITR) Division”, ICMR, India; Expert member of project review committee of “Cell Tower and Mobile Radiation programme”, DST, India; Founding member of “Indian Society of Clinical Oncology”; Editorial and Review Work: Member of the Editorial Board of Cancer science and Cell Biology; Member of the Editorial Board of International Journal of Integrative Sciences, Innovation and Technology (IJIT); Guest Editor for Special Issue on Immunoepigenetics: A Future Sentinel for Tumor Directed Therapies, Journal of Oncology, Hindawi; **Reviewer for:** PLOS ONE, PLOS Genetics, PLOS Biology, BMC Cancer; Carcinogenesis—Oxford Journals; Laboratory Investigation—Nature; Molecular BioSystems—RSC Publishing; Molecular Biotechnology, Molecular and Cellular Biochemistry—Springer.

Neuropathology

Lectures delivered

Chitra Sarkar

1. Recent advances in Medulloblastomas: Challenges to Neuropathologists, ISNOCON, **6-7 April 2018, New Delhi**
2. Role of molecular genetics in Neuro-Oncology, Pathfinder, **15-16 September 2018, Chennai**
3. Current concepts in Paediatric Gliomas Medulloblastomas: An Update, International Paediatric CME, **18-20 January 2019, Kolkata**
4. Challenges and solutions of molecular classification in the Indian context—Medulloblastoma and other Embryonal Tumors, NPSICON, 14-17 February 2019, Chandigarh
5. Leadership in Healthcare: Does it Demand Uniqueness? Healthcare Leadership Summit, 3 March 2019, Bangalore

Mehar C Sharma

1. Other embryonal tumors of the CNS, Neuropathology CME, 28 April 2018, Dhaka, Bangladesh
2. Muscular dystrophies in the pediatric age group, Neuropathology CME, 28 April 2018, Dhaka, Bangladesh
3. Diagnostic algorithm for muscle diseases in children, Neuroquest, 18-19 May 2018, Gurugram
4. Update in embryonal tumors of Central Nervous System, MAPCON, 7-9 September 2018, Pune
5. Embryonal tumors of the CNS, Case presentation, MAPCON, 2018, 7-9 September 2018, Pune
6. Upregulation of programmed Cell Death Ligand-1 (PDL1) expression in RELA fusion positive ependymoma suggests a role for immunotherapy in these aggressive tumors, International Congress of Neuropathology (ICN 2018), 23-27 September 2018, Tokyo, Japan
7. CNS embryonal tumors, International Congress of Neuropathology (ICN) 2018, 23-27 September 2018, Tokyo, Japan
8. Diffuse midline gliomas, International Congress of Neuropathology (ICN) 2018, 23-27 September 2018, Tokyo, Japan
9. Clinicopathology Conference (CPC Neurology), IANCON, 2018, 23-27 September 2018, Raipur
10. Neuroendocrine tumors—Interesting case presentation, APCON, 2018, 30 November-2 December 2018, Barielly
11. WHO classification of pituitary adenomas 2017, First Annual Alumni Meet, AIIMS, 21 December 2018, New Delhi

12. Non-neoplastic lesions of pituitary gland, Annual Conference of the Neuropathology Society of India (NPSICON), 14-17 February 2019, Chandigarh
13. Clinicopathological Conference (CPC Epilepsy), ECON 2019, 9 March 2019, New Delhi
14. Diagnostic approach to CNS tumors according to WHO 2016 classification, 1st Annual AIIMS Patna Pathology Update (APPU 2019), 10 March 2019, Patna
15. Approach to common histiocytic lesions in children, Paediatric Oncology Workshop on Solid Tumors—Module 3, 17 March 2019, New Delhi

Vaishali Suri

1. Utility of FISH in Molecular Neuro-Oncology (workshop), 10th Annual Conference of the Indian Society of Neuro-Oncology, 6-7 April 2018, New Delhi
2. DNA methylation based classification and grading system for meningiomas, 10th Annual Conference of the Indian Society of Neuro-Oncology, 6-7 April 2018, New Delhi
3. WHO 2016 classification of Medulloblastomas, Neuropathology CME, 28-29 April 2018, Bangladesh
4. Updated WHO 2016 classification of Medulloblastomas, Neurocon 2018, 15-16 September 2018, Gurugram
5. Recent advances in WHO 2016 classification of Adult and Pediatric Gliomas, Neurocon 2018, 15-16 September 2018, Gurugram
6. Fluorescence in situ hybridization assay: Utility in FFPE tissue, National Workshop on Molecular Cytogenetics: In House FISH Probe Production, 12-16 November 2018, New Delhi
7. Molecular markers in management of gliomas are necessary, 67th Annual Conference of IAPM, 30 November-2 December 2018, Bareilly
8. Newer approaches to classification of meningiomas, 67th Annual Conference of Neurological Society of India NSICON 2018, 13-16 December 2018, Jaipur
9. Was invited to deliver a talk on new insights in functional pituitary adenomas, WFNS Neuroendocrinology Symposium, 27 and 28 January 2019, Mumbai
10. WHO classification of gliomas: Clinical utility, DNACON 2019, 2-3 February 2019, New Delhi
11. Non meningothelial tumours, 4th Annual Conference of Neuropathology Society of India, 15-17 February 2019, Chandigarh
12. FISH techniques (Workshop), 4th Annual Conference of Neuropathology Society of India, 15-17 February 2019, Chandigarh

Oral papers/posters presented

1. Ambalavanan N, Suri V, Sharma MC, Pituitary adenoma with neuronal metaplasia—Report of 7 cases', NPSICON-2019, 15-17 February 2019, Chandigarh
2. Anju GS, Sharma MC, NF2 hemizygous deletions and merlin loss in spinal ependymomas are not related to mTOR or Hippo pathway activation, NPSICON-2019, 15-17 February 2019, Chandigarh, ***3rd place oral paper**
3. Battu S, Kumar A, Suri V, Clinicopathological and molecular characteristics of pediatric meningiomas Neuropathology, NPSICON 2019, 15-17 February 2019, Chandigarh
4. Kardam S, Sharma MC, Juvenile neuronal ceroidlipofuscinosis—Report of two cases, NPSICON-2019, 15-17 February 2019, Chandigarh, ***3rd place poster**
5. Kaur K, Suri V, Molecular classification of medulloblastomas in routine practice: Where to strike a balance, ISNOCON 2018, 6-8 April 2018, New Delhi, ***Best proffered paper award**
6. *Kaur K, Suri V, Sarkar C, Sharma MC, 1st prize for poster presentation, Spectrum of infantile tumors according to the WHO 2016 classification, NPSICON 2019, 15-17 February 2019, Chandigarh
7. Kaur K, Suri V, Sarkar C, Status of tumor infiltrating lymphocytes and expression of immune checkpoint protein across infantile and pediatric astrocytomas—elucidate the role of immunotherapy in these tumors, DAPCON-2019, 17 March 2019, New Delhi
8. Kumari K, Suri V, Sharma MC, CNS Lymphomatoid granulomatosis: Report of a rare case, NPSICON-2019, 15-17 February 2019, Chandigarh, ***1st prize poster**
9. Mahajan S, Suri V, Sharma MC, Analysis of Molecular Association and immune checkpoint regulators in Epithelioid Glioblastoma and pleomorphic xanthoastrocytoma: Are these tumor potential candidates for immune checkpoint blockade? NPISCON 2019 15-17 February 2019, Chandigarh
10. Nambirajan A, Suri V, Sharma MC, A clinicopathological study of desmoplastic infantile gangliogliomas with analysis of BRAF and H3F3A gene alterations, International Congress of Neuropathology (ICN 2018), 23-27 September 2018, Tokyo, Japan

11. Nambirajan A, Suri V, Sharma MC, Large dural based mass with bony remodeling in a 16-year old: An IgG4 related pseudotumor mimicking lymphoplasmacyte-rich meningioma, International Congress of Neuropathology (ICN 2018), 23-27 September 2018, Tokyo, Japan
12. Nambirajan A, Sharma MC, *1st place oral paper, Clinicopathological evaluation of PD-L1 expression and cytotoxic T-lymphocyte infiltrates across molecular subgroups of intracranial ependymomas, NPSICON-2019, 15-17 February 2019, Chandigarh
13. Nambirajan A, Sharma MC, Prognostic stratification of posterior fossa ependymomas, DAPCON-2019, 17 March 2019, New Delhi
14. Priyadarshani S, Suri V, Sharma MC, CNS manifestations of cardiac myxoma: Report of two rare presentations, NPSICON-2019, 15-17 February 2019, Chandigarh
15. Rajeshwari M, Sharma MC, Suri V, Sarkar C, Histiocytic sarcoma of the central nervous system—A rare case report, ISNOCON 2018, 6-8 April 2018, New Delhi, ***Best poster award**
16. Roy D, Suri V, Sharma MC, EGFR-amplified glioblastoma occurring as a subsequent neoplasm in a child treated with craniospinal irradiation for acute lymphoblastic leukemia, NPSICON-2019, 15-17 February 2019, Chandigarh
17. Sharma A, Sharma MC, Suri V, PD-L1 and its correlates in ST-RELA fusion positive ependymoma, ISNOCON 2018, 6-8 April 2018, New Delhi, ***Best poster award**
18. Shraddanjali S, Suri V, Primary intracranial malignant ependymoma in an adult: A rare case report, NPSICON-2019, 15-17 February 2019, Chandigarh, ***1st prize poster presentation**
19. Sriram S, Suri V, Rare case report of Pituitary Adenoma with phaeohyphomycosis, NPSICON 2019, 15-17 February 2019, PGIMER, Chandigarh
20. Thomas C, Suri V, Sharma MC, Granulomas in resected pituitary masses: A clinicopathological analysis of ten consecutive cases identified over a 7-year duration, NPSICON-2019, 15-17 February 2019, Chandigarh

RESEARCH

Funded projects

Ongoing

1. A multi-centric study to develop comprehensive molecular genetic panels for glioblastoma personalized therapy, Chitra Sarkar, DBT, 5 years, 2016-2021, Rs 50 lakhs (approximately)
2. JC Bose Research Fellowship, Chitra Sarkar, DST, 5 years, 2016-2020, Rs 15 lakhs per year
3. Unraveling the role of miRNA clusters (C14MC and C19MC) in oligodendrogliomas: Study using genetic and functional approach with clinicopathological correlations, Chitra Sarkar, ICMR, 3 years, 2017-2020, Rs 10 lakhs per year
4. Targeted genomic-epigenomic analysis to develop a novel approach for routine molecular subgrouping and identification of actionable targets in meningioma, Vaishali Suri, DST, 3 years, 2018-2021, Rs 42 lakhs approximately
5. Identification of non-coding RNA panel as novel biomarker for stratification of meningiomas and evaluation of its prognostic therapeutic significant, Vaishali Suri, Multi-Institutional Faculty Interdisciplinary Research Project with IIT Delhi, 2 years, 2018-2020, Rs 10 lakhs
6. Molecular signature of protumorigenic inflammation in the context of the WHO 2016 classification of glioma, Vaishali Suri, AIIMS, 3 years, 2018-2020, Rs 20 lakhs
7. Unravelling the functional relevance of Snail paralogs in the pathogenesis of pediatric ependymomas, MC Sharma, DST, 3 years, 2018-2020, Rs 45 lakhs
8. Sequencing target genes aimed at Neuromuscular disorders in India (STAND-INDIA), MC Sharma, ICMR, 3 years, 2018-2021, Rs 50 lakhs

Completed

1. Unraveling glioma development and progression through whole exome sequencing, Chitra Sarkar, DBT, 4 years, 2013-17, Rs 99 lakhs (approximately)
2. Establishment of rapid and economical methods for molecular subgrouping and risk stratification of medulloblastomas for routine clinical practice in developing countries, Vaishali Suri, AIIMS, 2 years, 2016-2018, Rs 10 lakhs

Departmental projects

Ongoing

1. DNA methylation array for molecular subgrouping of medulloblastomas

2. Targeted sequencing of IDH negative gliomas
3. Clinicopathological study of infant gliomas
4. EZH2-WNT expression and correlation in tumor invasiveness, stem cell phenotype and progression in pituitary adenomas
5. Comparison of molecular and immune profile of Epithelioid GBMs and PXA
6. Analysis of immune check point markers in gliomas
7. EMT pathway in meningioma
8. Molecular profiling of Epithelioid Glioblastoma

Completed

1. Nanostring technology for molecular subgrouping of medulloblastomas
2. Molecular profiling of IDH negative gliomas
3. Study of chromosome 22q alterations and NF2 signaling pathways in ependymomas
4. Molecular profiling of paediatric oligodendroglioma

Collaborative projects

Ongoing

1. Fat gene in gliomas, Biochemistry
2. Molecular and immune profile of midline gliomas, Neurosurgery

PUBLICATIONS

Journals: 28

PATIENT CARE

Neuropathology Laboratory

Total Specimen	2,844
Frozen Section	372

Immunohistochemistry

Routine IHC	7,323
Research IHC	2,700
Muscle IHC	1,870
Total Muscle Received	367
Muscle Enzyme-histochemistry	1,170
Fluorescence in situ hybridization	
Diagnostic	305
Routine	252

EM Facility

Total muscle sample	376
Total nerve sample	44

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Chitra Sarkar was appointed as President, AIIMS, Kalyani by Ministry of Health and Family Welfare; Chairperson of the committee constituted by Ministry of Health and FW to suggest recommendations regarding Bhopal Memorial Hospital and Research Centre (BMHRC); Member, Governing Body of Institute of Medical Sciences, Banaras Hindu University; Member, THSTI Society Committee; Nominated Member of DST-INSPIRE Fellowship Standing Committee; Nominated Member of Expert Evaluation Committee of DST-INSPIRE Fellowship; was Organizing Chair of 10th Annual Conference of the Indian Society of Neuro-Oncology (ISNOCON 2018) held at AIIMS, New Delhi from 6 to 8 April 2018; also organized pre-conference workshop on Molecular Neuro-Oncology; Chairperson, Women's Grievance Cell, AIIMS; Chairperson, Prevention of Sexual Harassment of Women at AIIMS; Coordinator for Memorandum of Understanding between AIIMS and other institutions for collaborative research; Member of Nano Mission Council (NMC) of Department of Science and Technology, Government of India; Member, Apex Committee for North Eastern Region Biotechnology Programmes of Department of Biotechnology; Vice President of the International Society of Neuropathology; Secretary, Neuropathology Society of India; Selection committee member for Ranbaxy Awards; Member of Sectional Committee (Health Sciences) of INSA; Member, Editorial Board of Journal Neuropathology (published from Japan); Member, Assess-

ment Committee for scientists' promotions of ICMR; Member of the Governing Body and Scientific Advisory Committee of National Brain Research Centre, Manesar; Member of the Scientific Advisory Committee of Institute of Pathology, New Delhi; Co-chairperson of Human Ethics Committee of National Institute of Immunology, New Delhi; Member, Oncology Sub-Committee of NCD-III, ICMR.

Professor Mihir Chand Sharma received AIIMS Excellence Award (3rd place) for best published paper 'C11orf95-RELA fusions and upregulated NF-KB signaling characterize a subset of aggressive supratentorial ependymomas that express LICAM and nestin in Institute Day, 2018; Best Poster Award at International Congress of Neuropathology (ICN-2018) held at Tokyo, Japan; AIIMS Oncology Award, 2nd place Basic Research for best published paper 'Transcriptional co-expression regulatory network analysis for Snail and Slug identified ILIR1, an inflammatory cytokine receptor to be preferentially expressed in ST-EPN-RELA and PF-EPN—A molecular subgroups of intracranial ependymomas, 1st Annual AIIMS Research Day, 26 March 2019.'

Professor Vaishali Suri (As Main Author) got ISNO Annual Award for Outstanding work in Neurooncology at the 10th Annual Conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Residents Awards

Madhu Rajeshwari S got the first best poster award for the poster entitled "Primary histiocytic sarcoma of brain—A rare occurrence" Madhu Rajeshwari, MC Sharma, V Suri, Chitra sarkar, at 10th Annual Conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Priyadarsani S got the third best poster award for the poster entitled 'Diffuse leptomeningeal glioneuronal tumor' at the 10th Annual Conference of Indian Society of Neuro-oncology held at All India Institute of Medical Sciences, New Delhi, 6-8 April 2018.

Agrima S got the third best poster award for the poster entitled, "Over-expression of Programmed Cell Death Ligand (PD-L1) suggests negative outcome in RELA fusion ependymoms." Agrima Sharma; Prit Benny Malgulkar; Manmohan Singh; Vaishali Suri; Chitra Sarkar; Mehar Chand Sharma at 10th Annual Conference of Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Kavneet Kaur got the third best proffered paper award for paper entitled "Molecular classification of medulloblastomas in routine practice: Where to strike a balance?" at 10th Annual Conference of the Indian Society of Neuro-Oncology held at AIIMS, New Delhi, 6-8 April 2018.

Aruna Nambirajan won first prize for oral paper presentation—Neoplastic for 'Clinicopathological evaluation of pd-11 expression and cytotoxic t-lymphocyte infiltrates across molecular subgroups of intracranial ependymomas' at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Anju GS won third prize for oral paper presentation—Neoplastic for 'NF2 hemizygous deletions and merlin loss in spinal ependymomas are not related to mTOR or Hippo pathway activation' at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Shraddanjali Satapati won first prize for poster presentation—Neoplastic/case report for 'Primary Intracranial Malignant Ectomesenchymoma in an Adult: A Rare Case Report', at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Kalpana Kumari won first prize for poster presentation for 'CNS Lymphomatoid granulomatosis: Report of rare case' at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Shalini Kardam won third prize for poster presentation—Non-neoplastic/case report for 'Juvenile neuronal ceroid lipofuscinosis-Report of two cases' at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Kavneet Kaur won first prize for poster presentation—Neoplastic/original study for 'Spectrum of infantile tumors according to the WHO 2016 classification' at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

Sudha Battu won 'Dr Subimal Roy published paper award' for her paper 'Battu S, Kumar A, Pathak P, Purkait S, Dhawan L, Sharma MC, Suri A, Singh M, Sarkar C, Suri V. Clinicopathological and molecular characteristics of pediatric meningiomas. Neuropathology. 2018;38:22-33' at NPSICON-2019 held at PGIMER, Chandigarh, 15-17 February 2019.

11.1. B.B. Dikshit Library

Professor In-Charge, Library Committee

S Rajeshwari

Chief Librarian

S Siva Chidambaram

HIGHLIGHTS

Dr B.B. Dikshit Library is the central library providing information service to all the teaching departments and centre for excellence. The library is open 24x7 (356 days) and it has more than 1,50,000 books and other documents such as bound journals, pamphlets, etc. The library also has a collection of 2,296 Hindi books for readers, employees both technical and non-technical. An average of 320 readers visit the library everyday. The library is well equipped with modern facilities to support biomedical education and research. The library has predominantly e-resources (70%) which are provided with any-time anywhere access for doctors and faculty members for their scholarly activities. The collection of various E-Resources access and service credential available through the library is given below:

Types of E-Resource	Description
E-Journals	1493 Scholarly Journals, Dentistry and Oral Sciences Source (DOSS Aggregator), NEJM Journal Watch
E-Books	Access Medicine, Oxford Medicine Online (53 textbooks), OVID
Point of Care databases	UpToDate (Anytime anywhere), BMJ Best Practice, BMJ Case Reports, Acland Anatomy, MedOne Surgery
E-Learning packages	JAMA Evidence, BMJ Research to Publications, HSTalk Lecture Series
Abstracting and Indexing databases	EMBASE, Web of Science (Citation Analysis Database), Journal Citation Report
Access Facility Software on Services	LibSys Premia (Ver.10) Library automation EBSCO Discovery service (Single Point Search for all subscribed E-Resources) All E-Resources are accessed through IP enable in the Campus RemoteXs, OpenAthens facility for out-of-campus access
Plagiarism verification service	iThenticate web enabled

These online databases, E-Journals and E-Learning Packages can be accessed through the library by Web-scale Discovery Service (Single Point Search), IP enabled access and RemoteXs facility. Few society-based journals may be accessed through username and password. Necessary access information is disseminated through the library webpage: <http://www.aiims.edu/en/library.html>. The RemoteXs facility to faculty members and academic resident doctors is provided through: <http://elibraryaiimsdelhi.remotexs.in> to access E-resources even outside the campus and the country. The library has its own search engine called 'Single Point Search' web-scale discovery service to retrieve library subscribed electronic resources plus library holdings effectively. It also acts as a tool for a bibliographic management system for doctors.

The Library Committee is an advisory body for the management of the library. It advises the Chief Librarian regarding the procurement of books and subscription of periodicals and databases. The present committee consists of the Professor In-charge as Chairperson, 7 Professors, 2 Associate Professors and 1 Assistant Professor from various divisions as members, and the Chief Librarian as the Coordinator. The committee meets regularly.

The Library has an in-house information communication and management system comprising of 3 servers and 49 computers. The library use *Libsys Premia* automation software system that supports data entry and retrieval of books and other documents. All documentation/bibliographic services, as well as certain library operations have been computerized, using integrated library management software. The circulation section of the library is computerized through RFID smart card system and online issue return of books with automatic reminder systems through email. The library provides *Current Awareness Service* and Reference Services. The library publishes *E-Resources Bulletin*, *AIIMS Institutional Repository Bulletin* and the *New Books Bulletin*, etc. It also provides services such as web-based Open Access Public Catalogue (Web OPAC), Reprography and printout of academic literatures. Library imparts orientation and information literacy programs to students, research scholars and doctors regularly.

This year library spent around Rs 1,800 lakhs for procurement of E-Journals, Databases, Books and other documents, IT equipment and services etc. It added around 354 new books, 1493 E-Journals, 13 Databases and 4 Access Facility services etc. The library has been working towards to establish Electronic Thesis and Digital Library by the scanning and digitization of Thesis and Dissertation available in printed as well CD formats through M/s ProQuest and it is almost near to complete.

CME/Workshop/Seminar/Conferences Organized

1. National seminar on 'Access and availability of Medical Literature in Electronic Environment (AMLEE-2018)' 16-17 April 2018, AIIMS, New Delhi
2. Library orientation program for Dietitians, 15 May 2018, Dr B.B. Dikshit Library, AIIMS, New Delhi
3. LibSys (Ver.10) Library automation software training program for library staff members, 5-8 June 2018, Dr B.B. Dikshit Library, AIIMS, New Delhi
4. Author workshop on how to publish the article by Wiley, 19 June 2018, Dr B.B. Dikshit Library, AIIMS, New Delhi
5. Seminar on Librarians' Day 'Utilization of E-Resources in Doctors Scholarly Communication', 13 August 2018, Dr B.B. Dikshit Library, AIIMS, New Delhi
6. Workshop on 'Selecting a journal and preparing a great submission package', 18 September 2018, Dr B.B. Dikshit Library, AIIMS, New Delhi
7. Author Workshop on Responding to Reviewer Comments, 21 December 2018, Dr B.B. Dikshit Library, AIIMS, New Delhi
8. Seminar on 'Emerging Trends of E-Learning in Health Care System', 28 January 2019, Dr B.B. Dikshit Library, AIIMS, New Delhi
9. Special lecture on 'Digital Library and Health Consumers' by Dr Nalini Mahajan, Library Director and Webmaster, Marianjoy Rehabilitation Hospital, Wheaton, USA, 9 February 2019, Dr B.B. Dikshit Library, AIIMS, New Delhi

Lectures delivered

Dr S. Siva Chidambaram

1. Finding current best evidence from health science information resources: Tools and techniques for library and librarians, National Seminar on 'Health Information Resources and Searching Techniques', 27 July 2018, Indian Pharmacopoeia Commission, Ghaziabad
2. Emerging and Innovative Technology Applications in Special Libraries Experience in National Important Institutes AIIMS and NIPFP, International Conference organized by Asian Library Association at Central University of Kashmir, Srinagar, 6-8 August 2018
3. E-Resources within Libraries: Access and Availability, For Medical Librarians across Bengaluru and surrounding areas by BMJ, 1 September 2018, Bengaluru
4. Emerging trends in healthcare management libraries in E-Learning Environment, Emerging Trends in Librarianship: Role of Libraries in Open Learning Environment, International Conference (MANLIBNET-2018), 10-12 December 2018, Indian Institute of Management Tiruchirappalli
5. Panelist, Seminar: 'Guaranteeing Access to Knowledge: Capacity-Building for Digital Libraries', 15 October 2018, New Delhi
6. Modern Information Services in Health Care Libraries, IT Application for Information Management in Health Science Libraries, NIHF Training Course, 24 October 2018, NIHF, New Delhi
7. Knowledge Organisation through Web Scale Discovery Service, International Conference on Knowledge Organization in Academic Libraries (I-KOAL), 26-27 November 2018, University of Hyderabad, Hyderabad

PUBLICATIONS

Journal: 1

Chapters in books: 12

Book and monograph: 1

Conference/Seminars Attended

Dr S. Siva Chidambaram

1. National Seminar as a 'Guest of Honour', 3 July 2018, Dr K.D. Gupta Knowledge Resource Centre, Mahatma Gandhi Medical College and Hospital, Jaipur
2. Resource Person, International Conference organized by Asian Library Association, 6-8 August 2018, Central University of Kashmir, Srinagar
3. IASLIC-IGNOU Librarians' Day, 'Library Professional at the Cross Roads', 17 September 2018, IGNOU, New Delhi
4. Panelist, Seminar on 'Guaranteeing Access to Knowledge: Capacity-Building for Digital Libraries', 15 October 2018, New Delhi
5. DELNET Annual Lecture on 'Transforming Human Resources in Libraries: Strategies for the Future Learning', 7 January 2019, DELNET, JNU Campus, New Delhi

6. Resource Person, Sixth International Conference of Asian Special Libraries (ICoASL 2019) 14-16 February 2019, IEG and Ambedkar University, Delhi

Mr M.K. Vishwakarma

1. IASLIC-IGNOU Librarians' Day on 'Library Professional at the Cross Roads', 17 September 2018, IGNOU, New Delhi
2. National Convention on Knowledge, Library and Information Networking, NACLIN 2018 on Managing Strategies and Technologies for Advancing Scope and Services of Libraries 4-6 October 2018, organized by DELNET, New Delhi at Visakhapatnam
3. GeM National Mission Series Event 'Health on GeM', 16 October 2018, Pravasi Bhartiya Kendra, New Delhi
4. DELNET Annual Lecture: 'Transforming Human Resources in Libraries: Strategies for the Future Learning', 7 January 2019, DELNET, JNU Campus, New Delhi

Mr Jahangir Khan

1. National Convention on Knowledge, Library and Information Networking, NACLIN 2018 on Managing Strategies and Technologies for Advancing Scope and Services of Libraries organized by DELNET, New Delhi, 4-6 October 2018, GTAM, Visakhapatnam

Mr Prashant Shrivastava

1. International Conference 'Exploring the Horizons of Library and Information Sciences: From Libraries to Knowledge Hubs', 7-9 August 2018, Indian Statistical Institute, Bengaluru Centre
2. Sixth International Conference of Asian Special Libraries (ICoASL 2019), 14-15 February 2019, organized by Asian Chapter, Special Libraries Association (SLA, USA) in collaboration with IFLA-Asia and Oceania, Institute of Economic Growth, Ambedkar University Delhi and Society for Library Professionals and in association with Korea Special Libraries Association and APPTIS (Asosiasi Perpustakaan Perguruan Tinggi Islam Indonesia) at Institute of Economic Growth (14 February 2019), Delhi and Ambedkar University Delhi (15 February 2019)
3. National Seminar on Health Information Resources and Sharing Technique, 27 July 2018, Indian Pharmacopoeia Commission, Ministry of Health and Family Welfare, Govt of India, Ghaziabad
4. 2nd International Seminar on scholarly writing and publication, 27 August 2018, National Law University, Delhi
5. International Conference on Digital Transformation: Preservation, policy and privacy, 29 November-1 December 2018, National Law University, Delhi

Mr Umesh Kumar

1. National Conference on 'ERMED: Digital Health India: A Reality', 3-4 May 2018, National Medical Library, Directorate General of Health Services, New Delhi
2. 'International Short-Term Course on Open Source Software for Library Management (OSSLM-2018)', 7-12 May 2018, Organized by Central Library and National Digital Library of India (NDLI), IIT Kharagpur
3. National Seminar on 'Health Information Resources and Searching Techniques' 27 July 2018, Indian Pharmacopoeia Commission, Ministry of Health and Family Welfare, Government of India
4. International Conference on 'Exploring the Horizons Library and Information Sciences: From Libraries to Knowledge Hubs', Documentation Research and Training Centre (DRTC), 7-9 August 2018, Indian Statistical Institute (ISI), Bengaluru
5. 'Second International Seminar on Scholarly Writing and Publication Theme: How to Publish with International Law and Social Science Publisher' organized by (NLU) National Law University, Delhi, National Law University, Bhopal, Rajiv Gandhi National Law University, Punjab and Brill, 27 August 2018, NLU, Delhi
6. 'International Conference on Knowledge Organization in Academic Libraries' (I-KOAL-2018) based on Theme: Participation of Academic Libraries in Knowledge Economy, 26-27 November 2018, Library Professional Association (LPA) and University of Hyderabad
7. International Conference on Digital Transformation: Preservation, Policy and Privacy Organized by NLU, Delhi in association with NLIU, Bhopal, RGNUL, Patiala and TERI, Delhi, 29 November-1 December 2018, National Law University, Delhi

Mr Deepak Shukla

1. International short-term training course on Open Source Software for Library Management (OSSLM 2018), 7-12 May 2018, Indian Institute of Technology, Kharagpur
2. 3rd International Conference of Asian Libraries Building Smart Libraries: Changes, Challenges, Issues and Strategies (ICAL 2018), 6-8 August 2018, Central University of Kashmir, Srinagar, J&K

- International Conference on Digital Transformation: Preservation, Policy and Privacy (ICDT 2018), 29 November-1 December 2018, National Law University, Dwarka, New Delhi

Ms Neetu Priya

- 6th International Conference of Asian Special Libraries (ICoASL 2019), 14-16 February 2019, Institute of Economic Growth and Ambedkar University, New Delhi

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr S. Siva Chidambaram received Guest of Honour: (i) National Seminar on 'Preparing the Librarians for Knowledge Society: Challenges and Opportunities', organized by RMLA and Mahatma Gandhi Medical College and Hospital, 3 July 2018, Jaipur; (ii) International Conference on Social Responsibility of Educational Institute in Developing Countries (ICSEDC 2018), Sri Ramakrishna Mission Vidyalaya College of Arts and Science, 24-25 August 2018, Coimbatore.

'Letter of Appreciation' to **Mrs Neetu Priya**, Librarian Gd-III and **Mr Rakesh Rawat**, D.E.O. Gd-A by Chairman, Institute Day Exhibition Committee, AIIMS, New Delhi, for their valuable contribution towards successful conduct of 63rd Institute Day Exhibition on 'Next Generation Health Care', 25-27 September 2018, AIIMS, New Delhi.

11.2. Cafeteria

Chairperson

M Bajpai
Professor, Department of Paediatric Surgery
(up to 14 February 2019)

Subhasish Panda
Deputy Director (Administration)
(from 15 February 2019)

Member Secretary

V Darlong
Professor, Department of Anaesthesiology
(up to 14 February 2019)

Rakesh Kumar Sharma
Senior Stores Officer
(from 15 February 2019)

Accounts Officer

Meenakshi Dabral

General Manager

SK Kaushik

Deputy General Manager

KK Sharma

The cafeteria was established in 1972 and is being run at no-profit-no-loss basis to provide wholesome food to employees at AIIMS without any financial assistance from the Institute for Equipment, Furniture, Utensils and other basic requirement of Caf e.

MANAGEMENT COMMITTEE

A Management Committee is constituted by the Director of AIIMS for policy decisions that pertain to the Cafeteria Department from time to time. The following are the members:

Shri Subhasish Panda	Chairperson
Dr Siddharth Satpathy	Member
Dr Minu Bajpai	Member
Dr Arti Kapil	Member
Dr Binod Kumar Khaitan	Member
Dr Rajesh Khadgawat	Member
Dr Nirupma Madaan	Member
Representative of FAIIMS	Member

Representative of RDA	Member
Representative of Officer Association	Member
Representative of Nurses Union	Member
Representative of Karamchari Union	Member
Shri S.K. Kaushik	Member
Shri Rakesh Kumar Sharma	Member Secretary

SERVICE FACILITIES

The cafeteria runs 10 units for services to more than 14,000 employees of AIIMS.

1. Main multi-storey cafeteria (24 hours services) situated near Jawahar Lal Nehru Auditorium
2. Main operation theatre cafeteria situated at 9th floor of the main hospital
3. CNC cafeteria, situated at 2nd floor of the centre
4. Dr R.P. Centre OT cafeteria situated at 5th floor of the centre/ground floor
5. Centre for dental education and research
6. Dr B.R. Ambedkar Institute Rotary Cancer Hospital
7. Faculty room cafeteria situated near main cafeteria
8. AIIMS Outreach OPD, Village Badsa, Jhajjar, Haryana
9. Tea/Coffee outlet near computer facility and daily service at Orthopaedics OT
10. AIIMS OPD canteen established under the management of AIIMS cafeteria to cater the need of patients and their relatives round the clock

In addition cafeteria provides hospitality services to all higher officers and faculty members on day-to-day requirement, as well as special requirements for important official meetings, Workshop, Symposia, etc.

STAFF STRENGTH

110 employees are appointed in the cafeteria on regular as well as contractual basis.

FUTURE PLAN

Considering massive expansion in the requirement for catering services at the institute as a result of tremendous increase in AIIMS staff strength and in view of upcoming blocks in AIIMS campus, the need of highly skilled professional catering/cafeteria services in campus for faculty, resident doctors, nursing staff, other staff and visitors has been felt. The outsourcing of cafeteria services at the institute has been finalized. The entire catering services at the institute have been divided in two zones. Two firms have been selected zone wise for this purpose and work award letters are likely to be issued in the first week of April 2019 and both firms will be entrusted with responsibilities to start their services within 45 days of the issue of the letters in their respective zone.

11.3. Central Animal Facility

Professor-in-Charge

SK Maulik

Sr Veterinary Officer

PK Yadav

During the year, only rats, mice, rabbits, guinea pigs and hamsters were maintained in the facility.

Small Animal (Rodents)

The number of animals maintained during the year in the facility is given below:

- | | |
|--------------------------|-------|
| 1. Rats (Wistar) | 1,341 |
| 2. Rats (Sprague Dawley) | 409 |
| 3. Mice (Swiss) | 673 |
| 4. Mice Balb/c | 239 |
| 5. Mice C57 BL/6 | 254 |

- | | |
|---------------------------------|-----|
| 6. Rabbits (New Zealand) | 127 |
| 7. Guinea Pigs (Dunkin Hartley) | 60 |

A total of 4,207 small animals (Rats 3,109, Mice Swiss 837, Mice Balb/c 176, Rabbits 76 and Guinea pigs 9) were supplied to various departments at AIIMS. A number of animals was also sold to sister institutions in Delhi and outside Delhi (Rats 1,130, Mice 386, Rabbits 3 and Guinea pigs 20; Total 1,539).

Experimental Surgery

Thirty-one surgical procedures were performed by faculty, investigators and students from various departments in the facility. The departments included Surgery, Biomedical Engineering, Neurosurgery, Paediatric Surgery, Laboratory Medicine, Biotechnology, Stem Cell Facility and Pathology.

Institutional Animal Ethics Committee

The Institutional Animal Ethics Committee (IAEC) is approved by the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA) under the Ministry of Environment, Forests and Climate Change, Government of India. The AIIMS CPCSEA registration No. is 10/GO/ReBiBt/S/99/CPCSEA. The IAEC cleared 90 projects on small animals (Rodents) of various investigators at AIIMS during the year 2018-19.

Services Provided

The facility has been maintaining animals belonging to departments of Biomedical Engineering, Biotechnology, Anatomy, Pathology, Laboratory Medicine, Stem Cell Facility, Neurosurgery, Paediatric surgery, Biophysics, Geriatric medicine, Surgical disciplines, Reproductive biology and Psychiatry. The facility housed 222 rats, 160 mice, 3 rabbits and 2 guinea pigs belonging to the above departments throughout the year.

Laboratory facilities such as vacuum drying of sera, storage of serum samples, haematology, clinical biochemistry, microscopic investigations and X-rays were provided to the investigators.

The facilities for research with immune-deficient animals (Nude and SCID mice) are in the final stage and will be functional soon.

Educational Programmes Attended

1. One day National Workshop on GLP Sensitization, 24 September 2018 at Translational Health Science and Technology Institute (THSTI), Department of Biotechnology, Ministry of Science and Technology, Faridabad, Haryana, Organized by National Good Laboratory Practice Compliance Authority (NGCMA), DST in collaboration with Quality Council of India (QCI) and Clinical Development Services Agency (CDSA)
2. 8th Asian Federation of Laboratory Animal Science (AFLAS) Congress 2018, 28 November-1 December 2018, Bengaluru, India.

11.4. Central Workshop

Faculty Coordinator

Dr Ganga Prasad

(Professor, Department of Anaesthesiology, Pain Medicine and Critical Care)

Chief Technical Officer

Kalu Ram

Senior Technical Officer

Harinder Pal
(Mechanical Section)

Nitin Srivastava
(Electrical and Electronics)

OBJECTIVES

The Central Workshop was established in 1964. It plays an important role in providing smooth and complete patient care. It carries out repair and maintenance of various equipments from different departments. It also fabricates items to be used

for medical education, scientific research and patient care at AIIMS. Being the only technical department it also provides technical guidance to various purchase committees of AIIMS.

LOCATION AND TIMING

The Central Workshop is located on the basement, ground floor and first floor in the building adjacent to the laundry and near the mortuary. It also has an extended centre at 7th floor of the hospital main building. This extended centre (mini workshop) does repairs on urgent basis and has the advantage of being close to patient care activities, thus saving time and effort of the person taking items for repair. The department is staffed Monday to Friday from 9.30 a.m. to 5.15 p.m. and Saturday from 9.30 a.m. to 1.15 p.m.

STRENGTH OF EMPLOYEES

A skilled team of technicians and officers is available in the department to provide the above stated operations. The team provides efficient maintenance of various equipments in the hospital. The various sections of the Central Workshop headed by a Senior Technical Officer/Technical Officer with supporting staff members. The group B and C staff strength is given below:

• Technical Officer:	4	• Office Superintendent:	1
• Technician (Grade I):	5	• Senior administrative:	1
• Technician (Grade II):	8	assistant (Store Clerk)	
• Workshop Assistant:	3	• Khalasi:	6

SERVICES AVAILABLE

The Central Workshop provides the following services to the entire AIIMS, its centres and CRHSP Ballabgarh.

1. Repair and Maintenance

There are different sections in the Central Workshop involved in repair and maintenance of various equipments. A total of 7,677 (seven thousand six hundred and seventy-seven) jobs have been completed during the year. The section-wise descriptions of repaired items are:

S. No.	Section	Number of Jobs	Item Description
1	Electronics	526	Patient monitors, infusion pumps, regulated power supplies, electronic weighing machines, paper shredding machines, light sources, ECG machines, sealing machines, ultrasonic nebulizer, DVT pumps, blue LED light, stabilizers, induction heater, nebulizers, public address systems, operation table electronic, microscopes, microwave ovens, colour televisions, humidifier, foetal doppler, air mattress pump, etc.
2	Electrical	940	Autoclaves, bone cutters, bull eye lamp, boiler, centrifuges, suction machines, floor cleaning machine, fly killer machines, fumigator, gauge/plaster cutters, grinders, hot case, hot air ovens, hot display counter, hot plates, incubators, laminar flow, Mayo stand, mixer grinder, magnetic stirrer, needle destroyers, OT lights, spot light, steam bath, sterilizers, UV lights, vacuum cleaners, X-ray viewbox, vortex shaker, water bath, wax bath, etc.
3	Mechanical and carpentry and upholstery	3,437	Surgical instruments, tracheostomy tube, spray pumps, vapour jet cleaning machines, scissors (gauge cutting), bed side lockers, i.v. stands, patient trolleys, patient beds, wheel chairs, loading trolleys, food trolleys, side screens, instrument trolleys, basin stand, foot step, surgical drums, push cart, patient examination tables, hydraulic trolleys, test tube stands, all types of stools, etc. Splints, sofas, settees, chairs, wooden stools, trolley mattress, patient couch mattress, etc. and their upholstery work.
4	Fine instrument	2,116	Digital blood pressure instrument, micro balances, dial blood pressure instrument, stethoscopes, weighing machines, compressors, flowmeters, oxygen regulators, hydraulic tables, laryngoscopes, etc.
5	Refrigeration	225	Visi coolers, deep freezers, chilling unit, ice cream cabinet, refrigerators, cold display counters, minicold, refrigerated BOD incubator, etc.

6	Painting	433	All office and hospital furniture items like beds, i.v. stands, all types of trolleys, wheel chairs, benches, footsteps, patient side lockers, pigeon lockers, patient examination tables, push carts, almirahs, racks, etc.
	Total	7,677	

2. Fabrication and Guidance

In spite of gradually increasing load of repair and maintenance activities, Central Workshop has been able to help in research activities of the institute with design and fabrication of useful gadgets as per specifications provided by various departments and also give suggestions for further improvement. A total of 725 (seven hundred and twenty-five) items were fabricated by the Central Workshop during the year. These were:

S. No.	Item Description	Quantity	Department
1	Handle for surgical equipment	54	Orthopaedics OT, JPNATC OT
2	Temperature chart holder	123	Main hospital
3	Bakelite boards	30	Cardiac Catheterisation Laboratory, CN Centre
4	Tray for token machine	13	Computer facility
5	Wooden splint	400	JPNATC, Emergency
6	Humidity chamber	1	Pharmacology
7	Holder for bar code scanner	10	Computer facility
8	Testicle ball	5	Paediatric Surgery
9	PCNL roll	3	Orthopaedics OT
10	Camera stand	4	CMET
11	Stylet	55	Emergency, AB2 ward
12	Wooden block	4	Orthopaedics OT
13	OT table mattress	5	Main OT
14	Perspex plate	4	Neurosurgery
15	Side support mattress	4	Orthopaedics OT
16	L piece for neck support during anaesthesia	2	Anaesthesia store
17	Laparoscopic surgery training module	6	Surgery
18	DC power supply	1	IRCH Laboratory oncology
19	Sweat Test Machine	1	Paediatrics
	Total	725	

3. Short-term Training

The department is actively involved in providing guidance and imparting short-term training (4-6 weeks) to the diploma/ undergraduate students of various engineering colleges.

ACHIEVEMENTS

1. The workshop received appreciation letter from Professor Anita Saxena, Cardiac Catheterisation Laboratory, CN Centre for fabrication of Bakelite Boards designed to prevent patient movement during angiography.
2. The workshop participated in the exhibition held on the occasion of AIIMS Institute Day celebration. According to the theme of the exhibition, the contribution of workshop in **Next Generation Health Care** was displayed. Some of the items fabricated by the workshop were also demonstrated in this event which were seen and appreciated by most visitors. The workshop was awarded a **Commendation Prize (Exhibits)** by the selection committee.

11.5. Computer Facility

Professor-in-charge

A Shariff

Deputy Director (Computer Facility)

SN Ragu Kumar

Systems Analysts

Satish Prasad

Sushil Kumar Meher

Sanjay Gupta

Senior Programmers

Vinay Pande

Hari Shankar

Shyamal Barua

Pawan Sharma

Sushma Dhama (up to December 2018)

Tripta Sharma

Programmers

Amit Bhati
Geetika Gupta

Sanjeev Kumar
Harish Saini

Ankita Saini
Priyanka Singh

Nursing Informatics Specialist

Preethi S and Team

EDUCATION

Postgraduate

Computer programming classes, covering both theory and practical aspects, were conducted for postgraduate students of the Department of Biotechnology and College of Nursing.

Undergraduate

A three-month course on basics of computers, internet, windows applications, computer-aided learning, database, etc. was conducted for first year students of BSc (Hons) Nursing and BSc Nursing (Post-certificate). Computer Orientation Program for MBBS students was also organized.

Continuing Medical Education

Officials of the facility participated and delivered lectures in continuing medical education programs, symposia, international and national conferences.

Services

SNOMED CT: 49728 SNOWMED CT compliant entries have been recorded in HIS (eHospital) during the time period of April 2018-March 2019.

Hospital Computerization

Hospital Information System (HIS) is implemented using eHospital@NIC software for management of Appointment and OPD Registration, Admission, Discharge, and Transfers, MRD, Patient Billing, Stores, Laboratory Information System, Dietary, and Blood Bank. The details for 2018-19 are:

New OPD registration	11,07,701	Follow up OPD registration	17,10,068
Casualty registration	98,655	Laboratory test order entry	1,53,080
Total admission	2,34,839	Total discharges	2,34,979
Total patient billing	9,35,111	Blood bank	33,967
Total transfer	1,04,833	Dietary	17,13,750
Store indent count	75,313	Indents issued by stores	73,135

OPD appointments

Method of appointment	New appointment	Follow-up appointment
Call centre	11,992	17,272

Counter	16,06,400	7,39,970
AVC	889	29
Interactive voice response system	4,127	26,496
Mobile apps	37,153	1,22,385
AIIMS web portal	8,649	46,193
ORS	2,52,451	1,50,293
Kiosk	8,495	34,672

In terms of breakup section wise it is as follows.

Sections	Total appointments
OPD and clinic	36,48,074
Radiology	2,33,441
Laboratory	1,85,951

LIS Implantations

Integration of Laboratory equipment and eHospital are done through HL7 standard. Analyzer reads the Sample Identification Number (SID No.) from the barcode, which is pasted to the test tube. Then it requests the LIS for the tests which are to be performed. The LIS responds with the test to be done for the specific SID No. to the analyzer. Analyzer conducts the specified tests, when the tests have been completed, only the relevant and required result values are transferred to Laboratory Information System (LIS). The selection of data to be transferred to LIS will be specific to Bi-directional/Unidirectional Analyzers. The total Laboratory Instruments have been connected.

S. No.	Laboratory	Equipment	Number	Machine Type
1	CNC	Beckman 5Plot cell Counter	1	Uni-directional
2	CNC	IRIS iCount3	1	Uni-directional
3	CNC	Immulate1000	1	Uni-directional
4	CNC	Bio-Rad10	1	Uni-directional
5	CNC	Alifex R20 ESR Machine	1	Uni-directional
6	CNC	Beckman 3Plot cell Counter	1	Uni-directional
7	RPC Haematology (7th Floor)	Beckman Coulter 5 Plot Act Diff Cell Counter	1	Uni-directional
8	RPC Haematology (7th Floor)	Sysmex KX21	1	Uni-directional
9	RPC Haematology (6th Floor)	Beckman AU680	1	Bi-directional
10	Endocrinology-1	Bio-rad D10	1	Uni-directional
11	CCF Ground Floor	Cobas 6000	1	Bi-directional
12	CCF Ground Floor	Urin Analyzer	1	Uni-directional
13	Renal	Cobas C311	1	Bi-directional
14	Renal	Abott Architect1000	1	Bi-directional
15	Renal	IONS	2	Uni-directional
16	Emergency Department	AQT 90	1	Uni-directional
17	Emergency Department	ABL 800	1	Uni-directional
18	Emergency Department	Pentra XL	1	Uni-directional
19	New Private Ward 2nd Floor	Mini Cap	1	Uni-directional
20	Paediatric Endocrinology	Cobas e411	1	Bi-directional
21	CNC	Beckman Coulter AU680	1	Bi-directional
22	CNC	Beckman Coulter 480	1	Bi-directional

23	Reproductive Biology	Abbott Architect1000	1	Bi-directional
24	IRCH 1st Floor	MS4 Cell Counter	1	Uni-directional
25	IRCH 1st Floor	MS9 Cell Counter	1	Uni-directional
26	IRCH 2nd Floor	MS4 Cell Counter	2	Uni-directional
27	IRCH 2nd Floor	MS9 Cell Counter	2	Uni-directional
28	Lab Medicine Room No-2	Comiline	2	Uni-directional
29	Lab Medicine Room No-2	Caretium	2	Uni-directional
30	CNC R.No.53 GF	Hitachi Modular	1	Bi-directional
31	CCF Ground Floor	Beckman Coulter Access2	1	Bi-directional
32	Lab Medicine R.No.20	Hitachi Modular	2	Bi-directional
33	Endocrinology-01	Cobas Integra	1	Bi-directional
34	CNC	Sta Compact	2	Bi-directional
35	RPC 6th Floor	Beckman Coulter AU680	1	Bi-directional
36	RPC 6th Floor	Access2	1	Bi-directional
37	New Private Ward 2nd Floor	Sta Compact	1	Bi-directional
38	Reproductive Biology	Architect 1000	1	Bi-directional
39	Reproductive Biology	Architect 2000	2	Bi-directional
40	Endo-02	Cobase411	4	Biderctional
41	Endo-02	Liasion	2	Biderctional
42	Endo-02	LiasionXL	1	Biderctional
43	CNC	Advia	1	Biderctional
44	CNC	Advia Centura XP	1	Bi-directional
45	CNC	Beckman Coulter Act5	1	Bi-directional
46	Biochemistry	Vitros Analyzer	1	Bi-directional
47	Endo-01	Thosh G8	1	Unidirectional
		Uni-directional	27	
		Bi-directional	32	
		Total number	59	

Laboratory	Samples Reported Online
Fluid chemistry CNC	275
Bacteriology CSF PCR, Microbiology Department	35
Haematology PT (OPD), Laboratory Medicine	20,374
Clinical Microbiology (Stool), Laboratory Medicine	13,308
Central Paediatric 3rd Floor, Paediatrics	1,206
RPC Ocular	1,765
RPC Pathology (Urine/Stool)	2,018
Hormones, CNC	36,174
TB Lab, Microbiology	23,247
Drugs Tests, CNC	1394
Reproductive Biology	1,56,108
Clinical Microbiology (Urine AFB), Laboratory Medicine	549

Anaerobic Lab, Microbiology	8,770
Sputum Culture, Microbiology	38,192
Mycology Lab, Microbiology	35,698
Clinical Microbiology (HIV AND VIRAL Marker), Laboratory Medicine	86,371
SRB, Lab	25,069
Blood Bank	3,109
Parasitological, Microbiology	17,727
Tumour Marker, Lab Oncology, IRCH	610
Haemogram, Lab Oncology, IRCH	1,74,199
STD Lab, Microbiology	1,294
Flow Cytometry, Microbiology	7
Haematology/Coagulation/Haemolytic Anaemia, Microbiology	25
Clinical Microbiology (Semen), Laboratory Medicine	3,801
Pathology/Haematology, RPC	83,421
Clinical Pathology and Molecular Immunology, Lab Medicine	3,617
Biochemistry, NDDTC, Ghaziabad	24,899
Clinical Biochemistry, Biochemistry	2,946
Haematology (Aphaeresis), IRCH	44,827
Clinical Microbiology (PCR), Laboratory Medicine	1,231
Endocrinology and Metabolism	38,057
Fluid Chemistry, Laboratory Medicine	9,589
Clinical Microbiology (Urine Routine OPD), Laboratory Medicine	21,155
Fluid Chemistry (Urine 24 hr/Spot), Laboratory Medicine	23,149
Urine Culture (Microbiology Room No. 2071), Laboratory Medicine	48,291
Clinical Chemistry, CNC	7,18,369
Clinical Immunology, Rheumatology	43,860
Haematology, CNC	4,67,498
Clinical Microbiology, Laboratory Medicine	112
Emergency Bio-Chemistry, Laboratory Medicine	10,15,466
Haematology, Laboratory Medicine	17,67,790
Clinical Chemistry, Laboratory Medicine	28,19,108
Clinical Microbiology (Urine C/S), Laboratory Medicine	12,320
Allergy Testing Laboratory	3,472
Haematology, Laboratory Medicine	11,05,709
Stool Culture, Microbiology	2,651
Emergency Haematology, Laboratory Medicine	3,26,687
Clinical Microbiology (Sputum AFB and Culture), Lab Medicine	1,447
Haematology, Laboratory Medicine	214
Special Tests, CNC	10,227
CSF Culture, Microbiology	20,531
Lipids and Enzymes, CNC	1,81,480
Medical Oncology, IRCH	2,349

Haematology PT, CNC	68,074
Bile Lab	809
Special Investigation, Lab Medicine	1,617
Ocular Biochemistry, RPC	1,65,101
Lab Oncology, IRCH	18,180
PT, Laboratory Medicine	11,519
Haematology, NDDTC, Ghaziabad	7,220
Clinical Microbiology, TORCH Profile, Laboratory Medicine	5,415
Lab Medicine PSY, Laboratory Medicine	8
Ocular Microbiology, RPC	10,568
Urine Clinical Chemistry, CNC	1,360
Urine Routine, Laboratory Medicine	26,208
Blood Culture Microbiology	41,174
SRB, Lab Medicine	297
Haematology (Fluid Test), Laboratory Medicine	31,268
Pus Culture, Microbiology	28,409
Endo Collection, Endocrinology	34,652
Emergency Haematology PT, Laboratory Medicine	1,98,851
Clinical Microbiology, Laboratory Medicine	2,521
HNU	200
Serology Lab, Department of Microbiology	8,757
Haematology Molecular, Department of Haematology	17,993

EHS Pharmacy software. During the last year, 32,775 registrations have been done and 29,971 prescriptions were generated through this software.

1. EHS Pharmacy total registrations **2,28,559**
2. EHS Pharmacy total online prescriptions **1,46,661**

Management of existing in-house modules

Summary of total cases registered under various existing in-house modules during the financial year 2018-2019 is as under.

1. **Patient Display System (PDS):** 99,124 patients' details have been registered for Emergency, New Emergency and Paediatrics.
2. **Use of SNOMED CT:** The integration of SNOMED CT in this module in fields like Diagnosis, Symptoms, and Systems etc. Total number of transactions recorded is 19,568.
3. **Quality Assurance Module (QAM):** 2,232 entries have been recorded for scheduling conferences, lectures, faculty meetings and also for doctor's grading purpose.
4. **QAM/HA:** 123 entries have been made for grading purpose by HA.
5. **RPC PDS:** 28,475 patients' details have been registered for RPC.
6. **OT Scheduling:** 66,975 OT scheduling has been done for different departments.
7. **Equipment Checklist RPC:** 2,976 checklists have been created for equipments in RPC.
8. **E Birth Certificate:** 2,421 birth certificates have been generated through this module.
9. **E blood request:** 95,522 blood requests have been made for arranging blood for patients.

Use of SNOMED CT

We have integrated SNOMED CT in this module in fields like Diagnosis etc. The total number of transactions recorded is 7,894.

10. **E Cath list:** 4,777 scheduling has been done for Cath Laboratory
11. **E MLC:** 13,268 medical records have been maintained for MLC cases.

Use of SNOMED CT: It is an online module for Doctors to prepare eMLC. SNOMED CT is integrated in this module in fields like Alleged H/O, Diagnosis. Total number of transactions recorded is 9,553.

12. **E MLC RPC:** 124 medical records have been maintained for MLC cases at RPC.
13. **Penicillin Register:** 2,120 registrations have been done for scheduling and alerting regarding penicillin intakes.
14. **Gamma Knife Register:** 149 registrations have been done for Gamma Knife procedure.
15. **Election eballot:** 506 votes were casted for election purpose through this module.
16. **Online admission slip:** A total of 23,913 admission slips comprising patients of both OPD and Emergency have been provided in a real platform based upon the availability of beds under different department heads. SNOMED CT is integrated in this module in fields like Diagnosis etc. and the total number of transactions recorded is 4,987.
17. **QR code in medical and fitness certificate:** 10,180 certificates have been generated for AIIMS and other centres employees.
18. **E-grievance module:** 98 complaints have been made through this.
19. **E-Death Note:** 5,943 death certificates have been generated through this application. SNOMED CT is integrated in this module in fields like Immediate cause: (a), Antecedent cause: (b), Antecedent cause: (c), Diagnosis etc. Total number of SNOMED CT transactions recorded is 18,965.
20. **ECG Lab:** Census of ECG Lab and 4,331 entries have been registered.
21. **Integration of SNOMED CT with eHospital (NIC)**

SNOMED CT is integrated through Web API of eHospital. It is integrated with two modules i.e. Admission and Discharge. Total number of transactions at the time of admission in eHospital is 1,688. Total number of transactions at the time of discharge in eHospital is 32,317.

List of new Modules In-house developed applications

1. **Anticoagulant Register:** It is an online register to enter Lab values of patients like PT/INR for the use of tele-consultations. Authenticated patients can enter their Lab values themselves in this application by OTP authentication and fresh prescription will be provided by the doctors.
2. **Bone Bank:** It is an application for entering patients' bone details which will be preserved for later use. It is developed for Neuro and Ortho Departments.
3. **Gynaecology eMLC:** It is used for registering female MLC cases. In this module all the forms are printed out electronically.
4. **Heart Transplant:** It is used for registering patient details for heart transplantation for matching of heart for transplant.
5. **Breast Cancer:** It is used for registering Breast Cancer details. It is used in Surgery Department.

RIS, PACS and HIS at AIIMS

AIIMS currently is running the eHospital HIS wherein appointments for various radiological investigations are provided to patients. The radiological investigations available include:

1. Plain X-ray
2. CT Scan
3. MRI Scans
4. Ultrasonography
5. PET Scans
6. Ophthalmic Radiology
7. Mammography
8. Angiography
9. Dental X-rays

Other imaging modalities are also available. These investigations are offered across multiple locations in campuses of AIIMS. The individual departments which offer these services have their own Standalone PACS and RIS systems. A few departments do not have any PACS. In addition, AIIMS has also implemented a common centralized PACS Server with web-based visualizer—Oviyam. This system integrates with the standalone departmental PACS (Siemens/GE Centricity/Philips/Sonosite) and modalities. Few systems are as yet not integrated.

Current OPEN PACS Implementation

- **dcm4chee2.18.1**—Open Source PACS has been customized and renamed as Raster iPACS
- **HL7 ADT Module** has been configured to receive Patient Demographics from e-Hospital .
- **Oviyam viewer**—Module added to get studies from GE-PACS directly using DICOM C-Get/C-Move.
- **HL7 ADT A40** module configured to receive UHID from Vista/e-Hospital and replace it against the existing TC Number.
- **Auto forwarding of studies** from JPNATC PACS to AIIMS PACS configured. For this an additional AE Title Dec 2017—iOviyam2—Mobile viewer—Software update done.

PACS integration with HIS e-Hospital: This helps to send the requisition for radiological investigations such as X-ray, CT, MRI etc. via online to RIS systems. PACS integration had been done for 15 different modalities during April 2017-March 2018.

Radiological Image has been stored/archived in Open PACS during 2018-19

Modality	No. of Images	Location of the Modality
CR	92,265	Main AIIMS and IRCH
CR	88,573	IPACS, JPNATC
CT	35,940	Main AIIMS and IRCH
CT	23,495	IPACS, JPNATC
DG	1	Main AIIMS and IRCH
DX	60,533	Main AIIMS and IRCH
KO\MR	4	Main AIIMS and IRCH
MG	2,108	Main AIIMS and IRCH
MR	6,950	Main AIIMS and IRCH
MR	985	IPACS, JPNATC
OT	27,458	Main AIIMS and IRCH
PR	134	Main AIIMS and IRCH
PR\MR	1	IPACS, JPNATC
PX	20	IPACS, JPNATC
PX	2	Main AIIMS and IRCH
REG\MR\SR	75	Main AIIMS and IRCH
RF	3,064	IPACS, JPNATC
RF	280	Main AIIMS and IRCH
RWV	3	Main AIIMS and IRCH
SC	5,311	Main AIIMS and IRCH
SEG\CT\PR\DOC\SR	45	Main AIIMS and IRCH
US	18,619	Main AIIMS and IRCH
XA	142	Main AIIMS and IRCH
XA	221	IPACS, JPNATC

Total AIIMS Study Count 2,12,797 Total JPNATC Study Count 1,16,359

Administration

- Computer facility involved in maintaining and the use of eOffice in all the sections of Administration/Finance/Engineering/Stores including Centers.
- Maintaining the Finance Server (Novell)/Administrative Server (Windows) for financial applications like Payroll system, GPF System, Tax module, Pension system etc. and web based administrative applications like Hostel Allotment and Registration System, House Allotment for Faculty, Computer facility forms, online Pay slips, online GPF Statement, online Form 16, Vigilance System, Letter of Intent (LOI) and Award System for ESD, Academics Teaching Schedule and Mail, Employee Data Display, Online Poison Information; Online Organ Donation Form; online transport system etc.

IT Infrastructure and Networking, Internet and Intranet Management Activities

Computer Facility provides network management facilities including high speed internet connectivity to various users of AIIMS through NKN connectivity from NIC. It maintains the AIIMS website at aiims.edu and aiims.ac.in.

1. Approximately 518 new internet connections have been provided to faculty members, officers and staff of AIIMS.
2. Provided high speed NKN internet connectivity for various Seminars/Conferences/Video conference:
 - a. Wi-Fi facility provided in Ramalingamswami Board room for lecture organized by Department of Dietetics on 30 July 2018.
 - b. Live streaming facility arranged for “All India Research Scholars Representative Meeting” for Scientific issue and discussion organized by Society of Young Scientist (SYS).
 - c. Live streaming facility arranged for workshop on Communication Skills for Nursing Personnel on 26 February 2019.
 - d. Live streaming facility arranged for KERACON 2018 organized by RPC on 30 November to 2 December 2018.
 - e. Live streaming facility arranged for 2nd National Conference of OT Technologists on Techniques in Anesthesia, Surgery and Critical Care organized by Department of Anesthesiology, Pain Medicine and Critical Care on 2 December 2018.
 - f. Provision of high-speed internet for live transmission of lecture on 11 March 2019 organized by Neuroradiology, CNC.
 - g. High speed internet connectivity provided for web telecast by NKN to other medical institutes on 18 May 2018.
 - h. High speed internet connectivity provided for webinar for teaching by Pediatrics Surgery in India from AIIMS to all Pediatric Surgeons in India and also overseas.
 - i. Conducted webcasting of the NUSICON 2018 during 11 and 12 January 2018 at JLN Auditorium.
 - j. Provided telecast facility for 12th AIIMS Surgical week international Minimal Access Surgery Conference organized by Department of Surgery.
 - k. Provided Wi-Fi connection for “INDSPNCON 2019 CONFERENCE” organized by Neurosurgery from 15 to 17 February 2018.
 - l. Wi-Fi facility provided for training of AYUSH health professionals on oral health promotion.
 - m. Wi-Fi facility provided for LTSICON 2018 organized by Department of Gastrointestinal Surgery.
3. Continued management of Unified Threat Management (UTM) firewall done for security of computer networks and application for management at gateway level Anti-Virus, Anti-Spam, IPS/IDS, load balancing and content filtering.
4. Continued management of the wireless networking zones at around 18 hostel locations, creating Wi-Fi zones for internet, information and online journals access to students and resident doctors. So far approximately 9,000 students have availed this facility. Currently 1,250 users are registered for this facility.
5. Continued BBDL OPAC Services and enhancement of library online resources subscribed through BB Dixit library through AIIMS website.
6. Continued management of Wi-Fi zone at BB Dikshit Library for internet and online journal access for students.
7. Internet facility through NKN lease line for faculty, staff and students is being maintained on 24/7 basis on the AIIMS network at around 8,500 nodes.
8. Maintenance of Proxy server and Mail server 24x7x365 days.
9. Facility management and call maintenance for internet and network user’s complaints and resolution 24x7x365 days through help-desk of computer facility.
10. VPN based access mechanism for e-Hospital Module, CPRS access from outside AIIMS continued management for Ballabgarh, AIIMS centers.
11. Continued management of IPsec tunnel for connecting NDDTC, JPNATC, and Centre for excellence in Epilepsy and Brain Research Center’s Gurgaon.
12. MAC ID based authentication provided to AIIMS faculty, scientists, Assistant and Deputy Nursing Superintendents for Wi-Fi based access to e-Hospital softwares and internet at wards, OPD, ICU and OTs etc.
13. Created approximately 50 IDs for SSL VPN access.
14. Created approximately 80 new email ids on aiims.edu and aiims.ac.in domain for faculty members, scientists and officers of AIIMS.

15. Regular E-mails sent to all faculties regarding various conference, seminars etc.
16. Technical specification for development of IT network infrastructure at CRHSP, Ballabgarh was prepared vetted by the technical specification committee for tendering.
17. Tender specification for the CAMC of Networking, PC, Peripherals and RC of spares was prepared and was vetted by the technical specification committee for tendering.
18. Involved in preparation of technical specification for host based antivirus solution for AIIMS.

Oral papers/posters presented

1. Shanker H, Ragu Kumar SN, Shariff A. Integrated LAN, Wi-Fi and wide area network at AIIMS for healthcare professionals and students of AIIMS, APAMI 2018 Asia Pacific Association of Medical Informatics 2018, 11 October 2018, Colombo, Sri Lanka.
2. Gupta S, Meher SK, Linto CP, Saran S. Use of 'Online Outpatient Appointment System' based on overbooking strategy for optimizing hospital resource utilization in a tertiary care-public sector hospital, APAMI 2018 Asia Pacific Association of Medical Informatics 2018, 11 October 2018, Colombo, Sri Lanka.
3. Meher SK. Evaluation of implementation of electronic health record in OPD of gastroenterology department of AIIMS, New Delhi, APAMI 2018 Asia Pacific Association of Medical Informatics 2018, 11 October 2018, Colombo, Sri Lanka

PUBLICATIONS

Chapter in Book: 1

HONOURS AND SIGNIFICANT EVENTS

S.N. Ragu Kumar was member of various Technical Specification Committee for development of IT Infrastructure for AIIMS and all its Centres and Upcoming Centres; monitoring of the services and all service providers/vendors pertaining to IT Implementation at AIIMS; Management/Administration of Computer Facility, NIC staff posted at Computer Facility and Contractual Staff working in Computer Facility; Conducted Orientation program for newly selected MBBS students, AIIMS, New Delhi; Lecture and demonstration given to postgraduate students from Indian Red Cross Society at Telemedicine Centre at AIIMS; attended the two week summer school training on security in computing from 25 June to 7 July 2018 at Department of Computer Science and Engineering Jaypee Institute of Information Technology, NOIDA, UP.

Satish Prasad was Nodal Officer for eOffice Project (NIC) and coordinated and trained personnel for the use of eOffice; course coordinator and took classes of MSc, BSc and Post Certificate students for IT classes of College of Nursing; took IT related classes for Disaster Management Course for Indian Red Cross Society (Master's course affiliated to IP University); designated as Central Assistant Public Information Officer (CAPIO) for computer facility; was involved with monitoring and maintaining of the finance server (Novell) for in-house developed financial applications; team leader for the development of APAR module and payroll module based on open source platform.

Dr S.K. Meher has taken a major role in implementing HIS (eHospital) and OPD clinical screening and other specialty module in newly established centre of NCI, Jhajjar. He is also supervising the core module, LIS module, Blood Bank, RIS, PACS and different clinical module developed in-house; Installation of computer networking and Wi-Fi for NCI, Jhajjar (Haryana); Involved in teaching activities of undergraduate and postgraduate students; member of condemnation committee for CNC; Member of technical committee for purchasing computer related items; Attended Digital Health week conference held in the Colombo, Sri Lanka and presented in APAMI 2018 (Transforming healthcare through innovation in Digital Health); Attended GT 2018 and Asia eHealth Information Network (AeHIN) held in Colombo, Sri Lanka; Board member of International Society for Gerontechnology 2018-2019; Adviser of India Association of Medical Informatics (IAMI). Organized NRCeS users meet organized by CDAC, Pune; Continuing as the Nodal Officer for SNOMED CT project at AIIMS by Ministry of Health and Family Welfare; Organized SNOMED CT introductory training program to clinicians of different clinical departments; Prepared technical documents for OPEN centralized PACS and VNA for NCI Jhajjar and AIIMS; Carried out study/survey in the inpatient department to observe the modalities of patients care services in the Wards/Labs of clinical departments of all centres and main hospital; Study of Open PACS process after implementation of new IT infrastructure in main server room by Hitachi.

Sanjay Gupta coordinated implementation of EHS Pharmacy Module, diet module etc. of eHospital Project; Software for elections got developed and coordinated online elections of FAIMS, SYS and Officers' Association conducted using Information Kiosks at AIIMS; Online Grievance portal for employees implemented at AIIMS; Coordinated in networking being done at NCI, Jhajjar, New OPD, MCH and New Surgical Blocks at AIIMS; attended International Conference on interoperable Digital Health for Universal Health Coverage and APAMI 2018 at Colombo, Sri Lanka and presented paper on "Use of 'Online Outpatient Appointment System' based on overbooking strategy for optimizing hospital resource utilization in a tertiary care-public sector hospital".

Vinay Pande is Nodal Officer for the Digital Payments Infrastructure at AIIMS; looking after the Billing module of e-Hospital software; Team member for the development of SRS of APAR module, Payroll module and the software development/implementation; invited by Indian Red Cross Society to deliver lectures on ICT, MIS, Cyber Terrorism and Cyber security etc. for their PG course on Disaster Management (affiliated to GGS IP University, Delhi); for the AIIMS students of MSc (Nursing), BSc (Nursing), took Inf. Technology, HIS, Nursing and Medical Informatics, Bio-Medical Information retrieval, classes.

Hari Shanker conducted orientation program for MBBS students; took classes for MSc and BSc Nursing students; presented a paper titled “Integrated LAN, Wi-Fi and Wide Area Network at AIIMS for Healthcare Professionals and Students” in APAMI 2018 held on 7-12 October 2018, Colombo, Sri Lanka.

Pawan Kumar Sharma assigned as a Nodal Officer of AIIMS for the e-procurement portal GeM.

Tripta Sharma is maintaining and configuring e-Hospital application modules such as Appointment Module, Admission Discharge and Transfer Module, Inventory Module, EHS (Employees Health Services) Module in AIIMS and various Centres; involved in teaching activities of undergraduate and postgraduate students; Member of various departmental committees.

Archana and Ritu developed online Estate Allotment System (1st Phase Completed); Online Hostel Registration and Allotment System; Online Poison Information; Online Organ Donation Form.

11.6. Electron Microscope Facility (Department of Anatomy)

Professor
TC Nag

Assistant Professor
Subhash C Yadav

Senior Technical Officer
Sandeep Arya

Technical Officer
Chanda Panwar

EDUCATION

1. Thirteen MBIotech students of the Department of Biotechnology, AIIMS, received 2 weeks training from 13 August to 1 September 2018 (as part of their 1st Semester Cell Biology Practical)
2. EM classes (theory as well as practical, Fridays only) for Anatomy postgraduates were conducted from 4 January to 31 March 2019

CME/Workshops/Symposium/National and International Conferences

1. The summer training course in Electron Microscopy for technical personnel was held from 15 May to 25 June 2018. Six candidates were trained in sample processing, ultramicrotomy, CPD, sputter coating, TEM and SEM viewing and routine maintenance of microscopes
2. The 34th National Training Program in Electron Microscopy for Scientific Investigators was held from 27 November to 7 December 2018. Twenty-two candidates from different parts of the country participated in this training program. Twelve lectures were delivered by AIIMS faculty staffs and external experts to the participants
3. Six MSc 2nd year students (on training in Department of Physiology, AIIMS, New Delhi, faculty-in-charge Professor KP Kochhar) from Delhi Institute of Pharmaceutical Sciences, visited EM facility on 9 July 2018 and were instructed on principles of EM and processing of biological samples for EM observation
4. Dr Rafid Rholav (Pharmacy College, Basra, Iraq) visited EM Lab on 31 May 2018
5. Dr Aparajit Das, Department of Anatomy, Dublin, Ireland, visited EM Lab on 9 November 2018
6. Dr K Basu and Dr M Sengupta from Department of Pathology, IPGIMER (Kolkata), visited EM Lab on 1 March 2019

7. Six MD Pathology Senior residents from BPKIHS, Dharan, Nepal, visited EM Lab on 12 March 2019
8. Eighteen students, along with two faculty members from Cooch Behar Panchanan Barma University, West Bengal visited EM facility on 27 March 2019 and were instructed on principles of EM and processing of biological samples for EM observation

CMEs, National and International Conferences

Lectures delivered

TC Nag

1. Ultrastructural changes of the choriocapillaris with aging, XXXIV Annual Meeting of the Electron Microscope Society of India, 19 July 2018, Institute of Physics, Bhubaneswar
2. Mitophagy in retinal photoreceptor cells after experimental iron overload, XXXVI Annual Meeting of Indian Academy of Neurosciences, 29 October 2018, BHU, Varanasi
3. Changes of photoreceptor cytoskeleton in aging human retina: Possible link to oxidative stress, IBRO-APRC School of Neurosciences, 9 November 2018, AIIMS, New Delhi
4. Pericyte degeneration, capillary death and mechanisms of choriocapillaris death in aging human choroid, 66th Annual Meeting of Anatomical Society of India (NATCON66), 13 November 2018, AIIMS, Rishikesh
5. Antigen localization in biological tissues: Practical issues, 3rd Asian-African Stereology Conference, 18 December 2018, MAMC, New Delhi

Subhash Chandra Yadav

1. Ultra-small chitosan nanoparticles doped brimonidine on ultra-structure of trabecular meshwork of glaucoma patient, International Conference on Molecular Basis of Diseases and Therapeutics (ICMBDT-2019), 9 March 2019, Central University of Rajasthan, Kishangarh, Ajmer
2. Development of Apple Scab kit, Nanobioteck-2018 (3rd Annual Conference of Indian Society of Nanomedicine), 25 October 2018, AIIMS, New Delhi
3. Effect of ultra-small chitosan nanoparticles doped brimonidine on ultrastructure of trabecular meshwork of glaucoma patient, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 19 July 2018, Institute of Physics, Bhubaneswar
4. Electron microscopy in biomedical sciences, International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, 18 July 2018, Institute of Physics, Bhubaneswar

RESEARCH

Funded projects

Ongoing

1. To study the role of Th (T helper)-17 cells in arthritis patients in Indian population, Late TK Das (Now steered by A. Shariff), ICMR, 4 years, 2015-19, Rs 40 lakhs
2. Ultrastructural and immunohistochemical analysis of human choroidal vessels with normal aging, TC Nag, ICMR, 3.5 years, 2015-18, Rs 21.4 lakhs
3. Simple, quick and onsite early diagnostic kit for pathogen detection in asymptomatic stage, Subhash Chandra Yadav, DBT, 3 years, 2016-19, Rs 50.21 lakhs
4. Magnetic nanoparticles and quantum dots coupled visual confirmation of cervical cancer cells from cytology sample: A cost effective, quick and suitable test for rural Indian setup, Subhash Chandra Yadav, SERB, 3 years, 2018-22, Rs 38.68 lakhs
5. External delivery of cisplatin using human papilloma virus (HPV 16) based nanocarriers for treatment of cervical cancer, Subhash Chandra Yadav, AIIMS-IIT Delhi, 2 years, 2019-21, Rs 10 lakhs
6. Development of quick and specific detection system of EWS-FLI-1 fusion protein, Subhash Chandra Yadav, DBT, 3 years, 2019-22, Rs 80 lakhs

Completed

1. Development of nano-drug delivery system for brimonidine for treatment of open angle glaucoma with lower dose, higher efficacy and prolonged action, Subhash Chandra Yadav, Intramural, 2 years, 2016-18, Rs 9 lakhs

Departmental projects

Ongoing

1. Epigenetic regulation of Brain Derived Neurotrophic Factor (BDNF) in the central auditory pathway and hippocampus of neonatal chicks exposed to prenatal sound stimulation
2. Light-induced oxidative stress and endogenous neuroprotective mechanisms in post-hatch chick retina
3. Remodeling in horizontal cells following light-induced retinal damage in rat
4. Visual, rapid, non-invasive and cost-effective BK virus detection system for renal transplanted patients using Gold nanoparticle coupled loop mediated isothermal amplification (Nano-LAMP)

Completed

1. Expression patterns of BDNF and Trk-B in neonatal chick retina exposed to light of variable photoperiods

Collaborative projects

Ongoing

1. Decipher mechanistic basis of the intracellular trafficking of the optically active nanoparticles using super resolution microscopy, School of Biotechnology, JNU, New Delhi
2. A novel Immuno Nano Fluorescence Assay (INFA) system for noninvasive detection of prostate cancer using urine-based protein biomarkers, PSA and MSMB (Pathology)

PUBLICATIONS

Journals: 13

Abstracts: 2

PATIENT CARE

Special laboratory facilities

During the year, special laboratory facilities provided for research and patient care are as follows:

S. No.	Facility	User number		Specimens analyzed	
		Internal	External	Internal	External
1.	Transmission electron microscope	224	327	1,225	1,746
2.	Scanning electron microscope	41	109	125	335

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor TC Nag reviewed manuscripts for Microscopy and Microanalysis, Cell Tissue Organs, Microscopy Research and Techniques, Frontiers in Pharmacology, Current Pharmaceutical Designs, Biomedicine and Pharmacotherapy, Scientific Reports, General and Comparative Endocrinology, Oxidative Medicine and Cellular Longevity and DST-SERB research projects for financial support. He chaired scientific sessions at 36th Annual Meeting of Indian Academy of Neurosciences (BHU, 30 October 2018) and in 66th Annual Meeting of Anatomical Society of India (NATCON66), held in AIIMS, Rishikesh (14 November 2018).

Dr Subhash C Yadav reviewed manuscripts from Nanoscale, Nanomedicine and Journal of Nanotechnology. He was awarded 'Excellence in Microscopy' for Medical Sciences by Electron Microscope Society of India (EMSI) in 2018 EMSI meeting 'International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India', Bhubaneswar. He was the coordinator of the workshop "Use of Environmental Scanning Electron Microscopy in Medicine", in that meeting (16-20 July 2018). He was awarded long-term fellowship for foreign visit from Department of Health Research, Government of India.

11.7. Hostel Section

Superintendent of Hostels

Dr KK Deepak (up to 14 March 2019)

Dr Sandeep Agarwala (from 15 March 2019)

Deputy Superintendent of Hostels

Dr S Datta Gupta

Dr SK Maulik

Dr Neerja Bhatla

Dr Tanuj Dada

Dr Raj Kumar Yadav

Dr Rakesh Kumar

Dr KH Reeta

Dr Vijay Kumar

Dr Partha Haldar

Dr Kapil Yadav

Dr Kamlesh Kumari Sharma

Mrs Bhupinder Kaur

Senior Store Officer (Hostels)

Shri Rakesh Kumar Sharma

Administrative Officer (Hostels)

Shri BK Singh

Account Officer (Hostels)

Shri Trilok Chand

Senior Warden

Shri Shashi Prakash Pandey

Warden

Mr Mohan Sharma

Mrs Seema Pruthi

Deputy Warden

Mr Satprakash Kalia

Mrs Suchita Kumari

Mr Sukhpal Mallick

Assistant Warden

Mrs Tripta Sharma

Ms Rani Varghese

Junior Warden

Mr Babu Lal Meena

Mr Dinesh Desai

Mrs Nirmala

Mr Rajesh Rawat

Mrs Sunil Devi

Ministerial and Contractual Staff

There are four ministerial and eight contractual staff in the hostel section.

Subordinate Staff

Twelve male office attendants and 20 female office attendants are posted in different hostels. There are several halls of residence with a capacity of over 1,812 (approximate) single/double rooms, 352 married accommodations, 480 accommodations for nursing students/staff nurses and 24 guest rooms. These are spread over different hostels and residence in the Main Campus, Masjid Moth, Ayurvigyan Nagar and Trauma Centre (Raj Nagar).

Details of Hostels

S. No.	Name of Hostels	Single Room	Two to Eight Seaters	Guest Room	Total Strength
<i>Gents Hostel</i>					
1	No. 1 (Charak)	62	2x3 = 6 (BSc)	0	68
2	No. 2 (Jivak)	55	2x2 = 4 (BSc)	1	60

3	No. 3 (Sushruta)	70	2x6 = 12 (BSc)	1	83
4	No. 4 (Madhava)	53	2x7 = 14 (BSc)	0	67
5	No. 5 (Nagarjuna)	53	2x5 = 10 (BSc)	0	63
6	No. 6 (Vagbhatta)	69	2x6 = 12 (MBBS)	0	81
7	No. 7 (Ashwini)	107	0	1	108
8	No. 8 (Bharadwaj)	108	0	1	109
9	No. 18 (Kashyap)	283	2x10 = 20; 3x14 = 42	0	345
10	JPN Apex Trauma Centre	58	0	2	60
11	No. 12 (Dhanwantri)	71	0	1	72
	Total	989	120	7	1,116
<i>Ladies Hostel</i>					
12	No. 9 (Parvati)	62	16+2+0+1 (32+6+5) = 43	1	106
13	No. 10 (Saraswati)	106	3+0+1+0+0+1 (6+4+8) = 18	1	125
14	No. 11 (Akshara)	21	5+0+3+0 (10+12) = 22	0	43
15	No. 13 (Laxmi)	20	13+0+1+0+1 (26+4+6) = 36	1	57
16	No. 14 (Atreya)	68	0	6	74
17	No. 19 (Patanjali)	307	0	0	307
	Total	584	119	9	712
<i>Nursing Students/Staff Nurses Hostel</i>					
18	No. 14 (Atreya) Students	76	0	0	76
19	No. 15 (Medha) Students	160	76+14+4+0+0 (152+42+16)	3	373
20	No. 15 (Medha) Staff nurses	34	0	0	34
	Total	270	210	3	483
<i>Hostel Accommodation for the Married</i>					
21	F-type	0	7x2 = 14 (1 room for store)	0	13
22	No. 14 (Atreya)	42	0	0	42
23	No. 16 (Agnivesa)	142	0	0	142
24	F-type for PhD	18	0	0	18
25	No. 17 (Ambuja)	54	0	5	59
	Ayurvgiyan Nagar Type III	77	0	0	77
25	JPN Apex Trauma Centre	6	0	0	6
	Total	339	13	5	357
	Grand Total	1,109 (Males) 703 (Females) 480 (Nursing students and staff) 352 (Married)		24	2,668

Significant Events

1. Hostel No. 18 (Kashyap) handed over to hostel section in May 2018. There are 283 single accommodations for male Senior Residents, Junior Residents and PhD students and 42 seats (three-seater) for male MSc students and 20 seats (two-seater) for male BSc (PB) Nursing.
2. Hostel No. 19 (Patanjali) handed over to hostel section in January 2019. There are 307 single accommodations for female Senior Residents, Junior Residents and PhD students.
3. Nine lavatories in Hostel Nos. 1 and 2, 3 lavatories in Hostel No. 3, 3 lavatories in Hostel No. 4 and 21 lavatories in Hostel Nos. 7 and 8 were renovated. A bicycle stand was made in Hostel No. 7 (Ashwini).
4. In Hostel No. 9, 48 rooms windows have been replaced and the main gate wall renovation work has been done. Electrical Control Panel has been made in open area in Hostel Nos. 9, 10 and 13.
5. Five common lavatories and mess washroom in Hostel No. 10, and four lavatories and one common room in Hostel No. 13 have been renovated.
6. LED lights have been provided in all corridors of Hostel Nos. 9, 10, 13 and 17.
7. Three common lavatories and mess kitchen have been renovated and 144 rooms are under renovation in Hostel No. 14 (Atreya Hostel).

8. In Hostel No. 15 (Medha) all the common washrooms have been renovated. The mess kitchen windows and slabs have also been renovated and exhaust fans replaced.
9. In Hostel No. 16 (Agnivesa) ground to tenth floor common washroom provided. General Store (Tuck Shop) started.
10. Air conditioners provided in three new guest rooms and warden office in Hostel No. 17 (Ambuja).
11. Water cooler and R.O. plant has been installed and bicycle stand made in Hostel No. 18 (Kashyap).
12. All the room's windows changed in JPNATC Hostel.
13. Five rooms renovated in A.V.N. Hostel.
14. Hostel section extended with a chamber for Senior Warden and newly joined staff.
15. Compactor steel movable storage system has been obtained and Hostel records shifted to Hostel No. 7 (Ashwini).

Future Plans

1. Hostel No. 1 lavatories 7 and 9, Hostel No. 3 lavatories 1, 3, 7, 8 and 9, Hostel No. 5 lavatories 1, 3 and 5, Hostel No.7 lavatories 4, 8, 12, 13, 15 and 17 and Hostel No. 8 lavatories 3, 7, 11, 13, 14, 15, 16, 17 and 18 are to be renovated.
2. Hostel No. 8 (Bharadwaj) first floor mess is under renovation with modular kitchen.
3. Hostel No. 9 store, three common rooms and guest room and Hostel No. 10 TV room, Gymkhana and Guest Room to be renovated.
4. Hostel No. 14 (Atreya) Guest Rooms and TV Room to be renovated.
5. All the room's windows, both sick room, guest rooms, all the corridors, staircases and pantries of Hostel No. 15 (Medha) are to be renovated.
6. Main Hostel Store is to be shifted to old hostel office near gents hostel main gate.
7. In view of the increasing number of hostels and staff the Hostel Section is to be extended and Hostel Reception, Hostel Cashier and Guest Room booking counter are to be shifted to Room No. 32 in front of Hostel Section in Hostel No. 7.

11.8. Ethics Committee

The total number of project proposals and thesis protocol submitted and discussed in the ethics committee for above mentioned academic year are mentioned below:

Meetings

The number of meetings were:

- Institute Ethics Committee: **11**
- Institute Ethics Committee for post graduate Research for Basic and Clinical Science: **12**

The number of projects reviewed were:

- New project proposals: **700**
- Review projects: **600**
- Old projects: **190**

The number of projects reviewed for postgraduate research in basic and clinical sciences were:

- New thesis: **770**
- Review thesis: **480**
- Old thesis: **100**

In addition, the Institute Ethics Committee continues to receive notifications of serious adverse reactions, serious adverse events, annually progress reports, completion reports, etc.

The Institute Ethics Committee's Standard Operating Procedures (SOPs) were modified and are available on the AIIMS website.

SIGNIFICANT EVENTS

The Institute Ethics Committee and Institute Ethics Committee for Post Graduate Research for Basic and Clinical Sciences are registered with the Drug Controller General of India and Federal Wide Assurance of the USA.

11.9. K.L. Wig Centre for Medical Education, Technology and Innovation (CMETi)

Chief

OP Kharbanda

Professor-in-Charge

(For Faculty Development of Basic Sciences)

KK Deepak

Professor-in-Charge

(For Faculty Development of Clinical Faculty of Medicine and Allied Disciplines)

Rita Sood

Professor-in-Charge

(For Faculty Development of Surgical Disciplines)

Anurag Srivastava

Education Media Generalist

Yogesh Kumar

Chief Technical Officer

Adarsh Kumar Sharma (up to October 2018)

Manager (HRD)

Sourav Sarkar (up to May 2018)

Administrative Officer

Pallav Kumar Chittej (from October 2018)

HIGHLIGHTS

- **Ninety In-House Training Programmes** were conducted during the year including
 1. *5 Nursing Administrator Empowerment Programme*: For the first time a training programme was organised for the Nursing Superintendent (NS), Deputy NS and Assistant NS (140+), in consultation with the Departments of Hospital Administration and Psychiatry, and Chief Nursing Officer in 5 batches, and each batch for 5 days. The objective of the training programme was to empower the nursing administrators and their teams to provide quality care to patients. In every batch over 30 presentations were done by the participants beside core topics like Conduct Rules, Leave Rules, RTI, Consumer Protection Law, Medico Legal Cesses, Communication Skills, Stress Management, Team building, Infection Control Policy, Pride of AIIMS, etc. were conducted by the experts
 2. *A 3-day Basic Course in Medical and Health Professions' Education* for medical, nursing and dental faculty to enhance their skills in teaching methodology and understanding towards medical education. 27 faculty members from different disciplines attended the program
 3. *2 Workshops on Writing a Research Paper in collaboration with the National Medical Journal of India*
 4. *22 Induction programmes of 3 half days were organised for Nursing (18), OTA (3) and Security Guards (1)*
 5. *12 Workshops* for faculty and residents were organized on different topics with special emphasis on topics like Information Retrieval, Bibliography Management, Tools for Scientific Writing in MS Word, Designing Effective Presentation, Animation in PowerPoint, Excel in Excel, Creativity
 6. *32 lectures under Fellowship in Clinical Research Methodology and Evidence Based Medicine*, on topics like Principles of Statistical Analysis, Use of Statistical Software, Regression Model, Case Control Studies, Cohort Studies, etc
 7. *17 training programme in collaboration with ORBO*

CMET Hall Utilisation

CMET extended logistic support, including audiovisual to various departments (187 days) to organize workshops/CME apart from its own programme (185 days). During the year, three CMET halls—Education Hall, Technology Hall and Innovation Hall were used for 219, 161 and 80 days, respectively.

63rd Institute Day Exhibition

CMET played a key role in organizing the Institute Exhibition on 25-26 September 2018. The theme of the exhibition was: “**Next Generation Healthcare**”. Professor J.S. Guleria inaugurated the exhibition. Posters showing the history of top 10 discoveries, of all time in health sciences were the highlight of the exhibition. Posters of 52 departments/centres participated with their posters and videos on the said topic. The exhibition was designed using easily portable panel display system without using a single nails or screw. Ninety posters (42x72 inches) with acrylic mount were prepared and 6 video stations were on display.

1st AIIMS Annual Research Day-2019

On the occasion of 1st AIIMS Research Day an exhibition was organised by Research Section in collaboration with CMETi, in which over 450 posters were displayed, over 220 posters for PhD, MBBS and MSc students were designed and printed at CMETi. CMETi also assisted SRs and JRs in designing over 200 e-posters. CMETi managed this exhibition in-house including printing and display.

Mini-health exhibitions

1. Autism Awareness: Together we can, 11 April 2018, CMETi designed and printed 40 posters
2. RP Centre Day Exhibition: 10 March 2019, CMETi designed and printed 40 posters
3. Childhood Cancer Exhibition: 27 February 2019, CMETi designed and printed 16 posters

46th Convocation of AIIMS

CMET photography team took over 2,400 high resolution photographs of the Annual Convocation of AIIMS held on 12 December 2018. All the photographs were uploaded on AIIMS website www.aiims.edu, and made available to the students free of cost.

Two six monthly CMET Training calendars—(i) June to December 2018 and (ii) January to June 2019, were distributed well in advance to the faculty, residents and staff of AIIMS which resulted in better turnout of the participants.

Media-related achievements

Particulars	Number
Clinical/Event photography and scan, X-ray/CT/MRI/Slide, number of requisitions	536
Colour printing (A3 size)	800+
Colour printing (A4 size)	1,500+
Video recording and editing, No. of requisitions	546
Designing/printing of large format posters (including 450+ e-posters)	2,350+
On screen presentations, No. of requisitions	480
Certificates prints A4 Size (CMET workshops + Other department)	1,085

EDUCATION

Fellowship in Clinical Research Methodology and Evidence Based Medicine

The following faculty members are involved in the Fellowship programme.

1. Kameshwar Prasad (Chief Coordinator)
2. Anurag Srivastava
3. S.N. Dwivedi
4. Shashi Kant
5. Govind Makaria
6. V. Sreenivas
7. Deepti Vibha
8. Nalin Mehta
9. Tulika Seth
10. Rajeev Kumar
11. Rakesh Lodha
12. Neerja Bhatla
13. Navneet Wig
14. Manju Vatsa
15. Peush Sahni

The following lectures were organised during the year:

S. No.	Topic	Speaker	Date
1.	Diagnostic test study	Dr Sachin Kumar	4 April 2018
2.	Systematic Review and Meta Analysis	Dr Sachin Kumar, Dr Kameshwar Prasad	11 April 2018
3.	Systematic Review and Meta Analysis	Dr Kameshwar Prasad	18 April 2018
4.	Review Class	Dr Kameshwar Prasad	25 April 2018
5.	Review Class	Dr Kameshwar Prasad	2 May 2018
6.	Introduction to Clinical Research Methodology and Evidence Based Medicine	Dr Kameshwar Prasad	1 August 2018
7.	Critical appraisal of a theory paper	Dr Kameshwar Prasad and Dr Kapil Dev Soni	8 August 2018
8.	Understanding the results of a randomized Controlled Trials	Dr Kameshwar Prasad and Dr Kapil Dev Soni	29 August 2018
9.	Paper Discussion	Dr Kapil Dev Soni	5 September 2018
10.	Overview of study design	Dr Kameshwar Prasad and Dr Deepti Vibha	12 September 2018
11.	Critical appraisal of a theory paper	Dr Kameshwar Prasad and Dr Deepti Vibha	19 September 2018
12.	Critical appraisal of a theory paper	Dr Deepti Vibha	26 September 2018
13.	Critical appraisal of a theory paper	Dr Kapil Dev Soni and Dr Deepti Vibha	3 October 2018
14.	Biostatistics for Clinical Research	Dr V. Sreenivas	18 October 2018
15.	Biostatistics for Clinical Research	Dr V. Sreenivas	24 October 2018
16.	Biostatistics for Clinical Research	Dr V. Sreenivas	25 October 2018
17.	Biostatistics for Clinical Research	Dr V. Sreenivas	29 October 2018
18.	Biostatistics for Clinical Research	Dr Sachin Kumar	15 November 2018
19.	Biostatistics for Clinical Research	Dr Sachin Kumar and Dr Amit Kumar	22 November 2018
20.	Biostatistics for Clinical Research	Dr S.N. Dwivedi	29 November 2018
21.	Biostatistics for Clinical Research	Dr S.N. Dwivedi	5 December 2018
22.	Biostatistics for Clinical Research	Dr S.N. Dwivedi	17 January 2019
23.	Software practice	Dr Amit Kumar	23 January 2019
24.	Biostatistics for Clinical Research	Dr S.N. Dwivedi	24 January 2019
25.	Biostatistics for Clinical Research	Dr S.N. Dwivedi	30 January 2019
26.	Biostatistics for Clinical Research	Dr Amit Kumar and Dr Sachin Kumar	31 January 2019
27.	Cohort Study Session-1	Dr Kameshwar Prasad	7 February 2019
28.	Cohort Study Session-2	Dr Deepti Vibha	13 February 2019
29.	Cohort Study Session -3	Dr Kameshwar Prasad	20 February 2019
30.	Cohort Study Session-4	Dr Kapil Dev Soni	5 March 2019
31.	Kaplan-Meier Method of Survival analysis	Dr Kameshwar Prasad	20 March 2019
32.	Kaplan-Meier Method of Survival analysis	Dr Kapil Dev Soni and Dr Amit Kumar	27 March 2019

List of 90 Workshops/Training Programme

S. No.	Topic	Mode	Date
1. to 12.	Basic Life Support Training Programme for Nursing Officers in 12 Batches two courses every month	Full day	July to December 2018
13.	Wound Care and Pressure Sore Prevention	Full day	10 April 2018
14.	Organ and Tissue Donation	Half day	17 April 2018
15.	Quality Improvement in Health Care	Half day	25 April 2018
16.	How to prepare a better Journal Club	Half day	27 April 2018
17.	Organ and Tissue Donation	Half day	3 April 2018
18.	Good Bedside Transfusion Practices for Residents	Half day	6 April 2018
19.	Writing a research paper	2 Full days	5-6 April 2018

S. No.	Topic	Mode	Date
20.	Organ and Tissue Donation	Half day	22 May 2018
21.	Submitting Manuscript for publication	Half day	2 May 2018
22.	Good Bedside Transfusion Practices for Nursing Officer	Half day	4 May 2018
23.	Organ and Tissue Donation	Half day	8 May 2018
24.	Nursing Administrator Empowerment Program for NS/ANS and DNS (1 Batch)	5 Half day	14-18 May 2018
25.	Organ and Tissue Donation	Half day	12 June 2018
26.	Organ and Tissue Donation	Half day	5 June 2018
27.	Nursing Administrator Empowerment Program for NS/ANS and DNS (2 Batch)	5 Half day	4-8 June 2018
28.	Nursing Administrator Empowerment Program for NS/ANS and DNS (3 Batch)	5 Half day	18-22 June 2018
29.	Nursing Administrator Empowerment Program for NS/ANS and DNS (4 Batch)	5 Half day	2-6 July 2018
30.	Nursing Administrator Empowerment Program for NS/ANS and DNS (5 Batch)	5 Half day	9-13 July 2018
31.	Induction Programme-2018, for Security Guards	5 Half day	23-27 July 2018
32.	Induction Programme-2018, for Nursing Officers Batch 1	3 Half day	2-4 August 2018
33.	Induction Programme-2018, for Nursing Officers Batch 2	3 Half day	6-8 August 2018
34.	Media in Education (MSc Nursing)	Half day	9 August 2018
35.	Epilepsy: Primary Care for Residents and Nursing Staff	Half day	9 August 2018
36.	Organ Retrieval Workshops for Residents and Nursing Officers	Half day	10 August 2018
37.	Tools for Scientific Writing in MS Word (MSc Nursing)	Half day	11 August 2018
38.	Induction Programme-2018, for Nursing Officers Batch 3	3 Half day	13-16 August 2018
39.	Information retrieval and bibliography management (MSc Nursing)	Half day	16 August 2018
40.	Psycho-Social Skills for the health care provider	Half day	17 August 2018
41.	Induction Programme-2018, for Nursing Officers Batch 4	3 Half day	16-18 August 2018
42.	Designing posters and pamphlets (MSc Nursing)	Half day	18 August 2018
43.	Organ Retrieval Workshops for Residents and Nursing Officers	Half day	20 August 2018
44.	Induction Programme-2018, for Nursing Officers Batch 5	3 Half day	27-29 August 2018
45.	Animation in PowerPoint (MSc Nursing)	Half day	29 August 2018
46.	Creativity (MSc Nursing)	Half day	31 August 2018
47.	Induction Programme-2018, for Nursing Officers Batch 6	3 Half day	30 August-1 September 2018
48.	Organ Retrieval Workshops for Residents and Nursing Officers	Half day	10 September 2018
49.	Induction Programme-2018, for Nursing Officers Batch 7	3 Half day	10-12 September 2018
50.	Induction Programme for Operation Theatre Assistant Batch 1	3 Half day	10-12 September 2018
51.	Organ Retrieval Workshops for Residents and Nursing Officers	Half day	14 September 2018
52.	Workshop on Wound Management for Nursing officers	One day	18 September 2018
53.	Writing a Research Paper for Residents in collaboration with NMJI	Two days	28-29 September 2018
54.	Induction Programme for Operation Theatre Assistant Batch 2	3 Half day	1-4 October 2018
55.	Organ Retrieval Workshops for Residents and Nursing Officers	Half day	8 October 2018
56.	Induction Programme for Operation Theatre Assistant Batch 3	3 Half day	8-10 October 2018
57.	Safe Blood Transfusion Practice for Nursing officers	Half day	26 October 2018
58.	Organ Retrieval Workshops for Residents and Nursing Officers	Half day	2 November 2018
59.	Organ Retrieval Workshops for Residents and Nursing Officers	Half day	12 November 2018
60.	Medical Humanities Improve Functional Outcomes	Half day	15 November 2018
61.	Organ Retrieval Workshops for Residents and Nursing Officers	Half day	7 December 2018
62.	Organ Retrieval Workshops for Residents and Nursing Officers	Half day	10 December 2018

S. No.	Topic	Mode	Date
63.	Wound Management for Nursing Officers	Full day	18 January 2019
64.	Information Retrieval and Bibliography Management	Half day	22 January 2019
65.	Orientation Programme for Retiring Staff	2 Half day	23-24 January 2019
66.	Tools for Scientific Writing in MS Word	Half day	29 January 2019
67.	ORBO Training Programme Senior Resident	Half day	29 January 2019
68.	Induction Programme-2019, for Nursing Officers Batch-1	3 Half day	28-30 January 2019
69.	Induction Programme-2019, for Nursing Officers Batch-2	3 Half days	31 January-2 February 2019
70.	Designing Effective Presentation	Half day	5 February 2019
71.	Induction programme-2019, for Nursing Officers Batch-3	3 Half days	4-6 February 2019
72.	Conduct Rules	Half day	7 February 2019
73.	Animation in PowerPoint	Half day	12 February 2019
74.	Induction Programme-2019, for Nursing Officers Batch-4	3 Half days	11-13 February 2019
75.	Induction Programme-2019, for Nursing Officers Batch-5	3 Half days	14-16 February 2019
76.	ORBO Training Programme Senior Resident	Half day	18 February 2019
77.	Excel in Excel	Half day	19 February 2019
78.	Induction Programme-2019, for Nursing Officers Batch-6	3 Half day	18-20 February 2019
79.	Induction Programme-2019, for Nursing Officers Batch-7	3 Half day	21-23 February 2019
80.	Introduction to Medical Photography	Half day	5 March 2019
81.	Leave Rule/LTC/EHS	Half day	6 March 2019
82.	Induction Programme-2019, for Nursing Officers Batch 8	3 Half day	7-9 March 2019
83.	Basic Course in Medical Education for Faculty	3 Full day	11-13 March 2019
84.	Wound Management for Nursing officers	Full day	15 March 2019
85.	Induction Programme-2019, for Nursing Officers Batch 9	3 Half day	14-16 March 2019
86.	ORBO Training Programme Senior Resident	Half day	18 March 2019
87.	Induction Programme-2019, for Nursing Officers Batch 10	3 Half day	18-20 March 2019
88.	Face: First Aid in Common Emergency	Full day	22 March 2019
89.	ORBO Training Programme Nurses	Half day	25 March 2019
90.	Induction Programme-2019, for Nursing Officers Batch 11	3 Half day	25-27 March 2019

Lectures delivered

Yogesh Kumar

(61 Workshop/Sessions)

- Sessions on Team Building and Conflict Management during 18 induction programmes
- Sessions (10) during Nursing Administrator Empowerment Program for NS/ANS and DNS (5 Batch, 5 days each) on Communication Skills, Team Building and Conflict Management, and worked as facilitator for over 30 sessions where each participant presented a 10 minutes presentation related to nursing, May-July 2018
- Workshop on Information Retrieval in Health Science and Bibliography Management, and Tools for scientific writing in MS Word in workshop 'Decoding Thesis for PG Students' Manav Rachna Dental College, Faridabad, 14 July 2018
- Sessions (4) on Pride of AIIMS, Conduct Rules, Communication Skills and Team Building during the Induction Programme for Security Guards-2018, 23-27 July 2018
- Media in Education (MSc Nursing), 9 August 2018
- Tools for Scientific Writing in MS Word (MSc Nursing), 11 August 2018
- Information retrieval and bibliography management (MSc Nursing), 16 August 2018
- Designing posters and pamphlets (MSc Nursing), 18 August 2018
- Animation in PowerPoint (MSc Nursing), 29 August 2018
- Creativity (MSc Nursing), 31 August 2018

11. Sessions (6) during Induction Programme for Operation Theatre Assistant for 3 Batches on (i) Pride of AIIMS and (ii) Team Building, September 2018
12. Preconference workshop on Role of Media in Education, National Conference of Anatomical Society of India, Department of Anatomy, AIIMS Rishikesh, 12 November 2018
13. Information Retrieval and Bibliography Management (Faculty/Residents), 22 January 2019
14. Tools for Scientific Writing in MS Word (Faculty/Residents), 29 January 2019
15. Session on 'Preparation for Retirement' during Orientation Programme for Retiring Staff of AIIMS, 23-24 January 2019
16. Designing Effective Presentation (Faculty/Residents), 5 February 2019
17. Animation in PowerPoint (Faculty/Residents), 12 February 2019
18. Excel in Excel (Faculty/Residents), 19 February 2019
19. Workshop on Information Retrieval in Health Science and Bibliography Management, during 5 day refresher programme on research methodology in the field of disability rehabilitation and special education at Pt Deendayal Uppadhyay National Institute for Person with Physical Disabilities, New Delhi, 24 February 2019
20. Introduction to Medical Photography (Faculty/Residents), 5 March 2019
21. Sessions (5) on 'Poster Designing' for residents, PhD, MSc, MBBS students to meet the target of over 450 posters for 1st Annual Research Day-2019
22. Session on 'Media in Education' during the CMETi workshop on Basic Course in Medical Education for Faculty of AIIMS, 11-13 March 2019

Pallav Kumar Chittej

14 Workshop/Sessions

1. 11 sessions on CSS Conduct Rules, Leave Rules, LTC Rules and EHS Rules during the induction programmes, January-March 2019
2. Session on 'Retirement Papers' during Orientation Programme for Retiring Staff of AIIMS, 23-24 January 2019
3. Session on 'Conduct Rules: AIIMS Perspective' for administrative staff in the workshop on Conduct Rules, 7 February 2019
4. Session on 'LTC and EHS' for administrative staff in the workshop, 6 March 2019

11.10. Media and Protocol Division

Chairperson

Dr Aarti Vij

Additional Spokesperson

Dr Karan Madan

Staff

Sushil Kumar

Bishwanath Acharya

Sandeep Saxena

NP Singh

AIIMS in the News

S. No.	Date	Title	Newspaper
1.	1 April 2018	एम्स में इलाज के लिए अब विभाग के नाम पर मिलेगा मरीजों को अपॉइंटमेंट	दैनिक जागरण
2.	2 April 2018	AIIMS goes the 3D way for retina surgery in adults	Mail Today
3.	3 April 2018	40% of Private School kids in Delhi obese: AIIMS survey	The Pioneer
4.	4 April 2018	AIIMS takes lead in the newly introduced medical category in the ranking	The Hindu

S. No.	Date	Title	Newspaper
5.	5 April 2018	एम्स ने 10 साल में 850 लोगो को मोटापे से निजात दिलाई	हिंदुस्तान
6.	5 April 2018	नेशनल इंस्टीटूशनल रैंकिंग फ्रेमवर्क की रैंकिंग में एम्स को पहला स्थान मिला है	हिंदुस्तान
7.	8 April 2018	मोबाइल से बच्चों के कान के पास ट्यूमर होने का खतरा	दैनिक जागरण
8.	10 April 2018	Heart from Jaipur saves 24 years old Delhi youth's life	The Times of India
9.	10 April 2018	जगिया और बलिया ने अलग अलग काटा केक	नवभारत टाइम्स
10.	11 April 2018	One in every 5 school students a "problematic" internet user	The Times of India
11.	13 April 2018	एम्स में न्यूरो की बीमारियों से पीड़ित बच्चों के लिए टेली कंसल्टेंसी शुरू	दैनिक जागरण
12.	13 April 2018	6 नए एम्स में सेवानिर्वात डॉक्टरों की नियुक्ति की तैयारी	दैनिक जागरण
13.	13 April 2018	Helpline for childhood neurodevelopmental disorder started at AIIMS	The Statesman
14.	14 April 2018	तंत्रिका रोगों की जानकारी के लिए 24 घंटे उपलब्ध होगी हेल्पलाइन	जनसत्ता
15.	15 April 2018	सड़क सुरक्षा व स्वच्छता का संदेश लेकर दौड़े एम्स के डॉक्टर	दैनिक जागरण
16.	15 April 2018	स्वच्छता में भी एम्स नंबर एक, मिलेंगे ढाई करोड़	दैनिक जागरण
17.	15 April 2018	एम्स साफ सफाई में शीर्ष स्थान पर	हिंदुस्तान
18.	17 April 2018	700 ग्राम की बच्ची, फूड पाइप साँस की नली से जुड़ी...हुई सफल सर्जरी	नवभारत टाइम्स
19.	17 April 2018	देश में पहली बार असामयिक बेबी का हुआ इलाज, न खा पा रही थी न साँस ले पा रही थी	नवभारत टाइम्स
20.	17 April 2018	इंसुलिन की तरह त्वचा में ले सकेंगे इंजेक्शन	दैनिक जागरण
21.	18 April 2018	एम्स में २०० बेड के सर्जिकल ब्लॉक को मंजूरी	हिंदुस्तान
22.	18 April 2018	रखतदान सबसे बड़ी सेवा: उर्मिला राणा	दैनिक जागरण
23.	18 April 2018	Cheap nasal filters to smart limbs at IIT-Delhi open house	Hindustan Times
24.	19 April 2018	एम्स में रोबोट हड्डियों की सर्जरी करेंगे	हिंदुस्तान
25.	19 April 2018	एम्स ने नशे की बढ़ती लत पर चिंता जताई	हिंदुस्तान
26.	20 April 2018	एम्स ट्रामा सेंटर में ताइवान, मोरक्को के सर्जनो ने दी ट्रेनिंग	दैनिक भास्कर
27.	20 April 2018	हस्पतालो में बरकरार रखे स्वच्छता: जे. पी. नड्डा	दैनिक जागरण
28.	20 April 2018	AIIMS doctors perform critical 100 degree of spine correction surgery	Hindustan Times
29.	20 April 2018	कार्यकल्प स्कीम में एम्स को मिला पहला पुरस्कार	दैनिक भास्कर
30.	22 April 2018	For kids with autism and epilepsy, helpline offers a ray of hope	The Indian Express
31.	22 April 2018	Don't pop just any pill to beat acidity, eat greens and exercise, say doctors	Hindustan Times
32.	22 April 2018	अब बुजुर्गों की कैंसर स्क्रीनिंग करेंगे एम्स के डॉक्टर	दैनिक जागरण
33.	23 April 2018	एम्स में कॉस्मेटिक सर्जरी पैर कार्यशाला: नई दिल्ली	हिंदुस्तान
34.	25 April 2018	Nationalists claiming MNC hand in vaccines actually hurting Indian firm: WHO top officer	The Indian Express
35.	26 April 2018	Long duty hours of doctors need to be changed	The Statesman
36.	27 April 2018	Virtual Bronchoscopy navigation 1st at AIIMS	The Pioneer
37.	27 April 2018	एम्स में फेफड़ों में छोटे ट्यूमर का हो सकेगा उपचार	दैनिक जागरण
38.	27 April 2018	नेविगेशन से साँस की नली में मौजूद कणों की होगी पहचान	अमर उजाला
39.	28 April 2018	AIIMS: एक साल में 41,00,000 का इलाज	नवभारत टाइम्स
40.	28 April 2018	AIIMS gets machine to diagnose lung diseases	The Statesman
41.	2 May 2018	IIT-AIIMS Dhadkan to help monitor your heart	The Times of India
42.	7 May 2018	Patient of rare heart disease gets fresh lease of life	Mail Today
43.	7 May 2018	कैंसर सर्जरी की मिली नयी तकनीक	दैनिक जागरण
44.	7 May 2018	एम्स में 3 डी प्रिंटिंग तकनीक के जरिये ऑपरेशन से रीढ़ की हड्डी सीधी हुई	हिंदुस्तान
45.	8 May 2018	In AIIMS, a new procedure helps patients leave hospital much sooner	The Indian Express
46.	10 May 2018	धूल से बढ़ रही अस्थमा मरीजों की संख्या	अमर उजाला

S. No.	Date	Title	Newspaper
47.	13 May 2018	AIIMS docs replace hip joint using 3D implant	Hindustan Times
48.	15 May 2018	क्षमता से अधिक सेवा दे रहे हैं एलएनजेपी, सफदरजंग, एम्स	दैनिक जागरण
49.	16 May 2018	कैंसर के मरीजों का दर्द दूर करेगा एम्स	Amar Ujala
50.	18 May 2018	Heart transplants in India increase 10-fold since 2016	Hindustan Times
51.	22 May 2018	जल्द सुलभ होगा ब्लड कैंसर का सस्ता व कारगर इलाज	दैनिक जागरण
52.	24 May 2018	खराब लाइफस्टाइल युवा दिल को कर रहा बर्बाद	नवभारत टाइम्स
53.	28 May 2018	एम्स ट्रामा सेंटर में पांच नए ब्लॉक के निर्माण को मंजूरी	हिंदुस्तान
54.	28 May 2018	चार साल में एम्स ट्रामा सेंटर में बढ़ेंगे 1841 बेड	नवभारत टाइम्स
55.	30 May 2018	गर्भ में जेनेटिक बीमारियों का चलेगा पता	दैनिक जागरण
56.	30 May 2018	एम्स जल्द शुरू करेगा फेफड़े प्रत्यारोपण की सुविधा	दैनिक जागरण
57.	31 May 2018	दृष्टिहीनता का श्रीडी- प्रिंटेड कॉर्निया से हो सकेगा इलाज	दैनिक जागरण
58.	4 June 2018	एम्स ने भावी डॉक्टरों के लिए शुरू की हेल्पलाइन	अमर उजाला
59.	9 June 2018	एम्स ट्रामा सेंटर के पास बनेगा 12 मंजिला स्पोर्ट्स इंजरी सेंटर	अमर उजाला
60.	11 June 2018	एम्स एक लाख लोगों को जान बचाने का तरीका सिखाएगा	हिंदुस्तान
61.	18 June 2018	डॉक्टरों ने टूटी साँस नली जोड़ी, लौटी आवाज़: एम्स	अमर उजाला
62.	20 June 2018	AIIMS 2018 All-India toppers	The Pioneer
63.	21 June 2018	AIIMS explores link between yoga and mental health	The Indian Express
64.	21 June 2018	एम्स में दवा के साथ योग का प्रयोग सफल	हिंदुस्तान
65.	22 June 2018	Over 600 AIIMS Faculty, Students, Nursing Officers and other staff celebrate Yoga Day at AIIMS	The Hindu
66.	24 June 2018	Yoga helps reduce severity of depression, says AIIMS study	The Asian Age
67.	27 June 2018	एम्स में बुजुर्गों के लिए होगा अलग सेंटर	नवभारत टाइम्स
68.	27 June 2018	PM to open 4 key 'functional' projects at AIIMS on Friday	The Times of India
69.	28 June 2018	एम्स की परिक्रमा अब कीजिए कैब में	नवभारत टाइम्स
70.	28 June 2018	115 एकड़ में फैले एम्स परिसर में एक सेंटर से दूसरे सेंटर तक जाना हुआ आसान, 'एम्स की परिक्रमा' अब कीजिये कैब में	नवभारत टाइम्स
71.	30 June 2018	एम्स में बुजुर्गों के लिए देश का पहला अस्पताल	हिंदुस्तान
72.	30 June 2018	बायो पार्क के लिए एम्स-आई आई टी मिले, नैनो तकनीक पर होगा काम	अमर उजाला
73.	30 June 2018	बुजुर्गों के लिए 2020 तक बनकर तैयार हो जायेगा हस्पताल	अमर उजाला
74.	1 July 2018	घर पर मरीजों से फीस नहीं लेते डॉ पी के देव	नवभारत टाइम्स
75.	1 July 2018	एम्स के पूर्वी परिसर में बनेगे १५०० बेड के नए सेंटर	दैनिक जागरण
76.	2 July 2018	Joined at the hip: AIIMS faces twin test	Mail Today
77.	2 July 2018	डॉक्टर डे: दिल्ली के ४० डॉक्टर सम्मानित	अमर उजाला
78.	4 July 2018	Study links low Vitamin D levels with onset of diabetes	The Hindu
79.	4 July 2018	Foundation stone laid	The Times of India
80.	4 July 2018	एम्स के पैरामेडिकल स्टाफ ने किया प्रदर्शन	Amar ujala
81.	7 July 2018	भोपाल से हृदय लाकर एम्स में किया प्रत्यारोपित	दैनिक जागरण
82.	8 July 2018	E-Learning Launched at AIIMS	The Indian Express
83.	8 July 2018	कमर से जुड़ी चार बेटियों को अलग कर फिर इतिहास रचेगा एम्स	अमर उजाला
84.	8 July 2018	देश में चिकित्सकीय दक्षता बढ़ाना एम्स की जिम्मेदारी: जे. पी. नड्डा	दैनिक जागरण
85.	11 July 2018	देशभर के डॉक्टर्स, स्टूडेंट को ट्रेनिंग देगी एम्स की फैकल्टी	नवभारत टाइम्स
86.	11 July 2018	Delhi's AIIMS to be 'pain-free' hospital with a dedicated palliative care team	Hindustan Times
87.	13 July 2018	एम्स में एक्सप्रेस कैंफ्रेंस आयोजित	हिंदुस्तान
88.	16 July 2018	एम्स देश का पहला दर्द मुक्त हस्पताल बनेगा	हिंदुस्तान
89.	18 July 2018	अफगानिस्तान में नहीं मिल रहा सही इलाज, धमाके में घायल सिख लाए जा रहे एम्स	नवभारत टाइम्स

S. No.	Date	Title	Newspaper
90.	18 July 2018	इंजीनियर इलाज में बताएंगे एम्स का हाथ	अमर उजाला
91.	18 July 2018	AIIMS, IIT sign MoU	The Indian Express
92.	19 July 2018	2 sets of conjoined twins come to AIIMS for surgical separation	The Times of India
93.	21 July 2018	गर्भ में ब्लैडर फटा, एम्स के डॉक्टरों ने बचाया	नवभारत टाइम्स
94.	22 July 2018	एम्स व आइआईटी खरगपुर मिलकर करेंगे शोध	दैनिक जागरण
95.	22 July 2018	AIIMS signs MoU with IIT-K for research	The Asian Age
96.	22 July 2018	Delhi AIIMS signs MoU with IIT Kharagpur for collaboration in education, research	The Statesman
97.	28 July 2018	AIIMS new cure for abdominal cancer	Mail Today
98.	28 July 2018	देश में हर साल सिर और गर्दन कैंसर के 1.75 लाख नए मरीज	अमर उजाला
99.	29 July 2018	हर चार में से एक व्यक्ति फैटी लिवर से पीड़ित	दैनिक जागरण
100.	29 July 2018	AIIMS—led team develops highly sensitive, portable test for TB meningitis	The Hindu
101.	1 August 2018	लिवर की खराबी कर सकती कई अंगों को बीमार	जनसत्ता
102.	2 August 2018	डेंगू से बचने के लिए एम्स में खास तैयारी	नवभारत टाइम्स
103.	3 August 2018	एम्स में इसी साल शुरू हो जायेगा फेफड़ों का ट्रांसप्लांट	नवभारत टाइम्स
104.	3 August 2018	एम्स में इसी साल शुरू हो जायेगा फेफड़ों का ट्रांसप्लांट, दिल्ली में पहला हॉस्पिटल होगा ये तकनीक को अपनाने वाला	नवभारत टाइम्स
105.	4 August 2018	एम्स 10 मरीजों का निशुल्क करेगा फेफड़ा प्रत्यारोपण	दैनिक जागरण
106.	4 August 2018	एम्स ने 24 साल में 66 दिलों की धड़कन को दी मजबूती	अमर उजाला
107.	4 August 2018	एम्स 10 मरीजों का करेगा निशुल्क फेफड़ा प्रत्यारोपण	दैनिक भास्कर
108.	4 August 2018	लंग्स ट्रांसप्लांट का खर्च उठाएगा एम्स	नवभारत टाइम्स
109.	4 August 2018	हृदय प्रत्यारोपण से एम्स ने 66 जिंदगिया बचाई	हिंदुस्तान
110.	5 August 2018	अब तक 400 लोगों को मिला दिल	जनसत्ता
111.	5 August 2018	Over 16,000 poisoning calls in 10 years, kids most vulnerable	The Indian Express
112.	6 August 2018	एम्स में अब 24 घंटे की जाएगी एमआरआई	दैनिक जागरण
113.	9 August 2018	मुफ्त चिकित्सा: और एक्सपर्ट की मिलेगी सलाह	अमर उजाला
114.	11 August 2018	सावधान: स्मार्टफोन बच्चों की हड्डी कमजोर कर रहा	हिंदुस्तान
115.	12 August 2018	AIIMS starts wellness clinics to tackle stress	The Hindu
116.	15 August 2018	एम्स के डॉक्टर बुजुर्गों का मुफ्त इलाज करेंगे	हिंदुस्तान
117.	15 August 2018	बुजुर्गों के इलाज के लिए चलेगी मोबाइल वैन	दैनिक जागरण
118.	17 August 2018	पूर्व प्रधानमंत्री ने एम्स कैंसर सेंटर को दिया विस्तार	दैनिक जागरण
119.	21 August 2018	AIIMS lends a helping hand to students stuck in floods	Mail Today
120.	24 August 2018	अब आई आई टी व एम्स भी कर सकेगा गुणवत्ता का मूल्यांकन	अमर उजाला
121.	26 August 2018	22 new AIIMS coming up across the country, says health minister	Hindustan Times
122.	26 August 2018	IIT-D develops cheaper drug for snakebites	Hindustan Times
123.	28 August 2018	एम्स में अंगदान को ले ऑनलाइन शपथ	दैनिक जागरण
124.	29 August 2018	एम्स में बुजुर्गों के लिए हेल्प डेस्क	दैनिक जागरण
125.	30 August 2018	AIIMS, IIT to develop low cost medical tech solutions	IANS
126.	30 August 2018	इलाज को साथ आएं आई आई टी दिल्ली व एम्स	अमर उजाला
127.	31 August 2018	बायोमेडिकल रिसर्च पार्क बनाएंगे आई आई टी—एम्स	हिंदुस्तान
128.	31 August 2018	IIT-Delhi, AIIMS to jointly set up biomedical research park	The Hindu
129.	5 September 2018	सिंथेटिक कॉर्निया लोटा रहा है आँखों की रोशनी, एम्स के डॉक्टरों ने देश में पहली बार आर्टिफिशियल कॉर्निया का इस्तेमाल करना शुरू किया है	नवभारत टाइम्स
130.	5 September 2018	एक कॉर्निया को काटकर दो मरीजों को दे रहे रोशनी, एम्स में दो वर्षों में 50 कॉर्निया से 100 मरीजों को दी गयी रोशनी	दैनिक जागरण
131.	5 September 2018	एम्स ने फिर रचा इतिहास, सिंथेटिक कॉर्निया किया प्रत्यारोपित	अमर उजाला

S. No.	Date	Title	Newspaper
132.	7 September 2018	‘साथी’ और ‘सहारा’ करंगे बुजुर्गों की मदद, एम्स ने लॉन्च की तकनीक	नवभारत टाइम्स
133.	10 September 2018	डॉक्टरों ने हथेलियों से दिल का मसाज कर बचाई जाएं	हिंदुस्तान
134.	12 September 2018	अंतर्राष्ट्रीय क्रिज में एम्स के स्टूडेंट्स तो तीसरा स्थान	दैनिक जागरण
135.	12 September 2018	Increase in corneal donation and transplant at AIIMS	Hindustan Times
236.	15 September 2018	Facilitation kiosk opened at AIIMS	The Statesman
137.	17 September 2018	नसे फटने की बीमारी का एम्स ने खोज निकला इलाज	नवभारत टाइम्स
138.	21 September 2018	देश का पहला दन्त शोध केंद्र एम्स में	अमर उजाला
139.	26 September 2018	आयुष्मान भारत के लाभाथियों के लिए एम्स बना सहारा	अमर उजाला
140.	27 September 2018	AIIMS first hospital in delhi to espouse Ayushman	The Hindu
141.	29 September 2018	NTPC-AIIMS MoU for Burn Centre	Mail Today
142.	29 September 2018	हर ‘बीमारी’ की नब्ज अब एम्स के हाथ में	नवभारत टाइम्स
143.	30 September 2018	AIIMS vans for old age homes soon	The Times of India
144.	30 September 2018	बुजुर्गों के लिए स्वास्थ्य वैन की शुरुआत	जनसत्ता
145.	1 October 2018	एम्स के डॉक्टर घर जाकर करेंगे बुजुर्गों का इलाज	नवभारत टाइम्स
146.	2 October 2018	AIIMS launches mobile geriatric healthcare van	The Pioneer
147.	3 October 2018	एम्स के डॉक्टरों ने लेह में 27 के घुटने व कूल्हे बदले	हिंदुस्तान
148.	7 October 2018	AIIMS bone bank gives Dhaka doc his hip and confidence ‘lost’ 6 years ago	The Times of India
149.	18 October 2018	AIIMS ties up with japan to save 116 cr in electricity bill annually	The Pioneer
150.	18 October 2018	हर साल 16 करोड़ की बिजली बचाएगा एम्स	अमर उजाला
151.	20 October 2018	पति के योग करने से पत्नी को नहीं होगा गर्भपात	अमर उजाला
152.	24 October 2018	AIIMS one-stop centre to start soon	Mail Today
153.	26 October 2018	गर्भ में सर्जरी से ठीक होगा रीढ़ का मर्ज	दैनिक जागरण
154.	31 October 2018	ब्रांकल थर्मोप्लास्टिक से अस्थमा से छुटकारा: एम्स बना देश का पहला सरकारी अस्पताल	दैनिक जागरण
155.	31 October 2018	In AIIMS, new procedure to give severe asthma patients respite	The Indian Express
156.	1November 2018	यूटूस के पास से निकला 15 किलो का ट्यूमर: एम्स के डॉक्टरों के लिए थी चुनौती	नवभारत टाइम्स
157.	6 November 2018	नए एम्स में आयुर्वेद विभाग खोले जाएंगे	हिंदुस्तान
158.	10 November 2018	एम्स की एम.बी.बी.एस प्रवेश परीक्षा को दो बार पंजीकरण का मौका	अमर उजाला
159.	11November 2018	AIIMS-led team develops sensitive tests for pulmonary, pleural TB	The Hindu
160.	15 November 2018	AIIMS belt for kids to help track pollution	The Indian Express
161.	16 November 2018	प्रदूषण का असर बच्चों पर कितना हो रहा है, बताएगी सेंसर वाली बेल्ट: एम्स	नवभारत टाइम्स
162.	17 November 2018	देश में एम्स पहले पायदान पर	दैनिक जागरण
163.	17 November 2018	शोध: गर्भ में पल रहे बच्चे पर प्रदूषण का असर पता लगाएंगे	हिंदुस्तान
164.	19 November 2018	एम्स में #MeToo को लेकर कार्यक्रम आज	नवभारत टाइम्स
165.	19 November 2018	6 नए एम्स में होगी एम.बी.बी.एस की पढाई	दैनिक जागरण
166.	19 November 2018	एम्स में 671 डॉक्टरों को डिग्रीया बाटी जाएगी	हिंदुस्तान
167.	20 November 2018	Zika testing lab works overtime at AIIMS Bhopal	Hindustan Times
168.	23 November 2018	एम्स ने केरल को 1.70 करोड़ दिए	हिंदुस्तान
169.	24 November 2018	एम्स में रॉड से ओपीडी में ही सीधी की जा रही रीढ़	दैनिक जागरण
170.	30 November 2018	Resident docs to organise free health camp for farmers gathering at Ram Leela Ground on Nov 29	The Statesman
171.	3 December 2018	एम्स में तीमारदारों के लिए हेलपडेस्क	हिंदुस्तान
172.	3December 2018	एम्स में कल शुरू होगा शिकायतों के लिए ऑनलाइन पोर्टल	अमर उजाला
173.	4 December 2018	एम्स के डॉक्टर ने 35 हजार में बनाया वेंटिलेटर	दैनिक भाष्कर
174.	7 December 2018	आज उपराष्ट्रपति देंगे एम्स के 671 डॉक्टरों को डिग्री	अमर उजाला

S. No.	Date	Title	Newspaper
175.	7 December 2018	At AIIMS convocation, Naidu pushes for more institutes, rural healthcare and 'Make in India'.	The Indian Express
176.	8 December 2018	देश के बेस्ट MBBS चुने गए डॉ गोपाल पुरी, जीते 7 अवार्ड, एम्स ने बनाया 43 लाख ओ पी डी का रिकॉर्ड, 1.94 लाख सर्जरी	नवभारत टाइम्स
177.	8 December 2018	At AIIMS convocation, Naidu pushes for more institutes, rural healthcare and 'Make in India'.	The Indian Express
178.	14 December 2018	योग का सामुदायिक मॉडल सेंटर शुरू	दैनिक जागरण
179.	14 December 2018	लोगो को घर जाकर योग सिखाएंगे एम्स एक्सपर्ट	नवभारत टाइम्स
180.	18 December 2018	Country's largest cancer hospital comes up in NCR	The Times of India
181.	18 December 2018	एम्स के एनसीआइ झज्जर में आज से शुरू होगी ओपीडी सेवा	दैनिक जागरण
182.	18 December 2018	झज्जर में बने कैंसर संस्थान की ओपीडी आज शुरू होगी	हिंदुस्तान
183.	19 December 2018	Cancer institute launched at AIIMS Jhajjar campus	Hindustan Times
184.	22 December 2018	देश का सबसे बड़ा इमरजेंसी सेंटर मिला	दैनिक जागरण
185.	28 December 2018	एम्स ने सालाना सर्जरी के मामले में ताइवान को पछाड़ा	अमर उजाला
186.	30 December 2018	एम्स में अंगदान पर सेमिनार व सम्मान समारोह का आयोजन	जनसत्ता
187.	1 January 2019	गाल ब्लॉडर, पेनक्रियाज और फेफड़ों के कैंसर का एनआईसी में होगा इलाज	अमर उजाला
188.	2 January 2019	दिल्ली एम्स के डॉक्टरों ने एंडोस्कोपी करके पेट में गए ब्रश को फूड पाइप के रास्ते मुँह से बहार निकला	दैनिक भास्कर
189.	3 January 2019	More facilities, less wait at AIIMS	The Times of India
190.	3 January 2019	गले के अंदर तक करते थे टूथब्रश, पेट में गया तो एम्स के डॉक्टरों ने निकला	दैनिक जागरण
191.	3 January 2019	More facilities, less wait at AIIMS	The Times of India
192.	4 January 2019	5-6 साल तक नहीं करना पड़ेगा सर्जरी का इंतजार	नवभारत टाइम्स
193.	6 January 2019	एम्स में पांच साल में बढ़े 15.68 लाख मरीज	दैनिक जागरण
194.	7 January 2019	एम्स व आईआईटी बना रहे सस्ती कृत्रिम तन्वा	दैनिक जागरण
195.	9 January 2019	एम्स में बढ़ेगा सर्जरी का समय, घटेगी वेटिंग	दैनिक जागरण
196.	13 January 2019	एम्स में ऑपरेशन के लिए लम्बा इन्तजार खत्म होगा	हिंदुस्तान
197.	20 January 2019	Virtual autopsy: No cuts to body, no hurt feelings	The Times of India
198.	23 January 2019	एम्स के डॉक्टरों वृद्धाश्रमों में जाकर बुजुर्गों का इलाज करेंगे	हिंदुस्तान
199.	24 January 2019	'Largest' leg tumour removed without amputation: Doctors	The Pioneer
200.	24 January 2019	'Women who eat meat less prone to disease'	The Indian Express
201.	27 January 2019	एम्स में पीएम- जय से अब तक 180 मरीजों की निशुल्क सर्जरी	दैनिक जागरण
202.	28 January 2019	जब एम्स के डॉक्टरों ने किया डांस	नवभारत टाइम्स
203.	28 January 2019	एम्स के डॉक्टरों ने म्यूजिक और डांस में दिखाया टैलेंट	दैनिक भास्कर
204.	29 January 2019	Mobile torch helps save teen's life during procedure	The Times of India
205.	3 February 2019	बीमारी का इलाज है मुमकिन: Cancer	नवभारत टाइम्स
206.	4 February 2019	गॉल ब्लैडर कैंसर के कारण जानने में जुटा एम्स	दैनिक जागरण
207.	5 February 2019	देसी क्लॉट बस्टर दवा से बचेगी हार्ट अटैक के मरीज की जान	अमर उजाला
208.	6 February 2019	स्पाइन और हड्डी के कैंसर का वर्ल्ड क्लास इलाज अब एम्स में	नवभारत टाइम्स
209.	6 February 2019	एम्स में रोबोट से होगी रीढ़ की सर्जरी	दैनिक जागरण
210.	6 February 2019	In a first, 19-yr-old will live at home with portable ventilator	The Indian Express
211.	7 February 2019	ज्योति की सर्जरी के लिए डॉक्टर ने 22 हजार दिए	हिंदुस्तान
212.	9 February 2019	7 दिन से पेट में थी सुई, सर्जरी से मिली नयी जिंदगी	नवभारत टाइम्स
213.	12 February 2019	कैंसर मरीजों को निशुल्क मिल सकेगी प्रोटोन थेरेपी	अमर उजाला
214.	12 February 2019	झज्जर में कैंसर संस्थान का उद्घाटन आज	हिंदुस्तान
215.	12 February 2019	Surgery-less epilepsy treatment at AIIMS	Mail Today
216.	13 February 2019	PM inaugurates largest govt-run cancer hospital at AIIMS campus in Jhajjar	Hindustan Times

S. No.	Date	Title	Newspaper
217.	15 February 2019	App to generate India-specific cleft lip database launched	Hindustan Times
218.	15 February 2019	एम्स करेगा एक ही बार में कैंसर ट्यूमर का खात्मा	अमर उजाला
219.	23 February 2019	एम्स व यूनिवर्सिटी कॉलेज लंदन मिलकर ढूँढोगे बच्चों में डाइबिटीज का कारण	दैनिक भास्कर
220.	23 February 2019	मासपेशियों के रोगों का पता लगाएगा एम्स	अमर उजाला
221.	24 February 2019	Inside India's largest cancer hospital: AIIMS NCI Jhajjar	The Indian Express
222.	1 March 2019	विश्वस्तरीय चिकित्सा विवि बनेगा राजधानी का एम्स	दैनिक जागरण
223.	1 March 2019	वर्ल्ड क्लास बनेगा एम्स मेडिकल	नवभारत टाइम्स
224.	5 March 2019	High-end care at affordable rates	Hindustan Times
225.	5 March 2019	Indians must have options to get treated and cured	Hindustan Times
226.	9 March 2019	AIIMS may get dedicated unit to help rape victims	Hindustan Times
227.	10 March 2019	एम्स ने एक लाख से अधिक लोगों में आँखों की बीमारी पर किया सर्वे	अमर उजाला
228.	10 March 2019	बंदिशों को तोड़ बुलंदियों को छुआ एम्स की डॉ उमा ने	जनसत्ता
229.	11 March 2019	New OT Complex at AIIMS to reduce patient waiting list	The Times of India
230.	14 March 2019	गुर्दा प्रत्यारोपण के बाद भी जीवन पर खतरा: एम्स	अमर उजाला
231.	15 March 2019	दोगुनी होने जा रही है एम्स की क्षमता	हिंदुस्तान
232.	15 March 2019	कैंसर के बाद झंझर में खुलेगा दिल का राष्ट्रीय संस्थान	अमर उजाला
233.	21 March 2019	एम्स में नहीं भटकेंगे मरीज़, डॉक्टर ने बनाया एप	अमर उजाला
234.	23 March 2019	AIIMS launches vans to treat opioid addicts	The Indian Express
235.	28 March 2019	मोटापे से जूझ रहे 180 किलो के मरीज़ की एम्स में सफल सर्जरी	अमर उजाला

Press releases/Press conferences at AIIMS

S. No.	Subject	Date	Department
1.	10th Annual Conference ISNO	7 April 2018	Neurosurgery
2.	Received a call late in the evening about availability of HEART in SMS Jaipur Hospital	8 April 2018	ORBO
3.	Jagga and Balia, Conjoined craniopagus twins celebrate their third Birthday together in AIIMS	9 April 2018	Neurosurgery
4.	Child Neurology Tele-Helpline and Teleconsultation	12 April 2018	Paediatric Neurology
5.	First Prize in Prestigious Kayakalp cleanliness award scheme	19 April 2018	MoHFW
6.	Virtual Bronchoscopy Navigation facility established at AIIMS-First in INDIA	23 April 2018	Pulmonary medicine
7.	An Incident was reported wherein a faculty member had slapped a resident doctor in AIIMS	25 April 2018	Dr RP Centre
8.	Mass Casualty Incident near Kanhaiya Nagar Metro Station	26 April 2018	JPNATC
9.	The enquiry committee constituted by the Director	27 April 2018	RDA Matter
10.	Dengue Fever	16 May 2018	Dr BRA IRCH
11.	Inauguration of Hostel No.18 at AIIMS Masjid Moth Campus	22 May 2018	Hostel Section
12.	Awareness workshop on Sexual Harassment at Work Place	30 May 2018	Hospital Administration
13.	Shri Keshav Prasad Maurya, Hon'ble Deputy Chief Minister of UP was admitted in AIIMS	25 May 2018	Health Bulletin
14.	All you need to Know about Multi Sclerosis	30 May 2018	Neurology
15.	AIIMS-MBBS Entrance Examination 2018	18 June 2018	Examination Section
16.	Foundation stone laid by Hon'ble PM - National Centre for Ageing at AIIMS, and other facilities	29 June 2018	Engineering Department
17.	Foundation Stone Laying Ceremony	29 June 2018	AIIMS Bulletin
18.	Inauguration of the AIIMS SET Facility	7 July 2018	Telemedicine

19.	MOU was signed between AIIMS and IIT-Kharagpur	17 July 2018	AIIMS and IIT (Kharagpur)
20.	Hepatitis	28 July 2018	Gastroenterology
21.	AIIMS Heart Transplant Day	3 August 2018	AIIMS Bulletin
22.	AIIMS-IIT Delhi Collaboration	29 August 2018	AIIMS and IIT (Delhi)
23.	33rd National Eye Donation	5 September 2018	Dr RP Centre
24.	18th National Conference of IAP Neurology	7 September 2018	Paediatric Neurology
25.	Organ Donation in AIIMS	12 September 2018	ORBO
26.	Inauguration of Battery Operated Bus Services at AIIMS	13 September 2018	CSR Committee
27.	63rd Foundation Day of AIIMS	25 September 2018	Hospital Administration
28.	“Ayushman Bharat PM-JAY Scheme” AIIMS MoU National Health Agency	25 September 2018	MoHFW
29.	Clean and Green AIIMS Campaign- AIIMS won the 1st prize in the prestigious KAYAKALP awards	30 September 2018	Hospital Administration
30.	Inauguration of Swachhta Mela by Hon’ble MOHFW, GOI	3 October 2018	AIIMS Bulletin
31.	Young People and Mental Health in a Changing World	10 October 2018	Psychiatry
32.	NEDO Model Project: ICT Based Green Hospital at AIIMS New Delhi	17 October 2018	Japan and MOHFW
33.	Bronchial Thermoplasty	30 October 2018	AIIMS Bulletin
34.	AIIMS employees contributed one day salary amount of 1.77 Cr. For Kerala Flood Relief Fund	22 November 2018	Hospital Administration
35.	1st AIIMS Orthognathic Workshop	28 November 2018	CDER
36.	Inaugurated the Structured Yoga Programme on Diabetes, Stress and Wellness	13 December 2018	CCM
37.	A Meeting of AIIMS in Collaboration with Maulana Azad Medical College and Parents Groups MERD	15 December 2018	Hospital Administration
38.	Drinking - Water facilities and water coolers donation at AIIMS	25 December 2018	AIIMS Bulletin
39.	3rd FERTICON 2019	4 February 2019	AIIMS Bulletin
40.	AIIMS Got Talent-2019	6 February 2019	AIIMS Bulletin
41.	New Research and Education Partnership between University College of London and AIIMS	23 February 2019	AIIMS Bulletin
42.	Childhood Cancer	27 February 2019	Paediatrics
43.	52nd Foundation Day of RPC	13 March 2019	Dr RP Centre
44.	Kidney Health for Everyone, Everywhere	14 March 2019	Nephrology
45.	1st Annual Research Day of AIIMS	26 March 2019	Hospital Administration

Public Lecture Series Program

S. No.	Public Lecture	Date	Departments
1.	Autism: Empowering with skill development	11 April 2018	Paediatrics, Obstetrics and Gynaecology, Urology
2.	Dengue fever	16 May 2018	Medicine, Paediatrics
3.	Coping with Schizophrenia	24 May 2018	Psychiatry
4.	All you need to know about Multiple Sclerosis (MS)	30 May 2018	Neurology
5.	Hepatitis	28 July 2018	Gastroenterology
6.	Strong Bones—Healthy and Safe Aging	6 September 2018	Orthopaedics
7.	Young People and Mental Health in a Changing World	9 October 2018	Psychiatry
8.	Spinal deformities in adults and children	23 October 2018	Neurosurgery
9.	Stroke	30 October 2018	Neurology
10.	Childhood Cancer	27 February 2019	Paediatrics
11.	Kidney Health for Everyone, Everywhere	13 March 2019	Nephrology

12. Publications

Journals

1. Acharya BP, Daniel RA, Nongkynrih B, Gupta SK. Public health emergencies in urban India. *Indian J Comm Health*. 2018; 30: 18-23.
2. Acharya P, Kutum R, Pandey R, Mishra A, Saha R, Munjal A, et al. First Degree Relatives of Patients with Celiac Disease Harbour an Intestinal Transcriptomic Signature that Might Protect them from Enterocyte Damage. *Clin Transl Gastroenterol*. 2018; 9:195.
3. Adhikari N, Biswas A, Gogia A, Sahoo RK, Garg A, Nehra A, et al. A prospective phase II trial of response adapted whole brain radiotherapy after high dose methotrexate based chemotherapy in patients with newly diagnosed primary central nervous system lymphoma-analysis of acute toxicity profile and early clinical outcome. *J Neurooncol*. 2018; 139:153-66.
4. Agarwal A, Kedia S, Jain S, Gupta V, Bopanna S, Yadav DP, et al. High risk of tuberculosis during infliximab therapy despite tuberculosis screening in inflammatory bowel disease patients in India. *Intest Res*. 2018; 16:588-98.
5. Agarwal A, Raheja A, Borkar SA, Mahapatra AK. An Unusual Case of Split Cord Malformation with Simultaneous Ventral and Dorsal Bony Spur at a Single Site: A Technical Challenge. *J Pediatr Neurosci*. 2018; 13:214-7.
6. Agarwal A, Vibha D, Chawla R, Sharma MC. Unusual cause of fever, vision loss and super refractory status epilepticus in association with simian virus 40(SV40). *BMJ Case Rep*. 2018; bcr-2018-225539.
7. Agarwal K, Brunetto M, Seto WK, Lim YS, Fung S, Marcellin P... Shalimar D, et al. 96 weeks treatment of tenofovir alafenamide vs. tenofovir disoproxil fumarate for hepatitis B virus infection. *J Hepatol*. 2018; 68:672-81.
8. Agarwal K, Sharma U, Mathur S, Seenu V, Parshad R, Jagannathan NR. Study of lipid metabolism by estimating the fat fraction in different breast tissues and in various breast tumor sub-types by in vivo ¹H MR spectroscopy magnetic mesonance imaging. *Magn Reson Imaging*. 2018, 49:116-22.
9. Agarwal MB, Malhotra H, Chakrabarti P, Varma N, Mathews V, Bhattacharyya J...Seth T,..et al. Revised Myeloproliferative Neoplasms Working Group Consensus Recommendations for Diagnosis and Management of Primary Myelofibrosis, Polycythemia Vera, and Essential Thrombocythemia. *Indian J Med Paediatr Oncol*. 2018; 39: 503-15.
10. Agarwal N, Agrawal M, Sawarkar DP. Letter to the Editor. Ligamentum nuchae as a graft material for duraplasty in patients with Chiari malformation type I. *J Neurosurg Pediatr*. 2018; 13:1-2.
11. Agarwal N, Agrawal M, Sawarkar DP. Timing of Tracheostomy Procedures in Patients with Spinal Cord Injury Requiring Cervical Spine Surgery: Is Early Tracheostomy Really Associated with Fewer Wound Infections? *World Neurosurg*. 2018; 117:469.
12. Agarwal N, Gupta D. Letter to the Editor. Endoscopic endonasal versus transcranial approach to tuberculum sellae and planum sphenoidale meningiomas: Unanswered questions. *J Neurosurg*. 2018; 129:560-1.
13. Agarwal N, Raheja A. Bobble head doll syndrome – Images in clinical medicine. *New Eng J Med*. 2019; 380:e5.
14. Agarwal N, Raheja A. Letter to the editor: Relationship between external ventricular drain clamp trials and ventriculoperitoneal shunt insertions in patients of non traumatic subarachnoid hemorrhage. *J Neurosurg*. 2018; 1:1-3.
15. Agarwal P, Agarwal V, Azad S. A rare case having hemi-retinal artery occlusion in one eye and hemi-retinal vein occlusion in the other: Diverse manifestations of retinal vascular occlusion. *Indian J Ophthalmol*. 2019; 67:273-4.
16. Agarwal P, Roy S, Azad SV, Kumar V. Juxtapapillary Focal Choroidal Excavation. *Indian J Ophthalmol*. 2019; 67:400-1.
17. Agarwal R, Maharana PK, Titiyal JS, Sharma N. Bilateral herpes simplex keratitis: lactation a trigger for recurrence! *BMJ Case Rep*. 2019;12:e223713.
18. Agarwal S, Hoda W, Mittal S, Madan K, Hadda V, Mohan A, et al. Anesthesia and anesthesiologist concerns for bronchial thermoplasty. *Saudi J Anaesth*. 2019;13:78-80.
19. Agarwal S, Sasi A, Ray A, Jadon RS, Vikram N. Pancreatitis Panniculitis Polyarthrits Syndrome with multiple bone infarcts. *QJM*. 2019; 112:43-4.
20. Aggarwal A, Gulati P, Garg K. Rare variant of internal carotid artery anatomy. *BMJ Case Rep*. 2019; 12:e227595.
21. Aggarwal A, Jana M, Srivastava DN, Sharma R, Gamanagatti S, Garg K, et al. Magnetic resonance neurography and ultrasonogram findings in upper limb peripheral neuropathies. *Neurol India*. 2019; 67:S125-34.
22. Aggarwal A, Kalra D, Kataria D, Verma R. Alexithymia governing neurosis: A comparative study between patients and caregivers. *J Ment Health Hum Behav*. 2018; 23:57-62.
23. Aggarwal HK, Jain D, Mor S, Yadav RK, Jain P. Prevalence and Clinical Correlates of Microalbuminuria in Patients with Essential Hypertension - A Tertiary Care Center Cross Sectional Study . *J Assoc Physicians India*. 2018; 66:30-4.

24. Aggarwal M, Agrawal N, Yadav N, Verma P, Ahmed R, Mehta P, et al. Autologous stem cell transplantation in first remission is associated with better progression-free survival in multiple myeloma. *Ann Hematol.* 2018; 97:1869-77.
25. Aggarwal M, Mirgh S. Hepatic and Cardiac Iron Overload - Revising the Role of Deferiprone. *Indian Pediatr.* 2018; 55:557-8.
26. Aggarwal R, Soni KD, Trikha A. Initial management of a pregnant woman with trauma. *J Obstet Anaesth Crit Care.* 2018; 8:66-72.
27. Aggarwal S, Ahuja V, Paul J. Dysregulation of GABAergic Signalling Contributes in the Pathogenesis of Diarrhea-predominant Irritable Bowel Syndrome. *J Neurogastroenterol Motil.* 2018; 24:422-30.
28. Agrawal A, Mahey R, Kachhawa G, Khadgawat R, Vanamail P, Kriplani A. Comparison of metformin plus myoinositol vs metformin alone in PCOS women undergoing ovulation induction cycles: randomized controlled trial. *Gynecol Endocrinol.* 2019:1-4.
29. Agrawal M, Borkar SA, Khanna G, Sharma MC, Kale SS. Pigmented Ganglioglioma of the Cerebellum: Case Report and Review. *World Neurosurg.* 2018; 116:18-24.
30. Agrawal M, Devarajan LJ, Singh PK, Garg A, Kale SS. Proposal Of A New Safety Margin For Placement Of C2 Pedicle Screws On Computed Tomography Angiography. *World Neurosurg.* 2018; 120:e282-9.
31. Agrawal M, Garg M, Kumar A, Singh PK, Satyarthee GD, Agrawal D, et al. Management Of Pediatric Posttraumatic Thoracolumbar Vertebral Body Burst Fractures By Use Of Single-Stage Posterior Transpedicular Approach. *World Neurosurg.* 2018; 117:e22-e33.
32. Agrawal M, Jain N, Borkar SA. Unusual Clinical Presentation and Magnetic Resonance Imaging Findings in Supratentorial Epidermoid Cyst. *World Neurosurg.* 2018; 117:229-30.
33. Agrawal R, Garg A, Benny Malgulwar P, Sharma V, Sarkar C, Kulshreshtha R. p53 and miR-210 regulated NeuroD2, a neuronal basic helix-loop-helix transcription factor, is downregulated in glioblastoma patients and functions as a tumor suppressor under hypoxic microenvironment. *Int J Cancer.* 2018; 142:1817-28.
34. Agrawal S, Bhattacharya A, Manhas J, Kholakiya Y, Khera N, Roychoudhury A, et al. Increased Mucin Expression in Oral Mucosal Epithelial Cells in vitro: A Potential New Role of Mycophenolate Mofetil. *Tokai J Exp Clin Med.* 2018; 43:132-8.
35. Agrawal S, Kapil A, Dhawan B, Sharma BS. Burkholderia cepacia: An uncommon cause of bilateral primary psoas abscesses in a patient with a Pott spine that cannot be ignored. *Natl Med J India.* 2018; 31:124-5.
36. Agrawal S, Panigrahy A, Perumalla S, Kapil A, Dhawan B. Microbiological profile and antibiotic resistance pattern of skin and soft tissue infections: A study from Northern India. *J Lab Physicians.* 2018; 10:471-2.
37. Agrawal S, Yadav VS, Srivastava A, Kapil A, Dhawan B. Breast abscess due to Salmonella paratyphi A: Case reports with review of literature. *Intractable Rare Dis Res.* 2018; 7:130-3.
38. Agrawal SK, Bhattacharya A, Manhas J, Kholakiya Y, Khera N, Roychoudhury A, et al. Increased mucin expression in oral mucosal epithelial cells in vitro: a potential new role of Mycophenolate mofetil. *Tokai J Exp Clin Med,* 2018; 43: 132-8.
39. Agrawal SK, Chaudhry R, Gupta N, Arif N, Bhadur T. Decreasing trend of seroprevalence of leptospirosis at All India Institute of Medical Sciences New Delhi: 2014-2018. *J Family Med Prim Care.* 2018; 7:1425-8.
40. Agrima M, Ray A. Thoracic Sarcoidosis versus Tuberculosis: Need for a Multi-Disciplinary Approach. *Indian J Radiol Imaging.* 2018; 28:267-8.
41. Ahamed F, Yadav K, Kant S, Saxena R, Bairwa M, Pandav CS. Effect of directly observed oral iron supplementation during pregnancy on iron status in a rural population in Haryana: A randomized controlled trial. *Indian J Public Health.* 2018; 62:287-93.
42. Ahlawat R, Lathwal A, Jain K, Satpathy S. Study the maintenance of ventilators at a Tertiary care teaching Hospital in North India. *Glob J Med Res.* 2018; 18:15-20.
43. Ahmad F, Kannan M, Obser T, Budde U, Schneppenheim S, Saxena R, et al. Characterization of VWF gene conversions causing von Willebrand disease. *Br J Haematol.* 2019; 184:817-25.
44. Ahuja A, Tyagi S, Seth T, Pati HP, Gahlot G, Tripathi P, et al. Comparison of Immunohistochemistry, Cytochemistry, and Flow Cytometry in AML for Myeloperoxidase Detection. *Indian J Hematol Blood Transfus.* 2018; 34:233-9.
45. Alampalli S, Grover M, Chandran S, Tatu U, Acharya P. Proteome and Structural Organization of the Knob Complex on the Surface of the Plasmodium Infected Red Blood Cell. *Proteomics Clin Appl.* 2018; 12:e1600177.
46. Albert V, Arulselvi S, Agrawal D, Pati HP, Pandey RM. Early posttraumatic changes in coagulation and fibrinolysis systems in isolated severe traumatic brain injury patients and its influence on immediate outcome. *Hematol Oncol Stem Cell Ther.* 2019; 12:32-43.
47. Alzhrani G, Gozal YM, Eli I, Sivakumar W, Raheja A, Couldwell WT. Extreme lateral transodontoid (ELTO) approach to the ventral craniocervical junction. *J Neurosurg.* 2018; 1:1-11.

48. Ambekar A, Rao R, Agrawal A, Kathiresan P. Research on Opioid Substitution Therapy in India: a brief, narrative review. *Indian J Psychiatr.* 2018; 60:265-70.
49. Amrith BP, Sethi P, Soneja M, Vikram N, Kumar A, Aggarwal P, et al. Effect of Implementation of ADA/AACE Guidelines on the Management of Hospitalized Hyperglycemic Patients through Training of Residents: A Tertiary Care Center Study. *Indian J Endocrinol Metab.* 2018; 22:616-20.
50. Anang S, Kaushik N, Hingane S, Kumari A, Gupta J, Asthana S, et al. Potent Inhibition of Hepatitis E Virus Release by a Cyclic Peptide Inhibitor of the Interaction between Viral Open Reading Frame 3 Protein and Host Tumor Susceptibility Gene 101. *J Virol.* 2018; 92:e00684-18.
51. Anderson A, Gupta S, Khanna A, Gupta A, Chaurasia A, et al. Comparison of rates of fast and catastrophic visual field loss in three glaucoma subtypes. *Invest Ophthalmol Vis Sci.* 2019; 60:161-7.
52. Anderson AJ, Chaurasia AK, Sharma A, Gupta A, Gupta S, Khanna A, et al. Comparison of Rates of Fast and Catastrophic Visual Field Loss in Three Glaucoma Subtypes. *Invest Ophthalmol Vis Sci.* 2019; 60:161-7.
53. Angamuthu M, Tripathi M, Goyal H, Parida G, Goyal V, Damle N, et al. Technetium-99m labelled tropane derivative: Uptake in a pituitary macroadenoma. *Indian J Nucl Med.* 2019; 34:74-5.
54. Anghan H, Sethi P, Soneja M, Mahajan S, Wig N. Clinical and Laboratory Features Associated with Acute Kidney Injury in Severe Malaria. *Indian J Crit Care Med.* 2018; 22:718-22.
55. Angmo D, Selvan H, Behera AK, Suman PK. Response to comment on 'Unilateral corneal edema in young: A diagnostic dilemma'. *Indian J Ophthalmol.* 2019; 67:442-3.
56. Angmo D, Selvan H, Behera AK, Suman PK. Unilateral corneal edema in young: A diagnostic dilemma. *Indian J Ophthalmol.* 2018; 66:1612-4.
57. Animesh R, Vyas S. Chest CT Scan Signs: A Few Noteworthy Additions." *Chest.* 2018; 153:1516-7.
58. Aparna P, Muthathal S, Nongkynrih B, Gupta SK. Vitamin D deficiency in India. *J Family Med Prim Care.* 2018; 7:324-30.
59. Aparna P, Salve HR, Anand K, Ramakrishnan L, Gupta SK, Nongkynrih B. Knowledge and behaviours related to dietary salt and sources of dietary sodium in north India. *J Family Med Prim Care.* 2019; 8:846-52.
60. Arif N, Rawre J, Patra S, Sreenivas V, Khanna N, Dhawan B. Increase in prevalence of *Ureaplasma* spp. in patients with genital tract infections in a tertiary care hospital of North India. *Indian J Dermatol Venereol Leprol.* 2018; 84:457-8.
61. Aron N, Sinha R, Sharma N, Agarwal T. Isoexpansile sulfur hexafluoride gas to repair near-total iris disinsertion. *J Cataract Refract Surg.* 2018; 44:1175-8.
62. Arora A, Pandey SK, Roychoudhury A, Bhutia O, Tandon R, Gagnani SP, et al. Piezoelectric harvest of osteo-odonto-lamina in modified osteo-odonto keratoprosthesis: A maxillofacial perspective. *Natl J Maxillofac Surg.* 2018; 9:167-73.
63. Arora G, Damle NA. Radiopharmaceuticals for diagnosis of Primary Hyperparathyroidism. *Chem Biol Letters.* 2018; 5:35-40
64. Arora G, Sharma P, Sharma A, Mishra AK, Hazari PP, Biswas A, et al. ^{99m}Tc-Methionine Hybrid SPECT/CT for Detection of Recurrent Glioma: Comparison With ¹⁸F-FDG PET/CT and Contrast-Enhanced MRI. *Clin Nucl Med.* 2018; 43:e132-8.
65. Arora NK, Nair MKC, Gulati S, Deshmukh V, Mohapatra A, Mishra D, et al. Neurodevelopmental disorders in children aged 2-9 years: Population-based burden estimates across five regions in India. *PLoS Med.* 2018; 15:e1002615.
66. Arora P, Jadaun SS, Das P, Shalimar, Datta SK. Unusually Low Serum Alkaline Phosphatase Activity in a Patient with Acute on Chronic Liver Failure and Hemolysis. *EJIFCC.* 2019; 30:99-105.
67. Arora P, Sagar R, Mehta M, Pallavi P, Sharma S, Mukhopadhyay AK. Serum S100B levels in patients with depression. *Indian J Psychiatry.* 2019; 61:70-6.
68. Arora S, Damle NA, Aggarwal S, Passah A, Behera A, Arora G, et al. PSMA expression in adrenocortical carcinoma on ⁶⁸Ga PSMA PET/CT. *Clin Nucl Med.* 2018; 43:449-51.
69. Arora S, Damle NA, Parida GK, Singhal A, Nalli H, Dattagupta S, et al. Recurrent Medullary Thyroid Carcinoma on ⁶⁸Ga-Prostate-Specific Membrane Antigen PET/CT: Exploring New Theranostic Avenues. *Clin Nucl Med.* 2018; 43:359-60.
70. Arora S, Damle NA, Passah A, Yadav MP, Ballal S, Aggarwal V, et al. Incidental Detection of Parathyroid Adenoma on Somatostatin Receptor PET/CT and Incremental Role of ¹⁸F-Fluorocholine PET/CT in MEN1 Syndrome. *Nucl Med Mol Imaging.* 2018; 52:238-42.
71. Arora S, Damle NA, Reddy KS, Parida GK, Singhal A, Arunraj ST, et al. Unilateral Brown Fat Suppression on FDG PET/CT-detecting Sympathetic Denervation. *Indian J Nucl Med.* 2018; 33:167-8.

72. Arora S, Passah A, Damle NA, Bal C, Bhasin D, Narang R, et al. Clinical Issues Related to Fluid Management during ¹⁷⁷Lu-Peptide Receptor Radionuclide Therapy in Metastatic Neuroendocrine Tumors with Carcinoid Heart Disease. *Indian J Nucl Med.* 2018; 33:359-61.
73. Arora S, Passah A, Damle NA, Narang R, Sharma A, Yadav MP, et al. Somatostatin Receptor PET/CT features of carcinoid heart disease. *Clin Nucl Med.* 2018; 43:e280-1.
74. Arora S, Prabhu M, Damle NA, Bal C, Kumar P, Nalla H, et al. Prostate-specific Membrane Antigen Imaging in Recurrent Medullary Thyroid Cancer: A New Theranostic Tracer in the Offing? *Indian J Nucl Med.* 2018; 33:261-3.
75. Arora U, Kedia S, Garg P, Bopanna S, Jain S, Yadav DP, et al. Colonic Crohn's Disease Is Associated with Less Aggressive Disease Course Than Ileal or Ileocolonic Disease. *Dig Dis Sci.* 2018; 63:1592-9.
76. Arunraj ST, Parida GK, Damle NA, Arora S, Reddy S, Chakraborty D, et al. Ga-68 DOTANOC PET/CT in medulloblastoma. *Clin Nucl Med.* 2018; 43:e145-6.
77. Ascione T, Barrack R, Benito N, Blevins K, Brause B, Cornu O...Malhotra RK, et al. General Assembly, Diagnosis, Pathogen Isolation - Culture Matters: Proceedings of International Consensus on Orthopedic Infections. *J Arthroplasty.* 2019; 34(2S):S197-206.
78. Aslam A, Gupta N, Velpandian T, Sen S. Does ocular inflammation play a role in xeroderma pigmentosum with endothelial dysfunction: an immunological study. *BMJ Case Rep.* 2018; 11:e225384.
79. Attergrim J, Sterner M, Claesson A, Dharap S, Gupta A, Khajanchi M, et al. Predicting Mortality With The International Classification Of Disease Injury Severity Score Using Survival Risk Ratios Derived From An Indian Trauma Population: A Cohort Study. *PLoS One.* 2019; 13:e0199754.
80. Ayachit A, Kumar V, Raj N, Ayachit G. Smokestack leak on indocyanine green angiography in acute central serous chorioretinopathy. *Indian J Ophthalmol.* 2018; 66:1181-2.
81. Ayub A, Talawar P, Kumar R, Bhoi D, Yadav AK. Erector Spinae Block a safe, simple and effective analgesic technique for major Hepatobiliary surgery with thrombocytopenia. *Egypt J Anaesth.* 2018; 34:169-72.
82. Azad SV, Gogia V, Venkatesh P, Takkar B. Hypothyroidism and non-infectious uveitis. *Eye (Lond).* 2018; 32:1795-6.
83. Azad SV, Takkar B, Bhatia I, Azad R. Lincoff rules are not followed in retinal detachment with posterior breaks and attached cortical vitreous. *Retin Cases Brief Rep.* 2019; 13:21-4.
84. Bag S, Ghosh TS, Banerjee S, Mehta O, Verma J, Dayal M, et al. Molecular Insights into Antimicrobial Resistance Traits of Commensal Human Gut Microbiota. *Microb Ecol.* 2019; 77:546-57.
85. Bagaria D, Kumar A, Ratan A, Gupta A, Kumar A, Kumar S, et al. Changing Aspects in The Management Splenic Injury Patients: Experience Of 129 Isolated Splenic Injury Patients At Level 1 Trauma Centre From India. *J Emerg Trauma Shock.* 2019; 12:35-9.
86. Bagchi S, Lingaiah R, Mani K, Barwad A, Singh G, Balooni V, et al. Significance of serum galactose deficient IgA1 as a potential biomarker for IgA nephropathy: A case control study. *PLoS One.* 2019; 14:e0214256.
87. Bagchi S, Subbiah A, Bhowmik D, Mahajan S, Yadav RK, Kalaivani M, et al. Low-dose Rituximab therapy in resistant idiopathic membranous nephropathy: single-center experience. *Clin Kidney J.* 2018; 11:337-41.
88. Bagra I, Krishnan V, Rao R, Agrawal A. Does Cannabis Use Influence Opioid Outcomes and Quality of Life among Buprenorphine Maintained Patients? A Cross-sectional, Comparative Study. *J Addict Med.* 2018; 12:315-20.
89. Bahrani K, Singh MB, Bhatia R, Prasad K, Vibha D, Shukla G, et al. Response to S. Basu (2017). *Seizure.* 2018; 58:164.
90. Baidya A, Ganakumar V, Jadon RS, Ranjan P, Manchanda S, Sood R. Septic pulmonary emboli as a complication of peripheral venous cannula insertion. *Drug Discov Ther.* 2018; 12:111-3.
91. Baidya A, Gupta N, Basu A, Kodan P, Aggarwal K, Singh CA, et al. *Scedosporium apiospermum* as a rare cause of fungal rhinosinusitis. *J Family Med Prim Care.* 2019; 8:766-8.
92. Baidya DK, Arora MK, Ray BR, Mohan VK, Anand RK, Khanna P, et al. Comparison of classic short-axis out-of-plane approach and novel medial- oblique in-plane approach to ultrasound guided right internal jugular vein cannulation: a randomized controlled trial. *Acta Anaesth Belg.* 2018; 69:107-12.
93. Bain SC, Mosenzon O, Arechavaleta R, Bogdański P, Comlekci A, Consoli A, et al. Cardiovascular safety of oral semaglutide in patients with type 2 diabetes: Rationale, design and patient baseline characteristics for the PIONEER 6 trial. *Diabetes Obes Metab.* 2019; 21:499-508.
94. Bajaj D, Datta SK, Raghavendra L. Needle-shaped cholesterol crystals in pleural fluid: an unusual presentation. *J Appl Lab Med.* 2019; 3:899-902.
95. Bajpai S, Tripathi M, Pandey RM, Dey AB, Nehra A. Development and validation of Cognitive Training Intervention for Alzheimer's disease (CTI-AD): A picture-based interventional programme. *Dementia (London).* Sept 4, 2018.
96. Bajpai V, Govindaswamy A, Sagar S, Mathur P. Penicillin Resistant Pneumococcal Meningitis In Paediatric Trauma Patient. *J Clin Diagn Res.* 2018; 12:DD01-02.

97. Bajpai V, Gupta D, Bindra A, Malhotra R, Mathur P. Culture Of Cultures: Antimicrobial Prescription Practices In Hospitalized Patients At Level 1 Trauma Centre. *J Patient Saf Infect Control*. 2018; 6:23-6
98. Bala R, Pandia MP. Venous air embolism during endoscopic third ventriculostomy. *Asian J Neurosurg*. 2018; 13:431-2.
99. Balaji V, Kapil A, Shastri J, Pragasam AK, Gole G, Choudhari S, et al. Longitudinal Typhoid Fever Trends in India from 2000 to 2015: *Am J Trop Med Hyg*. 2018; 99 (Suppl3):34-40.
100. Balhara YPS, Dahiya N, Varshney M, Garg S, Bhargava R. Awareness, Self-Assessment and Help Seeking Behavior for Behavioral Addictions Related to Use of Mobile Technology Among Attendees of a Health Camp. *J Assoc Physicians India*. 2018; 66:45-8.
101. Balhara YPS, Garg H, Kumar S, Bhargava R. Gaming disorder as a consequence of attempt at self- medication: Empirical support to the hypothesi. *Asian J Psychiatr*. 2018; 31:98-9.
102. Balhara YPS, Harshwardhan M, Kumar R, S Singh S. Extent and pattern of problematic internet use among school students from Delhi: Findings from the cyber awareness programme. *Asian J Psychiatr*. 2018; 34:38-42.
103. Balhara YPS, Jain R, Kuppili PP, Shukla A, Chawla N, Gupta R. Which Criteria to Use to Identify Metabolic Syndrome among Patients with Addictive Disorders?: Observations among Patients with Alcohol and Opioid Dependence Syndrome. *Indian J Endocrinol Metab*. 2018; 22:565-8.
104. Balhara YPS, Mahapatra A, Sharma P, Bhargava R. Problematic internet use among students in South-East Asia: Current state of evidence. *Indian J Public Health*. 2018; 62:197-210.
105. Balhara YPS, Parmar A, Sarkar S. Use of tramadol for management of opioid use disorders: rationale and recommendations. *J Neurosci Rural Pract*. 2018; 9:397-403.
106. Balhara YPS, Singh S, Sarkar S. Are the patients ready for the change?: An empirical study to evaluate the impact of change in formulation of buprenorphine-naloxone on prescription pattern, treatment adherence, and patient satisfaction. *Subst Use Misuse*. 2019; 54:307-14.
107. Balhara YPS, Verma K, Bhargava R. Screen time and screen addiction: Beyond gaming, social media and pornography- A case report. *Asian J Psychiatr*. 2018; 35:77-8.
108. Balhara YPS. Behavioural addictions: Need to correct misnomers. *Asian J Psychiatr*. 2018; 36:118.
109. Balhara YPS, Bhargava R, Pakhre A, Bhati N. The “Blue Whale Challenge”?: The first report on a consultation from a health care setting for carrying out “tasks” accessed through a mobile phone application. *Asia Pac Psychiatry*. 2018; 10:e12317.
110. Bandesh K, Jha P, Giri AK, Marwaha RK, Scaria V, Tandon N, et al. Normative range of blood biochemical parameters in urban Indian school-going adolescents. *PLoS One*. 2019; 14:e0213255.
111. Bandesh K, Prasad G, Giri AK, Saroja Voruganti V, Butte NF, Cole SA, et al. Genomewide association study of C-peptide surfaces key regulatory genes in Indians. *J Genet*. 2019; 98:8.
112. Banerjee J, Satapathy S, Upadhyay AD, Dwivedi SN, Chatterjee P, Kumar L, et al. A short geriatric assessment tool for the older person with cancer in India-Development and psychometric validation”. *J Geriatr Oncol*. 2019; 10:222-8.
113. Banerjee M, Sharma P, Gaur N, Takkar B. Infiltrative chiasmatopathy in xanthoma disseminatum: a rare entity. *BMJ Case Rep*. 2018; 11: e227207.
114. Banerjee S, Gupta N, Kodan P, Mittal A, Ray Y, Nischal N, et al. Nipah virus disease: A rare and intractable disease. *Intractable Rare Dis Res*. 2019; 8:1-8.
115. Banik S, Rath GP, Lamsal R, Singh GP. Ballon-assisted coil embolization of intracranial aneurysm and zero bispectral index. *Neurol India*. 2018; 66:1501-2.
116. Bansal D, Seth T, Kumar R, Saxena R, Mishra P, Xess I. Efficacy of Posaconazole Prophylaxis in Patients with Acute Myeloid Leukemia Undergoing Induction Chemotherapy: An Observational Study in Resource Limited Settings. *Indian J Hematol Blood Transfus*. 2018; 34:460-5.
117. Bansal K, Rawat P, Pruthi G, Jain V. Prosthodontic rehabilitation of combined oronasal defect in patients with non-Hodgkin’s lymphoma using two different attachments: Two case reports. *J Indian Prosthodont Soc*. 2018; 18:370-6.
118. Bansal P, Khoiwal K, Malhotra N, Dadhwal V, Sharma A, Deka D. The Role of GnRH Analogues in Improving Outcome in Women Undergoing Superovulation and Intrauterine Insemination after Surgical Correction of Mild Endometriosis: A Randomized Controlled Trial. *Eurasian J Med*. 2018; 50:105-10.
119. Bansal R, Chatterjee P, Chakrawarty A, Satapathy S, Kumar N, Dwivedi SN, et al. Diabetes: A Risk Factor for Mental Health in Aging Population. *J Geriatr Ment Health*. 5:152-8.
120. Barger CJ, Zhang W, Sharma A, Chee L, James SR, Kufel CN, et al. Expression of the POTE gene family in human ovarian cancer. *Sci Rep*. 2018; 8:17136.

121. Barman TK, Kumar M, Chaira T, Dalela M, Gupta D, Jha PK, et al. In-vivo efficacy and pharmacokinetics of bi-aryl oxazolidinoneRBx 11,760 loaded polylactic acid–polyethylene glycol nanoparticles in mouse hematogenous bronchopneumonia and rat groin abscess caused by *Staphylococcus aureus*. *Nanomedicine*. 2018; 14:1213-25.
122. Barwad A, Ramteke PP, Gamanagatti S. Papillary Carcinoma Thyroid Presenting as Huge Scalp Metastases. *J Cytol*. 2018; 35:126-7.
123. Basheer S, Pujari A, Bajaj MS, Obedulla H. Orbital cystic schwannoma masquerading as hydatid cyst. *BMJ Case Rep*. 2018; 2018. bcr-2017-223645.
124. Basnet B, Bhushan A, Khan R, Kumar G, Sharma VK, Sharma A, et al. Plasma & urinary catecholamines & urinary vanillylmandelic acid levels in patients with generalized vitiligo. *Indian J Med Res*. 2018; 147:384-90.
125. Batra P, Thomas S, Gunjyal J, Mathur P, Gupta B, Swahney C, et al. Clinical Experience Of Using Chlorhexidine Gluconate-Impregnated Dressings In Reducing Central Line-Associated Bloodstream Infection Rate At A Level 1 Trauma Centre. *J Patient Saf Infect Control*. 2018; 6:59-62.
126. Bauddha NK, Jadon RS, Mondal S, Vikram NK, Sood R. Progressive disseminated histoplasmosis in an immunocompetent adult: A case report. *Intractable Rare Dis Res*. 2018; 7:126-9.
127. Baxla M, Kumari C, Kaler S. Bilateral thyrolinguofacial trunk: Unusual and rare branching pattern of external carotid artery. *Anat Cell Biol*. 2018; 5:302-4.
128. Bergaal SK, Gagrani M, Pujari A, Chawla R. Ultrasonographic assessment of the lens. *BMJ Case Rep*. 2018; bcr-2018-226205.
129. Beveridge LA, Khan F, Struthers AD, Armitage J, Barchetta I, Bressendorff I...Khadgawat R, et al. Effect of Vitamin D Supplementation on Markers of Vascular Function: A Systematic Review and Individual Participant Meta-Analysis. *J Am Heart Assoc*. 2018; 7:e008273.
130. Bhad R. Utilization of Screening Brief Intervention and Referral to Treatment Approach for Tobacco Addiction in Day-to-Day Clinical Practice in India: The Need of the Hour. *J Neurosci Rural Pract*. 2019; 10:8-9.
131. Bhadada SK, Arya AK, Mukhopadhyay S, Khadgawat R, Sukumar S, Lodha S, et al. Primary hyperparathyroidism: insights from the Indian PHPT registry. *J Bone Miner Metab*. 2018:238-45.
132. Bhandari A, Bansal A, Singh A, Sinha N. DCE-MRI based voxelized computational model for chemotherapeutic drug transport in human brain tumor. *Int J Adv Eng Sci Appl Math*. 2018; 10:252-62.
133. Bharadwaj D, Chouhan RS, Kapoor I, Kaushal A, Bindra A, Kumar A, et al. Long term outcome in survivors of decompressive craniectomy following severe traumatic brain injury. *Asian J Neurosurg*. 2019; 14:52-7.
134. Bharadwaj D, Kapoor I, Mahajan C, Prabhakar H. Cerebral hyperperfusion syndrome after external carotid artery-middle cerebral artery bypass for carotid artery giant aneurysm. *J Clin Anesth*. 2018; 54:41-2.
135. Bhardwaj N, Khurana S, Kumar S, Sagar S, Gupta A, Mishra B, et al. CD14+ Monocytic Cytokines: Impact On Outcome In Severely Injured Patients. *Indian J Crit Care Med*. 2018; 22:528-32.
136. Bhardwaj N, Khurana S, Kumari M, Malhotra R, Mathur P. Pattern Of Antimicrobial Resistance Of Gram-Negative Bacilli In Surgical Site Infections In In-Patients And Out-Patients At An Apex Trauma Center: 2013-2016. *J Lab Physicians*. 2018; 10:432-6.
137. Bhat MA, Sharma JB, Roy KK, Sengupta J, Ghosh D. Genomic evidence of Y chromosome microchimerism in the endometrium during endometriosis and in cases of infertility. *Reprod Biol Endocrinol*. 2019;13; 17:22
138. Bhatia R, Gupta V, Sharma VK. Positive Patch Test to Metals in a Patient with Symmetrical Intertriginous Skin Eruptions: Systemic Contact Dermatitis or Lichen Planus Pigmentosus Inversus? *Dermatitis*. 2018; 29:166-7.
139. Bhatla N, Aoki D, Sharma DN, Sankaranarayanan R. FIGO Cancer Report 2018 – Cancer of the cervix uteri. *Int J Gynecol Obstet*. 2018; 143(Suppl 2):22-36.
140. Bhatla N, Denny L. FIGO Cancer Report 2018. *Int J Gynecol Obstet*. 2018; 143(Suppl 2):2–3.
141. Bhatnagar A, Gupta SK, Hanumanthappa V, Garg N. A Study on Aftereffects of Holi: Color Injury, Ocular Trauma, and Assault at a Tertiary Care Ophthalmic Center in North India. *Int J Res Found Hosp Healthc Adm*. 2018; 6:31-6.
142. Bhatt M, George N, Soneja M, Kumar P, Vyas S, Biswas A. Recurrent chylous effusions and venous thrombosis: Uncommon presentation of a common condition. *Intractable Rare Dis Res*. 2018; 7:200-3.
143. Bhatt M, Khot W, Soneja M, Nischal N, Jorwal P, Biswas A. Unusual Sequelae of Uncomplicated Vivax Malaria. *J Assoc Physicians India*. 2018; 66:88-9.
144. Bhatt M, Rastogi N, Soneja M, Biswas A. Uncommon manifestation of leptospirosis: a diagnostic challenge. *BMJ Case Rep*. 2018; 2018:bcr-2018-225281.
145. Bhatt M, Soneja M, Fazal F, Vyas S, Kumar P, Jorwal P, et al. Two cases of OsteoarticularMucor menace: A diagnostic and management conundrum. *Drug Discov Ther*. 2018; 12:374-8.

146. Bhatt M, Soneja M, Tripathi M, Biswas A. Curious case of fever of unknown origin. *BMJ Case Rep.* 2018; 11:bcr-2018-227258.
147. Bhatt N, Aghi M, Shewade H, Lal P, Gupta V, Kumar A, et al. Do smoke-free laws or policies impact smoking at home? A comparison between smoke-free and nonsmoke-free jurisdiction in India. *Int J Non-Commun Dis.* 2018; 3:28-35.
148. Bhatt R, Khanna P. Simulation in Neuroanesthesia: How Much to Learn? *J Neuroanaesth Crit Care.* 2018; 05:83-6.
149. Bhatt SP, Guleria R, Nandhan SV, Vikram NK, Singh Y, Gupta AK. Association of inflammatory genes in obstructive sleep apnea and nonalcoholic fatty liver disease in Asian Indians residing in north India. *PLoS One.* 2018; 13:e0199599.
150. Bhatt SP, Guleria R, Vikram NK, Gupta A. Nonalcoholic fatty liver disease is an independent risk factor for inflammation in obstructive sleep apnea syndrome in obese Asian Indians. *Sleep Breath.* 2019; 23:171-8.
151. Bhattacharjee S, Maitra S, Baidya DK. A comparison between videolaryngoscopy and direct laryngoscopy for endotracheal intubation in the emergency department: A meta-analysis of randomized controlled trials. *J Clin Anesth.* 2018; 47:21-6.
152. Bhattacharjee S, Maitra S, Baidya DK. Comparison between ultrasound guided technique and digital palpation technique for radial artery cannulation in adult patients: An updated meta-analysis of randomized controlled trials. <https://www.ncbi.nlm.nih.gov/pubmed/29574288> *J Clin Anesth.* 2018; 47:54-9.
153. Bhayana A, Kumar V, Tayade A, Chandra M, Chandra P, Kumar A. Choroidal thickness in normal Indian eyes using swept source optical coherence tomography. *Indian J Ophthalmol.* 2019; 67:252-5.
154. Bhoi D, Acharya P, Talawar P, Malviya A. Continuous Erector Spinae Plane local anaesthetic infusion for perioperative analgesia in paediatric thoracic surgery. *Saudi J Anaesth.* 2018; 12:5023.
155. Bhoi D, Narasimhan P, Nethaji R, Talawar P. Ultrasound Guided Midpoint Transverse Process to Pleura Block in Breast Cancer Surgery: A Case Report. *A A Pract.* 2019; 12: 73-6.
156. Bhoi D, Ranjitha N, Talawar P, Narasimhan P. A novel out plane technique of midpoint transverse process to pleura block in breast surgery: A case report. *Saudi J Anaesth.* 2018; 12:637-9.
157. Bhoi D, Velmurugan S, Yadav P, Talawar P. Comparison of two different techniques of Serratus Anterior Plane block : a clinical experience. *J Anaesthesiol Clin Pharmacol.* 2018; 34:2513.
158. Bhoi S, Singh A, Sinha TP, Pal R, Galwankar S, Baluja A, et al. Magnitude and spectrum of injuries sustained in road traffic accidents among two wheeler riders and correlation with helmet use. *J Emerg Trauma Shock.* 2018; 11:160-4.
159. Bijalwan A, Patel BP, Marieswaran M, Kalyanasundaram D. Volumetric locking free 3D finite element for modelling of anisotropic visco-hyperelastic behaviour of Anterior Cruciate Ligament. *J Biomech.* 2018; 73:1-8.
160. Bindra A, Kaushal A, Prabhakar H, Chaturvedi A, Chandra PS, Tripathi M, et al. Neuroprotective role of dexmedetomidine in epilepsy surgery: A preliminary study. *Neurology India.* 2019; 67:163-8.
161. Bindu B, Mitra R, Singh GP, Phalak M. New Onset Persistent Refractory Hypertension after Medulloblastoma Excision In Children-An Indicator Of Poor Prognosis: A Case Series. *J Pediatr Neurosci.* 2018; 13:337-9.
162. Bir R, Mohapatra S, Kumar A, Tyagi S, Sood S, Das BK, et al. Comparative evaluation of In-house CarbaNP test with other phenotypic tests for rapid detection of Carbapenem Resistant Enterobacteriaceae. *J Clin Lab Anal.* 2019; 33:e22652.
163. Bisht S, Chawla B, Dada R. Oxidative Stress and Polymorphism in *MTHFR* SNPs (677 and 1298) in Paternal Sperm DNA is Associated with an Increased Risk of Retinoblastoma in Their Children: A Case-Control Study. *J Pediatr Genet.* 2018; 7:103-13.
164. Biswal S, Barhwal KK, Das D, Dhingra R, Dhingra N, Nag TC, et al. Salidroside mediated stabilization of Bcl -x_L prevents mitophagy in CA3 hippocampal neurons during hypoxia. *Neurobiol Dis.* 2018; 116: 39-52.
165. Biswal SK, Mittal S, Hadda V, Mohan A, Khilnani GC, Pandey RM, et al. 1% versus 2% lignocaine for airway anesthesia in endobronchial ultrasound-guided transbronchial needle aspiration: A pilot, double-blind, randomized controlled trial. *Lung India.* 2018; 35:467-71.
166. Biswas A, Adhikari N, Bakhshi S, Gopinathan VR, Sharma MC. A Rare Case of Primary Central Nervous System Lymphoma in an Adolescent Female Treated with High-Dose Methotrexate and Rituximab-Based Chemoimmunotherapy and Consolidation Whole Brain Radiotherapy. *Pediatr Neurosurg.* 2019; 54:57-65.
167. Biswas S, Agarwal S, Soneja M, Biswas A. Acute psychosis and Wilson's disease. *QJM.* 2019; 112:129-30.
168. Biswas S, Goel A, Ray Y, Sethi P, Kumar A, Nischal N, et al. Human Trichinosis and febrile myositis. *QJM.* 2019; 112:449-50.
169. Biswas S, Ray A, Fazal F, Mahajan S. Toxic Shock Syndrome: The Great Masquerader. *BMJ Case Reports.* 2018; 11:e226123.

170. Biswas S, Ray A, Jadon RS, Manchanda S, Ranjan P, Vikram NK, et al. An unusual case of intractable Vomiting: Unravelling the Present, Through the Past. *J Assoc Physicians India*. 2018; 66:88-91.
171. Bodkhe R, Shetty SA, Dhotre DP, Verma AK, Bhatia K, Mishra A, et al. Comparison of Small Gut and Whole Gut Microbiota of First-Degree Relatives With Adult Celiac Disease Patients and Controls. *Front Microbiol*. 2019; 10:164. Bodwal J, Chauhan M, Behera C. Confined space pulse grain entrapment & engulfment: A series of two fatal asphyxiations. *J Forensic Med Toxicol*. 2018; 35:61-4.
172. Borkar SA, Singh M, Kale SS, Suri A, Chandra PS, Kumar R, et al. Spinal Cerebrospinal fluid drainage for prevention of vasospasm in Aneurysmal Subarachnoid Haemorrhage: A Prospective Randomized controlled study. *Asian J Neurosurg*. 2018; 13:238-46.
173. Bresee J, Fitzner J, Campbell H, Cohen C, Cozza V, Jara J, et al. (WHO Working Group on the Burden of Influenza Disease). Progress and Remaining Gaps in Estimating the Global Disease Burden of Influenza. *Emerg Infect Dis*. 2018; 24:1173-7.
174. Bunkar N, Shandilya R, Bhargava A, Samarth RM, Tiwari R, Mishra DK, et al. Nano-engineered flavonoids for cancer protection. *Front Biosci (Landmark Ed)*. 2019; 24:1097-1157.
175. Bypareddy R, Takkar B, Azad SV, Chawla R, Venkatesh P. Optic Nerve Head Granuloma, Retinal Vasculitis and Elevated Levels of Angiotensin-converting Enzyme: Dilemma of Forme Fruste Ocular Sarcoidosis. *J Ophthalmic Vis Res*. 2019; 14:105-8.
176. Cathcart AL, Chan HL, Bhardwaj N, Liu Y, Marcellin P, Pan CQ, ...Shalimar, et al. No Resistance to Tenofovir Alafenamide Detected through 96 Weeks of Treatment in Patients with Chronic Hepatitis B Infection. *Antimicrob Agents Chemother*. 2018; 62:e01064-18.
177. CENTER-TBI Investigators and Participants. Brain Death and Postmortem Organ Donation: Report of A Questionnaire From The CENTER-TBI Study. *Crit Care*. 2018; 22:306.
178. CENTER-TBI Investigators and Participants. Correction To: Variation In Neurosurgical Management Of Traumatic Brain Injury: A Survey In 68 Centers Participating In The CENTER-TBI Study. *Acta Neurochir (Wien)*. 2019; 161:451-5.
179. CENTER-TBI investigators and participants. Variation in general supportive and preventive intensive care management of traumatic brain injury: A survey in 66 neurotrauma centers participating in the Collaborative European NeuroTrauma Effectiveness Research in Traumatic Brain Injury (CENTER-TBI) study. *Crit Care*. 2018; 22:90.
180. CENTER-TBI Investigators and Participants. Variation In Neurosurgical Management Of Traumatic Brain Injury: A Survey In 68 Centers Participating In The CENTER-TBI Study. *Acta Neurochir (Wien)*. 2019; 161:435-49.
181. Chadda RK. Youth & mental health: Challenges ahead. Editorial. *Indian J Med Res*. 2018; 148:359-61.
182. Chakraborty D, Basu S, Ulaner GA, Alavi A, Kumar R. Diagnostic Role of Fluorodeoxyglucose PET in Breast Cancer: A History to Current Application. *PET Clin*. 2018; 13:355-61.
183. Chakraborty S, Chopra M, Mani K, Giri AK, Banerjee P, Sahni NS, et al. Prevalence of vitamin B(12) deficiency in healthy Indian school-going adolescents from rural and urban localities and its relationship with various anthropometric indices: a cross-sectional study. *J Hum Nutr Diet*. 2018; 31:513-22.
184. Chakravarty K, Shukla G, Poornima S, Agarwal P, Gupta A, Mohammed A, et al. Effect of sleep quality on memory, executive function, and language performance in patients with refractory focal epilepsy and controlled epilepsy versus healthy controls - A prospective study. *Epilepsy Behav*. 2019; 92:176-83.
185. Chakravarty M, Singh N, Sharma D, Kumar N, Pandya P, Raina A. STR Analysis For Random Delhi-NCR Population Sample Using Ampflstr Identifier Plus PCR Amplification Kit. *Anil Aggrawal's Internet J Forensic Med Toxicol*. 2018; 19:1-30.
186. Chandna P, Srivastava N, Sharma A, Sharma V, Gupta N, Adlakha VK. Isolation of *Scardovia wiggisiae* using real-time polymerase chain reaction from the saliva of children with early childhood caries. *J Indian Soc Pedod Prev Dent*. 2018; 36:290-5.
187. Chandra P, Bhoutekar P, Azad R, Agarwal R. Large Spot Laser for Treatment of Retinopathy of Prematurity. *Ophthalmic Surg Lasers Imaging Retina*. 2018; 49:e233-9.
188. Chandra P, Kumawat D, Tewari R, Panyala RR, Sreeshankar SS. Reducing Waiting-time of Preterm Babies at a Retinopathy of Prematurity Clinic: A Quality Improvement Project. *Indian Pediatr*. 2018; 55:776-9.
189. Chandra P, Tewari R, Dolma Y, Das D, Kumawat D. Reducing Preoperative Waiting-time in a Pediatric Eye Operation Theater by Optimizing Process Flow: A Pilot Quality Improvement Project. *Indian Pediatr*. 2018; 55:773-5.
190. Chandra P, Tewari R, Jain S. The restless retina in aggressive posterior retinopathy of prematurity: prevention is better than cure. *Community Eye Health*. 2018; 31:S27-8.
191. Chandra PS, Ramanujam B, Tripathi M. To the editor: Surgery for Drug-Resistant Epilepsy in Children. *N Engl J Med*. 2018; 398:9.

192. Chandra PS, Singh P, Kumar R, Agarwal D, Tandon V, Kale SS, et al. Long Term Outcome Of Treatment Of Vertebral Body Hemangiomas With Direct Ethanol Injection And Short Segment Tabilization. *Spine J.* 2019; 19:131-43.
193. Chandra PS, Subianto H, Bajaj J, Girishan S, Doddamani R, Ramanujam B, et al. Endoscope-assisted (with robotic guidance and using hybrid technique) interhemispheric transcalsal hemispherotomy: a comparative study with open hemispherotomy to evaluate efficacy, complications and outcome. *J Neurosurg Pediatr.* 2018; 23:187-97.
194. Chandra SP, Singh P, Kumar R, Agarwal D, Tandon V, Kale SS, et al. Long-term outcome of treatment of vertebral body hemangiomas with direct ethanol injection and short-segment stabilization. *Spine J.* 2019; 19:131-43.
195. Chatterjee I, Kumar V, Sharma S, Dhingra D, Rana B, Agarwal M, et al. Identification of brain regions associated with working memory deficit in schizophrenia. *F1000Res.* 2019; 8:124.
196. Chatterjee P, Kumar P, Kandel R, Madan R, Tyagi M, Kumar DA, et al. Nordic walking training and nutritional supplementation in pre-frail older Indians: an open-labelled experimental pre-test and post-test pilot study to develop intervention model. *BMC Geriatr.* 2018; 18:212.
197. Chatterjee P, Rebok GW, Dwivedi SN, Kumar DA, Madan R, Dey AB. Development of integrated care tool - BRIEF for screening the unmet psychosociomedical needs of older Indians. *Indian J Public Health.* 2019; 63:51-7.
198. Chaudhari PK, Maheshwari S, Khan S, Kharbanda OP. Miniscrew Implant Supported K-Loop (MISK) Spring for molar distalization. *Sri Lankan J Orthod.* 2018; 1:78.
199. Chaudhari PK, Tewari N, Maheshwari S, Ahmed SS, Verma SK, Mohammed T. Interdisciplinary sequential management of combination traumatic dental injury: a case report. *Arch Trauma Res.* 2018; 7:169-72.
200. Chaudhari SD, Kaur M. Anaesthetic challenges in a child with Lowes and Fanconi Syndrome. *Indian J Anaesth.* 2018; 62:900-2.
201. Chaudhary A, Kumar V, Singh PK, Sharma P, Bairagya HR, Kaur P, et al. A glycoprotein from mammary gland secreted during involution promotes apoptosis: Structural and biological studies. *Arch Biochem Biophys.* 2018; 644:72-80.
202. Chaudhary P, Jaiswal AK, Kumar A. Quantitative Estimation and Method Validation of Acetaminophen by RP-HPLC in Biological samples. *J Indian Soc Toxicol.* 2018; 14:17-20.
203. Chaudhry R, Sreenath K, Agrawal SK, Valavane A. Legionella and Legionnaires' disease: Time to explore in India. *Indian J Med Microbiol.* 2018; 36:324-33.
204. Chauhan M, Behera C, Dogra TD. Rarest combination of basilar skull fracture and aortic laceration complicating Perthe's syndrome. *J Forensic Med Toxicol.* 2018; 35:53-6.
205. Chauhan M, Behera C, Madireddi S, Mandal S, Khanna SK. Sudden death due to an invasive mole in a young primigravida: Precipitous presentation masquerading the natural manner. *Med Sci Law.* 2018; 58:189-93.
206. Chauhan M, Naagar S, Behera C, Sreenivas M, Khanna SK. Medico legal autopsy of custodial deaths during last decade at a tertiary care hospital in Delhi. *J Forensic Med Toxicol.* 2018; 35: 27-31.
207. Chauhan M, Sreenivas M, Behera C, Khanna SK, Dogra TD. Rarest bucketful pure drowning adult female homicide by jilted lawyer lover. *J Forensic Med Toxicol.* 2018; 35: 46-9.
208. Chauhan R, Tyagi S, Mirgh S, Mishra P, Seth T, Mahapatra M, et al. Expect the unexpected - Loss of surface CD3 on flow cytometry in hepatosplenic T-cell lymphoma: An eye opener. *Indian J Pathol Microbiol.* 2018; 61:275-7.
209. Chauhan R, Sazawal S, Pati HP. Laboratory Monitoring of Chronic Myeloid Leukemia in Patients on Tyrosine Kinase Inhibitors. *Indian J Hematol Blood Transfus* 2018; 34:197-203.
210. Chauhan S, Sen S, Sharma A, Kashyap S, Tandon R, Bajaj MS, et al. p16^{INK4a} overexpression as a predictor of survival in ocular surface squamous neoplasia. *Br J Ophthalmol.* 2018; 102:840-7.
211. Chauhan S, Sen S, Sharma A, Kashyap S, Tandon R, Pushker N, et al. Loss of pRB in Conjunctival Squamous Cell Carcinoma: A Predictor of Poor Prognosis. *Appl Immunohistochem Mol Morphol.* 2018; 26:e70-6.
212. Chavali S, Rath GP, Bithal PK. Diplopia following extraoral maxillary nerve blockade for trigeminal neuralgia. *J Neuroanaesthesiol Crit Care.* 2018; 5:193-4.
213. Chawla A, Kumar V. Cemental tear: An unusual cause for persisting endodontic periodontal lesion. *Indian J Dent Res.* 2019; 30:140-3.
214. Chawla A, Kumar V. Evaluating the efficacy of different techniques and irrigation solutions for removal of calcium hydroxide from the root canal system: A scanning electron microscope study. *J Conserv Dent.* 2018; 21:394-400.
215. Chawla B, Chaurasia S, Sharma S, Pattebahadur R, Hasan F, Seth R, et al. Magnetic resonance imaging for tumor restaging after chemotherapy in retinoblastoma with optic nerve invasion. *Ophthalmic Genet.* 2018; 39:584-8.
216. Chawla N, Mandal P, Chatterjee B, Dhawan A. Tramadol-associated pica. *Psychiatry Clin Neurosci.* 2019; 73:43.
217. Chawla N, Yadav P, Pattanayak RD, Khandelwal SK. Identification and management of 'delirious mania': A rare clinical entity. *Ind Psychiatry J;* 2018; 27:151-3.

218. Chawla R, Azad SV, Takkar B, Sharma A. Swept source optical coherence tomography-angiography of an infarct of a small intra-neural branch of central retinal artery simulating cilio-retinal artery. *Indian J Ophthalmol.* 2018; 66:850-1.
219. Chawla R, Kapoor M, Mehta A, Tripathy K, Vohra R, Venkatesh P. Sympathetic Ophthalmia: Experience from a Tertiary Care Center in Northern India. *J Ophthalmic Vis Res.* 2018; 13:439-46.
220. Chawla R, Nath M, Moksha L, Nag TC, Velpandian T. An experimental study to evaluate safety/toxicity of intravitreal natalizumab. *Indian J Ophthalmol.* 2018; 66:1441-5.
221. Chawla R, Tripathy K, Temkar S, Venkatesh P, Kumar A. An imaging-based treatment algorithm for posterior focal retinitis. *Ther Adv Ophthalmol.* 2018; 10:2515841418774423.
222. Chawla R, Venkatesh P, Tripathy K, Chaudhary S, Sharma SK. Successful Management of Proliferative Diabetic Retinopathy and Multiple Choroidal Tubercles in a Patient with Miliary Tuberculosis. *J Ophthalmic Vis Res.* 2018; 13:210-1.
223. Chhabra A, Subramaniam R, Srivastava A. Reply to DrWoodham et al. *Reg Anesth Pain Med.* 2018; 43:890-1.
224. Chhikara S, Sazawal S, Singh K, Chaubey R, Pati H, Tyagi S, et al. Comparative analysis of the Sokal, Euro and European Treatment and Outcome Study score in prognostication of Indian chronic myeloid leukemia-chronic phase patients on imatinib. *South Asian J Cancer.* 2018; 7:258-62.
225. Chinnici D, Middlehurst A, Tandon N, Arora M, Belton A, Reis Franco D, et al. Improving the school experience of children with diabetes: Evaluation of the KiDS project. *J Clin Transl Endocrinol.* 2018; 15:70-5.
226. Chinta K, Rahman A, Saini V, Glasgow J, Reddy VP, Lever JM, et al. Microanatomic distribution of myeloid Heme Oxygenase-1 protects against free radical-mediated immunopathology in human tuberculosis. *Cell Rep.* 2018; 25:1938-1952.e5.
227. Chitikela S, Ray A, Sinha S. Paradoxical bronchoconstriction due to salbutamol MDI. *Alergologia Polska – Polish J Allergol.* 2018; 5:62-6.
228. Chowdhury AR, Kumar KR, Sinha R. Major leak during controlled ventilation due to faulty exhaust valve missed during pre-use machine check. *Indian J Anaesth.* 2018; 62:560-2.
229. Chowdhury T, Singh GP, Zeiler FA, Hailu A, Loewen H, Schaller B, et al. Anesthesia For Awake Craniotomy For Brain Tumors In An Intraoperative MRI Suite: Challenges And Evidence. *Front. Oncol.* 2018; 8:519.
230. Chowdhury T, Zeiler FA, Singh GP, Hailu A, Loewen H, Schaller B, et al. The Role of Intraoperative MRI In Awake Neurosurgical Procedures: A Systematic Review. *Front Oncol.* 2018; 8:434.
231. Claeys C, Zaman K, Dbaibo G, Li P, Izu A, Kosalaraksa P,..Kant S, et al. Prevention of vaccine-matched and mismatched influenza in children aged 6-35 months: a multinational randomised trial across five influenza seasons. *Lancet Child Adolesc Health.* 2018; 2:338-49.
232. Dabas A, Khadgawat R, Gahlot M, Surana V, Mehan N, Ramot R, et al. Height Velocity in Apparently Healthy North Indian School Children. *Indian J Endocrinol Metab.* 2018; 22:256-60.
233. Dabas Y, Mohan A, Xess I. Serum galactomannan antigen as a prognostic and diagnostic marker for invasive aspergillosis in heterogeneous medicine ICU patient population. *PLoS One.* 2018; 13:e0196196.
234. Dabas Y, Xess I, Bakshi S, Mahapatra M, Seth R. Emergence of azole resistant *Aspergillus fumigatus* from immunocompromised hosts in India. *Antimicrob Agents Chemother.* 2018; 62:e02264-17.
235. Dabla S, Puri I, Dash D, Vasantha PM, Tripathi M. Predictors of Seizure-Related Injuries in an Epilepsy Cohort from North India. *J Epilepsy Res.* 2018; 8:27-32.
236. Dada R, Dhawan V. Paternal factors and yoga to the rescue of early pregnancy loss. *Ann Pregnancy Birth.* 2018; 1:1006.
237. Dada T, Angmo D, Bhartiya S, Ramananda K. Bleb needling with subconjunctival ologen insertion using IOL cartridge. *Oman J Ophthalmol.* 2018; 11:94-6.
238. Dada T, Mittal D, Mohanty K, Faiq MA, Bhat MA, Yadav RK, et al. Mindfulness Meditation Reduces Intraocular Pressure, Lowers Stress Biomarkers and Modulates Gene Expression in Glaucoma: A Randomized Controlled Trial. *J Glaucoma.* 2018; 27:1061-7.
239. Dadhwal V, Sharma A, Khoiwal K, Nakra T. Episiotomy scar endometriosis. *Med J Armed Forces India.* 2018; 74:297-9.
240. Dalai R, Malhotra S, Gupta AK, Mandal M, Kant S. A rare case of childhood hepatitis A infection with pleural effusion, acalculous cholecystitis, and ascites. *J Family Med Prim Care.* 2018; 7:1581-3.
241. Dalal V, Kumar R, Kumar S, Sharma A, Kumar L, Sharma JB, et al. Biomarker potential of IL-6 and VEGF-A in ascitic fluid of epithelial ovarian cancer patients. *Clin Chim Acta.* 2018; 482:27-32.

242. Damle NA, Bal C, Singh TP, Gupta R, Reddy S, Kumar R, et al. Anaplastic thyroid carcinoma on 68 Ga-PSMA PET/CT: opening new frontiers. *Eur J Nucl Med Mol Imaging*. 2018; 45:667-8.
243. Das B, Ghosh TS, Kedia S, Rampal R, Saxena S, Bag S, et al. Analysis of the Gut Microbiome of Rural and Urban Healthy Indians Living in Sea Level and High Altitude Areas. *Sci Rep*. 2018; 8:10104.
244. Das CJ, Razik A, Sharma S. Magnetic Resonance Imaging-Transrectal Ultrasound Fusion Biopsy of the Prostate-An Update. *Semin Roentgenol*. 2018; 53:219-26.
245. Das CJ, Razik A, Sharma S. Positron emission tomography in prostate cancer: An update on state of the art. *Indian J Urol*. 2018; 34:172-9.
246. Das CJ, Soneja M, Tayal S, Chahal A, Srivastava S, Kumar A, et al. Role of radiological imaging and interventions in management of Budd-Chiari syndrome. *Clin Radiol*. 2018; 73:610-24.
247. Das D, Akhtar S, Kurra S, Gupta S, Sharma A. Emerging role of immune cell network in autoimmune skin disorders: An update on pemphigus, vitiligo and psoriasis. *Cytokine Growth Factor Rev*. 2019; 45:35-44.
248. Das N, Roy A, Jaryal AK, Gopichandran L. A comparative study to assess the Ankle Brachial Index by palpatory and Doppler method. *J Nurs Sci Pract*. 2018; 8: 10-42.
249. Das P, Rampal R, Udinia S, Kumar T, Pilli S, Wari N, et al. Selective M1 macrophage polarization in granuloma-positive and granuloma-negative Crohn's disease, in comparison to intestinal tuberculosis. *Intest Res*. 2018; 16:426-35.
250. Das R, Dhiman A, Mishra SK, Haldar S, Sharma N, Bansal A, et al. Structural switching electrochemical DNA aptasensor for the rapid diagnosis of tuberculous meningitis. *Int J Nanomedicine*. 2019; 14:2103-13.
251. Das U, Singh E, Dharavath S, Tiruttani Subhramanyam UK, Pal RK, Vijayan R, et al. Structural insights into the substrate binding mechanism of novel ArgA from Mycobacterium tuberculosis. *Int J Biol Macromol*. 2019; 125:970-78.
252. Dash C, Moorthy S, Garg K, Singh PK, Kumar A, Gurjar H, et al. Management Of Choroid Plexus Tumors In Infants And Young Children Up To 4 Years Of Age: An Institutional Experience. *World Neurosurg*. 2019; 121:e237-45.
253. Dash D, Goyal V. Anticancer Drugs for Parkinson's Disease: Is It a Ray of Hope or Only Hype. *Ann Indian Acad Neurol*. 2019; 22:13-6.
254. Dash D, Ihtisham K, Tripathi M and Tripathi M. Proportion and spectrum of movement disorders in adolescent and adult patients of autoimmune encephalitis of non-neoplastic etiology. *J Clin Neuroscience*. 2019; 59:185-9.
255. Dash D, Pandey S. Movement disorders associated with neuronal antibodies. *Acta Neurol Scand*. 2019; 139:106-17.
256. Dash D, Saluja A, Singh RK, Bhatia R, Tripathi M. Guillain-Barre Syndrome: A Rare Presentation of Borderline Tuberculoid Leprosy with Type 1 Lepra Reaction. *J Neurosci Rural Pract*. 2018; 9:423-5.
257. Dash D, Singh S, Tripathi M. Periodic Limb Movement Disorder: A novel presentation of insulinoma. *Ann Mov Disord*. 2018; 1:54-6.
258. Dash SC, Agarwal SK, Panigrahi A, Mishra J, Dash D. Diabetes, hypertension and kidney disease combination "DHKD syndrome" is common in India. *J Asso Phy India*. 2018; 66:30-3.
259. De Majumdar S, Sikri K, Ghosh P, Jaisinghani N, Nandi M, Gandotra S, et al. Genome analysis identifies a spontaneous nonsense mutation in ppsD leading to attenuation of virulence in laboratory-manipulated Mycobacterium tuberculosis. *BMC Genomics*. 2019; 20:129.
260. Deb KS, Tuli A, Sood M, Chadda R, Verma R, Kumar S, et al. Is India ready for mental health apps (MHApps)? A quantitative-qualitative exploration of caregivers' perspective on smartphone-based solutions for managing severe mental illnesses in low resource settings. *PloS One*. 2018; 13:e0203353.
261. DebBarma A, Yadav A, Kanwar HK, Dey A, Gupta SK. An unusual case of cardiac tamponade due to rupture of ascending aorta in a young adult. *Int J Health Res Medico Leg Prac*. 2018; 4:105-7.
262. Deepti S, Roy A, Patel CD, Tandon N, Naik N, Singh S, et al. Assessment of asymptomatic ischemic heart disease using stress myocardial perfusion imaging in patients with type 2 diabetes mellitus. *Indian Heart J*. 2018; 70 Suppl 3:S157- 60.
263. Desai A, Yadav MA, Gupta V, Gupta S. Wavefront analysis to diagnose blunt trauma-induced Weigert ligament dialysis: Isolated peripheral posterior lenticonus. *J Cataract Refract Surg*. 2018; 44:1390-3.
264. Desai D, Gupta K, Kumar R, Biswas A. Levosulpiride - Induced Neuroleptic Malignant Syndrome in Rheumatoid Arthritis. *BMJ Case Rep*. 2018; bcr-2018-224679.
265. Desai G, Sagar R, Chaturvedi SK. Nosological journey of somatoform disorders: From briquet's syndrome to bodily distress disorder. *Indian J Soc Psychiatry*. 2018; 34:29-33
266. Deshmukh A, Chourasia BK, Mehrotra S, Kana IH, Paul G, Panda A, et al. Plasmodium falciparum MSP3 Exists in a Complex on the Merozoite Surface and Generates Antibody Response during Natural Infection. *Infect Immun*. 2018; 86: pii:e00067-18.

267. Deshpande S, Patil S, Singh N. Enhancing Gene-Knockdown Efficiency of Poly(N-isopropylacrylamide) Nanogels. *ACS Omega*. 2018; 3:8042-9.
268. Deshpande S, Singh N. Probing the nanoparticles-AGO2 interaction for enhanced gene knockdown. *Soft Matter*. 2018; 14:4169-77.
269. Devasenapathy N, Maddison R, Malhotra R, Zodepy S, Sharma S, Belavy DL. Preoperative quadriceps muscle strength and functional ability predict performance based outcomes six months after total knee arthroplasty: A systematic review. *Phys Ther*. 2019; 99:46-61.
270. Devasenapathy S, Midha R, Naskar T, Mehta A, Prajapati B, Ummekulsum M,...Sagar R, et al. A pilot Indian family-based association study between dyslexia and Reelin pathway genes, DCDC2 and ROBO1, identifies modest association with a triallelic unit TAT in the gene RELN. *Asian J Psychiatr*. 2018; 37:121-9.
271. Dey A, Tyagi S, Kanwar K, Sharma N, Kulbhushan P, Gupta SK. Sexual Jealousy leads to Devil's Butchering-Case Report on Postmortem Mutilation. *J Forensic Chem Toxicol*. 2018; 4:95-8.
272. Dhanda A, Dube SK, Agarwal S, Satyarthee GD. Reply To The Comment On The Article "Simple Maneuver To Tide Over The Crisis Due To Intraoperative Malfunctioning Of A Pilot Balloon. *J Neuroanaesthesiol Crit Care*. 2019; 06:052.
273. Dhanda A, Dube SK, Agarwal S, Satyarthee GD. Simple Maneuver to Tide over the Crisis due to Intraoperative Malfunctioning of a Pilot Balloon. *J Neuroanaesthesiol Crit Care*. 2018; 5:204-5.
274. Dhandapani M, Gupta S. Specific Health Effects of Caregiving stress and its management. *Indian J Psy Nurs*. 2018; 15:53-60.
275. Dhanya A, Agarwal P, Dhandapani M, Mahendra J, Gopichandran L. Comparison of Clinical presentation of Acute Coronary Syndrome in Diabetic Vs Non-diabetic patients. *Asian J Nurs Edu Res*. 2019; 9:102-8.
276. Dhar P, Kaushal P, Kumar P. Antioxidant supplementation upregulates calbindin expression in cerebellar Purkinje cells of rat pups subjected to post natal exposure to sodium arsenite. *Brain Res*. 2018; 1690:23-30.
277. Dhar R, Mukherjee I, Singh S, Goswami S, Karmakar S. Role of Carbon Monoxide signaling in trophoblast invasion. *Open Acc J Repro & Sexual Disord*. 2019; 2:2.
278. Dhawan A, Modak T, Sarkar S. Transdermal buprenorphine patch: Potential for role in management of opioid dependence. *Asian J Psychiatr*. 2019; 40:88-91.
279. Dhawan V, Kumar M, Chaurasia P, Dada R. Mind-body interventions significantly decrease oxidative DNA damage to sperm genome: Clinical implications. *React Oxyg Species*. 2019; 7:1-9.
280. Dhawan V, Kumar M, Dadhwal V, Singh N, Dada R. sperm transcripts and genomic integrity: role in implantation and embryo viability in IVF cycles. *Fertil Steril*. 2018; 110:E93-4.
281. Dhawan V, Kumar M, Dipika D, Malhotra N, Singh N, Dadhwal V, et al. Paternal factors and embryonic development: Role in recurrent pregnancy loss. *Andrologia*. 2019; 51:e13171.
282. Dhawan V, Kumar M, Dipika D, Malhotra N, Singh N, Dadhwal V, et al. Meditation and yoga: impact on oxidative DNA damage and dysregulated sperm transcripts in male partners of couples with recurrent pregnancy loss. *Indian J Med Res*. 2018; 148(Suppl 11): S134-9.
283. Dhawan V, Kumar M, Chaurasia P, Dada R. Sperm a cell in distress: Yoga to the rescue. *ISSRF Newsl*. 2019; 23: 98-103.
284. Dhiman A, Haldar S, Mishra SK, Sharma N, Bansal A, Ahmad Y, et al. Generation and application of DNA aptamers against HspX for accurate diagnosis of tuberculous meningitis. *Tuberculosis (Edinb)*. 2018; 112:27-36.
285. Dhiman R, Gorimanipalli B, Swamy DR, Sharma S, Garg A, Saxena R. Congenital Third Nerve Palsy Associated With Midbrain Hypoplasia Due to Bilateral Segmental Internal Carotid Artery Agenesis. *J Neuroophthalmol*. 2018; 38:483-5.
286. Dhiman R, Meel R. Giant Ocular Surface Squamous Neoplasia Wrapping the Whole Cornea. *Eye Contact Lens*. 2018; 44(Suppl 1):S374-5.
287. Dhooria S, Agarwal R, Sehgal IS, Aggarwal AN, Goyal R, Guleria R, et al. Bronchoscopic lung cryobiopsy: An Indian Association for Bronchology position statement. *Lung India*. 2019; 36:48-59.
288. Dhooria S, Mehta RM, Srinivasan A, Madan K, Sehgal IS, Pattabhiraman V, et al. The safety and efficacy of different methods for obtaining transbronchial lung cryobiopsy in diffuse lung diseases. *Clin respir J*. 2018; 12:1711-20.
289. Dhyani V, Singh N. Self patterning silk films for Cellular Co-culture. *ACS Appl Bio Mater*. 2018; 1:1355-61.
290. Dixit AB, Sharma D, Tripathi M, Srivastava A, Paul D, Prakash D, et al. Genome-wide DNA Methylation and RNAseq Analyses Identify Aberrant Signalling Pathways in Focal Cortical Dysplasia (FCD) Type II. *Sci Rep*. 2018; 8:17976.

291. Dixit S, Arora NK, Rahman A, Howard NJ, Singh RK, Vaswani M, et al. Establishing a Demographic, Development and Environmental Geospatial Surveillance Platform in India: Planning and Implementation. *JMIR Public Health Surveill.* 2018; 4:e66.
292. Drewes AM, Campbell CM, Ceyhan GO, Delhaye M, Garg PK, van Goor H, et al. Pain in Pancreatic Ductal Adenocarcinoma: A Multidisciplinary, International Guideline for Optimized Management. *Pancreatology.* 2018; 18:446-457.
293. Dubasi SK, Ranjan P, Arora C, Vikram NK, Dwivedi SN, Singh N, et al. Questionnaire to assess adherence to diet and exercise advices for weight management in lifestyle-related diseases. *J Family Med Prim Care.* 2019; 8:689-94.
294. Dube SK, Pandia MP, Chaturvedi A, Kumar S. Retrospective Study of Postoperative Pulmonary Complications in Patients with Cervical Spine Pathology. *J Neuroanaesthesiol Crit Care* 2018; 5:98-104.
295. Dubey M, Nongkynrih B, Gupta SK, Kalaivani M, Goswami AK, Salve HR. Screen-based media use and screen time assessment among adolescents residing in an Urban Resettlement Colony in New Delhi, India. *J Family Med Prim Care.* 2018; 7:1236-42.
296. Durga CS, Gupta N, Soneja M, Bhatt M, Xess I, Jorwal P, et al. Invasive fungal infections in critically ill patients: A prospective study from a tertiary care hospital in India. *Drug Discov Ther.* 2018; 12:363-7.
297. Dutta D, Gupta PK, Sharma M, Damble NA, Madan R, Dogra S. 18F-FluorocholinePositron Emission Tomography/Computerised Tomography is Useful in Localising 99mTc-Sesta-methoxyisobutylisonitrile-Negative Parathyroid Cyst Causing Normocalcemic Primary Hyperparathyroidism. *Eur Endocrinol.* 2018; 14:56-8.
298. Dutta M, Singh B, Joshi M, Das D, Subramani E, Maan M,... Sharma U, et al. Metabolomics reveals perturbations in endometrium and serum of minimal and mild endometriosis. *Sci Rep.* 2018; 8:6466.
299. Dutta S, Jain K, Siddharth V. Retrofitting Healthcare Facilities for Bariatric Patients: A Cost Analysis Study in a Public Sector Hospital of a Developing Country. *Bariatr Surg Pract Patient Care.* 2018; 13:185-9.
300. Dwivedi DK, Kumar R, Dwivedi AK, Bora GS, Thulkar S, Sharma S, et al. Prebiopsy multiparametric MRI-based risk score for predicting prostate cancer in biopsy-naive men with prostate-specific antigen between 4-10 ng/mL. *J Magn Reson Imaging.* 2018; 47:1227-36.
301. Dwivedi S, Gonmei Z, Toteja GS, Srivastava N, Bansal PG, Radhakrishnan N, et al. Association of Aldosterone Synthase C-344T and 11-B Hydroxysteroid Dehydrogenase G225 Gene Polymorphisms with Blood Pressure. *Asian J Microbiol Biotech Env Sc.* 2018; 20:978-82.
302. Eachempati KK, Malhotra R, Pichai S, Reddy AVG, Podhili Subramani AK, Gautam D, et al. Results of trabecular metal augments in Paprosky IIIA, IIIB defects: A multicentre study. *Bone Joint J.* 2018; 100-B:903-8.
303. Elavarasi A, Dash D, Warriar AR, Jain D. Leptomeningealleukaemia misdiagnosed as tubercular meningitis. *BMJ Case Rep.* 2019; 12:e228328.
304. Elavarasi A, Vishnu VY, Srivastava MVP, et al. Polymyositis with too Many Associations: A Paraneoplastic Syndrome. *Ann Indian Acad Neurol.* 2018; 21:331-4.
305. Farooque K, Yadav R, Chowdhury B, Gamanagatti B, Kumar A, Kumar P. Computerized Tomography- Based Morphometric Analysis of Subaxial Cervical Spine Pedicle in Asymptomatic Indian Population. *Int J Spine Surg.* 2018; 12:112-20.
306. Fazal F, Gupta N, Ramu SK, Nayan A, Vikram NK, Ray A. Haemophagocytic lymphohistiocytosis in patients with human immunodeficiency virus infection: to treat or not to treat. *Pan African Med J.* 2019; 32:1-4.
307. Fazal F, Wig N, Soneja M, Mitra DK, Panda SK, Satpathy G, et al. Sepsis and Secondary Hemophagocytic Lymphohistiocytosis. *Open Forum Infect Dis.* 2018; 5(Suppl 1):S301.
308. Fong R, Wang L, Zacny JP, Khokhar S, Apfelbaum JL, Fox AP, et al. Caffeine Accelerates Emergence from Isoflurane Anesthesia in Humans: A Randomized, Double-blind, Crossover Study. *Anesthesiology.* 2018; 129:912-20.
309. Forero DA, Oermann MH, Manca A, Deriu F, Mendieta-Zerón H, Dadkhah M,...Bhad R, et al. Negative Effects of Predatory Journals on Global Health Research. *Ann Glob Health.* 2018; 84:584-9.
310. Gaba S, Wahal N, Gautam D, Pandit H, Kumar V, Malhotra R. Early results of Oxford mobile bearing Medial Unicompartmental Knee Replacement (UKR) with the Microplasty instrumentation at a minimum of two years of follow-up. *Arch Bone Joint Surg.* 2018; 6:301- 11.
311. Gagrani M, Faiq MA, Sidhu T, Dada R, Yadav RK, Sihota R, et al. Meditation improves brain oxygenation and quality of life in patients with primary open angle glaucoma: A randomized controlled trial. *Restor Neurol Neurosci.* 2018; 36:741-53.
312. Gajmer P, Yadav A, Babu R, Pandit JN. Septic Arthritis in Children Following Trauma: An Orthopedic Emergency. *RFP J Hosp Adm.* 2018; 2:77-9.

313. Ganesh R, Verma R, Bhargava R, Sood M. Relationship between illness disability in patients with first-episode schizophrenia with caregivers' perception of their needs. *Indian J Soc Psychiatry*. 2019; 35:32-9.
314. Ganger A, Gupta N, Tomar AS, Vanathi M, Tandon R. Infective keratitis in Indian patients with corneal dystrophies. *Trop Doct*. 2018; 48:199-206.
315. Ganie MA, Goyal A, Kishore S, Ramkumar S, Das CJ, Dogra PN, et al. Diagnostic evaluation and characterization of VHL syndrome by functional imaging. *Turkish J Endocrinol Metabol*. 2018; 22:102-7.
316. Garg A, Kaur K, Devarajan Sebastian L, Gaikwad S, Bhatia R, Singh M, et al. Conglomerate ring-enhancing lesions are common in solitary neurocysticercosis and do not always suggest neurotuberculosis. *Ann Indian Acad Neurol*. 2019; 22:67-72.
317. Garg B, Gupta M, Singh M, Kalyanasundaram D. Outcome and safety analysis of 3D printed patient specific pedicle screw jigs for complex spinal deformities: A comparative study. *Spine J*. 2019; 19:56-64.
318. Garg B, Manhas V, Vardhan A, Srivastava DN, Das CJ, Vibha D, et al. Thumb opposition recovery following surgery for severe carpal tunnel syndrome: A clinical, radiological and electrophysiological pilot study. *J Hand Surg Am*. 2019; 44:157.e1-5.
319. Garg K, Satyarthee GD. Professor Jean Holowach-Thurston: Who Along With Spouse Laid The Foundation Stone Of Modern Pediatric Neurology As Superspeciality? *Asian J Neurosurg*. 2019; 14:336-7.
320. Garg K, Sharma R, Gurjar HK, Kale SS. Pontomedullary germinoma with suprasellar and spinal metastasis: A report and comprehensive review of literature. *Neurol India*. 2019; 67:308-11.
321. Garg M, Kumar A, Sawarkar DP, Singh PK, Agarwal D, Kale SS, et al. Traumatic Lateral Spondyloptosis: Case Series. *World Neurosurg*. 2018; 113:e166-171.
322. Garg M, Shambanduram S, Singh PK, Sebastian LJD, Sawarkar DP, Kumar A, et al. Management Of Pediatric Posterior Circulation Aneurysms-12-Year Single-Institution Experience. *World Neurosurg*. 2018; 116:e624-e33.
323. Garg P, Jaryal AK, Kachhawa G, Deepak KK, Kriplani A. Estimation of asymmetric dimethylarginine (ADMA), placental growth factor (PLGF) and pentraxin 3 (PTX 3) in women with preeclampsia. *Pregnancy Hypertens*. 2018; 14:245-51.
324. Garg S, Malhotra RK, Khan SI, Sarkar S, Susrutha PN, Singh V, et al. Fisetin attenuates isoproterenol-induced cardiac ischemic injury in vivo by suppressing RAGE/NF- κ B mediated oxidative stress, apoptosis and inflammation. *Phytomedicine*. 2018; 56:147-55.
325. Garika SS, Sharma A, Razik A, Sharma A, Pandey RM, Gamanagatti S, et al. Comparison of F18-Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography and Dynamic Contrast-Enhanced Magnetic Resonance Imaging as Markers of Graft Viability in Anterior Cruciate Ligament Reconstruction. *Am J Sports Med*. 2019; 47:88-95.
326. Gaur N, Meel R, Anjum S, Singh P. Hereditary sensory and autonomic neuropathy in a male child: 'The other side of not feeling pain'. *BMJ Case Rep*. 2018; bcr-2018-226873.
327. Gaur N, Sharma P. Commentary: "Current" consensus: Electrodiagnostics in eye. *Indian J Ophthalmol*. 2019; 67:30-1.
328. Gaur N, Sharma P. Management of Duane retraction syndrome: A simplified approach. *Indian J Ophthalmol*. 2019; 67:16-22.
329. Gaur P, Verma K, Chawla A, Mukherjee S, Lalwani S, Malhotra R, et al. High Rate Failure Properties of Human Aortic Tissue Under Longitudinal Extension. *Int J Exp Comput Biomech*. 2018; 4:125-51.
330. Gautam H, Agrawal S K, Verma SK, Singh UB. Cervical tuberculous lymphadenitis: Clinical profile and diagnostic modalities. *Int J Mycobacteriol*. 2018; 7: 212-6
331. Gautam PK, Acharya A, Kumar S, Hsp70-Peptide complex induced expression of LPS binding receptor on TAMs and increases longevity of a tumour-bearing host. *J Biomol Biochem*. 2018;2(1).1-14.
332. Gautam S, Chawla B, Bisht S, Tolahunase M, Dada R. Impact of mindfulness based stress reduction on sperm DNA damage. *J Anat Soc India*.2018; 67:24-129.
333. Gautam S, Tolahunase M, Kumar U, Dada R. Impact of yoga based mind-body intervention on systemic inflammatory markers and co-morbid depression in active Rheumatoid arthritis patients: A randomized controlled trial. *Restor Neuro Neurosci*. 2019; 37:41-59.
334. GBD 2015 Eastern Mediterranean Region Maternal Mortality Collaborators. Maternal mortality and morbidity burden in the Eastern Mediterranean Region: findings from the Global Burden of Disease 2015 study. *Int J Public Health*. 2018; 63(Suppl 1):47-61.
335. GBD 2015 Eastern Mediterranean Region Mental Health Collaborators. The burden of mental disorders in the Eastern Mediterranean region, 1990-2015: findings from the global burden of disease 2015 study. *Int J Public Health*. 2018; 63(Suppl 1):25-37.

336. GBD 2016 Healthcare Access and Quality Collaborators. Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016. *Lancet*. 2018; 391:2236-71.
337. GBD 2016 Meningitis Collaborators. Global, regional, and national burden of meningitis, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. GBD 2016 Meningitis Collaborators. *Lancet Neurol*. 2019; 17:1061-82.
338. GBD 2017 Causes of Death Collaborators. Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018; 392:1736-88.
339. GBD 2017 DALYs and HALE Collaborators. Global, regional, and national disability-adjusted life-years (DALYs) for 359 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018; 392:1859-1922.
340. GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018; 392:1789-1858.
341. GBD 2017 Mortality Collaborators. Global, regional, and national age-sex-specific mortality and life expectancy, 1950-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018; 392:1684-1735.
342. GBD 2017 Population and Fertility Collaborators. Population and fertility by age and sex for 195 countries and territories, 1950-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018; 392:1995-2051.
343. GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018; 392:1923-94.
344. GBD 2017 SDG Collaborators. Measuring progress from 1990 to 2017 and projecting attainment to 2030 of the health-related Sustainable Development Goals for 195 countries and territories: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018; 392:2091-138.
345. Khilnani GC, Zirpe K, Hadda V, Mehta Y, Madan K, Kulkarni A, et al. Guidelines for Antibiotic Prescription in Intensive Care Unit. *Indian J Crit Care Med*. 23(Suppl1):S1-63.
346. George A, Panwar R, Pal S. Surgical Management of Life Threatening Bleeding after Endoscopic Cystogastrostomy. *J Invest Surg*. 2018; 31:503-8.
347. George N, Sethi P, Nischal N, Kumar A, Siripurapu G, Wig N, et al. A Catastrophic Presentation of Enteric Fever with Secondary Hemophagocytic Lymphohistiocytosis. *J Assoc Physicians India*. 2018; 66:11-2.
348. Ghosh S, Jain R, Jhanjee S, Rao R, Mishra AK. Alcohol Biomarkers and their Relevance in Detection of Alcohol Consumption in Clinical Settings. *Int Arch Subst Abuse Rehabil*. 2019; 1:002.
349. Godiyal AK, Mondal M, Joshi SD, Joshi D. Force Myography based novel strategy for locomotion classification. *IEEE Trans Hum Mach Syst*. 2018; 48:648-67.
350. Godiyal AK, Verma H, Khanna N, Joshi D. A force myography based system for gait event detection in overground and ramp walking. *IEEE Trans Instrum Meas*. 2018; 67:2314-23.
351. Goel S, Sahay P, Maharana PK, Titiyal JS. Ocular manifestations of Wilsons Disease. *BMJ Case Rep*. 2019; 12:e229662.
352. Gogia A, Das CK, Kumar L, Sharma A, Sharma MC, Mallick S. Profile of non-Hodgkin lymphoma: An Indian perspective. *South Asian J Cancer*. 2018; 7:162.
353. Gogia A, Das CK, Kumar L, Sharma A, Tiwari A, Sharma MC, et al. Diffuse large B-cell lymphoma: An institutional analysis. *South Asian J Cancer*. 2018; 7:200-2.
354. Gonmei Z, Dwivedi S, Sidhu A, Toteja GS, Vikram NK, Kamboj P. Homocysteine status of elderly slum women in Delhi. *Asian J Pharm Clin Res*. 2018; 11:1-3.
355. Gonmei Z, Dwivedi S, Toteja GS, Singh K, Vikram NK. Prevalence of hypertension among elderly residing in slums of West Delhi. *Asian J Pharm Clin Res*. 2018; 11:337-9.
356. Goswami AK, Kalaivani M, Gupta SK, Nongkynrih B, Pandav CS. Relationship between height and arm span of elderly persons in an urban colony of New Delhi. *Indian J Public Health*. 2018; 62:159-62.
357. Goswami AK, Ramadass S, Kalaivani M, Nongkynrih B, Kant S, Gupta SK. Awareness and utilization of social welfare schemes by elderly persons residing in an urban resettlement colony of Delhi. *J Family Med Prim Care*. 2019; 8:960-5.
358. Goswami D, Chowdhury AR, Venkateswaran V, Sunkesula SG, Kundu R. AMBU® LMA® in Children with Cleft Palate for Ophthalmic Surgery: A Case Report. *A A Pract*. 2019; 12:109-11.

359. Goswami D, Garg H, Carounagarane H, Deb KS. Dexmedetomidine-assisted drug interviews: an observation in psychiatric setting. *BMJ Case Rep.* 2018; 11:e227195.
360. Goswami K. What's in a name? *CHRISMED J Health Res.* 2018; 5:310-4.
361. Gour SSK, Agrawal M, Borkar SA. Letter to the Editor. Laminotomy outcomes in pediatric patients. *J Neurosurg Pediatr.* 2018; 22:595-7.
362. Govindaswamy A, Bajpai V, Batra P, Malhotra R, Mathur P. Phenotypic and molecular characterization of extended spectrum beta lactamase and AmpC beta lactamases in *Escherichia coli* from a tertiary care centre in India. *J Patient Saf Infect Contr.* 2018; 6:54:8.
363. Govindaswamy A, Bajpai V, Trikha V, Mittal S, Malhotra R, Mathur P. Multidrug Resistant *Elizabeth kingia* meningoseptica bacteremia - Experience from a Level 1 Trauma Centre In India. *Intractable Rare Dis Res.* 2018; 7:172-6.
364. Gowda NC, Ray A, Soneja M, Khanna A, Sinha S. Evaluation of Xpert® Mycobacterium tuberculosis/rifampin in sputum-smear negative and sputum-scarce patients with pulmonary tuberculosis using bronchoalveolar lavage fluid. *Lung India.* 2018; 35:295-300.
365. Goyal A, Biswas A. Severe lipodystrophy and gynecomastia in a male patient on Lopinavir based second- line ART. *Turkish J Endocrinol Metabol.* 2018; 22:208-12.
366. Goyal A, Boro H, Khadgawat R. Brown Tumor as an Index Presentation of Severe Vitamin D Deficiency in a Teenage Girl. *Cureus.* 2018; 10:e2722.
367. Goyal A, Boro H, Khandelwal D, Khadgawat R. ACTH Resistance Syndrome: An Experience of Three Cases. *Indian J Endocrinol Metab.* 2018; 22:843-7.
368. Goyal A, Ganie MA. Idiopathic hyperprolactinemia presenting as polycystic ovary syndrome in identical twin sisters. *Cureus.* 2018; 10:e3004.
369. Goyal A, Gupta U, Kandasamy D, Khadgawat R. Severe Hypercortisolism with Hypokalemic Alkalosis Mimicking Ectopic Cushing Syndrome in a Patient with Cushing Disease Due to Pituitary Microadenoma. *Indian J Endocrinol Metab.* 2018 ; 22:860-3.
370. Goyal A, Gupta Y, Kalaivani M, JeevaSankar M, Kachhawa G, Bhatla N, et al. Long term (>1 year) postpartum glucose tolerance status among Indian women with history of Gestational Diabetes Mellitus (GDM) diagnosed by IADPSG criteria. *Diabetes Res Clin Pract.* 2018; 142:154-61.
371. Goyal A, Khadgawat R. Diagnosis of childhood growth hormone deficiency: Controversies, consensus and the need for new diagnostic tools. *Neurol India.* 2018; 66:1685-6.
372. Goyal A, Khadgawat R. Height velocity percentile curves in Indian children: time to move beyond standard growth charts. *Indian Pediatr.* 2019; 56:19-20.
373. Goyal A, Malhotra R, Khadgawat R. Precocious pseudopuberty due to virilising adrenocortical carcinoma progressing to central precocious puberty after surgery. *BMJ Case Rep.* 2019; 12:e229476.
374. Goyal A, Rahaman SH, Raizada N, Kandasamy D, Mehta AP, Khadgawat R. Bilateral Medullary Nephrocalcinosis Secondary to Vitamin D Toxicity: A 14-year Follow-up Report. *Indian J Endocrinol Metab.* 2018; 22:853-4.
375. Goyal A, Tandon N. Management of osteoporosis: a review. *J Indian Med Assoc.* 2018; 116:36-40.
376. Goyal A, Tiwari V, Gupta Y. Diabetic hand: A Neglected Complication of Diabetes Mellitus. *Cureus.* 2018; 10:e2772.
377. Goyal K, Hazarika A, Khandelwal A, Kedia S. Non-Neurological Complications after Traumatic Brain Injury: A Prospective Observational Study. *Indian J Crit Care Med.* 2018; 22:632-8.
378. Goyal K, Konar A, Kumar BH, Koul V. Lactoferrin-conjugated pH and redox-sensitive polymersomes based on PEG-SS-PLA-PCL-OH boost delivery of bacosides to the brain. *Nanoscale.* 2018; 10:17781-98.
379. Goyal M, Khandpur S, Ramam M, Sharma VK, Singh MK. A Study of the Histopathological Features of Alopecias on Transverse Sections of Scalp Biopsies. *Indian J Dermatol.* 2019; 64:47-54.
380. Goyal S, Jadaun S, Kedia S, Acharya SK, Varma S, Nayak B, et al. Thromboelastography Parameters in Patients with Acute on Chronic Liver Failure. *Ann Hepatol.* 2018; 17:1042-51.
381. Grewal KS, Bhatia R, Singh N, Singh R, Dash D, Tripathi M. Confusional state in a pregnant woman: A case of NMDA receptor encephalitis during pregnancy. *J Neuroimmunol.* 2018; 325:29-31.
382. Grover SB, Antil N, Rajani H, Grover H, Kumar R, Mandal AK, et al. Approach to pediatric renal tumors: an imaging review. *Abdom Radiol (NY).* 2019; 44:619-41.
383. Guda NM, Muddana V, Whitcomb DC, Levy P, Garg P, Cote G, et al. Recurrent acute pancreatitis: international state-of-the-science conference with recommendations. *Pancreas.* 2018; 47:653-66.
384. Gulati K, Gupta SK, Madhukar V, Sarkar C. Importance of Medical Leadership Development: A Global Perspective with Special Reference to the Indian Healthcare System. *Int J Res Found Hosp Healthc Adm.* 2018; 6:37-42.

385. Gulati K, Madhukar V, Verma V, Singh AR, Gupta SK, Sarkar C. Medical leadership competencies: A comparative study of physicians in public and private sector hospitals in India. *Int J Health Plann Manage.* 2018; e947-e63.
386. Gulati S, Kaushik JS, Saini L, Sondhi V, Madaan P, Arora NK,...Pandey RM. et al. Development and validation of DSM-5 based diagnostic tool for children with Autism Spectrum Disorder. *PloS One.* 2019; 14:e0213242.
387. Guler J, Roberts MC, Medina-Mora ME, Robles R, Gureje O, Keeley JW,... Sharan P, et al. Global collaborative team performance for the revision of the International Classification of Diseases: A case study of the World Health Organization Field Studies Coordination Group. *Int J Clin Health Psychol.* 2018; 18:189-200.
388. Guleria R, Mohan A, Khilnani GC, Madan K, Hadda V, Tiwari P, et al. Non-invasive Ventilation for Acute Respiratory Failure due to Noncystic Fibrosis Bronchiectasis. *Indian J Crit Care Med.* 22:326-31.
389. Gunasekaran S, Dhiman R, Vanathi M, Mohanty S, Satpathy G, Tandon R. Ocular surface microbial flora in patients with chronic limbal stem cell deficiency undergoing cultivated oral mucosal epithelial transplantation. *Middle East Afr J Ophthalmol.* 2019; 26:23-6.
390. Gunasekaran V, Dey S, Chakrawarty A, Chatterjee P, Sati HC, Dwivedi SN, et al. Raised serum cystatin C can be a potential biomarker of frailty detected by cumulative deficit model. *Aging Med.* 2018; 1:149-53.
391. Gunjan D, Gamanagatti S, Garg P. Endoscopic ultrasonography-guided obliteration of a left inferior phrenic artery pseudoaneurysm in a patient with alcoholic chronic pancreatitis. *Endoscopy.* 2018; 50:449-50.
392. Gunjan D, Jain S, Garg P. Dislodged hood stuck in submucosal tunnel: retrieval during peroralendoscopic myotomy. *Endoscopy.* 2018; 50:E314-5.
393. Gunjan D, Sharma V. Acute Pancreatitis as a Precipitant of Acute-on-chronic Liver Failure in a Patient with Underlying Hepatitis C-related Cirrhosis. *J Gastrointest Infect.* 2018; 8:46-7.
394. Gupta A, Kapil U, Khandelwal R, Khenduja P, Sareen N, Pandey RM, et al. Prevalence and risk factors of underweight, overweight and obesity among a geriatric population living in a high-altitude region of rural Uttarakhand, India. *Public Health Nutr.* 2018; 21:1904-11.
395. Gupta A, Mathur VP. Government initiatives for better oral health: A glimpse. *J Indian Soc Pedod Prev Dent.* 2019; 37:110-11.
396. Gupta A, Mishra P, Pati HP, Tyagi S, Mahapatra M, Seth T, et al. Spectrum of hemostatic disorders in Indian females presenting with bleeding manifestations. *Int J Lab Hematol.* 2018; 40:437-41.
397. Gupta A, Sachdeva A, Mahajan N, Gupta A, Sareen N, Pandey RM, et al. Prevalence of Pediatric Metabolic Syndrome and Associated Risk Factors among School-Age Children of 10-16 Years Living in District Shimla, Himachal Pradesh, India. *Indian J Endocrinol Metab.* 2018; 22:373-8.
398. Gupta A, Shukla G, Afsar M, Poornima S, Pandey RM, Goyal V, et al. Role of Positive Airway Pressure Therapy for Obstructive Sleep Apnea in Patients with Stroke: A Randomized Controlled Trial. *J Clin Sleep Med.* 2018; 14:511-21.
399. Gupta A, Tripathi P, Tyagi S. Cytoplasmic azurophilic inclusion bodies in reactive plasmacytosis. *Blood Res.* 2018; 53:265.
400. Gupta AK, Rani K, Swarnkar S, Kumar GK, Khan MI, Pokhriyal R, et al. Evaluation of Serum Apolipoprotein E as a Potential Biomarker for Pharmacological Therapeutic Efficacy Monitoring in Dopamine Dictated Disease Spectrum of Schizophrenia and Parkinson's disease: A Preliminary Study. *J Cent Nerv Syst Dis.* 2018; 10:1179573518803585.
401. Gupta D, Kumar M, Kapoor S, Tyagi P, Tyagi A, Kharbanda S, et al. Concomitant Delivery of Paclitaxel and NuBCP-9 peptide for synergistic enhancement of cancer therapy. *Nanomedicine.* 2018; 14:1301-13.
402. Gupta D. A Memory Indelibly Etched In Mind: Dr Sanjiv Bhatia (February 22, 1958 - May 24, 2018). *Neurol India.* 2018; 66:1227-9.
403. Gupta K, Ahuja CK, Pandit AK, Biswal M, Shivaprakash MR. Central nervous system lesions in scrub typhus rediscovered: An autopsy report. *Neurol India.* 2018; 66:434-8.
404. Gupta M, Aggarwal M, Bhari N. Acneiform eruptions: An unusual dermatological side effect of ribavirin. *Dermatol Ther.* 2018; 31:e12679.
405. Gupta M, Yadav A, Abilash S, Kumar RL. Consumer Protection Bill 2018: Implication on Medical Profession: An Overview and Critical Appraisal. *RFP J Hosp Adm.* 2018; 2:61-6.
406. Gupta N, Ganger A, Bhartiya S, Verma M, Tandon R. In Vivo Confocal Microscopic Characteristics of Crystalline Keratopathy in Patients with Sclerokeratitis. *Ocul Immunol Inflamm.* 2018; 26:700-5.
407. Gupta N, Jorwal P. Treatment outcomes associated with multidrug-resistant tuberculosis. *J Global Infect Dis.* 2018; 10:125-8.
408. Gupta N, Kumar R, Ramteke P, Soneja M. Look before you leap: A case series of conidiobolomycosis from the Indian subcontinent. *J Family Med Prim Care.* 2018; 7:1113-5.

409. Gupta N, Kumar R, Soneja M, Singh G, Khot W, Malla S, et al. Mucor menace in an immunocompetent young male after dental manipulation. *J Family Med Prim Care*. 2019; 8:757-9.
410. Gupta N, Mittal A, Kutty SV, Kumar A, Wig N. Technical and Alarm signs for referral in adult patients with acute febrile illness: A study from a tertiary care hospital in North India. *J Family Med Prim Care*. 2018; 7:832-5.
411. Gupta N, Mittal A, Vinod KS, Fazal F, Khot W, Ranjan S, et al. Is there a need for shifting patients on long term nevirapine based regimens to efavirenz based regimens: a cross-sectional study? *Drug Discov Ther*. 2018; 12:295-8.
412. Gupta N, Ray A, Ghosh S, Malla S, Vyas S. First Things First: Importance of Eosinophil Count in Diagnosing Occult Parasites. *Drug Discov Ther*. 2018; 12:55-7.
413. Gupta N, Razik A, Soneja M. Staring at the stars: a case of gastrointestinal basidiobolomycosis from the Indian subcontinent. *BMJ Case Rep*. 2018; pii:bcr-2018-226693.
414. Gupta N, Soneja M, Ray Y, Sahu M, Vinod KS, Kapil A, et al. Nosocomial pneumonia: Search for an empiric and effective antibiotic regimen in high burden tertiary care centre. *Drug Discov Ther*. 2018; 12:97-100.
415. Gupta N, Vashist P, Ganger A, Tandon R, Gupta SK. Eye Donation and Eye Banking in India. *Nat Med J India*. 2018; 31:283-6.
416. Gupta N, Vinod KS, Mittal A, Kumar APA, Kumar A, Wig N. Histoplasmosis, heart failure, hemolysis and haemophagocyticymphohistiocytosis, *Pan African Med J*. 2019; 32:43.
417. Gupta P, Gupta R, Balhara YPS. Acute-onset Orofacial Dyskinesia with a Single Low Dose of Oral Flupentixol: A Case Report. *Indian J Psychol Med*. 2018; 40:189-90.
418. Gupta P, Mohan S, Johnson C, Garg V, Thout SR, Shivashankar R, et al. Stakeholders' perceptions regarding a salt reduction strategy for India: Findings from qualitative research. *PLoS One*. 2018; 13:e0201707.
419. Gupta P, Panda U, Parmar A, Bhad R. Internalized stigma and its correlates among treatment seeking opium users in India: A cross-sectional observational study. *Asian J Psychiatr*. 2019; 39:86-90.
420. Gupta P, Parshad R, Balakrishna P, Saraya A, Makharia GK, Sachdeva S, et al. Angle of his accentuation is a viable alternative to dor fundoplication as an adjunct to laparoscopic Heller cardiomyotomy: results of a randomized clinical study. *Dig Dis Sci*. 2018; 63:2395-404.
421. Gupta R, Sood M. Prioritizing rural and community psychiatry in India: A welcome idea! *Indian J Soc Psychiatry*. 2018; 34:265-7.
422. Gupta RK, Batra VV, Singh D, Sharma MC, Kumar V. Is spindle cell oncocytoma a true entity or a variant of pituicytoma? A case report with review of literature. *Neurol India*. 2018; 66:1413-8.
423. Gupta RK, Kaur I, Nag TC, Chhablani J. Diagnostic Electron Microscopy of Retina. *Semin Ophthalmol*. 2018; 33:700-10.
424. Gupta S, Gautam M, Prasoon P, Kumar R, Ray SB, Kaler Jhahria S. Involvement of Neuropeptide Y in Post-Incisional Nociception in Rats. *Ann Neurosci*. 2018; 25:268-76.
425. Gupta S, Goswami K. Letter to the editor regarding the comment by Gupta and Goswami about our article "individual and household risk factors of severe acute malnutrition among under five children in Mao, Chad: a matched case-control study". *Arch Public Health*. 2019; 77:18.
426. Gupta S, Jain SK, Kumar R, Saxena R. Idiopathic CD4 lymphocytopenia presenting with progressive disseminated histoplasmosis. *Med J Armed Forces India*. 2018; 74:280-3.
427. Gupta S, Jangra RS, Gupta S, Ashique KT. Novel Technique for Retention of Cell Suspension in Melanocyte-Keratinocyte Transplantation Procedure Using Glued Nylon Suture or Mesh. *Dermatol Surg*. 2019; 45:163-5.
428. Gupta S, Rawat S, Arora V, Kottarath SK, Dinda AK, Vaishnav PK, et al. An improvised one-step sucrose cushion ultracentrifugation method for exosome isolation from culture supernatants of mesenchymal stem cells. *Stem Cell Res Ther*. 2018; 9:180.
429. Gupta S, Rout G, Patel AH, Mahanta M, Kalra N, Sahu P, et al. Efficacy of generic oral directly acting agents in patients with hepatitis C virus infection. *J Viral Hepat*. 2018; 25:771-8.
430. Gupta S, Sagar R. National Mental Health Programme-Optimism and Caution: A Narrative Review. *Indian J Psychol Med*. 2019; 40:509-16.
431. Gupta S, Saluja G, Chaurasia AK, Behera AK, Gupta V. TransCorneal tube extrusion: ASOCT aided management. *Indian J Ophthalmol*. 2019; 67:126-7.
432. Gupta S, Selvan H, Agrawal S, Gupta V. Dynamic Gonioscopy and Ultrasound Biomicroscopy for diagnosis of latent or low-lying Cyclodialysis clefts. *Clin Exp Ophthalmol*. 2018; 46:960-2.
433. Gupta S, Selvan H, Azmira K, Jayaraman N, Gupta V. Single point pivot technique for combined repair of concurrent Iridodialysis and Cyclodialysis. *J Cat Refract Surg*. 2018; 44:1306-9.

434. Gupta S, Selvan H, Gupta V. Single suture, single knot ab-Interno cycloplexy for extensive post-traumatic cyclodialysis: Modified Sewing Machine technique. *J Cat Refract Surg.* 2019; 45:3-7.
435. Gupta S, Selvan H, Kishan A, Jayaraman N, Gupta V. Single –point pivot for combined repair of concurrent iridodialysis and cyclodialysis. *J Cat Refr Surg.* 2018; 44:1306-9.
436. Gupta S, Sood M, Verma R, Singh J. Comparative survey of factors associated with illness-related knowledge among patients with severe mental illness and their caregivers. *Indian J Soc Psychiatry.* 2019; 35:24-31.
437. Gupta S, Upadhyay D, Sharma U, Jagannathan NR, Gupta Y. Citalopram attenuated neurobehavioral, biochemical and metabolic alterations in transient middle cerebral artery occlusion model of stroke in male Wistar rats. *J Neurosci Res.* 2018; 96:1277-93.
438. Gupta S. The Interpretations for the Rights of Persons with Disabilities Act-2016 in context of mentally ill. *Indian J Psy Nurs.* 2018; 15:61-5.
439. Gupta SK, Siddharth V, Belagere MR, Stewardson JA, Kant S, Singh S, et al. National Survey of Infection Control Programmes in South Asian Association for Regional Cooperation Countries in the Era of Patient Safety. *Indian J Med Microbiol.* 2018; 36:577-81.
440. Gupta SK, Jaiswal AK, Yadav S, Millo T. Extraction/Isolation and Detection of Ethambutol in Blood Using High Performance Thin Layer Chromatography Plate. *Int J Forensic Sci.* 2018; 1:5-8.
441. Gupta T, Mehta M, Sagar R., Jain V. Psychopathology and stress in Indian overweight and obese children: A case control Study. *J Indian Assoc Child Adolesc Ment Health.* 2018; 14:46-59.
442. Gupta V, Arava S, Ramam M. Blaschkoid Acute Graft-vs-Host Disease. *JAMA Dermatol.* 2018; 154:494-5.
443. Gupta V, Kedia S, Sonika U, Madhusudhan KS, Pal S, Garg P. A case of pancreatic AV malformation in an elderly man. *Clin J Gastroenterol.* 2018; 11:212-6.
444. Gupta V, Khandpur S, Arava S, Ramam M. Alternating histopathologic pattern in blaschkoid dermatoses with epidermal changes: A retrospective series of 61 cases. *J Am Acad Dermatol.* 2018; 78:812-3.
445. Gupta V, Sharma VK. Ashy dermatosis, lichen planus pigmentosus and pigmented cosmetic dermatitis: Are we splitting the hair? *Indian J Dermatol Venereol Leprol.* 2018; 84:470-4.
446. Gupta V, Sharma VK. Authors' reply: Everything is in the name - Macular hyperpigmentation of uncertain etiology or acquired dermal macular hyperpigmentation of varied etiologies? *Indian J Dermatol Venereol Leprol.* 2019; 85:87-8.
447. Gupta V, Sharma VK. Four views of trichomycosis axillaris: Clinical, Wood's lamp, dermoscopy and microscopy. *Indian J Dermatol Venereol Leprol.* 2018; 84:748-9.
448. Gupta V, Sreenivas V, Mehta M, Ramam M. What do Vitiligo Impact Scale-22 scores mean? Studying the clinical interpretation of scores using an anchor-based approach. *Br J Dermatol.* 2019; 180:580-5.
449. Gupta V, Vaitheeswaran LG, Kumar S, Chaurasia AK, Malhotra S, Gupta S. Visual Disability among Juvenile Open Angle Glaucoma Patients. *J Glaucoma.* 2018; 27:e87-9.
450. Gupta Y, Kapoor D, Josyula LK, Praveen D, Naheed A, Desai AK, et al. A lifestyle intervention programme for the prevention of Type 2 diabetes mellitus among South Asian women with gestational diabetes mellitus [LIVING study]: protocol for a randomized trial. *Diabet Med.* 2019; 36:243-51.
451. Gyawali S, Patra BN. Trends in concept and nosology of autism spectrum disorder: A review. *Asian J Psychiatr.* 2019; 40:92-9.
452. Gyawali S, Sarkar S, Balhara YPS, Kumar S, Patil V, Singh S. Perceived stigma and its correlates among treatment seeking alcohol and opioid users at a tertiary care centre in India. *Asian J Psychiatr.* 2018; 37:34-7.
453. Hadda V, Chawla G, Tiwari P, Madan K, Khan MA, Mohan A, et al. Noninvasive ventilation for acute respiratory failure due to noncystic fibrosis bronchiectasis. *Indian J Crit Care Med.* 2018; 22:326-31.
454. Hadda V, Kumar R, Hussain T, Khan MA, Madan K, Mohan A, et al. Reliability of ultrasonographic arm muscle thickness measurement by various levels of health care providers in ICU. *Clin Nutr ESPEN.* 2018; 24:78-81.
455. Hadda V, Kumar R, Khilnani GC, Kalaivani M, Madan K, Tiwari P, et al. Trends of loss of peripheral muscle thickness on ultrasonography and its relationship with outcomes among patients with sepsis. *J Intensive Care.* 2018; 6:81.
456. Hadda V, Kumar R, Madan K, Khan MA, Mohan A, Khilnani GC, et al. Intraobserver Variability and Reliability of Diaphragm Thickness Measurement on Ultrasonography by Critical Care Physician Among Patients with Sepsis. *J Assoc Chest Physicians.* 2019; 7:18-22.
457. Haffar S, Shalimar, Kaur RJ, Wang Z, Prokop LJ, Murad MH, et al. Acute liver failure caused by hepatitis E virus genotype 3 and 4: A systematic review and pooled analysis. *Liver Int.* 2018; 38:1965-73.

458. Haisley KR, Hart CM, Kaempf AJ, Dash NR, Dolan JP, Hunter JG. Specific Tumor Characteristics Predict Upstaging in Early-Stage Esophageal Cancer. *Ann Surg Oncol*. 2019; 26:514-22.
459. Haldar P, Kant S, Yadav V, Majhi J, Malhotra S, Kaur R, et al. Effect of intravenous iron sucrose on hemoglobin level, when administered in a standard-dose, to anemic pregnant women in rural Northern India. *J Family Med Prim Care*. 2018; 7:762-8.
460. Halder R, Anantharaman MB, Seth T, Mahapatra M, Saxena R. Pulmonary Langerhans Cell Histiocytosis: A not so Benign Lesion. *J Pediatr Hematol Oncol*. 2019; 41:e122-4.
461. Hari S, Paul SB, Vidyasagar R, Dhamija E, Adarsh AD, Thulkar S, et al. Breast mass characterization using shear wave elastography and ultrasound. *Diagn Interv Imaging*. 2018; 99:699-707.
462. Herrera-Bejarano J, Agrawal A, Valbuena CM, Satyarthee GD, Balasubramanian C, Joaquim AF, et al. Use of Antiepileptic Drugs In Children With Brain Tumors: A Review For Acute Management. *J Acute Dis*. 2018; 7:181-5.
463. Hiraki M, Maeda T, Mehrotra N, Jin C, Alam M, Bouillez A, et al. Targeting MUC1-C suppresses BCL2A1 in triple-negative breast cancer. *Sig Transduct Target Ther*. 2018; 3:Article No.13.
464. Huijben JA, Volovici V, Cnossen MC, Haitsma IK, Stocchetti N, Maas AIR, et al. CENTER-TBI Investigators And Participants. Variation In General Supportive And Preventive Intensive Care Management Of Traumatic Brain Injury: A Survey In 66 Neurotrauma Centers Participating In The Collaborative European Neurotrauma Effectiveness Research In Traumatic Brain Injury (CENTER-TBI) Study. *Crit Care*. 2018; 22:90.
465. Hussain SY, Kaur M. Perioperative concerns of a patient with Escobar syndrome for ocular surgery. *Indian J Anaesth*. 2018; 62:1007-9.
466. ICMR Task Force on Inherited Metabolic Disorders. Newborn Screening for Congenital Hypothyroidism and Congenital Adrenal Hyperplasia. *Indian J Pediatr*. 2018; 85:935-40.
467. Ihtisham K, Ramanujam B, Srivastava S, Mehra NK, Kaur G, Khanna N, et al. Association of cutaneous adverse drug reactions due to antiepileptic drugs with HLA alleles in a North Indian population. *Seizure*. 2019; 66:99-103.
468. India State-Level Disease Burden Initiative Air Pollution Collaborators. The impact of air pollution on deaths, disease burden, and life expectancy across the states of India: the Global Burden of Disease Study 2017. *Lancet Planet Health*. 2019; 3:e26-39.
469. India State-Level Disease Burden Initiative CVD Collaborators (Krishnan A). The changing patterns of cardiovascular diseases and their risk factors in the states of India: the Global Burden of Disease Study 1990-2016. *Lancet Glob Health*. 2018; 6:e1339-51.
470. India State-Level Disease Burden Initiative Diabetes Collaborators (Tandon N). The increasing burden of diabetes and variations among the states of India: the Global Burden of Disease Study 1990-2016. *Lancet Glob Health*. 2018; 6:e1352-62.
471. India State-Level Disease Burden Initiative Suicide Collaborators. Gender differentials and state variations in suicide deaths in India: the Global Burden of Disease Study 1990–2016. *Lancet Public Health*. 2018; 3:e478-89.
472. International Steering Committee of the StEp Audit. Etiologies and characteristics of refractory status epilepticus cases in different areas of the world: Results from a global audit. *Epilepsia*. 2018; 59(Suppl2):100-7.
473. Ippagunta SK, Pollock JA, Sharma N, Lin W, Chen T, Tawaratsumida K, et al. Identification of Toll-like receptor signaling inhibitors based on selective activation of hierarchically acting signaling proteins. *Sci Signal*. 2018; 11: pii: eaaq1077.
474. Irshad M, Gupta P, Khushboo I. Molecular targeting in antiviral drugs used against HCV infection. *Hepatoma Res*. 2018; 4: 23.
475. Jacob OM, Goswami A, Ahamed F, Dubey M, Goswami K, Gupta N. A training program on first aid and basic life support skills among teachers of a school in South Delhi. *Int J Community Med Public Health*. 2018; 5:4345-50.
476. Jain D, Sukumar S, Mohan A, Iyer VK. PD-L1 immunoexpression in matched biopsy and liquid based cytology samples of advanced stage non-small cell lung carcinomas. *Cytopathology*. 2018; 29:550-7.
477. Jain G, Kumar C, Meena P, Singh AR, Kumar V, Kumar S, et al. Hydatid cyst of gall bladder masquerading as carcinoma: A rare case report with review of literature. *Intractable Rare Dis Res*. 2019; 8:36–42.
478. Jain R, Ghosh S. A Retrospective Study of Concurrent Non-Prescribed Medicinal and Illicit Drug Use by Opioid Dependent Patients Prescribed with Buprenorphine. *Addc Drug Abuse J*. 2018, 1: 000108.
479. Jain R, Quraishi R, Ambkar A, Verma A. Development and clinical evaluation of a dried urine spot method for detection of morphine among opioid users. *Indian J Pharmacol*. 2019; 51: 40-4.
480. Jain S, Ahuja V, Limdi JK. Optimal management of acute severe ulcerative colitis. *Postgrad Med J*. 2019; 95:32-40.
481. Jain S, Bansal K, Marwaha M, Sehrawat N, Singla S. Effect of Diet Modification on salivary Parameters and Oratest in High caries-risk individuals. *Int J Clin Pediatr Dent* 2018; 11:34-9.

482. Jain S, Goyal A, Kumar V. Lipaemia retinalis in familial chylomicronaemia syndrome. *Lancet*. 2018; 392(10148):e7.
483. Jain S, Gupta S, Kumar V. Ultra-widefield imaging in Coats'-type retinitis pigmentosa. *Indian J Ophthalmol*. 2018; 66:997-8.
484. Jain S, Kumawat D, Kumar V. Multimodal imaging of torpedo-shaped fundus lesions: New insights. *Indian J Ophthalmol*. 2018; 66:1211-3.
485. Jain S, Mahapatra SJ, Gupta S, Shalimar, Garg PK. Infected Pancreatic Necrosis due to Multidrug-Resistant Organisms and Persistent Organ failure Predict Mortality in Acute Pancreatitis. *ClinTransl Gastroenterol*. 2018; 9:190.
486. Jain S, Mahey R, Malhotra N, Kalaivani M, Sangeeta P, Bhatt A, et al. Effect of Intrauterine Perfusion of Granulocyte Colony-stimulating Factor on Endometrial parameters and In Vitro Fertilization Outcome in Women Undergoing In Vitro Fertilization/Intracytoplasmic Sperm Injection Cycles: A Randomized Controlled Trial. *J Hum Reprod Sci*. 2018; 11:254-60.
487. Jain S, Midha S, Mahapatra SJ, Gupta S, Sharma MK, Nayak B, et al. Interleukin-6 significantly improves predictive value of systemic inflammatory response syndrome for predicting severe acute pancreatitis. *Pancreatology*. 2018; 18:500-6.
488. Jain S, Pile J, Gupta N, Houchens N, Chaudhry R, Nischal N. Every Nook and Cranny. *J Hosp Med*. 2019; 14:E1-5.
489. Jain V, Arora S, Passah A, Mani K, Yadav DK, Goel P, et al. Comparison of the renal dynamic scan performed with ^{99m}Tc-L,L-EC and ^{99m}Tc-MAG3 in children with pelviureteric junction obstruction. *Nucl Med Commun*. 2018; 39:1053-8.
490. Jain V, Chaturvedi A, Pandia MP, Bithal PK. Peri-operative course of trans-sphenoidal pituitary surgery via endoscopic versus microscopic approach: Interim concerns for neurosurgical anesthesiology. *J Neurosci Rural Pract*. 2018; 9:336-43.
491. Jain V, Jana M, Upadhyaya B, Ahmed N, Jain O, Upadhyaya AD, et al. Prevalence, clinical & biochemical correlates of non-alcoholic fatty liver disease in overweight adolescents. *Indian J Med Res*. 2018; 148:291-301.
492. Jain V, Singh GP, Chaturvedi A. Report Of The AIIMS Neuroanaesthesia Update 2017, New Delhi, India. *J Neuroanaesthesiol Crit Care*. 2018; 5:42-4.
493. Jaiswal AK, Giri NG, Jaiswal AK, Kumar A, Priya A, Kumar R. Mercury poisoning – A Review. *Unique J Med Dent Sci*. 2018; 06:1-6.
494. Jaiswal AK, Krishna S, Agrawal A, Ghosh A, Pal R. Alcohol and road safety: investigation and legal aspects. *Al Ameen J Med Sci*. 2018; 11:154-60.
495. Jaiswal AK, Yadav A, Millo T, S.K. Gupta. Standard operating procedure (SOP) for microwave digestion system (MDS-10). *Int J Med Lab Res*. 2018; 3: 49-54.
496. Jajodia A, Kaur H, Srivastava A, Kumari K, Baghel R, Guin D, et al. Schizophrenia susceptibility and neuregulin signaling pathway genes: A rare haplotype combination based association study in Indian population *Psychiatry Res*. 2018; 262:628-30.
497. Jajoo M, Manchanda V, Chaurasia S, Sankar MJ, Gautam H, Agarwal R, et al. Alarming rates of antimicrobial resistance and fungal sepsis in outborn neonates in North India. *PLoS One*. 2018; 13: e0180705.
498. Jalota A, Kumar M, Das BC, Yadav AK, Chosdol K, Sinha S. A drug combination targeting hypoxia induced chemoresistance and stemness in glioma cells. *Oncotarget*. 2018; 9:18351-66.
499. Jangra K, Rath GP. Anesthesia for awake Craniotomy: What Is New? *Curr Anesthesiol Rep*. 2018; 8:318-27.
500. Jangra RS, Gupta S, Gupta S, Singla R. Use of neodymium magnetic discs as pressure earrings for earlobe keloid postexcision. *J Am Acad Dermatol*. 2019; 80:e53-4.
501. Jassi R, Mehta N, Ramam M, Bhari N. Blaschkoid blue vitiligo. *Int J Dermatol*. 2019; 58:e45-6.
502. Jauhari P, Saini L, Chakrabarty B, Kumar A, Gulati S. Juvenile Canavan Disease: A Leukodystrophy without White Matter Changes. *Neuropediatrics*. 2018; 49:420-1.
503. Jayaraj P, Sen S, Rangarajan S, Ray N, Vasu K, Singh VK, et al. Immunohistochemical evaluation of stress-responsive protein sestrin2 and its correlation with p53 mutational status in eyelid sebaceous gland carcinoma. *Br J Ophthalmol*. 2018; 102:848-54.
504. Jha M, Jaiswal AK. Musk-Deer in Wildlife Crime: A Forensic Approach. *Int J Forensic Sci*. 2018; 1:65-71.
505. Jha P, Arora G, Shamim SA, Mukherjee A, Gautam D, Ballal S, et al. Lutetium-177 tin colloid radiosynovectomy in patients with inflammatory knee joint conditions intractable to prevailing therapy. *Nucl Med Commun*. 2018; 39:803-8.
506. Jha S, Kaur R. Abnormal uterine bleeding among adolescents: a neglected problem. *Journal of Youth and adolescent Health*. 2018; 5:19-23.

507. Jha S, Salve HR, Goswami K, Sagar R, Kant S. Burden of common mental disorders among pregnant women: A systematic review. *Asian J Psychiatr.* 2018; 36:46-53.
508. Jha V, Ur-Rashid H, Agarwal SK, Akhtar SF, Kafle RK, Sheriff R. The state of Nephrology in South Asia. *Kidney Int.* 2019; 95:31-7.
509. Joaquim AF, Tedeschi H, Chandra PS. Controversies in the surgical management of congenital craniocervical junction disorders - A critical review. *Neurol India.* 2018; 66:1003-15.
510. John T, Subramanyam AA, Sagar R. Strength and weakness of the guidelines of Rights of Persons with Disabilities Act, 2016: With respect to the persons with neurodevelopmental disorders. *Indian J Psychiatry.* 2018. 60:261-4.
511. Jose A, Mahey R, Sharma JB, Bhatla N, Saxena R, Kalaivani M, et al. Comparison of ferric Carboxymaltose and iron sucrose complex for treatment of iron deficiency anemia in pregnancy- randomised controlled trial. *BMC Pregnancy Childbirth.* 2019; 19:54.
512. Jose A, Nagori SA, Chattopadhyay PK, Roychoudhury A. Greater Occipital Nerve Decompression for Occipital Neuralgia. *J Craniofac Surg.* 2018; 29:e518-21.
513. Jose A, Nagori SA, Roy ID, Roychoudhury A. Orthodromic transfer of the temporalis tendon with extension of the fascia lata to reanimate the smile in facial palsy. *Brit J Oral and Maxillofac Surg.* 2018; 56:890-2.
514. Joseph A, Kadri AM, Krishnan A, Garg BS, Ahmed FU, Kumar P, et al. IAPSM Declaration 2018: Definition, Role, Scope of Community Medicine and Functions of Community Medicine Specialists. *Indian J Community Med.* 2018; 43:120-21.
515. Joshi M, Choudhary N, Kumar S, Bagaria D, Kumar A, Priyadarshini P. Diaphragmatic Herniation Of Ruptured Right Lobe Of Liver With Hypertrophied Left Lobe. *Bull Emerg Trauma.* 2018; 6:267-8.
516. Joshi M, Sahoo T, Thukral A, Joshi P, Sethi A, Agarwal R. Improving Duration of Kangaroo Mother Care in a Tertiary-care Neonatal Unit : A Quality Improvement Initiative. *Indian Pediatr.* 2018; 55: 747-55.
517. Joshiraj B, Sharma A, Subramaniam R, Vyas V. Perioperative management of patient with Conn's syndrome and severe hypokalaemia: How low is too low? *Indian J Anaesth.* 2019; 63:67-8.
518. Jyotishana KP, Sharma KK, Hote MP. A pilot study to assess the effectiveness of cardiac rehabilitative teaching program on quality of life and physiological parameters among patients undergoing coronary artery bypass grafting in tertiary care hospital. *Clin Prev Cardiol.* 2018; 7:137-43.
519. Kakkar A, Guleria P, Madan K, Kumar R, Kumar S, Jain D. Immunohistochemical Assessment of BAP1 Protein in Mucoepidermoid Carcinomas. *Indian J OtolaryngolHead Neck Surg.* 2019; 71:33-7.
520. Kakkar A, Rajeshwari M, Sakthivel P, Sharma MC, Sharma SC. Biphenotypicsinonasal sarcoma: A series of six cases with evaluation of role of β -catenin immunohistochemistry in differential diagnosis. *Ann Diagn Pathol.* 2018; 33:6-10.
521. Kakkar A, Sharma MC, Nambirajan A, Gulati S, Bhatia R, Suri V, et al. Pompe disease: An Indian series diagnosed on muscle biopsy by ultrastructural characterization. *Ultrastruct Pathol.* 2018; 42:211-9.
522. Kalra P, Mishra SK, Kaur S, Kumar A, Prasad HK, Sharma TK, et al. G-quadruplex-forming DNA aptamers inhibit DNA-binding function of HupB and Mycobacterium tuberculosis entry into host cells. *Mol Ther Nucleic Acids.* 2018. 13:99-109.
523. Kalra S, Balhara YPS, and M. Bathla M. Euthymia in Diabetes. *Eur Endocrinol.* 2018; 14: 18-9.
524. Kalra S, Balhara YPS, Verma K, Kalra B. The GlucoCoper - a Tool for the Assessment of Coping Mechanisms. *Eur Endocrinol.* 2018; 14: 52-5.
525. Kalyanasundaram D, Gururaja S, Prabhune P, Singh D. Open hole fatigue testing of laser machined MD-CFRPs. *Compos Part A Appl Sci Manuf.* 2018; 111:33-41.
526. Kamat N, Kedia S, Ghoshal UC, Nehra A, Makharia G, Sood A, et al. Effectiveness and safety of adalimumab biosimilar in inflammatory bowel disease: A multicenter study. *Indian J Gastroenterol.* 2019; 38:44-54.
527. Kamat N, Kedia S, Ghoshal UC, Nehra A, Makharia G, Sood A, et al. Effectiveness and safety of adalimumab biosimilar in inflammatory bowel disease: A multicenter study. *Indian J Gastroenterol.* 2019; 38:44-54.
528. Kant S, Kaur R, Goel AD, Malhotra S, Haldar P, Kumar R. Anemia at the time of delivery and its association with pregnancy outcomes: A study from a secondary care hospital in Haryana, India. *Indian J Public Health.* 2018; 62:315-8.
529. Kant S, Lohiya A, Ahamed F, Abdulkader RS, Singh AK, Silan V. Comparative morbidity profile of patients attending an Ayurveda clinic and a modern medicine clinic of a primary health center in rural Haryana, India. *J Family Med Prim Care.* 2018; 7:374-9.
530. Kanwar HK, DebBarma A, Dey A, Yadav A, Gupta SK. Concealed Homicides. *J Indian Acad Forensic Med.* 2018; 40:428-31.

531. Kanwat H, Trikha V, Mittal S, Jain A. Risk Factors Associated With Cephalomedullary Nail Cutout in the Treatment of Trochanteric Hip Fractures. *J Orthop Trauma*. 2018; 32:e385-6.
532. Kapil U, Khandelwal R, Ramakrishnan L, Khenduja P, Gupta A, Pandey RM, et al. , Prevalence of hypertension, diabetes, and associated risk factors among geriatric population living in a high-altitude region of rural Uttarakhand, India. *J Family Med Prim Care*. 2018; 7:1527-36.
533. Kapil U, Khandelwal R, Ramakrishnan L, Khenduja P, Gupta A, Sareen N, et al. Prevalence of metabolic syndrome and associated risk factors among geriatric population living in a high altitude region of rural Uttarakhand, India. *J Family Med Prim Care*. 2018; 7: 709-16.
534. Kapil U, Pandey RM, Bansal R, Pant B, Varshney AM, Yadav CP, et al. Mid-upper arm circumference in detection of weight-for-height Z-score below -3 in children aged 6-59 months. *Public Health Nutr*. 2018; 21:1794-9.
535. Kapil U, Pandey RM, Sharma B, Ramakrishnan L, Sharma N, Singh G, et al. Prevalence of Vitamin D Deficiency in Children (6-18 years) Residing in Kullu and Kangra Districts of Himachal Pradesh, India. *Indian J Pediatr*. 2018; 85:344-50.
536. Kapoor D, Gupta Y, Desai A, Praveen D, Joshi R, Rozati R, et al. Lifestyle intervention programme for Indian women with history of gestational diabetes mellitus. *Glob Health Epidemiol Genom*. 2019; 4:e1.
537. Kapoor I, Khandelwal A, Mahajan C, Prabhakar H, Bithal PK. Changes in Optic Nerve Sheath Diameter in Response to Various Levels of End-Tidal Carbon Dioxide in Healthy Patients under General Anesthesia. *J Neuroanaesthesiol Crit Care*. 2018; 5:94-7.
538. Kapoor I, Mahajan C, Mamuliya R, Prabhakar H. Assessment of Accuracy of Continuous Noninvasive versus Invasive Method of Hemoglobin Estimation in Patients Undergoing Pituitary Surgery. *J Neuroanaesthesiol Crit Care*. 2018; 5:168-72.
539. Kapoor I, Mahajan C, Prabhakar H. Ictal asystole: A rare phenomenon in neuroanesthesia. *J Clin Anesth*. 2019; 52:84.
540. Kapoor I, Prabhakar H, Mahajan C. Can Pediatric Bispectral Index Sensor Replace Adult Bispectral Index Sensor for Depth of Anesthesia Monitoring? *Asian J Neurosurg*. 2018; 13:529-30.
541. Kapoor J, Ahmed R, Agrawal N, Aggarwal M, Mehta P, Verma P et al. Haplo-identical Hematopoietic Stem Cell Transplant is a Possible Cure in a Patient with Relapsed Hemophagocytic Lymphohistiocytosis Syndrome. *Indian J Hematol Blood Transfus*. 2018; 34:760-1.
542. Karthik SDS, Kriplani A, Kachhawa G, Khadgawat R, Aggarwal N, Bhatla N. Comparison of Two Regimens of Gonadotropin-releasing Hormone Antagonists in Clomiphene-gonadotropin Induced Controlled Ovulation and Intrauterine Insemination Cycles: Randomized Controlled Study. *J Hum Reprod Sci*. 2018; 11:148-54.
543. Katiyar V, Dharanipathy S, Gurjar H, Vora Z, Sharma R. Post-traumatic hydrocephalus following decompressive craniectomy: How well can it be predicted? *Acta Neurochir (Wien)*. 2018; 160:2125.
544. Katiyar V, Vora Z, Agarwal S, Sharma R, Gurjar H. Prognostic Scoring for Chronic Subdural Hematoma: Is Decision Making Easier? *World Neurosurg*. 2018; 116:481.
545. Kaul RP, Gupta D, Kumar S, Gupta A, Sagar S. Linen Flow Cycle In A Level 1 Trauma Set Up: Our Experience At JPN Apex Trauma Centre AIIMS, New Delhi. *Int J Sci Res*. 2018; 7:15-8.
546. Kaur A, Das R, Nigam MR, Elangovan R, Pandya D, Jha S, et al. Rapid detection device for Salmonella typhi in milk, fruit juice, tap water and calf serum. *Indian J Microbiol*. 2018; 58:381-92.
547. Kaur A, Kapil A, Elangovan R, Jha S, Kalyanasundaram D. Highly-sensitive detection of Salmonella typhi in clinical blood samples by magnetic nanoparticle based enrichment and in-situ measurement of isothermal amplification of nucleic acids. *PLoS One*. 2018; 13:e0203982
548. Kaur A, Logani A, Chahar M. Atypical radiographic presentation of a horizontal mid-root fracture in a maxillary central incisor tooth. *J Conserv Dent*. 2018; 21:233-6.
549. Kaur A, Logani A. Usefulness of cone beam computed tomography in perplexing endodontic cases. *Endodontology*. 2018; 30:176-8.
550. Kaur C, Pal I, Saini S, Jacob TG, Nag TC, Thakar A, et al. Comparison of unbiased stereological estimation of total number of cresyl violet stained neurons and parvalbumin positive neurons in the adult human spiral ganglion. *J Chem Neuroanat*. 2018; 93:30-7.
551. Kaur H, Nanda A, Verma M, Mutneja P, Koli D, Bhardwaj S. Prosthetic rehabilitation of resected orbit in a case of mucormycosis. *J Indian Prosthodont Soc*. 2018; 18:364-9.
552. Kaur I, Kaur J, Sooraj K, Goswami S, Saxena R, Chauhan VS, et al. Comparative evaluation of the aqueous humor proteome of primary angle closure and primary open angle glaucomas and age-related cataract eyes. *Int Ophthalmol*. 2019; 39:69-104.
553. Kaur M, Goth A, Subramaniam R. Low flow vascular malformations of cervico facial area: An airway challenge. *J Clinic Anaesth*. 2018; 48:58-9.

554. Kaur M, Titiyal JS, Falera R, Sinha R, Sharma N. Indications for explant of implantable collamer lens. *Eye (Lond)*. 2018; 32:838-40.
555. Kaur M, Titiyal JS, Surve A, Falera R, Verma M. Effect of lens fragmentation pattern on phacoemulsification parameters and postoperative inflammation in femtosecond laser assisted cataract surgery. *Curr Eye Res*. 2018; 43:1228-32.
556. Kausal S, Mathur S, Kumar S. Coexisting squamous cell carcinoma and high-grade neuroendocrine carcinoma, small cell type: A rare collision in cervix. *BMJ Case Rep*. 2018:bcr-2017-223127.
557. Kausar M, Mahesh R, Sharma DK. Enhancing healthcare access for poor patients through financial waiver at point of care, the model, utilization and disease profile in an apex tertiary care public hospital in India. *J Acad Hosp Adm*. 2018; 30:5-16.
558. Kausar M, Ranjan R, Singh AR, Siddharth V, Sharma DK. Hospital Administration control room: An effective concept for managing Hospital operations: A study in Tertiary care Public Hospital. *Int J Res Found Hosp Healthc Ad*. 2018; 6:82-90.
559. Kausar M, Siddharth V. Rejection rates of supplies as an important indicator for quality assurance in materials management- a prospective study in a public sector tertiary care hospital. *J Acad Hosp Adm*. 2018; 30:35-41.
560. Kaushal A, Bindra A, Kumar A, Goyal K, Kumar N, Rath GP, et Al. Long Term Outcome In Survivors Of Decompressive Craniectomy Following Severe Traumatic Brain Injury. *Asian J Neurosurg*. 2019; 14:52-7.
561. Kaushal A, Bindra A, Singh S, Saeed Z. Modification of Intravenous Cannula For Arterial Line Insertion: Simple Yet Effective Technique. *Indian J Anaesth*. 2018; 62:397-9.
562. Kaushal A, Bindra A, Singh S, Sameera V. Single Sitting of Cerebral Endovascular Procedure Causing Alopecia. *Int J Trichology*. 2018; 10:145-6.
563. Kaushal A, Bindra A, Singh S. Mobile Phone Holder As An Ultrasound Transducer Stabilisation Device: A Novel Technique. *Indian J Anaesth*. 2018; 62:635-6.
564. Kaushal A, Bindra A, Singh S. Response to Comments: Modification Of Intravenous Cannula For Arterial Line Insertion: Simple Yet Effective Technique. *Indian J Anaesth*. 2018; 62:831.
565. Kaushal A, Dube SK, Prabhakar H. Intractable Cough as a Presenting Symptom of Chiari Malformation. *J Neuroanaesthesiol Crit Care*. 2018; 5:119-20.
566. Kaushal A, Kapoor I, Mahajan C, Prabhakar H. Temporomandibular Joint Dislocation following Endotracheal Tube Manipulation: A Near Miss! *J Neuroanaesthesiol Crit Care*. 2018; 5: 206-207
567. Kaushal A, Kumar S, Mahajan C, Kapoor I, Prabhakar H. Post-operative seizures after spine surgery: A dilemma. *Indian J Anaesth*. 2018; 62:315-7.
568. Kaushal A, Mahajan C, Kapoor I, Prabhakar H. Prevention of Perioperative Brachial Plexus Injury: A Modified Position. *J Neuroanaesthesiol Crit Care* 2018; 5:129-30.
569. Kaushal A, Singh GP, Singh S, Dube SK. Delayed Migration Of Coil Into The Nasopharynx Following Embolization Of Internal Carotid Artery Pseudoaneurysm: A Rare Complication. *Saudi J Anaesth*. 2018; 12:144-5.
570. Kaushal B, Chauhan S, Saini K, Bhoi D, Bisoi AK, Sangdup T, et al. Comparison of the Efficacy of Ultrasound-Guided Serratus Anterior Plane Block, Pectoral Nerves II Block and Intercostal Nerve Block for the Management of Postoperative Thoracotomy Pain After Pediatric Cardiac Surgery. *J Cardiothorac Vasc Anesth*. 2019; 33:418-25.
571. Kaushal P, Kumar P, Mehra RD, Dhar P. Dendritic processes as targets for Arsenic Induced Neurotoxicity: Protective role of Curcumin. *J Anat Soc India*. 2018; 67:1-5.
572. Kaushal T, Satapathy S, Chadda RK, Bakhshi S, Sagar R, Sapra S. Hospital based psychosocial support program for children with all and their families: A comprehensive triad's perspective. *Indian J Pediatr*. 2019; 86:118-25.
573. Kedia S, Ahuja V. Is the emergence of inflammatory bowel disease a prime example of "the third epidemiological transition"? *Indian J Gastroenterol*. 2018; 37:183-5.
574. Kedia S, Das P, Madhusudhan KS, Dattagupta S, Sharma R, Sahni P, et al. Differentiating Crohn's disease from intestinal tuberculosis. *World J Gastroenterol*. 2019; 25:418-32.
575. Kedia S, Jain S, Goyal S, Bopanna S, Yadav DP, Sachdev V, et al. Potential of Fecal Calprotectin as an Objective Marker to Discriminate Hospitalized Patients with Acute Severe Colitis from Outpatients with Less Severe Disease. *Dig Dis Sci*. 2018; 63:2747-53.
576. Kedia S, Limdi JK, Ahuja V. Management of inflammatory bowel disease in older persons: evolving paradigms. *Intest Res*. 2018; 16:194-208.
577. Kedia S, Madhusudhan KS, Sharma R, Bopanna S, Yadav DP, Goyal S, et al. Combination of increased visceral fat and long segment involvement: Development and validation of an updated imaging marker for differentiating Crohn's disease from intestinal tuberculosis. *J Gastroenterol Hepatol*. 2018; 33:1234-41.

578. Keeley JW, Gaebel W, First MB, Peterson DL, Rebello T, Sharan P, et al. Psychotic disorder symptom rating scales: Are dichotomous or multi-point scales more clinically useful? An ICD-11 field study. *Schizophr Res*. 2018; 202:254-9.
579. Khan MFJ, Little J, Abelli L, Mossey PA, Autelitano L, Nag TC, et al. Muscle fiber diameter assessment in cleft lip using image processing. *Oral Dis*. 2018; 24:476-81.
580. Khan R, Sharma A, Bhushan A, Basnet B, Sharma VK, Gupta S. Relationship between α -melanocyte stimulating hormone levels and therapeutic outcome of melanocyte transplantation and phototherapy in non-segmental patients with vitiligo: A prospective study. *Australas J Dermatol*. 2018; 59:e315-18.
581. Khandelwal A, Chaturvedi A, Singh GP, Mishra RK. Intractable Brain Swelling During Cerebral Arteriovenous Malformation Surgery Due To Contralateral Acute Subdural Haematoma. *Indian J Anaesth*. 2018; 62:984-7.
582. Khandelwal A, Debbarman S, Rath GP, Lamsal R. Sedation induced by anti-epileptic drugs polytherapy: A note of caution during anesthesia. *Saudi J Anesth*. 2019; 13:86-7.
583. Khandelwal A, Dube SK, Singh GP. Spontaneous Retrograde Coiling Of Central Venous Catheter Into The Ipsilateral Internal Jugular Vein- Can It Happen? *Crit Care Pediatr*. 2018; 1:57-8.
584. Khandelwal A, Kapoor I, Mahajan C, Prabhakar H. Effect of positive end-expiratory pressure on optic nerve sheath diameter in pediatric patients with traumatic brain injury. *J Pediatr Neurosci*. 2018; 13:165-9.
585. Khandelwal A, Lamsal R, Rath GP, Netam RK, Bir M. Motor evoked potential monitoring: A valuable tool for the diagnosis of position-related neurologic deficit. *Saudi J Anesth*. 2019; 13:88-9.
586. Khandelwal A, Mahajan C, Sameera V, Prabhakar H, Kapoor I. Intraoperative Blood Pressure Discrepancy Between Arms During Prone Position! *J Neurosurg Anesthesiol*. 2018; 30:80-1.
587. Khandelwal A, Pandia MP, Lamsal R. Delayed emergence from anaesthesia and bilateral mydriasis following bilateral pallidotomy. *Indian J Anaesth*. 2018; 62:466-9.
588. Khandelwal A, Singh GP, Singh A, Singh S, Prasad C. Intraoperative Generalized Tonic-Clonic Seizure And Consequent Severe Brain Bulge During Functional Motor Cortex Mapping: A Case Report. *A A Pract*. 2019; 12:66-8.
589. Khandelwal A, Sokhal N, Kumar N, Singh S, Sokhal S. Phenytoin-Induced Excessive Sedation During Awake Craniotomy: An Unusual Observation. *J Neurosurg Anesthesiol*. 2019; 31:87-8.
590. Khandelwal M, Anand V, Appunni S, Seth A, Singh P, Mathur S, et al. Decitabine augments cytotoxicity of cisplatin and doxorubicin to bladder cancer cells by activating hippo pathway through RASSF1A. *Mol Cell Biochem*. 2018; 446:105-14.
591. Khandelwal S, Swamy MK, Patil K, Kondal D, Chaudhry M, Gupta R, et al. The impact of DocosaHexaenoic Acid supplementation during pregnancy and lactation on Neurodevelopment of the offspring in India (DHANI): trial protocol. *BMC Pediatr*. 2018; 18:261.
592. Khandpur S, Gupta V, Das D, Sharma A. Is there a correlation of serum and tissue T helper-1 and -2 cytokine profiles with psoriasis activity and severity? A cross-sectional study. *Indian J Dermatol Venereol Leprol*. 2018; 84:414-8.
593. Khanna G, Pathak P, Suri V, Sharma MC, Chaturvedi S, Ahuja A, et al. Immunohistochemical and molecular genetic study on epithelioid glioblastoma: Series of seven cases with review of literature. *Pathol Res Pract*. 2018; 214:679-85.
594. Khanna P, Chandralekha C, Pandey RK, Sharma A. Pain assessment in the critically ill mechanically ventilated adult patients: Comparison between skin conductance algometer index and physiologic indicators. *Saudi J Anaesth*. 2018; 12:204-8.
595. Khanna P, Pandey RK, Chandralekha C, Sharma A, Pangasa N. Comparison between critical care pain observation tool and physiologic indicators for pain assessment in the critically ill mechanically ventilated adult patients. *Saudi J Anaesth*. 2018; 12:384-8.
596. Khanna P, Saini K, Sinha R, Nisa N, Kumar S, Maitra S. Correlation between duration of preoperative fasting and emergence delirium in pediatric patients undergoing ophthalmic examination under anesthesia: A prospective observational study. *Paediatr Anaesth*. 2018; 28:547-51.
597. Kharbanda OP, Monga N. Cleft care in India: What is missing? *J Indian Orthod Soc*. 2018; 52:S97-100.
598. Kharbanda OP, Moynihan P, Priya H, Ivaturi A, Gupta A, Haldane D. Report from a symposium on accelerating policy-driven action against excessive sugar consumption for the prevention of early childhood caries and no communicable diseases. *Indian J Public Health*. 2018; 62:305-7.
599. Khilnani GC, Zirpe K, Hadda V, Mehta Y, Madan K, Kulkarni A, et al. Guidelines for Antibiotic Prescription in Intensive Care Unit. *Indian J Crit Care Med*. 2019; 23(Suppl 1):S1-63.
600. Khokhar S, Chandra P, Gupta Y, Kumawat D, Dhull C. Bilateral Total Cataract after Intravitreal Bevacizumab Injection in Aggressive Posterior Retinopathy of Prematurity. *J Pediatr Ophthalmol Strabismus*. 2019; 56:e28-30.

601. Khokhar S, Dhull C, Mahalingam K, Agarwal P. Posterior lenticonus with persistent fetal vasculature. *Indian J Ophthalmol.* 2018; 66:1335-6.
602. Khokhar S, Gupta Y, Dhull C, Surve A, Mahabir M. Cortical riders of zonular cataracts as “reverse cuneiform” cataracts: A hypothesis. *Med Hypotheses.* 2018; 121:49-50.
603. Khokhar S, Mahabir M. Phacoemulsification in phakic iris-claw lens with cataract. *Indian J Ophthalmol.* 2018; 66:1609-10.
604. Khor WB, Prajna VN, Garg P, Mehta JS, Xie L, Liu Z,...Sharma N, et al. The Asia Cornea Society Infectious Keratitis Study: A Prospective Multicenter Study of Infectious Keratitis in Asia. *Am J Ophthalmol.* 2018; 195:161-70.
605. Khot W, Gupta N, Khatiwada S, Goyal A, Das R, Brijwal M, et al. A Curious Case of Afebrile Dengue. *J Assoc Physicians of India.* 2018; 66:89-90.
606. Khurana S, Bhardwaj N, Kumari M, Malhotra R, Mathur P. Prevalence, Etiology, And Antibiotic Resistance Profiles Of Bacterial Bloodstream Infections In A Tertiary Care Hospital In Northern India: A 4-Year Study. *J Lab Physicians.* 2018; 10:426-31.
607. Khurana S, Kumari M, Bhardwaj N, Kumar S, Sagar S, Malhotra R, et al. T-Helper-17, Regulatory T-Helper Cells Related Serum Markers And IL-13 In The Outcome Of Polytraumatic Patients With Bacteremia. *Iran J Immunol.* 2018; 15:302-8.
608. Khurana S, Mathur P, Malhotra R. Staphylococcus Aureus At An Indian Tertiary Hospital: Antimicrobial Susceptibility And Minimum Inhibitory Concentration (MIC) Creep Of Antimicrobial Agents. *J Glob Antimicrob Resist.* 2018; 17:98-102.
609. Kilambi R, Singh AN, Das P, Madhusudhan KS, Pal S. Somatostatinoma Masquerading as Chronic Pancreatitis. *Pancreas.* 2018; 47:e19-e20.
610. Kilambi R, Singh AN, Madhusudhan KS, Pal S, Saxena R, Shalimar, et al. Portal hypertension and hypersplenism in extrahepatic portal venous obstruction: Are they related? *Indian J Gastroenterol.* 2018; 37:202-8.
611. Kinra P, Gahlot GPS, Yadav R, Baloda V, Makharia GK, Gupta SD, et al. Histological assessment & use of immunohistochemical markers for detection of dysplasia in Barrett’s esophageal mucosa. *Pathol Res Pract.* 2018; 214:993-9.
612. Kishor K, Sharma A, Singh K, Ranjan R, Pandey H, Kumar R, et al. Influence of tissue factor polymorphisms (603A>G and 5466A>G) on plasma tissue factor levels and their impact on deep vein thrombosis risk in young Indian population. *J Thromb Thrombolysis.* 2018; 46:88-94.
613. Kodan P, Das A, Vyas S, Ray A, Sharma SK. Unilateral lung hyperlucency in an adult: an unusual cause. *Egypt J Bronchol.* 2018; 12:273–5.
614. Kodan P, Gupta N, Baidya A, Basu A, Razik A, Mittal A, et al. Atypical cases of filariasis from a non-endemic area. *Drug Discov Ther.* 2018; 12:254-8.
615. Kokkayil P, Agarwal R, Mohapatra S, Bakhshi S, Das B, Sood S, et al. Bacterial profile and antibiogram of blood stream infections in febrile neutropenic patients with haematological malignancies. *J Infect Dev Ctries.* 2018; 12:442-7.
616. Koliass AG, Viaroli E, Rubiano AM, Adams H, Khan T, Gupta D, et Al. The Current Status Of Decompressive Craniectomy In Traumatic Brain Injury. *Curr Trauma Rep.* 2018; 4:326-32.
617. Kommuru P, Dongamanti A, Sarasija M, Prabhakar A, Vemula M, Kommaraju V, et al. Synthesis of 8’, 11’-dihydrospiro [cyclohexane-1, 2’-oxepino [2, 3-h] chromen]-4’ (3’H)-ones with Ring Closing Metathesis as key step. *RSC Adv.* 2018; 8:38673-80.
618. Konanki R, Gulati S, Prasad K, Saini L, Pandey RM, Paul VK. Comparison of telephone with face to face consultation for follow up of Neurocysticercosis. *Epilepsy Res.* 2018; 145:110-15.
619. Koul PA, Mir H, Saha S, Chadha MS, Potdar V, Widdowson MA,...Krishnan A, et al. Respiratory viruses in returning Hajj & Umrah pilgrims with acute respiratory illness in 2014-2015. *Indian J Med Res.* 2018; 148:329-33.
620. Kriplani A, Dalal V, Mahey R, Kachhawa G. Long-Term Outcome of Laparoscopic Sacrohysteropexy for Uterovaginal Prolapse in Young Women. *J Gynecol Surg* 2019; 35:5-11.
621. Kriplani A, Mahey R, Gupta M, Bansal VK. Complications of Laparoscopic Morcellation: Two Cases and a Review of the Literature. *J Gynecol Surg.* 2018; 34:31-5.
622. Kriplani A, Mahey R, Kriplani A, Goel T. Cesarean myomectomy- Experience at a tertiary care centre. *J Gynecol Surg.* 2018. 34:203-8.
623. Krishna Gour SS, Agrawal M, Sawarkar D. Letter to the Editor. Altered intracranial venous physiology. *J Neurosurg Pediatr.* 2018; 22:464-6.
624. Krishna H, Banerjee A, Singh S, Jain P, Rani N. Coeliac trunk and left gastric artery variation: a clinical interpretation. *Int J Curr Res.* 2018; 10:71840-3.

625. Krishna H, Changil A, Srinivas M, Roy TS, Jacob TG. Ultrastructural study of rat testis following conventional phototherapy during neonatal period. *J Microsc Ultrastruct.* 2018; 6:205-11.
626. Krishna Pillai M, Kariyattil R, Rubene L, Kumar R, Govindaraju V, Kochummen K. Spontaneous Ventriculostomy into the Subdural Space in a Neonate with Congenital Hydrocephalus. *Pediatr Neurosurg.* 2018; 53:188-92.
627. Krishna S, Jaiswal AK, Chand K, Millo T. Standard operating procedure (SOP) for gas chromatography headspace system (AGILENT- 6797A). *Int J Med Lab Res.* 2018; 3: 65-71.
628. Krishna S, Jaiswal AK, T. Millo. Validation of a Gas Chromatography-Headspace method for quantitative estimation of methanolin whole blood sample using acetonitrile as standard solution. *World J Pharm Pharm Sci.* 2018; 7:849-58.
629. Krishna SN, Chauhan S, Bhoi D, Kaushal B, Hasija S, Sangdup T, et al. Bilateral Erector Spinae Plane Block for Acute PostSurgical Pain in Adult Cardiac Surgical Patients: A Randomized Controlled Trial. *J Cardiothorac vasc anesth.* 2019; 33:368-75.
630. Krishnan A. Public health leadership in India: Reflections from my journey. *Indian J Public Health.* 2018; 62:171-4.
631. Krishnan A. Revisiting the relevance of community medicine in undergraduate medical curriculum. *Indian J Community Med.* 2019; 44:9-11.
632. Krishnan S, Katiyar V, Phalak M, Sharma R. Streptococcus mutans with Collagen-Binding Protein: From Oral Cavity to Brain. *World Neurosurgery.* 2018; 115:486.
633. Krishnan S, Kumar A, Sethi P, Soneja M, Xess I, Kapil A, et al. Outcomes of Implementing the Central Venous Catheter Bundle at a Tertiary Care Hospital in North India, at AIIMS, New Delhi. *J Assoc Physicians India.* 2018; 66:26-33.
634. Kulsum U, Kapil A, Singh H, Kaur P. NGSPanPipe: A Pipeline for Pan-genome Identification in Microbial Strains from Experimental Reads. *Adv Exp Med Biol.* 2018; 1052:39-49.
635. Kumar A, Debarma B, Singh A, Kumar K, Singh AK, Sethi P, et al. Level of Satisfaction in Patients attending Government Health Facilities of AIIMS, New Delhi, Outreach Outpatient Department, Badsa, Jhajjar, Haryana, India. *Int J Res Found Hosp Healthc Adm.* 2018; 6:22-30.
636. Kumar A, Hasan N, Kakkar P, Mutha V, Karthikeya R, Sundar D. Comparison of clinical outcomes between “heads-up” 3D viewing system and conventional microscope in macular hole surgeries: A pilot study. *Indian J Ophthalmol.* 2018; 66:1816-9.
637. Kumar A, Jain A, Mittal S, Aga N. Letter to the Editor concerning “Revisiting the Schatzker classification of tibial plateau fractures” by Kfuri M, Schatzker J. *Injury.* 2018 Dec; 49(12):2252-2263. *Injury.* 2019; 50:820-1.
638. Kumar A, Jain A, Trikha V, Mittal S. Letter to the Editor concerning Classification of tibia plateau fracture according to the “four-column and nine-segment” by Xiang Yao, Yong Xu, Jishan Yuan, Lei Wang, Xingli Fu, Bin Lv, Shengquan Yang, Sheng Meng. *Injury.* 2018 (in press). *Injury.* 2019; 50:613-4.
639. Kumar A, Manchanda S, Panda P, Jain M, Kumar V, Biswas A. Dengue Co-Infection Microfilaria Presenting with Intestinal Obstruction: A Case Report. *J Bangladesh Coll Phys Surg.* 2019; 37:35-8.
640. Kumar A, Mittal S, Mohan A, Madan K. Comparison of sedation regimens during flexible bronchoscopy. *Clin Respir J.* 2018; 12:1775.
641. Kumar A, Mohapatra S, Bakhshi S, Mahapatra M, Sreenivas V, Das BK, et al. Rectal Carriage of Carbapenem-Resistant Enterobacteriaceae: A Menace to Highly Vulnerable Patients. *J Glob Infect Dis.* 2018; 10:218-21.
642. Kumar A, Mutha V, Gupta Y, Karthikeya R, Behera A. Commentary on “Community care for diabetic retinopathy and glaucoma in India: A panel discussion. *Indian J Ophthalmol.* 2018; 66:921-3.
643. Kumar A, Nayak S, Pathak P, Purkait S, Malgulawar PB, Sharma MC, et al. Identification of miR-379/miR-656 (C14MC) cluster downregulation and associated epigenetic and transcription regulatory mechanism in oligodendrogliomas. *J Neurooncol.* 2018; 139:23-31.
644. Kumar A, Padhy SK. Commentary: Influence of orientation of the external linear incision created by the 25-gauge trocar and related factors on sclerotomy closure: A clinical and optical coherence tomographic study. *Indian J Ophthalmol.* 2018; 66:1815.
645. Kumar A, Pal A, Kalaivani M, Gupta N, Jain V. Etiology of short stature in Indian children and an assessment of the growth hormone-insulin-like growth factor axis in children with idiopathic short stature. *J Pediatr Endocrinol Metab.* 2018; 31:1009-17.
646. Kumar A, Prabhakar A, Gupta V, Khandelwal N, Ahuja CK, Singhal M, et al. Endovascular management of internal carotid artery pseudoaneurysms: A single-centre experience of 20 patients. *Neurol India* 2018; 66:1067-74
647. Kumar A, Sahu M, Khot W, Sethi P, Baitha U, Baruah K, et al. Chikungunya: An Emerging Threat. *J Adv Med.* 2018; 7:7-12.
648. Kumar A, Sahu M, Sahoo PR, Wig N. Under-explored Dimensions of Antimicrobial Stewardship in India. *J Assoc Physicians India.* 2018; 66:69-71.

649. Kumar A, Sehgal R, Roy TS. Ossified ligaments in relation to foramina and bony landmarks of the middle cranial fossa. *J Anat Soc India*. 2018; 67:55-60.
650. Kumar A, Shalimar, Walia GK, Gupta V, Sachdeva MP. Genetics of nonalcoholic fatty liver disease in Asian populations. *J Genet*. 2019; 98:31.
651. Kumar A, Sinha C, Sawhney C, Kumar R, Bhoi D . Topographic sonoanatomy of infraclavicular brachial plexus block : Variability and correlation with Anthropometry. *Anesth Essays Res*. 2018; 12:814-8.
652. Kumar A, Trikha V, Mittal S. Letter to the Editor concerning “Pilon fractures: A new classification system based on CT-scan” by Danilo Leonetti, Domenico Tigani (2017). *Injury*. 2017 Oct; 48(10):2311-2317. *Injury*. 2018; 49:881-2.
653. Kumar A, Varshney G, Singh PK, Agrawal D, Satyarthee GD, Chandra PS. Traumatic atlantoaxial spondyloptosis associated with displaced odontoid fracture: Complete reduction via posterior approach using Joint Remodelling Technique. *World Neurosurg*. 2018; 110:609-13.
654. Kumar A, Vikas H, Satpathy S, Hakim A. Epidemiological investigation into the source of water contamination at a tertiary care cancer Hospital. *Int J Res Med Sci*. 2018; 6:2796-2800.
655. Kumar A, Vohra R, Agrawal S, Chawla R, Azad SV, Venkatesh P, et al. Characterization of Idiopathic Choroidal Neovascularization Using Fluorescein Angiography, Indocyanine Green Angiography, and Optical Coherence Tomography Angiography. *Ophthalmic Surg Lasers Imaging Retina*. 2018; 49:516-22.
656. Kumar D, Hussain A, Srivastava AK, Mukerji M, Mukherjee O, Faruq M. Generation of three spinocerebellar ataxia type-12 patients derived induced pluripotent stem cell lines (IGIBi002-A, IGIBi003-A and IGIBi004-A). *Stem Cell Res*. 2018; 31:216-21.
657. Kumar H, Gupta A, Gupta V. A microinvasive technique for management of corneal edema secondary to Glaucoma drainage device tube corneal touch. *Indian J Ophthalmol*. 2018; 66:861-2.
658. Kumar H, Mansoori T, Bruce GW, Somarajan BI, Bandil S, Gupta V. Lasers in Glaucoma ; A review. *Indian J Ophthalmol*. 2018; 66:1539-53.
659. Kumar J, Singh A, Seth R, Xess I, Jana M, Kabra SK. Prevalence and Predictors of Invasive Fungal Infections in Children with Persistent Febrile Neutropenia Treated for Acute Leukemia - A Prospective Study. *Indian J Pediatr*. 2018; 85:1090-5.
660. Kumar KR, Selvam SR, Priya B. Awake fiberoptic bronchoscopy guided intubation – significance of sitting position. *Indian J Anaesth*. 2018; 62:910-1.
661. Kumar KR, Sinha R, Mandal P, Chowdhury AR. C-MAC® D-BLADE for awake oro-tracheal intubation with minimal mouth opening – A safe alternative to fiberoptic bronchoscope. *Indian J Anaesth*. 2018; 62:916-8.
662. Kumar M, Bhoi S, Sharma K. Human-induced pluripotent stem cells derived hematopoietic progenitor cells for treatment of hematopoietic failure among trauma hemorrhagic shock patients. *J Clin Orthop Trauma*. 2019; 10:269-273.
663. Kumar M, Kumar M, Yadav A, Prasad K. Postmortem Detection of Child abuse at a Premier Hospital: Two Case Reports. *J Forensic Chem Toxicol*. 2018; 4:59-63.
664. Kumar N, Burman S, Yadav A, et al. Stuck Guidewire Due To Soft Tissue Imposition: A Rare Complication Of Central Line Catheter Placement. *BMJ Case Reports*. 2018; bcr-2018-224219.
665. Kumar N, Dube SK, Roy H, Singh GP, Gupta BK. Aspiration of severed tracheal tube: An anesthesiologist’s nightmare. *Saudi J Anaesth*. 2018; 12:149-50.
666. Kumar P, Bhari N, Tembhre MK, Mohanty S, Arava S, Sharma VK, et al. Study of efficacy and safety of noncultured, extracted follicular outer root sheath cell suspension transplantation in the management of stable vitiligo. *Int J Dermatol*. 2018; 57:245-9.
667. Kumar R, Amarchand R, Narayan VV, Saha S, Lafond KE, Kapoor SK, et al. Challenges in conducting a community-based influenza vaccine trial in a rural community in northern India. *Hum Vaccin Immunother*. 2018; 14:1909-13.
668. Kumar R, Gautam M, Prasoon P, Gupta S, Ray SB. Comparison of the peripheral antinociceptive effect of somatostatin with bupivacaine and morphine in the rodent postoperative pain model. *Eur J Anaesthesiol*. 2018; 35:955-65.
669. Kumar R, Gupta N, Himani, Sharma A. Novel combination of tanshinone I and lenalidomide induces chemo-sensitivity in myeloma cells by modulating telomerase activity and expression of shelterin complex and its associated molecules. *Mol Biol Rep*. 2018; 45:2429-39.
670. Kumar R, Khakha DC, Gulati S, Kaushik JS. Impact of Structured Teaching Program on the parent’s knowledge of domiciliary management of seizure-A randomized controlled trial. *Epilepsy Behav*. 2019; 92:191-4.
671. Kumar R, Khan R, Gupta N, Seth T, Sharma A, Kalaivani M, et al. Identifying the biomarker potential of telomerase activity and shelterin complex molecule, telomeric repeat binding factor 2 (TERF2), in multiple myeloma. *Leuk Lymphoma*. 2018; 59:1677-89.

672. Kumar R, Kumari R, Khan L, Sankhyan A, Parray H, Tiwari A, et al. Isolation and Characterization of Cross-Neutralizing Human Anti-V3 Single-Chain Variable Fragments (scFvs) Against HIV-1 from an Antigen Preselected Phage Library. *Appl Biochem Biotechnol*. 2019; 187:1011-27.
673. Kumar R, Singh A, Sagar P, Behera C, Kumar R. Access to Round Window Niche via Posterior Tympanotomy and Impact of Drilling Its Overhangs: A Cadaveric Descriptive Study. *Indian J Otolaryngol Head Neck Surg*. 2018; 70:510-4.
674. Kumar S, Gosain M, Sharma H, Swetts E, Amarchand R, Kumar R, et al. Who interacts with whom? Social mixing insights from a rural population in India. *PLoS One*. 2018; 13:e0209039.
675. Kumar S, Jaiswal AK, Tolani R. Extraction and identification of alprazolam from human blood. *J Pharm Adv Res*. 2018; 1:247-51.
676. Kumar S, Panda H, Makhdoomi MA, Mishra N, Safdari HA, Chawla H, et al. An HIV-1 broadly neutralizing antibody from a clade C infected pediatric elite neutralizer potentially neutralizes the contemporaneous and autologous evolving viruses. *J Virol*. 2019; 93:e01495-18.
677. Kumar S, Singh MB, Kumar A, Shukla G, Padma Srivastava MV, Goyal V, et al. Are epilepsy patients bypassing primary care? A cross-sectional study from India. *Seizure*. 2018; 60:149-54.
678. Kumar S, Singh S, Parmar A, Verma R, Kumar N. Effect of high-frequency repetitive transcranial magnetic stimulation (rTMS) in patients with comorbid panic disorder and major depression. *Australas Psychiatry*. 2018; 26:398-400.
679. Kumar S, Srinivasan A, Nikolajeff F. Role of infrared spectroscopy and imaging in cancer diagnosis. *Curr Med Chem*. 2018; 25:1055-72.
680. Kumar S. Infrared spectroscopy could be a potential diagnostic tool in dermatology. *Brit J Dermatol*. 2019; 180:459-60.
681. Kumar V, Bora GS, Kumar R, Jagannathan NR. Multiparametric (mp) MRI of Prostate Cancer. *Prog Nucl Magn Reson Spectrosc*. 2018; 105:23-40.
682. Kumar V, Chatra K. Fibrotic pillar leads to focal choroidal excavation in Best vitelliform dystrophy. *Graefes Arch Clin Exp Ophthalmol*. 2018; 256:2083-7.
683. Kumar V, Chawla A, Kaur A. Multiple Idiopathic Cervical Root Resorptions in Patients with Hepatitis B Virus Infection. *J Endod*. 2018; 44:1575-7.
684. Kumar V, Gadkar A. Multimodal imaging of Bietti's crystalline dystrophy. *Indian J Ophthalmol*. 2018; 66:1024-6.
685. Kumar V, Gupta K, Soneja M, Biswas A. Intravenous immunoglobulin for severe thrombocytopenia in secondary dengue. *BMJ Case Rep*. 2018; pii:bcr-2018-224542.
686. Kumar V, Gupta P. Parapapillary Optic Nerve Head Drusen in Leber Congenital Amaurosis. *Ophthalmic Surg Lasers Imaging Retina*. 2018; 49:554.
687. Kumar V, Gupta PN, Christy MC, Azad SV. Retinal incarceration in the needle perforation track. *Indian J Ophthalmol*. 2018; 66:1194.
688. Kumar V, Kumar P, Roy S, Padhy S. Pars plana cysts. *Ophthalmic Surg Lasers Imaging Retina*. 2018; 49:e169-70.
689. Kumar V, Prakash A, Pandya P, Raina A. Telomere: A Forensic Approach for Age Estimation. *Anil Aggrawal's Internet J Forensic Med Toxicol*. 2018; 19:1-11.
690. Kumar V, Sirohiya P, Gupta N, Madan K. Use of fentanyl-dexmedetomidine in conscious sedation for thoracoscopy. *Lung India*. 2018; 35:277-8.
691. Kumar V. Reticular Pseudodrusen and Thin Choroid Are Associated With Angioid Streaks. *Ophthalmic Surg Lasers Imaging Retina*. 2018; 49:402-8.
692. Kumar VA, Kant GA, Singh U, Bhasin S, Joshi D. Transfemoral Amputee's limit of stability and sway analysis during weight shifting exercise with a vibrotactile feedback system. *Somatosens Mot Res*. 2019; 36:31-41.
693. Kumarasinghe SPW, Pandya A, Chandran V, Rodrigues M, Dlova NC, Kang HY, ... Ramam M, et al. A global consensus statement on ashy dermatosis, erythema dyschromicum perstans, lichen planus pigmentosus, idiopathic eruptive macular pigmentation, and Riehl's melanosis. *Int J Dermatol*. 2019; 58:263-72.
694. Kumari L, Gupta S. A Study of Instrumental Activities of Daily Living of Patients having Bipolar Affective Disorder and Its Relationship with their Subjective Well Being and Self Efficacy. *Bipolar Disorder*. 2018; 4:1000120.
695. Kumari L, Gupta S. Tobacco use and Smoking among patients undergoing treatment of Cancer. *Indian J Psy Nurs*. 2018; 15: 53-7.
696. Kumari M, Batra P, Malhotra R, Mathur P. A 5-year surveillance on antimicrobial resistance of Acinetobacter isolates at a level-I trauma centre of India. *J Lab Physicians*. 2019; 11:34-8.
697. Kumari M, Rastogi N, Malhotra R, Mathur P. Clinico-Microbiological Profile Of Healthcare Associated Pneumonia In Critically Ill Patients At Level-I Trauma Centre Of India. *J Lab Physicians*. 2018; 10:406-9.

698. Kumari P, Lavania S, Tyagi S, Dhiman A, Rath D, Anthwal D, et al. A novel aptamer-based test for the rapid and accurate diagnosis of pleural tuberculosis. *Anal Biochem.* 2019; 564-565:80-7.
699. Kumari R, Kumar D, Brahmachari SK, Srivastava AK, Faruq M, Mukerji M. Paradigm for disease deconvolution in rare neurodegenerative disorders in Indian population: Insights from studies in cerebellar ataxias. *J Genet.* 2018; 97:589-609.
700. Kumari V, Joshi P, Dhua A K, Sapra S, Srinivas M, Aggarwala S, Bhatnagar V. Developmental Status of Children Operated for Esophageal Atresia with or without Tracheoesophageal Fistula Along with Maternal Stress, Their Quality of life, and Coping Abilities at AIIMS, New Delhi. *Eur J Pediatr Surg.* 2019; 29:125-31.
701. Kumawat D, Chandra P, Tewari R. Asymmetric Presentation of Retinopathy of Prematurity. *Indian Pediatr.* 2018; 55:523-4.
702. Kumawat D, Sachan A, Sahay P, Kumar V. Delayed presentation of post-traumatic pseudo-phacocoele. *BMJ Case Rep.* 2018; bcr-2018-226957.
703. Kumawat D, Tewari R, Sahay P, Chandra P. Temporal Macular Pulsation During Retinopathy of Prematurity Screening. *J Pediatr Ophthalmol Strabismus.* 2018; 55:343.
704. Kumawat R, Gowda SH, Debnath E, Rashid S, Niwas R, Gupta D, et al. Association Of Single Nucleotide Polymorphisms (Snps) In Genes Encoding For Folate Metabolising Enzymes With Glioma And Meningioma In Indian Population. *Asian Pac J Cancer Prev.* 2018; 19:3415-25.
705. Kuppili PP, Parmar A, Gupta A, Balhara YPS. Role of Yoga in Management of Substance-use Disorders: A Narrative Review. *J Neurosci Rural Pract.* 2018; 9:117-22.
706. Kuriakose ML, Mahesh R, Herald R, Chandelia K, Singh IB, Daga AK. Knowledge & attitude among nurses regarding medication administration and barriers in reporting medication errors in a tertiary care hospital. *J Acad Hosp Adm.* 2018; 30:Article 10.
707. Kushal A, Gupta SK, Mehta M, Singh MM. Study of Stress among Health Care Professionals: A Systemic Review. *Int J Res Found Hosp Healthc Adm.* 2018; 6:6-11.
708. Kusuma YS, Babu BV. Migration and health: A systematic review on health and health care of internal migrants in India. *Int J Health Plann Manage.* 2018; 33:775-93.
709. Kusuma YS, Burman D, Kumari R, Lamkang AS, Babu BV. Impact of health education based intervention on community's awareness of dengue and its prevention in Delhi, India. *Global Health Promot.* 2019; 26:50-9
710. Kusuma YS, Kaushal S, Garg R, Babu BV. Birth preparedness and determinants of hospital delivery among poor migrants in Delhi. *Sex Reprod Healthc.* 2018; 16:160-66.
711. Kusuma YS, Kaushal S, Sundari AB, Babu BV. Access to childhood immunisation services and its determinants among recent and settled migrants in Delhi, India. *Public Health.* 2018; 158:135-43.
712. Kusuma YS, Pal M, Babu BV. Awareness and utilization of health insurance among the urban poor in Delhi, India. *J Epidemiol Glob Health.* 2018; 8:69-76.
713. Lalwani S, Hasan F, Khurana S, Mathur P. Epidemiological Trends Of Fatal Pediatric Trauma: A Single-Center Study. *Medicine (Baltimore).* 2018; 97:e12280.
714. Lamsal R, Rath GP. Pediatric Neuroanesthesia. *Curr Opin Anesthesiol.* 2018; 31:539-43.
715. Lamsel R, Dube S, Bindra A. Difficulty In Central Venous Cannulation Due To Kinked Guidewire: Intravenous Cannula Comes To Rescue! *J Neuroanesthesiol Crit Care.* 2018; 05:117-8.
716. Lavania S, Das R, Dhiman A, Myneedu V, Verma A, Singh N, et al. Aptamer-based TB antigen tests for the rapid diagnosis of pulmonary tuberculosis: Potential utility in screening for tuberculosis. *ACS Infect Dis.* 2018; 4:1718-26.
717. Lele AV, Vavilala MS, Gupta D; CHIRAG (Collaborative Head Injury and Guidelines) Study. In Reply: Patients Who Benefit From Intracranial Pressure Monitoring Without Cerebrospinal Fluid Drainage After Severe Traumatic Brain Injury. *Neurosurgery.* 2018 Dec 19. Doi: 10.1093/Neuros/Nyy620.
718. Lindfors K, Ciacci C, Kurppa K, Lundin KEA, Makharia GK, Mearin ML, et al. Coeliac disease. *Nat Rev Dis Primers.* 2019; 5:3.
719. Lohchab M, Prakash G, Arora T, Maharana P, Jhanji V, Sharma N, et al. Surgical management of peripheral corneal thinning disorders. *Surv Ophthalmol.* 2019; 64:67-78.
720. Machanalli G, Bhalla AP, Baidya DK, Goswami D, Anand RK, Talawar P. Sono-anatomical analysis of right internal jugular vein and carotid artery at different levels of positive end expiratory pressure in anaesthetized paralyzed patients. *Indian J Anaesth.* 2018; 62:303-9.
721. Madaan P, Gulati S, Chakrabarty B, Sapra S, Sagar R, Mohammad A, et al. Clinical spectrum of psychogenic non epileptic seizures in children: an observational study. *Seizure.* 2018; 59:60-6.

722. Madan K, Biswal SK, Mittal S, Hadda V, Mohan A, Khilnani GC, et al. 1% Versus 2% Lignocaine for Airway Anesthesia in Flexible Bronchoscopy without Lignocaine Nebulization (LIFE): A Randomized Controlled Trial. *J Bronchology Interv Pulmonol*. 2018; 25:103-10.
723. Madan K, Mittal S, Gupta N, Hadda V, Mohan A, Guleria R. Cryoprobe transbronchial lung biopsy: How we do it? *Lung India*. 2018; 35:520-22.
724. Madan K, Mohan A, Agarwal R, Hadda V, Khilnani GC, Guleria R. A survey of flexible bronchoscopy practices in India: The Indian bronchoscopy survey (2017). *Lung India*. 2018; 35:98-107.
725. Madan K. New Frontiers in Ultrasonography of the Mediastinum: Pediatric EBUS-TBNA. *Respir Care*. 2019; 64:358-9.
726. Madan S, ChetanNehate, TaraniKanta Barman, Anurag S. Rathore, VeenaKoul, Design, Preparation and Evaluation of Liposomal Gel Formulations for Treatment of Acne: In-vitro and In-vivo Studies. *Drug Dev Ind Pharm*. 2019; 45:395-404.
727. Madhusudhan KS, Kilambi R, Shalimar, Pal S, Sharma R, Srivastava DN. Evaluation of Splenic Stiffness in Patients of Extrahepatic Portal Vein Obstruction Using 2D Shear Wave Elastography: Comparison with Intra-Operative Portal Pressure. *J Clin Exp Hepatol*. 2018; 8:250-5.
728. Madhusudhan KS, Kilambi R, Shalimar, Sahni P, Sharma R, Srivastava DN, et al. Measurement of splenic stiffness by 2D-shear wave elastography in patients with extrahepatic portal vein obstruction. *Br J Radiol*. 2018; 91:20180401.
729. Madhusudhan KS, Srivastava DN, Sharma S, Sharma S. Interventional Radiology in India. *AJR Am J Roentgenol*. 2018; 211:730-5.
730. Madhusudhan KS, Vyas S, Sharma S, Srivastava DN, Gupta AK. Portal vein abnormalities: an imaging review. *Clin Imaging*. 2018; 52:70-8.
731. Mahajan C, Rath GP, Singh GP, Mishra N, Sokhal S, Bithal PK. Efficacy and Safety Of Dexmedetomidine Infusion For Patients Undergoing Awake Craniotomy: An Observational Study. *Saudi J Anaesth*. 2018; 12:235-9.
732. Mahajan S, Agarwal S, Sharma MC, Ray R, Nakra T, Kandasamy D, et al. Cytological features of dysmorphogenetic goitre: A diagnostic pitfall. *Cytopathology*. 2019; 30:125-7.
733. Mahajan S, Gupta K, Sinha S, Malhotra A, Mahajan S. effect of renal transplantation on sleep disordered breathing in patients with End Stage Renal disease; a polysomnographic study. *Sleep Med*. 2018; 45:140-5.
734. Mahal P, Nishanth KN, Mahapatra A, Sarkar S, Balhara YPS. Trihexyphenidyl Misuse in Delusional Disorder. *J Neurosci Rural Pract*. 2018; 9: 428-30.
735. Mahalingam K, Chaurasia AK, Gowtham L, Gupta S, Somarajan BI, Velpandian T, et al. Therapeutic potential of valproic acid in advanced glaucoma: A pilot study. *Indian J Ophthalmol*. 2018; 66:1104-8.
736. Maharana PK, Chhablani JK, Das T, Kumar A, Sharma N. Response to: Transzonular drug delivery during cataract surgery: Is dropless cataract surgery really beneficial? *Indian J Ophthalmol*. 2018; 66:1380.
737. Maharana PK, Chhablani JK, Das TP, Sharma N, Kumar A. All India Ophthalmological Society members survey results: Cataract Surgery antibiotic prophylaxis current practice pattern. *Indian J Ophthalmol*. 2018; 66:820-4.
738. Maharana PK, Sahay P, Sen S, Venugopal R, Titiyal JS, Sharma N. Corneal Ectasia in Steven Johnson Syndrome: A sequelae of chronic disease. *Am J Ophthalmol*. 2018; 193:1-9.
739. Maharana PK, Sahay P, Titiyal JS, Sharma N. Sinsky hook assisted roll preparation (SHARP): A modified technique for Descemet membrane endothelial keratoplasty donor preparation. *Saudi J Ophthalmol*. 2019; 33:28-33.
740. Maitra S, Ray BR, Bhattacharjee S, Baidya DK, Dhua D, Batra RK. Distal radial artery cannulation in adult patients: a retrospective cohort study. *Saudi J Anaesth*. 2019; 13:60-2.
741. Makharia GK, Catassi C. Celiac Disease in Asia. *Gastroenterol Clin North Am*. 2019; 48:101-13.
742. Makkar N, Gupta A, Modi S, Bagaria D, Kumar S, Chumber S. An Analysis Of The Economic Burden Of The Trauma Services At A Level 1 Public Sector Trauma Centre In South Asia. *J Emerg Trauma Shock*. 2019; 12:23-9.
743. Makwana T, Takkar B, Venkatesh P, Sharma JB, Gupta Y, Chawla R et al. Prevalence, progression, and outcomes of diabetic retinopathy during pregnancy in Indian scenario. *Indian J Ophthalmol*. 2018; 66:541-6.
744. Malgulwar PB, Nambirajan A, Pathak P, Faruq M, Rajeshwari M, Singh M, et al. C11orf95-RELA fusions and upregulated NF-KB signaling characterise a subset of aggressive supratentorial ependymomas that express LICAM and nestin. *J Neurooncol*. 2018; 138:29-39.
745. Malgulwar PB, Nambirajan A, Pathak P, Rajeshwari M, Suri V, Sarkar C, et al. Epithelial-to-mesenchymal transition-related transcription factors are up-regulated in ependymomas and correlate with a poor prognosis. *Hum Pathol*. 2018; 82:149-57.

746. Malgulwar PB, Sharma V, Tomar AS, Verma C, Nambirajan A, Singh M, et al. Transcriptional co-expression regulatory network analysis for Snail and Slug identifies IL1R1, an inflammatory cytokine receptor, to be preferentially expressed in ST-EPN-RELA and PF-EPN-A molecular subgroups of intracranial ependymomas. *Oncotarget*. 2018; 9:35480-92.
747. Malhotra R, Dhawan B, Garg B, Shankar V, Nag TC. A Comparison of bacterial adhesion and biofilm formation on commonly used orthopaedic metal implant materials: An In vitro Study. *Indian J Orthop*. 2019; 53:148-53.
748. Malhotra R, Gaba S, Wahal N, Kumar V, Srivastava DN, Pandit H. Femoral component sizing in Oxford Unicompartmental Knee Replacement: Existing guidelines do not work for Indian patients. *J Knee Surg*. 2019; 32:205-10.
749. Malhotra R, Gautam D, Garg B, Trikha A. Simultaneous Quadruple Joint Replacement (QJR) in Disabling Juvenile Rheumatoid Arthritis - a Case Report with Review of Literature. *Arch Bone Jt Surg*. 2018; 6:243-7.
750. Malhotra R, Jain VK, Gautam D. Distal tibial metaphyseal allograft cone for proximal tibial bone loss in revision knee arthroplasty – A novel technique. *J Orthop*. 2018; 15: 610-614.
751. Malhotra S, Vashist P, Gupta N, Kalaivani M, Rath R, Gupta SK. Prevalence and causes of visual impairment among adults aged 15-49 years in a rural area of north India - A population-based study. *Indian J Ophthalmol*. 2018; 66:951-6.
752. Manasa S, Kakkar P, Kumar A, Chandra P, Kumar V, Ravani R. Comparative Evaluation of Standard ILM Peel with Inverted ILM Flap Technique In Large Macular Holes: A Prospective, Randomized Study. *Ophthalmic Surg Lasers Imaging Retina*. 2018; 49:236-40.
753. Mandal P, Parmar A, Ambekar A, Dhawan A. Substance use among treatment seeking Indian adolescent girls: Are they unique? *Asian J Psychiatry*. 2019; 41:17-9.
754. Mandal PK, Banerjee A, Tripathi M, Sharma A. A Comprehensive Review of Magnetoencephalography (MEG) Studies for Brain Functionality in Healthy Aging and Alzheimer's Disease (AD). *Front Comput Neurosci*. 2018; 12:60.
755. Manivannan P, Tyagi S, Chandra D, Mishra P, Pati HP, Saxena R. Flow cytometric analysis of patients with hereditary spherocytosis - an Indian scenario. *Hematology*. 2018; 23:175-80.
756. Manjunatha RG, Sharma S, Narayan RP, Koul V. Effective permeation of 2.5 and 5% lidocaine hydrochloride in human skin using iontophoresis technique. *Int J Dermatol*. 2018; 57:1335-43.
757. Mankotia DS, Sawarkar DP, Singh PK, Kumar A, Verma SK, Chandra PS, et al. Rare Case Of Cerebrospinal Fluid Proctorrhea Caused By Anterior Sacral Meningocele With Rectothecal Fistula. *World Neurosurg*. 2018; 114:323-5.
758. Mankotia DS, Singh SK, Borkar SA, Sharma BS, Rajeshwari M, Sharma MC. Primary giant Sphenotemporal intradiploic meningioma. *Asian J Neurosurg*. 2018; 13:157-60
759. Manoharan D, Sharma S, Das CJ, Kumar R, Singh G, Kumar P. Single Acquisition Triple-Bolus Dual-Energy CT Protocol for Comprehensive Evaluation of Renal Masses: A Single Center Randomised Noninferiority Trial. *AJR Am J Roentgenol*. 2018; 211:W22-32.
760. Maraby-Salgado J, Hoz SS, Narvaez-Rojas A, Satyarthee GD, Quintana-Pajaro1 L, Pacheco-Hernandez A, Moscote-Salazar LR. Brain Abscess and Dental Infections: A review. *Rom Neurosurg*. 2018; 32:283-9.
761. Marieswaran M, Jain I, Garg B, Sharma V, Kalyanasundaram D. A review on biomechanics of anterior cruciate ligament and materials for reconstruction. *Appl Bionics Biomech*. 2018; Article ID 4657824:1-14.
762. Marieswaran M, Mansoori N, Digge VK, Jhahria S, Behera C, Lalwani S, et al. Effect of preservation methods on tensile properties of human femur-ACL-tibial complex (FATC) – a cadaveric study on male subjects. *Acta Bioeng Biomech*. 2018; 20:31-42.
763. Marieswaran M, Sikidar A, Goel A, Joshi D, Kalyanasundaram D. An extended Open Sim knee model for analysis of strains of connective tissues. *Biomed Eng Online*. 2018; 17:42.
764. Marik B, Bagga A, Sinha A, Hari P, Sharma A. Genetics of Refractory Rickets: Identification of Novel *PHEX* Mutations in Indian Patients and a Literature Update. *J Pediatr Genet*. 2018; 7:47-59.
765. Marwaha RK, Garg MK, Sethuraman G, Gupta N, Mithal A, Dang N, et al. Impact of three different daily doses of vitamin D3 supplementation in healthy schoolchildren and adolescents from North India: a single-blind prospective randomised clinical trial. *Br J Nutr*. 2019; 121:538-48.
766. Marwaha RK, Mithal A, Bhari N, Sethuraman G, Gupta S, Shukla M, et al. Supplementation with Three Different Daily Doses of Vitamin D3 in Healthy Pre-pubertal School Girls: A Cluster Randomized Trial. *Indian Pediatr*. 2018; 55:951-6.
767. Mathur P, Hasan F, Singh PK, Malhotra R, Walia K, Chowdhary A. Five-Year Profile of Candidaemia At an Indian Trauma Centre: High Rates Of Candida Auris Blood Stream Infections. *Mycoses*. 2018; 61:674-80.
768. Mathur P, Veeraraghavan B, Devanga Ragupathi NK, Inbanathan FY, Khurana S, Bhardwaj N, et al. Multiple Mutations In Lipid-A Modification Pathway & Novel Fosa Variants In Colistin-Resistant Klebsiella Pneumoniae. *Future Sci OA*. 2018; 4:FSO319.

769. Mathur P. Prevention of Healthcare-Associated Infections in Low- And Middle-Income Countries: The 'Bundle Approach'. *Indian J Med Microbiol.* 2018; 36:155-62.
770. Maurya RK, Kumar P, Sharma M, Nehra K, Singh H, Chaudhari PK. Cephalometric appraisal of the effects of orthodontic treatment on total airway dimensions in adolescents. *J of Oral BiolCraniof Res.* 2019; 9:51-6.
771. Mawar S, Koul P, Das S, Gupta S. Association of physical problems and depression with elder abuse in an urban community of Delhi. *Indian J Community Med.* 2018; 43:165-69.
772. Mazzeo AT, Gupta D. Monitoring the Injured Brain. *J Neurosurg Sci.* 2018; 62:549-62.
773. Mazzeo AT, Gupta DK. Intraoperative Visual Evoked Potential Monitoring For A Safer Endoscopic Transsphenoidal Surgery. *Neurol India.* 2018; 66:955-7.
774. Medina-Mora ME, Robles R, Rebello TJ, Domínguez T, Martínez N, Juárez F, ... Sharan P, et al. ICD-11 guidelines for psychotic, mood, anxiety and stress-related disorders in Mexico: Clinical utility and reliability. *Int J Clin Health Psychol.* 2019; 19:1-11.
775. Meel R, Desai A, Gaur N, Bakhshi S. Myeloid sarcoma presenting as an unusual limbal mass. *BMJ Case Rep.* 2019; 12:bcr-2018-226284.
776. Meel R, Dhiman R, Sen S, Kashyap S, Tandon R, Vanathi M. Ocular Surface Squamous Neoplasia with Intraocular Extension: Clinical and Ultrasound Biomicroscopic Findings. *Ocul oncol Pathol.* 2019; 2:122-7.
777. Meel R, Dhiman R. Response to 'Comment on: Proposal for a new classification for ocular surface squamous neoplasia'. *Eye (Lond).* 2019; 33:332-3.
778. Meel R, Surve A, Bakhshi S, Kashyap S, Gupta B, Sharma S. A Rare Case of Pediatric Lacrimal Sac: Squamous Cell Carcinoma. *J Pediatr Ophthalmol Strabismus.* 2019; 56:e8-11.
779. Meel R, Wadhvani M, Pushker N. Giant congenital facial melanocytic nevus. *Oman J Ophthalmol.* 2018; 11:265-6.
780. Meena J, Vatsa R, Kumar S, Roy KK. Feasibility of laparoscopy in management of ectopic pregnancy: experience from a tertiary care hospital. *Int J Reprod Contracept Obstet Gynecol.* 2018; 7:1778-81.
781. Meena P, Bhalla AS, Goyal A, Sharma R, Kumar A, Srivastva DN, et al. Single-phase Split-bolus Dual Energy Computed Tomography Angiography for Evaluation of Hemoptysis: A Novel Application. *J Thorac Imaging.* 2018; 33:366-76.
782. Meena RK, Doddamani RS, Sharma R. Contiguous Diastematomyelia with Lipomyelomeningocele in Each Hemicord-an Exceptional Case of Spinal Dysraphism. *World Neurosurg.* 2019; 123:103-7.
783. Meena RK, Gurjar HK, Singh S, Aggarwal D. Absence of axis (C2) posterior elements leading to C2-C3 instability and myelopathy in young adults. *Neurol India.* 2019; 67:318-21.
784. Mehta R, Sharma KA. Learning Platforms in Quality Improvement. *Ind Pediatr.* 2018; 55:803-8.
785. Mehtab W, Singh N, Malhotra A, Makharia GK. All that a physician should know about gluten-free diet. *Indian J Gastroenterol.* 2018; 37:392-401.
786. Memon SS, Sinha S, Sharma SK, Kabra SK, Lodha R, Soneja M. Diagnostic Accuracy of XpertMtb/Rif Assay in Stool Samples in Intrathoracic Childhood Tuberculosis. *J Tuberc Ther.* 2018; 3:115.
787. Midha N, Sidhu T, Chaturvedi N, Sinha R, Shende DR, Dada T, et al. Systemic Associations of Childhood Glaucoma: A Review. *J Pediatr Ophthalmol Strabismus.* 2018; 19; 55:397-402.
788. Mina S, Goyal S, Verma R. Doctors' perspective, knowledge, and attitude toward childhood psychiatric illnesses. *Indian J Soc Psychiatry.* 2018; 34:203-7.
789. Mishra B, Joshi MK, Gupta B, Farooque K. Internal artery transposition for vascular reconstruction in a patient with life-threatening iatrogenic common iliac artery injury. *BMJ Case Rep.* 2018; pii: bcr-2016-219138.
790. Mishra B, Joshi MK, Lalwani S, Kumar A, Kumar A, Kumar S. et al. A Comparative Analysis Of The Findings Of Postmortem Computed Tomography Scan And Traditional Autopsy In Traumatic Deaths: Is Technology Mutually Complementing Or Exclusive? *Arch Trauma Res.* 2018; 7:24-9.
791. Mishra D, Satpathy G, Chawla R, Venkatesh P, Ahmed NH, Panda SK. Utility of broad-range 16S rRNA PCR assay versus conventional methods for laboratory diagnosis of bacterial endophthalmitis in a tertiary care hospital. *Br J Ophthalmol.* 2019; 103:152-6.
792. Mishra N, Mohata M, Aggarwal H, Chaudhary O, Das BK, Sinha S, et al. Expression of complement receptor 3 (CR3) and regulatory protein CD46 on dendritic cells of antiretroviral naïve and treated HIV-1 infected individuals: Correlation with immune activation status. *Mol Immunol.* 2018; 96:83-7.
793. Mishra PR, Bhoi S, Sinha TP. Integration of point-of-care ultrasound during rapid sequence intubation in trauma resuscitation. *J Emerg Trauma Shock.* 2018; 11:92-7.
794. Mishra R, Chaturvedi A, Jena BR, Rath GP. Anaesthetic considerations for ventriculoatrial shunt insertion in a child with cerebrospinal fluid ascites. *J Pediatr Neurosci.* 2018; 13:249-51.

795. Mishra S, Kusuma YS and Babu BV (2018). Childhood Illness and Social Support among a Migrant Tribal Community in an Eastern Indian City. *Int J Caring Sci.* 2018; 11:386-94.
796. Mishra S, Roy TS, Wadhwa S. Morphological and morphometrical maturation of ventral cochlear nucleus in human foetus. *J Chem Neuroanat.* 2018; 93:38-47.
797. Misra A, Sattar N, Tandon N, Shrivastava U, Vikram NK, Khunti K, et al. Clinical management of type 2 diabetes in south Asia. *Lancet Diabetes Endocrinol.* 2018; 6:979-91.
798. Misra P, Salve HR, Srivastava R, Kant S, Krishnan A. Adherence to Medications among Patients with Diabetes Mellitus (Type 2) at Ballabgarh Health and Demographic Surveillance System: A Community Based Study. *Indian J Community Fam Med.* 2018; 4:24-7.
799. Misra S, Talwar P, Kumar A, Kumar P, Sagar R, Vibha D, et al. Association between matrix metalloproteinase family gene polymorphisms and risk of ischemic stroke: A systematic review and meta-analysis of 29 studies. *Gene.* 2018; 672:180-94.
800. Mittal A, Ray A, Jadon RS, Manchanda S, Naik SR, Singh K, et al. Hypereosinophilia with Multi-organ Dysfunction - A Diagnostic Conundrum. *J Assoc Physicians India.* 2018; 66:84-8.
801. Mittal M, Yadav V, Khadgawat R, Kumar M, Sherwani P. Efficacy and Safety of 90,000 IU versus 300,000 IU Single Dose Oral Vitamin D in Nutritional Rickets: A Randomized Controlled Trial. *Indian J Endocrinol Metab.* 2018; 22:760-5.
802. Mittal R, Kumar A, Singh DP, Bishnoi M, Nag TC. Ameliorative potential of rutin in combination with nimesulide in STZ model of diabetic neuropathy: targeting Nrf2/HO-1/NF-kB and COX signalling pathway. *Inflammopharmacology.* 2018; 26:755-68.
803. Mittal S, Madan A, Mohan K. Difficult intubation: 'Beyond the vocal cords'. *Indian J Anaesth.* 62:476-7.
804. Mittal S, Madan K, Mohan A. Ventricular Tachycardia and Cardiovascular Collapse following Flexible Bronchoscopy: Lidocaine Cardiotoxicity. *J Bronchology Interv Pulmonol.* 25:e24-6.
805. Mittal S, Madan K. A 21-year-old man with cough and skin thickening. *Lung India.* 2018; 35:437-8.
806. Mittal S, Madan K. A 58-year-old lady with cough and breathlessness. *Lung India.* 2019; 36:70-1.
807. Mittal S, Madan K. Bronchial Stenosis: Another "Rheumatoid" Pulmonary Manifestation. *Chest.* 2018; 154:462-4.
808. Mittal S, Mohan A, Hadda V, Madan K. Endobronchial ultrasound elastography in mediastinal lymphadenopathy: Report of two cases and systematic review of literature. *Lung India.* 36:149-53.
809. Mittal S, Mohan A, Madan K. Difficult intubation: 'Beyond the vocal cords'. *Indian J Anaesth.* 2018; 62:476-7.
810. Mittal S, Mohan A, Madan K. Rigid transbronchial needle aspiration: "A sledgehammer to crack a nut"!! *Lung India.* 35:447-8.
811. Mittal S, Mohan A, Madan K. Ventricular Tachycardia and Cardiovascular Collapse following Flexible Bronchoscopy: Lidocaine Cardiotoxicity. *J Bronchology Interv Pulmonol.* 2018; 25:e24-6.
812. Mittal S, Tiwari P, Madan K, Khilnani GC, Mohan A, Hadda V. Isoniazid-resistant, rifampicin-susceptible tuberculosis in India. *Lancet Respir Med.* 2018; 6:e29.
813. Mochan S, Bhatla N, Luthra K, Kumar R, Dwivedi S, Sharma A, et al. Role of sVEGFR (sFlt-1) in inducing Endoplasmic Reticulum Stress in Trophoblast Cells and its Status in Preeclampsia. *J Anat Soc India.* 2018; 67:93-103.
814. Mohan A, Ansari M, Masroor A, Saxena K, Luthra RM, Pandey D, et al. Epidermal growth factor receptor expression (EGFR) in serum as a marker of treatment response and survival in advanced squamous cell lung cancer. *J Thorac Oncol.* 2018; 13(Suppl):S28-9.
815. Mohan A, Hadda V, Madan K, Khilnani GC, Vashishtha V, Choudhari C, et al. 41P Gender based variations in presentation and management of lung cancer at a south Asian tertiary referral centre. *J Thorac Oncol.* 13(Suppl):S23.
816. Mohan A, Masroor M, Ansari A, Saxena A. 54P Epidermal growth factor receptor expression (EGFR) in serum as a marker of treatment response and survival in advanced squamous cell lung cancer. *J Thorac Oncol.* 13(Suppl):S28-9.
817. Mohan AJ, Gupta S, Tandon R. A comparative study of knowledge and attitude regarding tissues and organ donation, between general population and relatives of transplant patients. *Curr Med Res Pract.* 2018; 8:159-64.
818. Mohan M, Shreedhara KC, Kumar RL, Yadav A. A Study of Unnatural Deaths of Medico Legal Importance in a Tertiary Care Centre. *Indian J Forensic Med Path.* 2018; 11:162-6.
819. Mohan M, Shreedhara KC, Kumar RL, Yadav A. Autopsy Based Study on Pattern and Distribution of Head Injuries in Victims of Fatal Road Traffic Accidents in A Rural Tertiary Care Centre. *Indian J Forensic Med Path.* 2018; 11:251-4.
820. Mohan M, Shreedhara KC, Yadav A, Kumar RL. Pattern of Homicidal deaths in Autopsies conducted at a rural tertiary care centre. *Indian J Forensic Med Path.* 2018; 11:265-8.

821. Mohan S, Jarhyan P, Ghosh S, Venkateshmurthy NS, Gupta R, Rana R, et al. UDAY: A comprehensive diabetes and hypertension prevention and management program in India. *BMJ Open*. 2018; 8:e015919.
822. Mohanty K, Dada R, Dada T. Identification and genotype phenotype correlation of novel mutations in SIX6 gene in primary open angle glaucoma. *Ophthalmic Genet*. 2018; 39:366-72.
823. Mohanty S, Jain KG, Nandy SB, Kakkar A, Kumar M, Dinda AK, et al. Iron oxide labeling does not affect differentiation potential of human bone marrow mesenchymal stem cells exhibited by their differentiation into cardiac and neuronal cells. *Mol Cell Biochem*. 2018; 448:17-26.
824. Moka P, Goswami P, Kapil A, Xess I, Sreenivas V, Saraya A. Impact of Antibiotic-Resistant Bacterial and Fungal Infections in Outcome of Acute Pancreatitis: *Pancreas*. 2018; 47:489-94.
825. Monga N, Kharbanda OP. Orthodontic management of an adult UCLP patient with canted occlusion plane & scissors bite: A case report. *J Contem Orthod*. 2018; 2:1-5.
826. Moscote-Salazar LR, Agrawal A, Satyarthee GD, George CC, Alfonso PH. Intracranial hematoma development following thrombolysis in patients suffering with acute myocardial infarction. *J Acute Dis*. 2018; 75:217-9.
827. Moscote-Salazar LR, Koller O, Valenzuela S, Narvaez-Rojas A, Satyarthee GD, Mo-Carrascal J, et al. Neurosurgical Implications Of Osteogenesis Imperfecta In A Child After Fall: Case Illustration *J Pediatr Neurosci*. 2018; 13:459-61.
828. Moscote-Salazar LR, Narvaez-Rojas A, Agrawal A, Satyarthee GD, Hoz S, Maraby-Salgado J, et al. Neuroprotective Effects Of Progesterone In Acute Brain Trauma And Its Physiological Mechanism. *J Acute Dis*. 2018; 7:20-5.
829. Moscote-Salazar LR, Satyarthee GD, Matus JA, Maraby J, Calderon Miranda WG. Conservative Management of Chronic Subdural Hematoma With Tranexamic Acid. *Asian J Neurosurg*. 2018; 13:951-2.
830. Moscote-Salazar LR, Satyarthee GD, Narvaez-Rojas AR. Severe Brain Trauma Injury: When No Intracranial Pressure Monitoring Is Available. *Romanian Neurosurg*. 2018; 32:149-50.
831. Moscote-Salazar LR, Satyarthee GD. Letter: External Ventricular Drain and Hemorrhage In Aneurysmal Subarachnoid Hemorrhage In Patients On Dual Antiplatelet Therapy: A Retrospective Cohort Study. *Neurosurgery*. 2019; 84:E98.
832. Mourão LC, Baptista RP, de Almeida ZB, Grynberg P, Pucci MM, Castro-Gomes T,... Rathore S, et al. Anti-band 3 and anti-spectrin antibodies are increased in Plasmodium vivax infection and are associated with anemia. *Sci Rep*. 2018; 8:8762.
833. Muhammad Aslam MK, Sharma VK, Pandey S, Kumaresan A, Srinivasan A, Dutta TK, et al. Identification of biomarker candidates for fertility in spermatozoa of crossbred bulls through comparative proteomics. *Theriogenology*. 2018; 119:43-51.
834. Mukhija R, Agarwal D, Pujari A, Bajaj MS. Orbital cysticercosis. *BMJ Case Rep*. 2018; bcr-2017-224028.
835. Mukhija R, Gupta N, Ganger A, Kashyap S, Hussain N, Vanathi M, et al. Isolated Primary Corneal Acremonium Eumycetoma: Case Report and Literature Review. *Cornea*. 2018; 37:1590-2.
836. Mukhopadhyay AK. Cognitive Canvas: Molecular Embroidery, Fabric and the Base. *EC Psychol Psychiatry*. 2018; 7.7:428-39.
837. Mukhopadhyay AK. Consciousness in Systems Science: Transforming Psychology, Medicine, Education and Community. *Arch Psychiatry Behav Sci*. 2018; 1:40-7.
838. Munawwar A, Gupta S, Sharma SK, Singh S. Seroprevalence of HSV-1 and 2 in HIV-infected males with and without GUD: Study from a tertiary care setting of India. *J Lab Physicians*. 2018; 10:326-31.
839. Murry LL, Thomas P, Razdan G, Devi YS, Joshi P, Sharma KK. Engaging nursing students with small group learning in midwifery education. *Int J Nurs Edu*. 2019; 11:55-9.
840. Murty OP. Fatal hemorrhage from varicose vein after minor trauma. *J Forensic Med Toxicol*. 2018; 35:66-9.
841. Mutha V, Narde HK, Chandra P, Kumar A. Valsalva retinopathy following normal vaginal delivery: 'bilaterality a rarity'. *BMJ Case Rep*. 2018; bcr-2018-224781.
842. Nadarajah J, Sebastian LJD, Jain N, Gaikwad SB, Jauhari P, Saini A. Endovascular Management of a Rare Case of Pediatric Vertebral Artery Mycotic Aneurysm: A Case Report. *Pediatr Neurosurg*. 2018; 53:346-50.
843. Nadella V, Singh S, Jain A, Jain M, Vasquez KM, Sharma A, et al. Low dose radiation (LDR) primed iNOS+ (M1) macrophages modulate angiogenic programming of tumor derived endothelium: M1 Effectors macrophages modify angiogenic response in tumorigenic endothelium. *Mol Carcinog*. 2018; 57:1664-71.
844. Nagarajappa A, Kaur M, Sinha R. Anaesthetic concerns in the patients with congenital erythropoietic porphyria for ocular surgery. *J Clin Anesth*. 2018; 54:3-5.
845. Naghavi M, Marczak LB, Kutz M, Shackelford KA, Arora M, Miller-Petrie M,...Sagar R, et al. Global Mortality From Firearms, 1990-2016. *JAMA*, 2018; 320:792-814.

846. Nagori SA, Jose A, Chowdhury SKR, Roychoudhury A. Is splint therapy required after arthrocentesis to improve outcome in the management of temporomandibular joint disorders? A systematic review and meta-analysis. *Oral Surg Oral Med Oral Pathol Oral Radiol.* 2019; 127:97-105
847. Nagori SA, Jose A, Gopalakrishnan V, Roy ID, Chattopadhyay PK, Roychoudhury A. The efficacy of dextrose prolotherapy over placebo for temporomandibular joint hypermobility: A systematic review and meta analysis. *J Oral Rehab.* 2018; 45:998-1006.
848. Naik RD, Gupta K, Soneja M, Elavarasi A, Sreenivas V, Sinha S. Sleep Quality and Quantity in Intensive Care Unit Patients: A Cross-sectional Study. *Indian J Crit Care Med.* 2018; 22:408-14.
849. Nair J, Velpandian T, Das US, Sharma P, Nag T, Mathur SR, et al. Molecular and metabolic markers of fructose Induced Hepatic insulin resistance in developing and adult rats are distinct and Aegle marmelos is an effective modulator. *Sci Rep.* 2018; 8:15950.
850. Nair S, Vanathi M, Mahapatra M, Seth T, Kaur J, Velpandian T, et al. Tear inflammatory mediators and protein in eyes of post allogeneic hematopoietic stem cell transplant patients. *Ocul Surf.* 2018; 16:352-67.
851. Naithani R, Seth T, Tandon N, Chandra J, Choudhry VP, Pati H, et al. Zoledronic Acid for Treatment of Low Bone Mineral Density in Patients with Beta Thalassemia Major. *Indian J Hematol Blood Transfus.* 2018; 34:648-52.
852. Naithani R, Seth T, Tandon N, Chandra J, Pati H, Choudhry VP. Safety of Zoledronic Acid in Patients with Thalassemia Associated Low Bone Mineral Density. *Indian J Hematol Blood Transfus.* 2018; 34:345-6.
853. Nakra T, Kakkar A, Agarwal S, Madan K, Sharma SC, Jain D. Endobronchial Smooth Muscle Tumors: A Series of Five Cases Highlighting Pitfalls in Diagnosis. *J Pathol Transl Med.* 2018; 52:219-25.
854. Nalwa A, Walia R, Singh V, Madan K, Mathur S, Iyer V, et al. Comparison of Conventional Smear and Liquid-based Cytology Preparation in Diagnosis of Lung Cancer by Bronchial Wash and Transbronchial Needle Aspiration. *J Cytol.* 2018; 35:94-8.
855. Nambirajan A, Anju GS, Garg A, Dash D, Bhatia R, Sharma MC, et al. Cytological diagnosis of cerebrotendinous xanthomatosis in two siblings presenting with bilateral ankle swellings and neurological decline. *Cytopathology.* 2018; 29:482-5.
856. Nambirajan A, Longchar M, Madan K, Mallick SR, Kakkar A, Mathur S, et al. Endobronchial ultrasound-guided transbronchial needle aspiration cytology in patients with known or suspected extra-pulmonary malignancies: A cytopathology-based study. *Cytopathology.* 2019; 30:82-90.
857. Nambirajan A, Sashidharan A, Garg A, Dash D, Bhatia R, Sharma MC, et al. Cytological diagnosis of cerebrotendinous xanthomatosis in two siblings presenting with bilateral ankle swellings and neurological decline. *Cytopathology.* 2018; 29:482-5.
858. Nambirajan A, Suri V, Kedia S, Goyal K, Malgulwar PB, Khanna G, et al. Paediatric Diffuse Leptomeningeal Tumor With Glial And Neuronal Differentiation Harboring Chromosome 1p/19q Co-Deletion And H3.3 K27M Mutation: Unusual Molecular Profile And Its Therapeutic Implications. *Brain Tumorphathol.* 2018; 35:186-91.
859. Nandkumar KP, Bhalla, AP, Pandey RK, Baidya DK, Subramaniam R, Kashyap L. Comparison of Macintosh, McCoy and Glidescope Video laryngoscope for intubation in Morbidly obese patients: Randomised controlled trial. *Saudi J Anaesth.* 2018; 12:433-9.
860. Narain P, Pandey A, Gupta S, Gomes J, Bhatia R, Vivekanandan P. Targeted next-generation sequencing reveals novel and rare variants in Indian patients with amyotrophic lateral sclerosis. *Neurobiol Aging.* 2018; 71:265.e9-14.
861. Narasimhan P, Kashyap L, Mohan VK, Arora MK, Shende D, Srinivas M. Comparison of caudal block with paravertebral block for renal surgeries in paediatric patients. A prospective randomized, blinded clinical trial. *J Clin Anaesth.* 2019; 52:105-10.
862. Narvaez-Rojas AR, Mo-Carrascal J, Maraby J, Satyarthee GD, Samer Hoz, Joaquina f. Neurocritical Care Of Intracranial Brain Tumor Surgery: An Overview. *MAMC J Med Sci.* 2018; 4:4-11.
863. Narvaez-Rojas AR, Mo-Carrascal J, Maraby J, Satyarthee GD, Hoz S, Joaquim AF, et al. Monitoring Of Intracranial Pressure in Patients with Severe Traumatic Brain Injury: Review. *MAMC J Med Sci.* 2018; 4:63-7.
864. Natarajan H, Kumar L, Bakhshi S, Sharma A, Velpandian T, Kabra M, et al. Imatinib trough levels: a potential biomarker to predict cytogenetic and molecular response in newly diagnosed patients with chronic myeloid leukemia. *Leuk Lymphoma.* 2019; 60:418-25.
865. Nath M, Halder N, Chandra P, Singh SB, Deorari AK, Kumar A, et al. Ocular kinetics and safety of intravitreally injected angiotensin converting enzyme inhibitor lisinopril. *Int J Retina Vitreous.* 2018; 4:42.
866. Nath S, Bhoi D, Mohan VK, Talawar P. USG Guided Continuous Erector Spinae Block As A Primary Mode Of Perioperative Analgesia In Open Posterolateral Thoracotomy: A report Of 2 Cases. *Saudi J Anaesth.* 2018; 12:4714.
867. Naveen T, Biswas A, Wig N, Soneja M, Jorwal P, Durga CS, et al. Role of LDL apheresis in a case of homozygous familial hypercholesterolemia. *Drug Discov Ther.* 2019; 13:59-61.

868. Nayak B, Nongthombam S, Roy N, Nadda N, Mondol K, Kumar V, et al. Hepatic and Systemic Effect of Non-Alcoholic Fatty Liver Disease Severity in Obese and Non-Obese Indian Patients. *Int Gast Hepatol*. 2019; 1: 81-91.
869. Nayak M, Nag HL, Gaba S, Nag TC, Sharma S. Quantitative correlation of mechanoreceptors in tibial remnant of ruptured human anterior cruciate ligament with duration of injury and its significance: an immunohistochemistry-based observational study. *J Orthop Traumatol*. 2018; 19:5.
870. Nayak S, Aich M, Kumar A, Sengupta S, Bajad P, Dhapola P, et al. Novel internal regulators and candidate miRNAs within miR-379/miR-656 miRNA cluster can alter cellular phenotype of human glioblastoma. *Sci Rep*. 2018; 8:7673.
871. Negi A, Mridha BR, Arulselvi S, Singh A, Patel SS, Agarwal A, et al. Evaluation of An Automated High Throughput Flow Cytometry Based Diagnosis Of Malaria. *Int J Curr Microbiol Appl Sci*. 2018; 7:941-51.
872. Negi N, Mojumdar K, Singh R, Sharma A, Das BK, Sreenivas V, et al. Comparative Proliferation Capacity of Gag-C-Specific Naive and Memory CD4+ and CD8+ T Lymphocytes in Rapid, Viremic Slow, and Slow Progressors During Human Immunodeficiency Virus Infection. *Viral Immunol*. 2018; 31:513-24.
873. Nehate C, Moothedathu RAA, Haridas V, Koul V. Comparative Assessment of Active Targeted Redox Sensitive Polymersomes Based on pPEGMA-SS-PLA Diblock Copolymer with Marketed Nanoformulation. *Biomacromolecules*. 2018; 19:2549-66.
874. Nehate C, Nayal A, Koul V. Redox Responsive Polymersomes for Enhanced Doxorubicin Delivery. *ACS Biomater Sci Eng*. 2019; 5:70-80.
875. Noopur G, Praveen V, Radhika T, Sanjeev K G, Mani K, Deepak K. Attitudes and Perception Towards Eye Donation in Patients with Corneal Disease: A Case-controlled Population-based Study. *Curr Eye Res*. 2018; 43:734-9.
876. O'Callaghan-Gordo C, Shivashankar R, Anand S, Ghosh S, Glaser J, Gupta R, ... Krishnan A, et al. Prevalence of and risk factors for chronic kidney disease of unknown aetiology in India: secondary data analysis of three population-based cross-sectional studies. *BMJ Open*. 2019; 9:e023353.
877. Ojha A, Bhasym A, Mukherjee S, Annarapu GK, Bhakuni T, Akbar I, et al. Platelet factor 4 promotes rapid replication and propagation of Dengue and Japanese encephalitis viruses. *EbioMedicine*. 2019; 39:332-47
878. Oleti T, Jeeva Sankar M, Thukral A, Sreenivas V, Gupta AK, Agarwal R, et al. Does ultrasound guidance for peripherally inserted central catheter (PICC) insertion reduce the incidence of tip malposition? - a randomized trial. *J Perinatol*. 2019; 39:95-101.
879. Padhy S, Kumar V. Dramatic response to intravitreal Bevacizumab in hypertensive retinopathy. *Indian J Ophthalmol*. 2018; 66:1494-5.
880. Padhy SK, Kumar V, Mandal S. Pigmentary retinopathy in Kearns-Sayre syndrome. *BMJ Case Rep*. 2018; bcr-2018-227394.
881. Padhy SK, Kumar V, Takkar B, Mandal S. Retinal detachment in a child with severe early childhood onset retinal dystrophy. *BMJ Case Rep*. 2018; bcr-2018-227073.
882. Padhy SK, Phuljhele S, Rathi A, Mandal S. Not just another diplopia: neurocysticercosis in a postpartum woman. *BMJ Case Rep*. 2018; bcr-2018-227388.
883. Pal A, Kumar S, Jain S, Nag TC, Mathur R. Neuroregenerative Effects of Electromagnetic Field and Magnetic Nanoparticles on Spinal Cord Injury in Rats. *J Nanosci Nanotechnol*. 2018; 18:6756-64.
884. Pal S, George J, Singh AN, Mathur S, Dash NR, Garg P, et al. Posterior Superior Mesenteric Artery (SMA) First Approach vs. Standard Pancreaticoduodenectomy in Patients with Resectable Periapillary Cancers: a Prospective Comparison Focusing on Circumferential Resection Margins. *J Gastrointest Cancer*. 2018; 49:252-9.
885. Palepu S, Yadav K, Ahamed F, Goswami AK, Nongkynrih B, Pandav CS. Acute morbidity profile and treatment seeking behavior among people residing in an urban resettlement colony in Delhi, India. *Nepal J Epidemiol*. 2018; 8:716-24.
886. Pallavi C, Jaiswal AK, Kumar A. Quantitative Estimation & Method Validation of Acetaminophen By RP-HPLC In Biological Samples. *J Indian Soc Toxicol*. 2018; 14:28-31.
887. Panda S, Phalak M, Thakar A, Dharanipathy S. Cerebrospinal Fluid Leak in Juvenile Nasopharyngeal Angiofibroma—Rare Sequelae of Flutamide-Induced Tumor Shrinkage. *World Neurosurgery*. 2018; 120:78-81.
888. Pandav CS, Kumar R. Spiritual health: Need for its mainstreaming in health-care delivery in India. *Indian J Public Health*. 2018; 62:251-52.
889. Pandav CS, Yadav K, IGN Office for South Asia. Strengthening laboratory monitoring to sustain USI in India. *IDD Newsl*. 2018; 46:18.
890. Pandav CS, Yadav K, Salve HR, Kumar R, Goel AD, Chakrabarty A. High national and sub-national coverage of iodised salt in India: evidence from the first National Iodine and Salt Intake Survey (NISI) 2014-2015. *Public Health Nutr*. 2018; 21:3027-36.

891. Pandav CS, Yadav K. Journey of Iodine Deficiency Disorders in India: Lessons learnt and the Way Forward. *NFI Bull.* 2018; 39:1-7.
892. Pande A, Ramachandran R, Rewari V. Bougie-associated bronchial injury complicated by a nephropleural fistula after percutaneous nephrolithotomy: a tale of two complications. *BMJ Case Rep.* 2018; pii: bcr-2017-223969.
893. Pandey AK, Dhiman V, Sharma A, ArunRaj ST, Baghel V, Patel C, et al. Role of an Intensity-Transformation Function in Enhancement of Bone Scintigraphy Images. *J Nucl Med Technol.* 2018; 46:274-9.
894. Pandey G, Bakhshi S, Thakur B, Jain P, Chauhan SS. Prognostic significance of cathepsin L expression in pediatric acute myeloid leukemia. *Leuk Lymphoma.* 2018. 59:2175-87.
895. Pandey H, Ranjan R, Singh K, Sharma A, Kishor K, Seth T, et al. Contrasting co-inheritance of alpha and beta mutations in delta beta thalassemia and hereditary persistence of fetal hemoglobin: a study from India. *Hematology.* 2018; 23:692-6.
896. Pandey H, Singh K, Ranjan R, Pandey SK, Sharma A, Kishor K, et al. Clinical variability and molecular characterization of Hbs/G γ (A γ δ β) 0-thal and Hbs/HPFH in Indian sickle cell disease patients: AIIMS experience. *Hematology.* 2019; 24:349-52.
897. Pandey M, Singh G, Agarwal R, Dabas Y, Jyotsna VP, Kumar R, Xess I. Emerging Rhizopus microsporus Infections in India. *J Clin Microbiol.* 2018; 56:e00433-18.
898. Pandey RK, Baruah U, Oberoi R, Pangasa N, Hamshi N. Anaesthetic management of a case of nesidioblastosis. *Saudi J Anesth.* 2018; 12:660-1.
899. Pandey S, Bhutia O, Roychoudhury A, Arora A, Bhatt K. Literature review of 86 cases of mandibular ameloblastic carcinoma. *Nat J Maxillofac Surg.* 2018; 9:2-7.
900. Pandey S, Dash D. Cellular age in the manifestation of disease-relevant phenotypes in Huntington's disease. *Mov Disord.* 2018; 1096.
901. Pandey SN, Iqbal N, Singh PK, Rastogi N, Kaur P, Sharma S, et al. Binding and structural studies of the complexes of type 1 ribosome inactivating protein from Momordicabalsamina with uracil and uridine. *Proteins.* 2019; 87:99-109.
902. Panduranga MS, Vibha D, Prasad K, Srivastava AK, Shukla G. Clinical spectrum and quality of life in patients with chronic polyneuropathy: A cross-sectional study. *J Peripher Nerv Syst.* 2018; 23:120-3.
903. Pangeni R, Mittal S, Arava S, Hadda V, Ramam M, Mohan A, et al. A 44-year-old man with hemoptysis. *Lung India.* 2018; 35:343-7.
904. Panwar R, Mohapatra V, Raichurkar K, Sahni P. Development and validation of a new score for measuring post-operative complications. *Langenbecks Arch Surg.* 2018; 403:1021-7.
905. Parakh N, Baliyan V, Jain P, Sharma S, Kumar A. Bizarre Arterial Beading in a Child With Stroke. *Pediatr Neurol.* 2018; 86:75-6.
906. Parida GK, Tripathy S, Datta Gupta S, Singhal A, Kumar R, et al. Adenocarcinoma Prostate With Neuroendocrine Differentiation: Potential Utility of 18F-FDG PET/CT and 68Ga-DOTANOC PET/CT Over 68Ga-PSMA PET/CT. *Clin Nucl Med.* 2018; 43:248-9.
907. Parmar A, Kaloiya GS. Comorbidity of personality disorder among substance use disorder patients: A narrative review. *Indian J Psychol Med.* 2018; 40: 517-27.
908. Parmar V, Changela K, Srinivas B, Mani Sankar M, Mohanty S, Panigrahi SK, et al. Relationship between dislocation density and antibacterial activity of cryo-rolled and cold-rolled copper. *Materials (Basel).* 2019; 12:E200.
909. Parmar V, Kumar A, Sankar MM, Datta S, Prakash GV, Mohanty S, et al. Oxidation facilitated antimicrobial ability of laser micro-textured titanium alloy against gram-positive staphylococcus aureus for biomedical applications. *J Laser Appl.* 2018; 30:1-10.
910. Parveen B, Tripathi M, Vohora D. A Cross-Sectional Study to Assess the Modulation of Wnt Inhibitors following Anti-Epileptic Drug Therapy and their Correlation with Vitamin D and Receptor Activator of Nuclear Factor κ B Ligand in Indian Women with Epilepsy. *Basic Clin Pharmacol Toxicol.* 2018; 123:271-6.
911. Pasha EH, Yadav R, Bansal SK, Batra A, Shaveta, Halder D, et al. Study of Soluble Transferrin Receptor/Log Ferritin Ratio as a Determinant of Body Iron in Young Healthy Non Pregnant Females. *J Clin Diagn Res.* 2018; 12:BC05-8.
912. Passah A, Arora S, Damle NA, Reddy KS, Khandelwal D, Aggarwal S. Occurrence of Subacute Thyroiditis following Influenza Vaccination. *Indian J Endocrinol Metab.* 2018; 22:713-4.
913. Passah A, Arora S, Damle NA, Sharma R. Triple Ectopic Thyroid on Perchnetate Scintigraphy. *Indian J Endocrinol Metab.* 2018; 22:712-3.
914. Passah A, Arora S, Damle NA, Tripathi M, Bal C, Subudhi TK, et al. 68Ga-ProstateSpecific Membrane Antigen PET/CT in Triple-Negative Breast Cancer. *Clin Nucl Med.* 2018; 43:460-1.

915. Passah A, Arora S, Damle NA. Multiple Lytic Lesions on F-18 Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography not Always Metastatic? *Indian J Endocrinol Metab.* 2018; 22:291-2.
916. Patekar M, Adhikari N, Biswas A, Raina V, Kumar L, Mohanti BK et al. Primary CNS Lymphoma in India: A 17-Year Experience From the All India Institute of Medical Sciences. *J Glob Oncol.* 2019; 5:1-9.
917. Patekar M, Gogia A, Tiwari A, Kumar L, Sharma A, Mallick SR, et al. Adult Burkitt lymphoma: An institutional experience with a uniform chemotherapy protocol. *South Asian J Cancer.* 2018; 7:195-9.
918. Patel A, Sharma MC, Bakhshi S. Outcome of Early Stage Pediatric Non-Lymphoblastic Non-Hodgkin Lymphoma. *Indian J Pediatr.* 2018; 85:782-4.
919. Pathak M, Deo SVS, Dwivedi SN, Sreenivas V, Thakur B, Julka PK, et al. Role of Neoadjuvant chemotherapy in breast cancer patients: Systematic review and meta-analysis. *Indian J Med Paediatr Oncol.* 2019; 40:48-62.
920. Patil S, Singh N. Spatially Controlled Functional Group Grafting of Silk Films to Induce Osteogenic and Chondrogenic Differentiation of Human Mesenchymal Stem Cells. *Mater Sci Eng C Mater Biol Appl.* 2018; 91:796-805.
921. Patnaik R, Chhabra A, Subramaniam R, Arora MK, Goswami D, Srivastava A, et al. Comparison of Paravertebral Block by Anatomic Landmark Technique to Ultrasound-Guided Paravertebral Block for Breast Surgery Anesthesia: A Randomized Controlled Trial. *Reg Anesth Pain Med.* 2018; 43:385-90.
922. Patra S, Nimitha P, Kaul S, Valakkada J, Verma KK, Ramam M, Bhari N. Primary cutaneous histoplasmosis in an immunocompetent patient presenting with severe pruritus. *Indian J Dermatol Venereol Leprol* 2018; 84: 465-468.
923. Patra S, Sethuraman G, Kumar R. Turban Tumor: A Classical Presentation of Brooke-Spiegler Syndrome. *Indian Dermatol Online J.* 2018; 9:284-5.
924. Patra S, Singh S, Bhari N. Asymptomatic Nodular Lesion Over the Neck in an Old Woman. *Indian Dermatol Online J.* 2018; 9:214-5.
925. Paul D, Dixit A, Srivastava A, Tripathi M, Prakash D, Sarkar C, et al. Altered transforming growth factor beta/SMAD3 signaling in patients with hippocampal sclerosis. *Epilepsy Res.* 2018; 146:144-50.
926. Paul SB, Dhamija E, Pabitra Sahu P, Gamangatti SR. Management of hepatocellular carcinoma associated with hepatic venous outflow tract obstruction (HVOTO-HCC): A challenging task for an Interventional Radiologist. *Indian J Gastroenterol.* 2018; 37(Suppl1):A1-137.
927. Perveen G, Arora G, Damle NA, Prabhu M, Arora S, Tripathi M, et al. Role of early dynamic PET/CT with Ga-68 –prostate specific membrane antigen –HBED-CC in patients with adenocarcinoma prostate: Initial results. *Indian J Nucl Med.* 2018; 33:112-7.
928. Perveen G, Arora G, Damle NA, Prabhu M, Arora S, Tripathi M, et al. Can early dynamic PET/CT obviate the need for postdiuresis image in Ga-68 –PSMA–HBED-CC scan for evaluation of prostate adenocarcinoma. *Indian J Nucl Med.* 2018; 33:202-8.
929. Philis-Tsimikas A, Astamirova K, Gupta Y, Haggag A, Roula D, Bak BA, et al. Similar glycaemic control with less nocturnal hypoglycaemia in a 38-week trial comparing the IDegAsp co-formulation with insulin glargine U100 and insulin aspart in basal insulin-treated subjects with type 2 diabetes mellitus. *Diabetes Res Clin Pract.* 2019; 147:157-65.
930. Phuljhele Aalok SA, Saluja G, Sharma P, Saxena R, Shameer A, et al. Effectiveness of Various Surgical Procedures for Correction of Monocular Elevation Deficit. *J Clin Exp Ophthalmol.* 2019; 10:790.
931. Phuljhele S, Pujari A, Obedulla H, Saxena R, Sharma P. Atypical Presentation of Primary Sjogren's Syndrome as Optic Neuritis. *Can J Ophthalmol.* 2019; 54:e30-2.
932. Pillai MK, Kariyattil R, Govindaraju V, Kochummen K, Kumar R. Extradural Hematoma Following Decompressive Craniectomy for Acute Subdural Hematoma: Two Case Reports Illustrating Different Mechanisms. *Asian J Neurosurg.* 2018; 13:1213-5.
933. Pillai MK, Kariyattil R, Kumar R, Govindaraju V, Kochummen K. Complex congenital atlantoaxial dislocation in an infant: Case report. *Childs Nerv Syst.* 2018; 34:1255-8.
934. Pius AKA, Ray A. Factors Influencing Severe Community-Acquired Pneumonia Few Points to Ponder. *Lung India.* 2018; 35:536-37.
935. Pollock JA, Sharma N, Ippagunta SK, Redecke V, Häcker H, Katzenellenbogen JA. Triaryl Pyrazole Toll-Like Receptor Signaling Inhibitors: Structure-Activity Relationships Governing Pan- and Selective Signaling Inhibitors. *ChemMedChem.* 2018; 13:2208-16.
936. Pothnis J, Gururaja S, Kalyanasundaram D. Development and characterization of electric field directed preferentially aligned CNT nanocomposites. *Mech Adv Mater Struct.* 2019; 26:35-41.
937. Prabhakaran D, Ajay VS, Tandon N. Strategic Opportunities for Leveraging Low-cost, High-impact Technological Innovations to Promote Cardiovascular Health in India. *Ethn Dis.* 2019; 29(Suppl 1):145-52.

938. Prabhu M, Damle NA, Gupta R, Arora S, Arunraj ST, Bal C. Demonstration of 68 Ga prostate-specific Membrane Antigen Uptake in Metastatic Pancreatic Neuroendocrine Tumor. *Indian J Nucl Med.* 2018; 33:257-8.
939. Prabhu M, Damle NA. Fluorocholine PET Imaging of Parathyroid Disease. *Indian J Endocrinol Metab.* 2018; 22:535-41.
940. Prabhu M, Jain D, Gupta SD, Bal C, Kumar R. Detection of Solitary Axillary Lymph Node Metastases from Hürthle Cell Carcinoma of the Thyroid on ¹⁸F-FDG PET/CT. *Nucl Med Mol Imaging.* 2018; 52:389-93.
941. Prabhu M, Kumari G, Damle NA, Arora G, Kumar P, Kumar R, et al. Assessment of the role of early dynamic PET/CT with 18F-fluorocholine in detection of parathyroid lesions in patients with primary hyperparathyroidism. *Nucl Med Commun.* 2018; 39:1190-6.
942. Prabhu M, Kumari G, Damle NA, Arora G, Tripathi M, Bal C, et al. Comparability of early dynamic and conventional static imaging with F-18 Fluorocholine PET/CT in a patient with primary hyperparathyroidism. *Clin Nucl Med.* 2018; 43:e400-1.
943. Pragasam AK, Veeraraghavan B, Anandan S, Narasiman V, Sistla S, Kapil A, et al. Dominance of International High-Risk Clones in Carbapenemase-Producing *Pseudomonas aeruginosa*: Multicentric Molecular Epidemiology Report from India. *Indian J Med Microbiol.* 2018; 36:344-51.
944. Prajapati B, Fatma M, Maddhesiya P, Sodhi MK, Fatima M, Dargar T, ... Sinha S, et al. Identification and epigenetic analysis of divergent long non-coding RNAs in multilineage differentiation of human Neural Progenitor Cells. *RNA Biol.* 2019; 16:13-24.
945. Prajapati C, Singh MB, Padma SMV, Sreenivas V, Bhatia R, Goyal V, et al. Comparing long-term outcomes of epilepsy patients from a single-visit outreach clinic with a conventional epilepsy clinic: A cross-sectional observational study from India. *Seizure.* 2019; 67:5-10.
946. Prakash P, Ramachandran R, Tandon N, Kumar R. Changes in blood pressure, blood sugar, and quality of life in patients undergoing pheochromocytoma surgery: a prospective cohort study. *Indian J Urol.* 2019; 35:34-40.
947. Prakash S, Sharan P, Sood M. A qualitative study on psychopathology of dhat syndrome in men: Implications for classification of disorders. *Asian J Psychiatr.* 2018; 35:79-88.
948. Pramanik R, Tyagi A, Chopra A, Kumar A, Vishnubhatla S, Bakhshi S. Myeloid Sarcoma Predicts Superior Outcome in Pediatric AML; Can Cytogenetics Solve the Puzzle? *Clin Lymphoma Myeloma Leuk.* 2018; 18:e249-54.
949. Prasad G, Giri AK, Basu A, Tandon N, Bharadwaj D. Genomewide association study for C-reactive protein in Indians replicates known associations of common variants. *J Genet.* 2019; 98:20.
950. Prea SM, Kong YXG, Mehta A, He M, Crowston JG, Gupta V, et al. Six-month longitudinal comparison of a portable tablet perimeter with the Humphrey Field Analyser. *Am J Ophthalmol.* 2018; 190:9-16.
951. Prediction of haematoma growth and outcome in patients with intracerebral haemorrhage using the CT-angiography spot sign [PREDICT]/Sunnybrook ICH CTA Study Group and the Virtual International Stroke Trials Archive (VISTA)-ICH Collaborators. Lack of Early Improvement Predicts Poor Outcome Following Acute Intracerebral Hemorrhage. *Crit Care Med.* 2018; 46:e310-7.
952. Priya H, Chauhan A. Awareness of the Pandemic H1N1 Influenza Outbreak Among Malaysian Dental Students. *J Pierre Fauchard Acad.* 2018; 32:57-62.
953. Priyanka R, Karthikeyan M, Dewang A, Shorya VA, Ramanjit S. Role of OCT-A in glaucoma. *J Ophthalmol.* 2018; 3:000170.
954. Pujari A, Agarwal D, Kumar Behera A, Bhaskaran K, Sharma N. Pathomechanism of iris sphincter tear. *Med Hypotheses.* 2019; 122:147-9.
955. Pujari A, Azad SV, Meel R, Lomi N. Bilateral retinocytoma: multimodal imaging assessment. *BMJ Case Rep.* 2018; 11:e225908.
956. Pujari A, Bajaj MS, Sen S, Goel S. Conjunctival angiomyxoma-rare but needs observation. *Can J Ophthalmol.* 2018; 53:e60-2.
957. Pujari A, Behera A, Mukhija R, Chawla R, Yadav S, Sharma N. Ocular toxicity due to colours used during holi celebration in India: correlation of clinical findings with the anterior segment OCT. *Cutan Ocul Toxicol.* 2019; 38:1-4.
958. Pujari A, Kumar A, Chawla R, Khokhar S, Agarwal D, Gagrani M, et al. Impact on the pattern of ocular injuries and awareness following a ban on firecrackers in New Delhi: A tertiary eye hospital-based study. *Indian J Ophthalmol.* 2018; 66:837-40.
959. Pujari A, Mukhija R, Chawla R, Phuljhele S, Saxena R, Sharma P. Smartphone-based evaluation of the optic nerve head. *Indian J Ophthalmol.* 2018; 66:1617-8.
960. Pujari A, Mukhija R, Phuljhele S, Saxena R. Bilateral ocular paralysis in an ocular emergency. *BMJ Case Rep.* 2018; bcr-2018-225189.

961. Pujari A, Mukhija R, Phuljhele S. Quantification of Change in Iris Torsion Using a Smartphone. *Ophthalmology*. 2019; 126:126.
962. Pujari A, Mukhija R, Shashni A, Bajaj MS, Sen S. Orbital metastasis from a primary salivary duct carcinoma: importance of long-term follow-up. *Can J Ophthalmol*. 2019; 54:e21-4.
963. Pujari A, Mukhija R, Shashni A, Obedulla H, Meel R, Bajaj MS. Bilateral hemorrhagic proptosis due to an uncommon cause in ocular emergency. *Indian J Ophthalmol*. 2018; 66:1370-1.
964. Pujari A, Mukhija R, Singh AB, Chawla R, Sharma N, Kumar A. Smartphone-based high definition anterior segment photography. *Indian J Ophthalmol*. 2018; 66:1375-6.
965. Pujari A, Mukhija R, Urkude J, Singh R, Agarwal D, Sharma N. Intraoperative assessment of corneal injuries using microscope-integrated optical coherence tomography. *Indian J Ophthalmol*. 2018; 66:1614-5.
966. Pujari A, Rakheja V, Bajaj MS, Sen S, Yadav B. Isolated conjunctival histoplasmosis in an elderly patient: a rare but important scenario. *Can J Ophthalmol*. 2019; 54:e15-6.
967. Pujari A, Saxena R, Sharma P, Phuljhele S. What decides the nature of extraocular muscle injury? The probable mechanism of flap tear and rupture. *Med Hypotheses*. 2019; 123:115-7.
968. Pujari A, Shakrawal J, Gagrani M, Bajaj MS. Paediatric ocular super glue injuries: assessment of two cases. *BMJ Case Rep*. 2018; bcr-2018-226198.
969. Pujari A, Sharma P, Basheer S, Phuljhele S. Scleral dellen following strabismus surgery. *BMJ Case Rep*. 2018; bcr-2018-224675.
970. Pujari A, Sharma P, Phuljhele S, Kapoor S, Chawla R, Saxena R, et al. Intraoperative optical coherence tomography-guided scleral suture passage while performing surgery on extraocular muscles. *Indian J Ophthalmol*. 2018; 66:1654-5.
971. Pujari A, Singh P, Agrawal S, Bajaj MS. Canalicular laceration visualization using chandelier illumination. *BMJ Case Rep*. 2019; 12:bcr-2018-227798.
972. Pujari A, Swamy DR, Chaniyara MH, Sharma N. Intraoperative Descemet's membrane detachment in a case of phacomorphic glaucoma. *BMJ Case Rep*. 2018; bcr-2018-225593.
973. Pujari A, Swamy DR, Singh R, Mukhija R, Chawla R, Kumar A. Ultrasonographic assessment of ophthalmic diseases in low-income countries. *Trop Doct*. 2018; 48:294-7.
974. Pujari A, Temkar S, Agarwal S, Garg G, Chawla R, Kumar A. Foveolar simple retinal pigment epithelial hamartoma. *Indian J Ophthalmol*. 2018; 66:999-1000.
975. Puliyeel J, Naik P, Puliyeel A, Agarwal K, Lal V, Kansal N, et al. Evaluation of the Protection Provided by Hepatitis B Vaccination in India. *Indian J Pediatr*. 2018; 85:510-6.
976. Puri I, Bhatia R, Vibha D, Singh MB, Padma MV, Aggarwal P, et al. Stroke-related education to emergency department staff: An acute stroke care quality improvement initiative. *Neurol India*. 2019; 67:129-33.
977. Puri I, Dash D, Padma MV, Tripathi M. Quality of Life and Its Determinants in Adult Drug Refractory Epilepsy Patients Who Were Not Candidates for Epilepsy Surgery: A Correlational Study. *J Epilepsy Res*. 2018; 8:81-6.
978. Quadri JA, Sarwar S, Pinky, Kar P, Singh S, Mallick SR, et al. Fluoride induced tissue hypercalcemia, IL-17 mediated inflammation and apoptosis lead to cardiomyopathy: Ultrastructural and biochemical findings. *Toxicology*. 2018; 406-7:44-57.
979. Quadri JA, Sarwar S, Sinha A, Kalaivani M, Dinda AK, Bagga A, et al. Fluoride-associated ultrastructural changes and apoptosis in human renal tubule: a pilot study. *Hum Exp Toxicol*. 2018; 37:1199-1206.
980. Radhakrishnan DM, Ramanujam B, Srivastava P, Dash D, Tripathi M. Effect of providing sudden unexpected death in epilepsy (SUDEP) information to persons with epilepsy (PWE) and their caregivers-Experience from a tertiary care hospital. *Acta Neurol Scand*. 2018; 138:417-24.
981. Raghav R, Jain R, Dhawan A, Roy TS, Kumar P. Chronic co-administration of nalbuphine attenuates the development of opioid dependence. *Pharmacol Biochem Behav*. 2018; 175:130-8.
982. Rahaman SH, Jyotsna VP, Kandasamy D, Shreenivas V, Gupta N, Tandon N. Bone Health in Patients with Cushing's Syndrome. *Indian J Endocrinol Metab*. 2018; 22:766-9.
983. Rahman RA, Bhatnagar V, Agarwala S, Kumar R. Estimation of Renal Functional Reserve in Children with Different Grades of Vesicoureteric Reflux. *J Indian Assoc Pediatr Surg*. 2018; 23:74-80.
984. Rai N, Venugopalan G, Pradhan R, Ambastha A, Upadhyay AD, Dwivedi S, et al. Exploration of Novel Anti-Oxidant Protein Sestrin in Frailty Syndrome in Elderly. *Aging Dis*. 2018; 9:220-27.
985. Rai V, Bose S, Saha S, Kumar V, Chakraborty C. Delineating metabolic dysfunction in cellular metabolism of oral submucous fibrosis using ¹H nuclear magnetic resonance spectroscopy. *Arch Oral Biol*. 2019; 97:102-8.

986. Raina SK, Kumar R, Galwankar S, Gilada I, Aggarwal P, Krishnan SV, et al. A health care delivery model focusing on development of a cadre of primary care physicians - Recommendations of Organized Medicine Academic Guild. *J Family Med Prim Care*. 2019; 8:330-5.
987. Raj KGR, Reddy DMS, Lohith R, Yadav A. A Study on Deaths by Suicidal Hanging in Bengaluru. *Indian J Forensic Med Toxicol*. 2019; 13:32-4.
988. Rajan R, Pandey S, Anandapadmanabhan R, Srivastava AK. Interrater and intrarater agreement on the 2018 consensus statement on classification of tremors. *Mov Disord*. 2018; 33:1966-7.
989. Rajendran A, Dhoble P, Sundaresan P, Saravanan V, Vashist P, Nitsch D, et al. Genetic risk factors for late age-related macular degeneration in India. *Br J Ophthalmol*. 2018; 102:1213-7.
990. Ram Purakayastha D, Vishnubhatla S, Rai SK, Broor S, Krishnan A. Estimation of Burden of Influenza among under-Five Children in India: A Meta-Analysis. *J Trop Pediatr*. 2018; 64:441-53.
991. Ramachandran R, Bhattacharjee S, Marada S, Rewari V. Ultrasonography and Seldinger's technique: Using the best of both worlds for difficult radial artery cannulation! *J Anaesthesiol Clin Pharmacol*. 2018; 34:420-1.
992. Ramadass S, Rai SK, Gupta SK, Kant S, Wadhwa S, Sood M, et al. Prevalence of disability and its association with sociodemographic factors and quality of life in India: A systematic review. *J Family Med Prim Care*. 2018; 7:1177-84.
993. Ramanujam B, Dash D, Tripathi M. Can home videos made on smartphones complement video-EEG in diagnosing psychogenic nonepileptic seizures? *Seizure*. 2018; 62:95-8.
994. Ramos A, Planchat M, Vieira Melo AR, Raposo M, Shamim U, Srivastava AK, et al. Mitochondrial DNA haplogroups and age at onset of Machado-Joseph disease/spinocerebellar ataxia type 3: A study in patients from multiple populations. *Eur J Neurol*. 2019; 26:506-12.
995. Ramprasad A, Baitha U, Kumar P, Biswas A. Primary sjogren's syndrome without sicca symptoms : An Uncommon Entity. *J Indian Acad Clin Med*. 2018; 19:207-9.
996. Rani D, Saxena R, Nayak B, Srivastava S. Cloning and expression of truncated ORF2 as a vaccine candidate against hepatitis E virus. *3 Biotech*. 2018; 8:414.
997. Ranjan R, Mohammad K, Singh AR, Sharma Dk. Measuring patient experience with patient care coordinators during decongestion of outpatient department of an apex tertiary care referral public hospital in India. *Int J Res Med Sci*. 2018; 6:2092-8.
998. Rao R, Varshney M, Singh S, Agrawal A, Ambekar A. Mental Healthcare Act, 2017 and Addiction Treatment: Potential Pitfalls and Trepidations. *Indian Journal of Psychiatry*. 2019 Mar-April; 61:208-12.
999. Rastogi N, Khurana S, Veeraraghavan B, Yesurajan IF, Rajamani S Suresh K, Gupta D, et al. Epidemiological Investigation And Successful Management Of Burkholderiacepacia Outbreak In Neuro-Trauma Intensive Care Unit. *Int J Infect Dis*. 2019; 79:4-11.
1000. Rath GP, Lamsal R. Current status of stellate ganglion block for the management of cerebral vasospasm. *J Neuroanaesthesiol Crit Care*. 2018; 05: 131-2.
1001. Rath R, Krishnan A, Nongkynrih B, Misra P. Assessment of implementation status of Cigarettes and Other Tobacco Products Act (COTPA) and its awareness among residents in a block of Haryana. *Indian J Public Health*. 2018; 62:100-3.
1002. Rathi A, Chakrabarti A, Agarwal T, Pushker N, Patil M, Kamble H, et al. Pythium Keratitis Leading to Fatal Cavernous Sinus Thrombophlebitis. *Cornea*. 2018; 37:519-22.
1003. Ravani R, Chawla R, Azad S V, Gupta Y, Kumar V, Kumar A. Midline sclerotomy approach for intraocular foreign body removal in phakic eyes using endillumonator: A novel technique. *Indian J Ophthalmol*. 2018; 66:687-90.
1004. Rawat C, Guin D, Talwar P, Grover S, Baghel R, Srivastava AK, et al. Clinical predictors of treatment outcome in North Indian patients on antiepileptic drug therapy: A prospective observational study. *Neurol India*. 2018; 66:1052-9.
1005. Rawat S, Srivastava P, Prabha P, Gupta S, Kanga U, Mohanty S. A comparative study on immunomodulatory potential of tissue specific hMSCs: Role of HLA-G. *IOSR J Dent Med Sci*. 2018; 17:32-40.
1006. Rawre J, Rai M, Namdeo D, Das R, Khanna N, Dar L, et al. Herpes simplex virus type 2 and cytomegalovirus perigenital ulcer in an HIV infected woman. *Ind J Med Microbiol*. 2018; 36:441-3.
1007. Ray A, Kanabar K, Upadhyay V, Sharma SK. A four year experience in narcolepsy from a sleep clinic at a tertiary care centre with a short review of contemporary Indian literature. *Indian J Med Res*. 2018;148:748-51
1008. Ray A, Nayan A, Katariya K, Sharma SK. Body Packer Syndrome: A Radiological Denouement! *J Emerg Med*. 2018; 55:260-3.
1009. Ray BR, Trikha A. Prone position ventilation in pregnancy: Concerns & Evidence. *J Obstet Anaesth Crit Care*. 2018; 8:7-9.

1010. Razik A, Das CJ, Sharma S, Seth A, Srivastava DN, Mathur S, et al. Diagnostic performance of diffusion-weighted MR imaging at 3.0 T in predicting muscle invasion in urinary bladder cancer: utility of evaluating the morphology of the reactive tumor stalk. *Abdom Radiol (NY)*. 2018; 43:2431-41.
1011. Reed GM, First MB, Kogan CS, Hyman SE, Gureje O, Gaebel W...Ray R et al. Innovations and changes in the ICD-11 classification of mental, behavioural and neurodevelopmental disorders. *World Psychiatry*. 2019; 18:3-19.
1012. Reed GM, Keeley JW, Rebello TJ, First MB, Gureje O, Ayuso-Mateos JL,...Sharan P, et al. Clinical utility of ICD-11 diagnostic guidelines for high-burden mental disorders: results from mental health settings in 13 countries. *World Psychiatry*. 2018; 17:306-15.
1013. Reed GM, Sharan P, Rebello TJ, Keeley JW, Elena Medina-Mora M, Gureje O, et al. The ICD-11 developmental field study of reliability of diagnoses of high-burden mental disorders: results among adult patients in mental health settings of 13 countries. *World Psychiatry*. 2018; 17:174-86.
1014. Reethesh SR, Ranjan P, Arora C, Kaloiya GS, Vikram NK, Dwivedi SN, et al. Development and Validation of a Questionnaire Assessing Knowledge, Attitude, and Practices about Obesity among Obese Individuals. *Indian J Endocrinol Metab*. 2019; 23:102-10.
1015. Rewari V, Ramachandran R, Pande A. Compression with the ultrasound probe to prevent malposition of central venous catheter in the ipsilateral internal jugular vein during axillary vein cannulation. *J Clin Ultrasound*. 2019; 47:95-6.
1016. Rizwan M, Kumar KR, Dass C, Parthiban M. Perioperative management of a neonate with Cantrell's pentalogy. *Indian J Anaesth*. 2018; 62:827-9.
1017. Roop P, Angmo D, Kamble N, Tomar AS. Uncontrolled neovascular glaucoma – an alarming manifestation of chronic myeloid leukemia on imatinib therapy - a casereport and review of literature. *Indian J Ophthalmol*. 2019; 67:285-7.
1018. Rout G, Kedia S, Nayak B, Yadav R, Das P, Acharya SK, et al. Controlled Attenuation Parameter for Assessment of Hepatic Steatosis in Indian Patients. *J ClinExpHepatol*. 2019; 9:13-21.
1019. Rout G, Nayak B, Patel AH, Gunjan D, Singh V, Kedia S, et al. Therapy with Oral Directly Acting Agents in Hepatitis C Infection Is Associated with Reduction in Fibrosis and Increase in Hepatic Steatosis on Transient Elastography. *J Clin Exp Hepatol*. 2019; 9:207-14.
1020. Roy S, Takkar B, Khandelwal P, Chawla R. Full thickness macular hole without necrosis in a case of viral retinitis. *Trop Doct*. 2018; 48:250-2.
1021. Roy S, Yadav S, Dasgupta T, Chawla S, Tandon R, Ghosh S. Interplay between hereditary and environmental factors to establish an in vitro disease model of keratoconus. *Drug Discov Today*. 2019; 24:403-16.
1022. Roychoudhury A, Basu S, Jha SK. Surface functionalized prussian blue coated nanostructured nickel oxide based platform for catechol biosensor. *Anal Sci*. 2018; 34:1163-9.
1023. Rufai SB, Singh J, Kumar P, Mathur P, Singh S. Association Of Gyra And Rrs Gene Mutations Detected By Mtbdrsl V1 On Mycobacterium Tuberculosis Strains Of Diverse Genetic Background From India. *Sci Rep*. 2018; 8:9295.
1024. Rumpf HJ, Achab S, Billieux J, Bowden-Jones H, Carragher N, Demetrovics Z,...Ambekar A, et al. Including gaming disorder in the ICD-11: The need to do so from a clinical and public health perspective. *J Behav Addict*. 2018; 7:556-61.
1025. Sabharwal P, Dada R, Prakash C. Cancer and epigenetics interrelationship in prevention and cure. *Int J Dev Res*. 2018; 8:22163-8.
1026. Sabharwal P, Dada R, Prakash C. Impact of six procreative factorson strotodustiof garbha in manifestation of FOAD (fetal origin of adult disease). *Indian J Appl Res*. 2018; 8:76-8.
1027. Sabharwal PK, Chattopadhyay S, Singh H. Preparation and characterization of antimicrobial, biodegradable, triclosan-incorporated polyhydroxybutyrate-co-valerate films for packaging application. *J Appl Polymer Sci*. 2018; 135:46862.
1028. Sagar R, Gupta T. Psychological aspects of obesity in children and adolescents. *Indian J Pediatr*. 2018; 85:554-9.
1029. Sagar R, Hans G. Domestic violence and mental health. *J Ment Health Hum Behav*. 2018; 23:2-3.
1030. Sagar R, Patra BN, Patil V. Clinical Practice Guidelines for management of Conduct Disorder. *Indian J Psychiatry* 2019; 61(Suppl 2):270-6.
1031. Sagar R, Sahu A, Pattanayak RD, Chatterjee B. Assessment of cognitive functions in bipolar I disorder: A 1-year naturalistic follow-up study. *Bipolar Disord*. 2018; 20:248-59.
1032. Saha S, Gupta V, Dawood FS, Broor S, Lafond KE, Chadha MS, et al. Estimation of community-level influenza-associated illness in a low resource rural setting in India. *PLoS One*. 2018; 13:e0196495.
1033. Sahay P, Asif MI, Maharana PK, Titiyal JS. Periocular contact dermatitis with use of topical voriconazole 1% in mycotic keratitis. *BMJ Case Rep*. 2018; 2018. bcr-2018-226498.

1034. Sahay P, Dhanda S, Singhal D, Maharana PK, Titiyal JS, Sharma N. Scleritis in congenital erythropoietic porphyria – infective or inflammatory? *Indian J Ophthalmol.* 2018; 66:1467-8.
1035. Sahay P, Maharana PK, Temkar S, Chawla R. Corneal epithelial toxicity with intravitreal methotrexate in a case of B-cell lymphoma with ocular involvement. *BMJ Case Rep.* 2018; bcr-2018-226005.
1036. Sahay P, Nair S, Maharana PK, Sharma N. Pseudomembranous conjunctivitis: unveil the curtain. *BMJ Case Rep.* 2019; 12:e228538.
1037. Sahay P, Pandya I, Maharana PK, Titiyal JS. Cloudy Cornea with Arcus Juvenilis in a case of Dense deposit disease. *BMJ Case Rep.* 2018; bcr-2018-224545.
1038. Sahay P, Shaji KR, Maharana PK, Titiyal JS. Spontaneous anterior dislocation of lens in a case of ectopia lentis et pupillae: a rare entity treated by a novel technique of microscope integrated optical coherence tomography (MIOCT) guided intralenticular lens aspiration. *BMJ Case Rep.* 2019; 12:bcr-2018-227047.
1039. Sahay P, Singhal D, Maharana PK, Titiyal JS. Is Nano thin Descemet stripping automated endothelial keratoplasty comparable to Descemet membrane endothelial keratoplasty? *Cornea.* 2018; 37:e56.
1040. Sahay P, Singhal D, Maharana PK, Titiyal JS. Preloaded Descemet membrane endothelial keratoplasty donor tissue: Surgical Technique and Early Clinical Results. *Cornea.* 2019; 38:e1.
1041. Sahni S, Tickoo M, Gupta R, Vaswani M, Ambekar A, Grover T, et al. Association of serotonin and GABA pathway gene polymorphisms with alcohol dependence: A preliminary study. *Asian J Psychiatry.* 2019; 39:169-73.
1042. Sahoo AK, Yadav S, Sharma VK, Parihar AS, Vyas S, Gupta S. Safety and efficacy of autologous noncultured dermal cell suspension transplantation in the treatment of localized facial volume loss: A pilot study. *Indian J Dermatol Venereol Leprol.* 2019; 85:44-50.
1043. Sahran D, Siddharth V, Satpathy S. Patient safety and infection control in operation theatre: A prospective observational study in a tertiary care hospital of India. *J Patient Saf Infec Control.* 2018; 6:38-44.
1044. Sahu A, Bhargava R, Sagar R, Mehta M. Perception of families of children with specific learning disorder: An exploratory study. *Indian J Psychol Med.* 2018; 40:406-13.
1045. Sahu A, Patil V, Purkayastha S, Pattanayak RD, Sagar R. Pathways to Care for Patients with Bipolar-I Disorder: An Exploratory Study from a Tertiary Care Centre of North India. *Indian J Psychol Med.* 2019; 41:68-74.
1046. Sahu AK, Verma VK, Mutneja E, Malik S, Nag TC, Dinda AK, et al. Mangiferin attenuates cisplatin-induced acute kidney injury in rats mediating modulation of MAPK pathway. *Mol Cell Biochem.* 2019; 452:141-52.
1047. Sahu H, Manjunath MB, Ray A, Vikram NK. Neuroleptic malignant-like syndrome causing thrombocytopenia: a rare association. *BMJ Case Rep.* 2018; 11:bcr-2018-227089.
1048. Sahu V, Nigam L, Agnihotri V, Gupta A, Shekhar S, Subbarao N, et al. Diagnostic Significance of p38 Isoforms (p38 α , p38 β , p38 γ , p38 δ) in Head and Neck Squamous Cell Carcinoma: Comparative Serum Level Evaluation and Design of Novel Peptide Inhibitor Targeting the Same. *Cancer Res Treat.* 2019; 51:313-25.
1049. Saibu Y, Kumar S, Jamwal A, Peak D, Niyogi S. A FTIRM study of the interactive effects of metals (zinc, copper and cadmium) in binary mixtures on the biochemical constituents of the gills in rainbow trout (*Oncorhynchus mykiss*). *Comp Biochem Physiol C Toxicol Pharmacol.* 2018; 211:48-56.
1050. Saini C, Kumar P, Tarique M, Sharma A, Ramesh V. Regulatory T cells antagonize proinflammatory response of IL-17 during cutaneous tuberculosis. *J Inflamm Res.* 2018; 11:377-88.
1051. Saini C, Tarique M, Ramesh V, Khanna N, Sharma A. $\gamma\delta$ T cells are associated with inflammation and immunopathogenesis of leprosy reactions. *Immunol Lett.* 2018; 200:55-65.
1052. Saini I, Mukherjee A, Gautam H, Singla M, Jat K, Lodha R, et al. Diagnostic Yield of Xpert MTB/RIF in Bronchoalveolar Lavage in Children with Probable Pulmonary Tuberculosis. *Indian Pediatr.* 2018; 55:1062-5.
1053. Saini L, Jauhari P, Chakrabarty B, Kumar A, Gulati S. Isolated striatal lesions: A rare imaging finding of neurofibromatosis type I. *Neurol India.* 2018; 66:572-3.
1054. Sakthivel P, Prashanth A, Thakar A, Kumar R, Kumar R. Juvenile Nasal Angiofibroma on 68Ga-PSMA PET/CT: Opening New Frontiers. *Clin Nucl Med.* 2019; 44:e118-9.
1055. Salazar LR, Agrawal A, Satyarthee GD, Cure GC, Pacheco-Hernandez A. Intracranial Hematoma Development Following Thrombolysis Inpatients Suffering With Acute Myocardial Infarction: Management Strategy. *J Acute Dis.* 2018; 7:217-9.
1056. Salazar LR, Agrawal A, Satyarthee GD, Padilla-Zambrano HS, Cabrera-Nanclares BV, Mendoza-Flórez R, et al. Hyponatremia In The Acute Phase Of Spinal Cord Trauma: Review. *J Acute Dis.* 2018; 19:103-7.
1057. Salgado JM, Hoz SS, Rojas AN, Satyarthee GD, Pajaro LQ, Hernandez AP, et al. Brain Abscess And Dental Infections: A Review. *Romanian Neurosurg.* 2018; 32:283-9.

1058. Saluja A, Singh RK, Dash D, Bhatia R, Tripathi M. Jaw clonus and opercular syndrome in ALS: A rare and interesting finding. *Acta Neurol Belg.* 2018; 118:547-8.
1059. Saluja G, Takkar B, Agarwal E, Sharma B, Khokhar S. Planning a new intraocular lens library in the Indian scenario. *Indian J Ophthalmol.* 2018; 66:1227-8.
1060. Salve HR, Parthasarathy R, Krishnan A, Pattanaik DR. Impact of ambient air temperature on human health in India. *Rev Environ Health.* 2018; 33:433-9.
1061. Samal P, Goyal V, Makharia GK, Das CJ, Gorthi SP, Vishnu VY, et al. Transfer Dysphagia Due to Focal Dystonia. *J Mov Disord.* 2018; 11:129-32.
1062. Samala R, Borkar SA, Sharma R, Garg A, Suri A, Gupta D, et al. Effectiveness of Preoperative Facial Nerve Diffusion Tensor Imaging Tractography For Preservation Of Facial Nerve Function In Surgery For Large Vestibular Schwannomas: Results Of A Prospective Randomized Study. *Neurol India.* 2019; 67:149-54.
1063. Samala R, Garg K, Kedia S, Satyarthee GD. Letter to the Editor. Endovascular management of epidural hematomas. *J Neurosurg.* 2018; 128:1601-3.
1064. Sameera V, Pandia MP, Bindu B, Goyal K. Anesthetic Considerations And Successful Management Of A Patient With Permanent Pacemaker For Cervical Spine Instrumentation. *Saudi J Anaesth.* 2018; 12:634-6.
1065. Sameera V, Shukla RK, Chouhan RS, Kapoor I. An uncommon cause of arterial waveform artifact! *J Neuroanaesthesiol Crit Care;* 2019; 6:49-50.
1066. Sandooja S, Kathiresan P, Sharan P. Self-harm attempt in the older population of the UK. *Lancet Psychiatry.* 2019; 6:92.
1067. Sankalp, Dada T, Yadav RK, Faiq MA. Effect of Yoga-Based Ocular Exercises in Lowering of Intraocular Pressure in Glaucoma Patients: An Affirmative Proposition. *Int J Yoga.* 2018; 11:239-41.
1068. Santosh V, Sravya P, Gupta T, Muzumdar D, Chacko G, Suri V, et al. ISNO consensus guidelines for practical adaptation of the WHO 2016 classification of adult diffuse gliomas. *Neurol India.* 2019; 67:173-82.
1069. Sarangi SC, Kaur N, Tripathi M, Gupta YK. Cost analysis study of neuropsychiatric drugs: Role of National List of Essential Medicines, India. *Neurol India.* 2018; 66:1427-33.
1070. Sardar A, Maitra S, Nisa N, Gupta S, Kashyap L, Khanna P, et al. Preoperative anxiety correlates with propofol-induced hypotension during induction of general anesthesia in females undergoing elective gynecological surgery: an observational study. *Acta Anaesth Belg.* 2018; 69:93-7.
1071. Sarkar S, Chadda RK, Thota A, Dhagudu NK, Prasad T. Adverse drug reactions at an addiction psychiatry center: A cross sectional analysis. *J Pharmacol Pharmacother.* 2018; 9:104-8.
1072. Sarkar S, Jain R, Kethawath SM, Gupta R, Kumar M. Serum BDNF levels in patients with opioid dependence during the early withdrawal period: A case control study. *Neurosci Lett.* 2018; 681:100-04.
1073. Sarkar S, Patra BN, Patil V, Gupta S, Mallanik S, Pandey A. Patient and caregiver perspectives on ethical issues in mental health care: an exploratory study from India. *Int J Ment Health Addiction.* 2018; 16:714-21.
1074. Satpathy G, Behera HS, Sharma A, Mishra AK, Mishra D, Sharma N, et al. A 20-year experience of ocular herpes virus detection using immunofluorescence and polymerase chain reaction. *Clin Exp Optom.* 2018; 101:648-51.
1075. Satpathy S, Swain R, Kar SK, Kumar R, Behera C. Self-portrayal in diagrammatic suicide notes: A qualitative analysis. *Med J DY Patil Vidyapeeth.* 2018; 11:45-52.
1076. Satyarthee GD, Moscote-Salazar LR, Agrawal A. Ruptured Intracranial Internal Carotid Artery Aneurysm Causing Subarachnoid Hemorrhage And Ophthalmoplegia Associated With Metastatic Carcinoma With Unknown Primary In Sellar-Parasellar Region: True Or Coincidental Association. *Romanian Neurosug.* 2018; 32:641-6.
1077. Satyarthee GD, Ahmad F. Spontaneous Concurrent Intraspinial And Intracranial Subdural Hematoma: Management and Review of Literature. *J Pediatr Neurosci.* 2018; 13:24-7.
1078. Satyarthee GD, Garg M, Agarwal D. Elizabethkingia Meningoseptica Causing Meningitis After Decompressive Craniectomy For Traumatic Brain Injury In a Immunocompetent Adult: Serious Neurocritical Care. *Romanian Neurosurg.* 2018; 32:513-7.
1079. Satyarthee GD, Jagdevan A. Prof. Shokei Yamada: An International Neurosurgeon, Regarded As Father Figure For Adult Tethered Cord Syndrome Management And Dedicated Life For The Advancement Of Intracranial Arteriovenous Malformation Surgery. *Asian J Neurosurg.* 2019; 14:341-2.
1080. Satyarthee GD, Lalwani S. Posterior Cranial Fossa Dermoid In Association With Congenital Basilar Invagination, A Craniovertebral Junction Anomaly And Kippel-Feil Syndrome: A Potential Threat Of Infective Abscess And Meningitis. *Biol Eng Med.* 2018; 3:1-3.
1081. Satyarthee GD, Lalwani S. Armored Brain Associated with Secondary Craniostenosis Development At 7-Year Following Ventriculoperitoneal Shunt Surgery During Infancy: Extremely Unusual Association and Review. *Asian J Neurosurg.* 2018; 13:1175-8.

1082. Satyarthee GD, Mahapatra AK. Pediatric Cerebello-Pontine Angle Medulloblastoma: A Management Review. *J Pediatr Neurosci*. 2018; 13:125-8.
1083. Satyarthee GD, Mehar T. First Report Of Two Synchronous But Separately Placed Intramedullary Angiolipomas Located In The Dorsal Spine Causing Progressive Compressive Myelopathy: Management Strategies And Outcome Review. *Romanian Neurosurg*. 2019; 33:63-6.
1084. Satyarthee GD, Moscote – Salazar LR, Agrawal A. Biomarkers Of Glioblastoma Multiforme. *Romanina Neurosurg*. 2018; 32:466-8.
1085. Satyarthee GD, Moscote-Salazar LR, Agrawal A. Cystotoperitoneal Shunt Surgery During Infancy In Porencephalic Cyst Located In Frontal Region Led To Regaining Of Developmental Milestone. *Romanian Neurosurg*. 2019; 33:67-70.
1086. Satyarthee GD, Moscote-Salazar LR, Agrawal A. Ruptured intracranial internal carotid artery aneurysm causing subarachnoid hemorrhage and ophthalmoplegia associated with metastatic carcinoma with unknown primary in sellar-parasellar region: True or Coincidental Association. *Rom Neurosug*. 2018; 32:641-6.
1087. Satyarthee GD, Moscote-Salazar LR, Agrawal A. Tibial Nerve Schwannoma: Short Review Of Surgical Management. *Romanian Neurosurg*. 2019; 33:71-3.
1088. Satyarthee GD, Moscote-Salazar LR, Agrawal R. Magnitude Of Intracranial Pressure Changes Following Rigid External Cervical Collar Immobilization In Cases Sustaining Traumatic Brain Injury: Impact Analysis Current Status. *Romanian Neurosurg*. 2018; 32:483-6.
1089. Satyarthee GD, Singh M. Role of Gamma Knife Radiosurgery in Management of Intracranial Meningioma Located in the Cavernous Sinus: Short Review. *Acta Sci Neurol*. 2018; 1:08-9.
1090. Satyarthee GD, Soni KD. Seizure As Presentation Of Pituitary Adenoma: Brief Review Of Management. *Biol Eng Med*. 2018; 3:1-2.
1091. Satyarthee GD, Verma S. Giant Pituitary Adenoma Associated With Extra Diaphragmatic Extension As Multiple Nubbing Into Subarachnoid Space: Uncommon Entity. *Biomed Res Clin Prac*. 2018; 3:1-2.
1092. Satyarthee GD. Commentary. *J Neurosci Rural Pract*. 2019; 10:166-7.
1093. Satyarthee GD. Dr. Hsiang-Lai Wen: Father of Hong Kong Neurosurgery. *Asian J Neurosurg*. 2019; 14:332.
1094. Satyarthee GD. Abdominal cerebrospinal fluid pseudocyst: Surgical management. *J Neurosci Rural Pract*. 2019; 10:166-7.
1095. Satyarthee GD. Obituary Shih Chun Jen: Dedicated life for advancement of neurosurgical speciality. *Asian J Neurosurg* 2018; 14:334-5.
1096. Satyarthee GD. Pediatric Symptomatic Sacral Extradural Arachnoid Cyst: Surgical Management Review. *J Pediatr Neurosci*. 2018; 13:211-3.
1097. Satyarthee GD. Post-Decompressive Craniectomy Surgery, Ventriculomegaly, Or Hydrocephalus Development: Imaging, Prevention, And Management. *J Neurosci Rural Pract*. 2018; 9:177-9.
1098. Satyarthee GD. Primary Extradural Meningioma Of Posterior Fossa Associated With Acquired Chiari Malformation: A Short Review. *Asian J Neurosurg*. 2018; 13:421-4.
1099. Satyarthee GD. Primary Intracranial Fibrosarcoma: Review of Management Options with Cases Illustration. *Biol Eng Med*. 2019; 4:1- 2 .
1100. Satyarthee GD. Reader response: Spinal cord perfusion pressure predicts neurologic recovery in acute spinal cord injury. *Neurology*. 2018; 90:904.
1101. Satyarthee GD. Referee Report For: A Pilot Study On Assessing The Role Of Intra-Operative Flow 800 Vascular Map Model In Predicting Onset Of Vasospasm Following Micro Vascular Clipping Of Ruptured Intracranial Aneurysms. *F1000Res*. 2018; 7:1188.
1102. Satyarthee GD. Spinal cord perfusion pressure predicts neurologic recovery in acute spinal cord injury. *Neurology*. 2018; 90:904.
1103. Satyarthee GD. Toddler With Repeated Fall Frequently Visiting Hospital Presented With Acute Subdural Hematoma On Readmission With Ultra-Rapid Evolution: Surgical Management Strategy. *Romanian Neurosurg*. 2019; 33:74-6.
1104. Sawhney C, Arora MK, Kumar S, Barik PK, Ranjan P. Initial management of blunt trauma neck. *JOACP*. 2018; 34:275-6.
1105. Saxena A, Sharma G, Tyagi S, Mourya M, Coshic P, Tiwari PK, et al. HLA-A*02 repertoires in three defined population groups from North and Central India: Punjabi Khatries, Kashmiri Brahmins and Sahariya tribe. *HLA*. 2019; 93:16-23.
1106. Saxena H, Takkar B, Shrivastava V, Azad SV. Subfoveal congenital hypertrophy of retinal pigment epithelium. *BMJ Case Rep*. 2018; bcr-2018-225845.

1107. Saxena R, Sharma M, Singh D, Sharma P. Full tendon medial transposition of lateral rectus with augmentation sutures in cases of complete third nerve palsy. *Br J Ophthalmol*. 2018; 102:715-7.
1108. Saxena R, Singh D, Sharma M, James M, Sharma P, Menon V. Steroids versus No Steroids in Non arteritic Anterior Ischemic Optic Neuropathy: A Randomized Controlled Trial. *Ophthalmology*. 2018; 125:1623-7.
1109. Sebastian S, Malhotra R, Dhawan B. Prosthetic joint infection: A major threat to successful total joint arthroplasty. *Indian J Med Microbiol*. 2018; 36:475-87.
1110. Sebastian S, Malhotra R, Sreenivas V, Kapil A, Chaudhry R, Dhawan B. Evaluation of 16S rRNA PCR on synovial fluid for the diagnosis of prosthetic joint infection. *Ann Lab Med*. 2018; 38:610-12.
1111. Seddon JA, Schaaf HS, Marais BJ, McKenna L, Garcia-Prats AJ, Hesselting AC, et al. Time to act on injectable-free regimens for children with multidrug-resistant tuberculosis. *Lancet Respir Med*. 2018; 6:662-4.
1112. Sehgal VN, Malhotra R. Multiple/Overlap Autoimmune Syndrome: An Overlap of Systemic Lupus Erythematosus, Dermato- polymyositis and Non-insulin Dependent/Adult Onset Diabetes Mellitus Concomitant Herpes (Varicella) Zoster/Shingles, an Innovation-a case report. *J Dermatititis*. 2018; 3:113.
1113. Sehrawat P, Biswas A, Kumar P, Singla P, Wig N, Dar L, et al. Role of cytokines as marker of dengue severity. *Mediterr J Hematol Infect Dis*. 2018; 10:e2018023.
1114. Selvam V, Subramaniam R, Baidya DK, Chhabra A, Gupta N, Dadhwal V, et al. Safety and efficacy of low dose intrathecal morphine for laparoscopic hysterectomy: randomized controlled pilot study. *J Gynaecol Surg*. 2018; 34:77-83.
1115. Selvan H, Angmo D, Tomar AS, Yadav S, Sharma A, Dada T. Changes in Intraocular Pressure and Angle Status After Phacoemulsification in Primary Angle Closure Hypertension. *J Glaucoma*. 2019; 28:105-10.
1116. Selvan H, Gupta S. Cyclodialysis cleft repair: a multi-centered, retrospective case series: Comment. *Clin Exp Ophthalmol*. 2019; 47:303.
1117. Selvan H, Gupta S. Transconjunctival rectus muscle bridle: an adjunct in surgical exposure. *Eye (Lond)*. 2018; 32:1151-3.
1118. Selvan H, Patil M, Yadav S, Tandon R. Triple chamber: a clinical rarity after deep anterior lamellar keratoplasty and role of optical coherence tomography in management. *Int Ophthalmol*. 2018; 38:2683-7.
1119. Selvan H, Singh A, Tandon R. Deep blue dot corneal degeneration: confocal characteristics. *Int Ophthalmol*. 2019; 39:667-9.
1120. Selvan H, Yadav S, Tandon R. Big double bubble trouble: in vivo real time demonstration of 'mixed-type bubble' and its consequent effects during deep anterior lamellar keratoplasty. *Eye (Lond)*. 2018; 32:1282-3.
1121. Selvanayagam R, Tiwari V, Das S, Trikha V. Traumatic Pubic-type Anterior Dislocation of the Hip with an Ipsilateral Greater Trochanter Fracture: Case Report and Review of Literature. *Cureus*. 2018; 10:e3287.
1122. Sen S, Patil M, Saxena R, Kumar A, Amar SP, Das D, et al. Perceived difficulties and complications in learners of phacoemulsification: A principal component analysis model. *Indian J Ophthalmol*. 2019; 67:213-6.
1123. Sengupta A, Agarwal S, Gupta PK, Ahlawat S, Patir R, Gupta RK, et al. On Differentiation between Vasogenic Edema and Non-Enhancing Tumor in High-Grade Glioma Patients using Support Vector Machine Classifier based upon Pre and Post Surgery MRI Images. *Eur J Radiol*. 2018; 106:199-208.
1124. Seth R, Xess I, Jana M. Diagnosis of Invasive Fungal Infections in Children. *Indian Pediatr*. 2019; 56:229-36.
1125. Shah B, Gupta R, Sarkar S, Balhara YPS. Injection Butorphanol dependence: A case report. *Asian J Psychiatr*. 2018; 35:45-6.
1126. Shah D, Makharia GK, Ghoshal UC, Varma S, Ahuja V, Hutfless S. Burden of gastrointestinal and liver diseases in India, 1990-2016. *Indian J Gastroenterol*. 2018; 37:439-45.
1127. Shah N, Mathur VP, Jain V, Logani A. Association between traditional oral hygiene methods with tooth wear, gingival bleeding, and recession: A descriptive cross-sectional study. *Indian J Dent Res*. 2018; 29:150-4.
1128. Shah R, Verma S, Bhat A, Bhat GR, Kamal K, Dada R, et al. Pericentric inversion of chromosome 7 associated with recurrent ICSI failure – A case report. *Indian J Genet*. 2018; 78:515-8.
1129. Shah S, Khanna P, Bhatt R. Perioperative anaesthetic concerns in transgender patients: Indian perspective. *Indian J Anaesth*. 2019; 63:84-91.
1130. Shakrawal J, Selvan H, Sharma A, Angmo D. Double trouble: Microspherophakia with Axenfeld-Rieger anomaly. *Indian J Ophthalmol*. 2019; 67:394-5.
1131. Shakya P, Roy SN, Deep R. Chronobiology: discovery of the molecular mechanisms of circadian rhythms. *J Ment Health Hum Behav*. 2018; 23:69-71.
1132. Shalimar, Jain S, Gamanagatti SR, Kedia S, Thakur B, Nayak B, et al. Role of Indocyanine Green in Predicting Post-Transarterial Chemoembolization Liver Failure in Hepatocellular Carcinoma. *J Clin Exp Hepatol*. 2018; 8: 28-34

1133. Shalimar, Rout G, Jadaun SS, Ranjan G, Kedia S, Gunjan D, et al. Prevalence, predictors and impact of bacterial infection in acute on chronic liver failure patients. *Dig Liver Dis.* 2018; 50: 1225-31.
1134. Shalimar, Sonika U, Kedia S, Mahapatra SJ, Nayak B, Yadav DP, et al. Comparison of Dynamic Changes Among Various Prognostic Scores in Viral Hepatitis-Related Acute Liver Failure. *Ann Hepatol.* 2018; 17: 403-12.
1135. Shambanduram SS, Devarajan Sebastian LJ, Jain N, Garg A, Gaikwad SB. Management of a rare case of posterior condylar canal dural arteriovenous fistula presenting with subarachnoid haemorrhage: A case report and review of literature. *Interv Neuroradiol.* 2018; 24:206-9.
1136. Sharan P, Keeley J. Cultural perspectives related to international classification of Diseases-11. *Ind J Soc Psychiatry.* 2018; 34:1-4.
1137. Sharma A, Albahrani M, Zhang W, Kufel CN, James SR, Odunsi K, et al. Epigenetics activation of POTE genes in ovarian cancer. *Epigenetics.* 2019; 14:185-97.
1138. Sharma A, Dadhwal V, Rana A, Chawla J. Isolated large bilateral choroid plexus cysts associated with trisomy 18. *BMJ Case Rep.* 2019; 12:e229216.
1139. Sharma A, Gopichandran L, Seth S. A randomized controlled trial to assess the effectiveness of structured discharge counseling on heart failure outcomes. *J Prac Cardiovasc Sci.* 2018; 4:102-8.
1140. Sharma A, Pandey AK, Mohan A, Bhalla AS, Vishnubhatla S, Sharma MC, et al. Standardization of image reconstruction parameters for dynamic fluorine-18-fluorodeoxyglucose positron emission tomography/computed tomography. *Nucl Med Commun.* 2018; 39:1207-17.
1141. Sharma A, Singh K, Biswas A, Ranjan R, Kishor K, Pandey H, et al. Impact of interleukin 6 promoter polymorphisms (-174 G>C, -572 G>C and -597 G>A) on plasma IL-6 levels and their influence on the development of DVT: a study from India. *Hematology.* 2018; 23:833-8.
1142. Sharma BS, Sawarkar DP, Verma SV. Endoscopic management of fourth ventricle neurocysticercosis: Description of the new technique in case series of five cases and review of literature. *World Neurosurg.* 2019; 122:e647-54.
1143. Sharma H, Goel AD, Gosain M, Amarchand R, Kapoor SK, Kumar A, et al. Community healthcare professional visits are important determinants of knowledge and practices regarding newborn care among mothers. *J Nat Sci Biol Med.* 2018; 9:159-63.
1144. Sharma JB, Yadav V, Mishra S, Kriplani A, Bhatla N, Kachhawa G. Comparative study on maternal and fetal outcome in pregnant women with rheumatic heart disease and severe mitral stenosis undergoing percutaneous balloon mitral valvotomy before or during pregnancy. *Indian Heart J.* 2018; 70:685-9.
1145. Sharma KA, Das D, Dadhwal V, Deka D, Singhal S, Vanamail P. Two dimensional fetal biometry versus three dimensional fractional thigh volume for ultrasonographic prediction of birthweight. *Int J Gynecol Obstet.* 2019; 145:47-53.
1146. Sharma M, Tyagi S, Tripathi P, Seth T. Syndecan-1 (sCD138) levels in chronic lymphocytic leukemia: clinical and hematological correlations. *Blood Res.* 2018; 53:205-9.
1147. Sharma N, Dey A, Balayan A, Millo T, Gupta SK. Molecular Techniques used for Determination of Genetic Identity in Forensic Samples. *J Forensic Chem Toxicol.* 2018; 4:51-7.
1148. Sharma N, Dey AR, Tyagi S, Pandit NJ, Kulbhushan P, Gupta SK. Long Drop Hanging with autopsy finding of cervical spine fracture: a rare case report. *J Forensic Chem Toxicol.* 2018; 4:105-9.
1149. Sharma N, Kaur M, Agarwal T, Sangwan VS, Vajpayee RB. Treatment of acute ocular chemical burns. *Surv Ophthalmol.* 2018; 63:214-35.
1150. Sharma N, Mohanty S, Jhanji V, Vajpayee RB. Amniotic membrane transplantation with or without autologous cultivated limbal stem cell transplantation for the management of partial limbal stem cell deficiency. *Clin Ophthalmol.* 2018; 12:2103-6.
1151. Sharma N, Sahay P, Maharana PK, Singhal D, Saluja G, Bandivadekar P, et al. Management Algorithm for Fungal Keratitis: The TST (Topical, Systemic and Targeted Therapy) Protocol. *Cornea.* 2019; 38:141-5.
1152. Sharma N, Singhal D, Maharana PK, Agarwal T, Sinha R, Satpathy G, et al. Spectral Domain Anterior Segment Optical Coherence Tomography in Fungal Keratitis. *Cornea.* 2018; 37:1388-94.
1153. Sharma N, Singhal D, Maharana PK, Dhiman R, Shekhar H, Titiyal JS, et al. Phacoemulsification with coexisting corneal opacities. *J Cataract Refract Surg.* 2019; 45:94-100.
1154. Sharma N, Singhal D, Maharana PK, Jain R, Sahay P, Titiyal JS. Continuous intraoperative optical coherence tomography – guided shields ulcer debridement with tuck in multi layered amniotic membrane transplantation. *Indian J Ophthalmol.* 2018; 66:816-9.
1155. Sharma N, Singhal D, Maharana PK, Jain R, Sahay P, Titiyal JS. Response to comments on: continuous intraoperative optical coherence tomography guided shield ulcer debridement with tuck in multilayers amniotic membrane transplantation. *Indian J Ophthalmol.* 2018; 66:1521-2.

1156. Sharma P, Baloda V, Gahlot GP, Singh A, Mehta R, Vishnubathla S, et al. Clinical, endoscopic, and histological differentiation between celiac disease and tropical sprue: A systematic review. *J Gastroenterol Hepatol*. 2019; 34:74-83.
1157. Sharma P, Gaur N. Commentary: Reoperation following strabismus surgery among Medicare beneficiaries: Associations with geographic region, academic affiliation, surgeon volume, and adjustable suture technique - Operations again! What lessons do we gain? *Indian J Ophthalmol*. 2018; 66:1154-5.
1158. Sharma P, Gaur N. How do we tackle a child's spectacle? *Indian J Ophthalmol*. 2018; 66:651-2.
1159. Sharma P, Katiyar V, Sharma R, Gurjar HK, Krishnan S. Letter: Role of Tyrosine Kinase Inhibitors in Recurrent Meningiomas: Controversies and Promises. *Neurosurg*. 2018; 82:E181-3.
1160. Sharma R, Katiyar V, Gurjar H, Monga A, Vora Z. Clinical Utility of Diffusion Tensor Imaging Metrics in Lumbar Disk Herniation. *World Neurosurg*. 2018; 116:475.
1161. Sharma R, Katiyar V, Sharma P, Gurjar H. Systemic inflammatory response in pediatric central nervous system tumors. *Acta Neurochir (Wien)*. 2018; 160:1215-6.
1162. Sharma R, Katiyar V, Sharma P, Vora Z, Gurjar H. Posterior fossa crowdedness in idiopathic trigeminal neuralgia: Is it the real perpetrator? *J Clin Neurosci*. 2018; 54:165-6.
1163. Sharma R, Phalak M, Katiyar V, Borkar S, Kale SS, Mahapatra AK. Microvascular decompression versus stereotactic radiosurgery as primary treatment modality for trigeminal neuralgia: A systematic review and meta-analysis of prospective comparative trials. *Neurol India*. 2018; 66:688-94.
1164. Sharma R, Phalak M, Katiyar V. Letter to the Editor. The efficacy of local vancomycin for reducing surgical site infections after cranioplasty. *J Neurosurg*. 2018; 128:1263-5.
1165. Sharma R, Phalak M, Sharma P. Letter to the Editor. Is the serum glucose/potassium ratio a reliable prognostic factor for aneurysmal SAH? *J Neurosurg*. 2018; 129:1098-9.
1166. Sharma R, Sharma P, Katiyar V, Vora Z, Gurjar H. Can diabetic ketoacidosis (DKA) precipitate posterior reversible encephalopathy syndrome (PRES)? *Childs Nerv Syst*. 2018; 34:1107-8.
1167. Sharma R, Sharma P, Katiyar V, Vora Z, Gurjar H. Early tracheostomy in traumatic brain injury: Conundrum continues. *Br J Neurosurg*. 2018; 32:127.
1168. Sharma R, Sharma P, Katiyar V, Vora Z, Gurjar H. Hyponatremia Following Aneurysmal Subarachnoid Hemorrhage *World Neurosurg*. 2018; 115:481.
1169. Sharma R, Sharma P, Katiyar V, Vora Z, Gurjar H. Timing of Early Cranioplasty for Traumatic Brain Injury-the Debate Goes On. *World Neurosurg*. 2018; 115:477.
1170. Sharma R, Tandon V, Sawarkar D, Phalak M, Raheja A, Kale SS. Intracranial pressure (ICP) monitoring in diffuse brain injury: To do or not to do? *Acta Neurochir (Wien)*. 2018; 160:1699-700.
1171. Sharma S, Kumar G, Vashishta M, Pandey R, Rathore S, Chourasia BK, et al. Biochemical characterization of Plasmodium complement factors binding protein for its role in immune modulation. *Biochem J*. 2018; 475:2877-91.
1172. Sharma S, Sheoran A, Gupta KB, Yadav A, Varma-Basil M, Sreenivas V et al. Quantitative detection of a cocktail of mycobacterial MPT64 and PstS1 in tuberculosis patients by real-time immuno-PCR. *Future Microbiol*. 2019; 14:223-33.
1173. Sharma S, Singh AD, Sharma SK, Tripathi M, Das CJ, Kumar R. Ga-68DOTA-NOC PET/CT as an alternate predictor of disease activity in sarcoidosis. *Nucl Med Commun*. 2018; 39:768-78.
1174. Sharma SK, Mohan A, Singh AD, Mishra H, Jhanjee S, Pandey RM, et al. Impact of nicotine replacement therapy as an adjunct to anti-tuberculosis treatment and behaviour change counselling in newly diagnosed pulmonary tuberculosis patients: an open-label, randomised controlled trial. *Sci Rep*. 2018; 8:882-8.
1175. Sharma U, Agarwal K, Sah RG, Parshad R, Seenu V, Mathur S, et al. Can Multi-Parametric MR Based Approach Improve the Predictive Value of Pathological and Clinical Therapeutic Response in Breast Cancer Patients? *Front Oncol*. 2018; 8:319.
1176. Sharma VK, Bhatia R, Yadav CP. Clinical Profile and Allergens in Pigmented Cosmetic Dermatitis and Allergic Contact Dermatitis to Cosmetics in India. *Dermatitis*. 2018; 29:264-9.
1177. Sharma VK, Gupta V, Jangid BL, Pathak M. Modification of the Fitzpatrick system of skin phototype classification for the Indian population, and its correlation with narrowband diffuse reflectance spectrophotometry. *Clin Exp Dermatol*. 2018; 43:274-80.
1178. Sharma VK, Gupta V, Ramam M. Authors' reply: Dermoscopy of Lichen Planus Pigmentosus in Indian patients - Pitfalls to avoid. *Indian J Dermatol Venereol Leprol*. 2018; 84:314-5.
1179. Shashni A, Pujari A, Bajaj MS, Kumar P. Superior oblique muscle cysticercosis: importance of long-term assessment by a single observer. *Can J Ophthalmol*. 2018; 53:e193-5.

1180. Sheemar A, Temkar S, Takkar B, Sood R, Sinha S, Chawla R, et al. Ultra-Wide Field Imaging Characteristics of Primary Retinal Vasculitis: Risk Factors for Retinal Neovascularization. *Ocul Immunol Inflamm*. 2019; 27:383-8.
1181. Shekhar S, Yadav Y, Singh AP, Pradhan R, Desai GR, Dey AB, et al. Neuroprotection by ethanolic extract of *Syzygium aromaticum* in Alzheimer's disease like pathology via maintaining oxidative balance through SIRT1 pathway. *Exp Gerontol*. 2018; 110:277-83.
1182. Shewade HD, Gupta V, Satyanarayana S, Kharate A, Sahai KN, et al. Active case finding among marginalised and vulnerable populations reduces catastrophic costs due to tuberculosis diagnosis. *Global Health Action*. 2018; 11:1494897.
1183. Shree R, Goyal MK, Venugopalan VY, Modi M, Pandit AK, Lal V, Mittal BR. Morvan's syndrome: An underdiagnosed entity. A short review. *Neurol India*. 2018; 66:1805-7.
1184. Shree R, Mehta S, Vishnu VY. Feeding dystonia. *Mov Disord Clin Pract*. 2018; 5:442-3.
1185. Shukla A, Singh NN, Adsul S, Brave VR, Kumar S, Shukla D et al. Comparative efficacy of Chemiluminescence and Toluidine blue in the detection of potentially malignant and malignant disorders of the oral cavity. *J Oral Maxillofac Pathol*. 2018; 22:442.
1186. Shukla G, Bajpai G, Gupta A, Katoch J, Mohammed A, Pandey RM, et al. Evaluation of the diagnostic yield of ARQIP: A new restless legs syndrome diagnostic questionnaire and validation of its Hindi translation. *Neurol India*. 2018; 66: 1020-7.
1187. Shukla P, Vashist P, Singh SS, Gupta V, Gupta N, Wadhvani M, et al. Assessing the inclusion of primary school children in vision screening for refractive error program of India. *Indian J Ophthalmol*. 2018; 66:935-9.
1188. Siddaiah A, Kant S, Haldar P, Rai SK, Misra P. Maternal health care access among migrant women labourers in the selected brick kilns of district Faridabad, Haryana: mixed method study on equity and access. *Int J Equity Health*. 2018; 17:171.
1189. Siddharth V, Adhish V, Das JK. A study on surveillance of vaccine preventable disease and adverse events following immunization. *J Commun Health Manag*. 2018; 5:21-5.
1190. Siddharth V, Gupta SK, Satpathy S. Quality of Care in Medicine Intensive Care Unit: A Study in an Apex Tertiary Care Teaching Hospital of Northern India. *J Postgrad Med Educ Res*. 2018; 52:171-6.
1191. Siddharth V, Gupta SK. Quality of care in intensive care unit. *J Acad Hosp Adm*. 2018; 30:17-27.
1192. Sidhu T, Desai A, Gagrani M, Dada T. Phacomorphic glaucoma in a high myope with phakic intraocular lens. *BMJ Case Rep*. 2019; 12:e227096.
1193. Sihota R, Agarwal E, James M, Verma M, Kumar L, Dada T, et al. In Reply: Long-term Evaluation of Specular Microscopic Changes Following Nd: YAG Iridotomy in Chronic Primary Angle-closure Glaucoma Eyes. *J Glaucoma*. 2018; 27:e143-4.
1194. Sihota R, Angmo D, Ramaswamy D, Dada T. Simplifying "target" intraocular pressure for different stages of primary open-angle glaucoma and primary angle-closure glaucoma. *Indian J Ophthalmol*. 2018; 66:495-505.
1195. Sihota R, Gupta S, Angmo D. Evaluation of macular ganglion cell analysis compared to retinal nerve fiber layer thickness for pre-perimetric glaucoma diagnosis. *Indian J Ophthalmol*. 2018; 66:491-3.
1196. Sihota R, Kumar S, Sidhu T, Midha N, Sharma A, Yadav S, et al. Is combined mechanism glaucoma a distinct entity? *Graefes Arch Clin Exp Ophthalmol*. 2018; 256:1961-9.
1197. Sihota R, Middha N, Sidhu T, Dada T, Gupta V, Agarwal R, et al. Systemic associations of Childhood glaucoma. *J Pediatr Ophthalmol Strabismus*. 2018; 55:397-402.
1198. Sikary AK, Behera C, Murty OP. Adipocere Formation in Subtropical Climate of Northern India: A Retrospective Study. *J Forensic Sci*. 2019; 64:260-3.
1199. Singh A, Gupta N, Ganger A, Vashist P, Tandon R. Awareness Regarding Eye Donation in an Urban Slum Population: A Community-Based Survey. *Exp Clin Transplant*. 2018; 16:730-5.
1200. Singh A, Gupta N, Kumar V, Tandon R. Toxic anterior segment syndrome following phakic posterior chamber IOL: a rarity. *BMJ Case Rep*. 2018; 11:bcr-2018-225806.
1201. Singh A, Lodha R, Shastri S, Sethuraman G, Sreedevi KN, Kabra M, et al. Aquagenic wrinkling of skin: A screening test for cystic fibrosis. *Indian pediatr*. 2019; 56:109-13.
1202. Singh A, Mohapatra PK, Kalyanasundaram D, Kumar S. Self functionalizedultrastable water suspension of luminescent carbon quantum dots. *Mater Chem Phy*. 2019; 225:23-7.
1203. Singh AD, Makkar N, Ray A, Sood R. Phlegmasia CeruleaDolens Presenting with Acute Compartment Syndrome and Pulmonary Embolism. *BMJ Case Reports*. 2018; bcr-2018-224879.
1204. Singh AKC, Kandasamy D, Garg A, Jyotsna VP, Khadgawat R. Study of Pituitary Morphometry Using MRI in Indian Subjects. *Indian J Endocrinol Metab*. 2018; 22:605-9.

1205. Singh AN, Kilambi R, Das P, Madhusudhan KS, Pal S. Malignant Hemangiopericytoma of the Liver Masquerading as Hepatocellular Carcinoma. *Indian J Surg Oncol*. 2018; 9:256-9.
1206. Singh AN, Kilambi R, Madhusudhan KS, Pal S. An Alternative Approach to Life-Threatening Gastrointestinal Bleeding After Corrosive Ingestion. *Indian J Surg*. 2018; 80:187-9.
1207. Singh AN, Pal S, Kilambi R, Madhusudhan KS, Dash NR, Tandon N, et al. Diabetes after pancreaticoduodenectomy: can we predict it? *J Surg Res*. 2018; 227:211-9.
1208. Singh D, Pandey PM, Kalyanasundaram D. Optimization of pressureless microwave sintering of Ti6Al4V by response surface methodology. *Mater Manuf Process*. 2018; 33:1835-44.
1209. Singh D, Rana A, Sharma P, Pandey PM, Kalyanasundaram D. Microwave sintering of Ti6Al4V: Optimization of processing parameters for maximal tensile strength and minimal pore size. *Metals*. 2018; 8:1086.
1210. Singh G, Kaloiya GS, Dhawan A, Balhara YPS, Mishra AK. Need for evaluation of underlying dysfunctional cognition in problem drinkers. *Asian J Psychiatr*. 2018; 31:71-2.
1211. Singh G, Kaur M, Dehran M. Management of a case of ventricular bigeminy using central neuraxial blockade. *Indian J Anaesth*. 2018; 62:567-8.
1212. Singh GP, Chauhan V, Kapoor I, Kumar A. Ultrasound-guided internal jugular vein cannulation: Can an artery be missed? *J Anaesthesiol Clin Pharmacol*. 2018; 34:130-1.
1213. Singh GP, Nigam R, Tomar GS, Monisha M, Bhoi SK, S A, et al. Early And Rapid Detection Of UCHL1 In The Serum Of Brain-Trauma Patients: A Novel Gold Nanoparticle- Based Method For Diagnosing The Severity Of Brain Injury. *Analyst*. 2018; 143:3366-73.
1214. Singh J, Gupta R, Prajapati DC, Rao R. Use of opium containing herbal drug and associated mania. *Asian J Psychiatr*. 2018; 36: 36-7.
1215. Singh KR, Muktesh G, Gunjan D, Kochhar R, Singh V, Das A, et al. Patterns of alcohol consumption and nutrition intake in patients with alcoholic liver disease and alcoholic pancreatitis in North Indian men. *JGH Open*. 2019; 3:316-21.
1216. Singh K, Ali MK, Devarajan R, Shivashankar R, Kondal D, Ajay VS, et al. Rationale and protocol for estimating the economic value of a multicomponent quality improvement strategy for diabetes care in South Asia. *Glob Health Res Policy*. 2019; 4:7.
1217. Singh K, Chandrasekaran AM, Bhaumik S, Chattopadhyay K, Gamage AU, Silva P, et al. Cost-effectiveness of interventions to control cardiovascular diseases and diabetes mellitus in South Asia: a systematic review. *BMJ Open*. 2018; 8:e017809.
1218. Singh K, Crossan C, Laba TL, Roy A, Hayes A, Salam A, et al. Cost-effectiveness of a fixed dose combination (polypill) in secondary prevention of cardiovascular diseases in India: Within-trial cost-effectiveness analysis of the UMPIRE trial. *Int J Cardiol*. 2018; 262:71-8.
1219. Singh K, Johnson L, Devarajan R, Shivashankar R, Sharma P, Kondal D, et al. Acceptability of a decision-support electronic health record system and its impact on diabetes care goals in South Asia: a mixed-methods evaluation of the CARRS trial. *Diabet Med*. 2018; 35:1644-54.
1220. Singh K, Patel SA, Biswas S, Shivashankar R, Kondal D, Ajay VS, et al. Multimorbidity in South Asian adults: prevalence, risk factors and mortality. *J Public Health (Oxf)*. 2019; 41:80-9.
1221. Singh K, Sazawal S, Chhikara S, Mahapatra M, Saxena R. Association of JAK2V617F mutation with thrombosis in Indian patients with Philadelphia negative chronic myeloproliferative neoplasms. *Indian J Pathol Microbiol*. 2018; 61:371-4.
1222. Singh L, Kashyap S. Update on Pathology of Retinoblastoma. *Int J Ophthalmol*. 2018; 11:2011-6.
1223. Singh MK, Pushker N, Meel R, Chodsol K, Sen S, Bakhshi S, et al. Does NEMO/IKK γ protein have a role in determining prognostic significance in uveal melanoma? *Clin Transl Oncol*. 2018; 20:1592-1603.
1224. Singh N, Bansal K, Chopra R, Dharmani CKK. Association of nutritional status on salivary flow rate, dental caries status and eruption pattern in pediatric population in India. *Ind J Dent Sci*. 2018; 10:78-82.
1225. Singh N, Dalal V, Kriplani A, Malhotra N, Mahey R, Perumal V. Empty Follicle Syndrome: A Challenge to Physician. *J Hum Reprod Sci*. 2018; 11:274-8
1226. Singh N, Yadav A, Vanamail P, Kumar S, Roy KK, Sharma JB. Can Endometrial Volume Assessment Predict the Endometrial Receptivity on the Day of hCG in Patients of Fresh IVF Cycles: A Prospective Observational Study. *Int J of Reprod Contracept Obstet Gynecol*. 2018; 7:1523-6.
1227. Singh P, Arora A, Strand TA, Leffler DA, Catassi C, Green PH, et al. Global Prevalence of Celiac Disease: Systematic Review and Meta-analysis. *Clin Gastroenterol Hepatol*. 2018; 16:823-36.
1228. Singh P, Kapoor S, Sen S, Bajaj MS. Cataract surgery in a case of Rosai-Dorfman disease with proptosis. *J Cataract Refract Surg*. 2018; 44:1398-9.

1229. Singh P, Makharia GK. Reply. *Clin Gastroenterol Hepatol.* 2018;16:2003.
1230. Singh P, Pujari A, Kashyap S. Apocrine Hydrocystoma-Lantern of the Eye. *JAMA Ophthalmol.* 2019; 137:e183975.
1231. Singh P, Sen S, Banerjee M, Meel R. Choroidal melanoma masquerading as orbital cellulitis. *BMJ Case Rep.* 2018; 11:e227486
1232. Singh PM, Borle A, Panwar R, Makkar JK, McGrath I, Trikha A, et al. Perioperative antiemetic efficacy of dexamethasone versus 5-HT₃ receptor antagonists: a meta-analysis and trial sequential analysis of randomized controlled trials. *Eur J Clin Pharmacol.* 2018; 74:1201-14.
1233. Singh R, Mukherjee A, Singla M, Vajpayee M, Negi N, Kabra S, et al. Impact of HIV infection and highly active antiretroviral therapy (HAART) on B cell subpopulations in children. *J Med Virol.* 2018; 90:1222-31.
1234. Singh RK, Kumar S, Tomar MS, Verma P, Singh SP, Gautam PK, et al. Spatial Regulation of PKC by Pharmacological Approaches in Cancer: Are We There Yet? *Biotechnol Ind J.* 2018; 14:162.
1235. Singh RK, Kumar S, Tomar MS, Verma P, Singh SP, Gautam PK, et al. Classical Protein Kinase C: a novel kinase target in breast cancer. *Clin Transl Oncol.* 2019; 21:259-67.
1236. Singh RK, Kumar S, Tomar MS, Verma P, Singh SP, Gautam PK, Acharya A, et al. PKC α : regulation and implication for cellular transformation. *MOJ Tumor Res.* 2018; 1:44-7.
1237. Singh S, Banik S, Goyal K, Dube SK. Communicating Author Early Post-Operative Hemodynamic Perturbation Associated With Topiramate-Induced Metabolic Acidosis: A Case Report. *J Pediatr Neurosci.* 2018; 13:221-3.
1238. Singh S, Bhargava B, Aggarwal P, Dhingra R, Gupta AK, Lodha R, et al. Performance of a novel, manually operated intraosseous device in adult human cadavers. *Am J Disaster Med.* 2018; 13:5-12.
1239. Singh S, Bhargava B, Vasantha P, Bhatia R, Sharma H, Pal S, et al. Clinical Evaluation of a Novel Intrarectal Device for Management of Fecal Incontinence in Bedridden Patients. *J Wound Ostomy Continence Nurs.* 2018; 45:156-62.
1240. Singh S, Bhari N, Rai M, Gupta S. Orangechrome Due to Carotenemia Presenting as Trichrome Vitiligo. *J Cutan Med Surg.* 2018; 22:422.
1241. Singh S, Chouhan RS, Bindra A, Radhakrishna N. Comparison Of Effect Of Dexmedetomidine And Lidocaine On Intracranial And Systemic Hemodynamic Response To Chest Physiotherapy And Tracheal Suctioning In Patients With Severe Traumatic Brain Injury. *J Anesth.* 2018; 32:518-23.
1242. Singh S, Dube SK, Jena BR, Pandia MP. Pulmonary Embolism following Fibrin Glue Application. Can It Be? *J Neuroanaesthesiol Crit Care.* 2018; 5:125-6.
1243. Singh S, Khandelwal A, Datta R, Kaushal A, Singh GP. Recurrent Metabolic Acidosis during High-Dose Midazolam Therapy For Refractory Status Epilepticus. *Indian J Crit Care Med.* 2018; 22:119-21.
1244. Singh S, Khandpur S, Agarwal S. Verruciform xanthoma overlying inflammatory linear verrucous epidermal nevus and in broad segmental distribution. *BMJ Case Rep.* 2018; pii: bcr-2018-225964.
1245. Singh S, Kumar S, Gupta A, Verma R, Kumar N. Effectiveness and predictors of response to 1-hz repetitive transcranial magnetic stimulation in patients with obsessive-compulsive disorder. *J ECT.* 2019; 35:61-6.
1246. Singh S, Kumar S, Kumar N, Verma R. Low-frequency Repetitive Transcranial Magnetic Stimulation for Treatment of Tourette Syndrome: A Naturalistic Study with 3 Months of Follow-up. *Indian J Psychol Med.* 2018; 40:482-6.
1247. Singh S, Kumar S, Sarkar S, Balhara YPS. Quality of Life and its Relationship with Perceived Stigma among Opioid Use Disorder Patients: An Exploratory Study. *Indian J Psychol Med.* 2018; 40:556-61.
1248. Singh S, Patra S, Arava S, Bhari N. SkinIndia Quiz 47: Linear pitted plaque over the foot. *Indian Dermatol Online J.* 2018; 9:356-8.
1249. Singh S, Patra S, Bhari N. Dermatofibroma Over the Face. *Indian Dermatol Online J.* 2019; 10:94-5.
1250. Singh S, Rai M, Bhari N, Yadav S. Systematized inflammatory linear verrucous epidermal nevus moderately responsive to systemic acitretin and topical calcipotriol. *Indian J Paediatr Dermatol.* 2018; 19:266-8.
1251. Singh S, Roy H, Singh GP, Khandelwal A. Early Postoperative Carbamazepine-Induced Tetany In A Patient With Trigeminal Neuralgia. *J Anaesthesiol Clin Pharmacol.* 2018; 34:405-6.
1252. Singh S, Sahoo AK, Ramam M, Bhari N. Mucocutaneous spider angiomas in an adolescent with chronic liver disease. *Arch Dis Child.* 2018; 103:1145.
1253. Singh UB, Das R, Shrestha P, Bala K, Pandey P, Verma S, et al. Compromised longevity due to *Mycobacterium abscessus* pulmonary disease in lungs scarred by tuberculosis. *Access Microbiol.* 2019; 1: DOI 10.1099/acmi.0.000003.
1254. Singh V, Deo SVS, Dwivedi SN, Khan MA. An Epidemiological Model to Find Out Factors Associated with Nodal Involvement among Indian Oral Cancer Patients. *Open J Epidemiol.* 2018; 8:117-29.
1255. Singh Y, Mirdha BR, Guleria R, Kabra SK, Mohan A, Chaudhry R, et al. Genetic polymorphisms associated with treatment failure and mortality in pediatric Pneumocystosis. *Sci Rep.* 2019; 9:1192.

1256. Singhal D, Maharana PK, Sharma N, Titiyal JS. Immune stromal keratitis: a rare ocular presentation of tuberculosis. *BMJ Case Rep.* 2018; bcr-2017-222571.
1257. Singhal R, Chawla S, Batra H, Gupta S, Ojha A, Rathore DK, et al. Engulfment of Hb-activated platelets differentiates monocytes into pro-inflammatory macrophages in PNH patients. *Eur J Immunol.* 2018; 48:1285-94.
1258. Singhal R, Rathore DK, Bhakuni T, Seth T, Guchhait P. Absence of non-classical monocytes in hemolytic patients: free-Hb and NO-mediated mechanism. *J Immunol Res.* 2019; 2019:1409383.
1259. Singhal S, Roy KK, Kumar S, Meena J, Bharti J, Shekhar B. Pregnancy with massive splenomegaly: A case series. *Nat Med J India.* 2018; 31:146-8.
1260. Singla R, Bindra J, Singla A, Gupta Y, Kalra S. Drug Prescription Patterns and Cost Analysis of Diabetes Therapy in India: Audit of an Endocrine Practice. *Indian J Endocrinol Metab.* 2019; 23:40-5.
1261. Singla R, Garg A, Singla S, Gupta Y. Temporal Change in Profile of Association between Diabetes, Obesity, and Age of Onset in Urban India: A Brief Report and Review of Literature. *Indian J Endocrinol Metab.* 2018; 22:429-32.
1262. Singla R, Kamra D, Sharma R, Katiyar V, Gurjar H. Do Gliomas Behave Differently in Patients with Human Immunodeficiency Virus? *World Neurosurg.* 2018; 114:431.
1263. Singla R, Katiyar V, Sharma R, Gurjar H. Is decision-making easier post RESCUE ICP trial? *Acta Neurochir (Wien).* 2018; 160:1301-2.
1264. Sinha A, Puraswani M, Kalaivani M, Goyal P, Hari P, Bagga A. Efficacy and safety of mycophenolate mofetil versus levamisole in frequently relapsing nephrotic syndrome: an open-label randomized controlled trial. *Kidney Int.* 2019; 95:210-8.
1265. Sinha A, Singh V, Singh S, Yadav S. Proteomic analyses reveal lower expression of TEX40 and ATP6V0A2 proteins related to calcium ion entry and acrosomal acidification in asthenozoospermic males. *Life Sci.* 2019; 218:81-8.
1266. Sinha Deb K, Tuli A, Sood M, Chadda R, Verma R, Kumar S, et al. Is India ready for mental health apps (MHApps)? A quantitative-qualitative exploration of caregivers' perspective on smartphone-based solutions for managing severe mental illnesses in low resource settings. *PLoS One.* 2018; 13:e0203353.
1267. Sinha R, Kumar KR, Selvam V, Chowdhury AR. Subcutaneous emphysema - An unexpected cause for respiratory distress during vitreoretinal surgery under peribulbar block. *Indian J Anaesth.* 2018; 62:79-80.
1268. Sinha R, Kumar KR. Intravenous dexmedetomidine augments the oculocardiac reflex. *J AAPOS.* 2019; 23:62.
1269. Sinha R, Kumar KR. Safer methods of ophthalmic block. *Indian J Anaesth.* 2018; 62:323.
1270. Sinha S, Gupta K, Khan NH, Mandal D, Kohli M, Das BK, et al. Higher frequency of HIV-1 drug resistance and increased NRTI mutations among the HIV-1 positive ART naive individuals co-infected with Mycobacterium Tuberculosis compared to only HIV infection in India Infectious Diseases. *Infect Dis: Res Treat.* 2018; 11:1-7.
1271. Sinha S, Gupta K, Mandal D, Das BK, Pandey RM. Serum and Bronchoalveolar Lavage Fluid 25(OH) Vitamin D3 Levels in HIV-1 and Tuberculosis: A Cross-Sectional Study from a Tertiary Care Center in North India. *Current HIV Research.* 2018, 16:167-73.
1272. Sofi RA, Qureshi T, Gupta V. Electric cataracts: A Cause of bilateral blindness in Kashmir. *Eye.* 2018; 32:1676-7.
1273. Sokhal S, Rath GP, Sokhal N, Chouhan RS. Severe Hypertension with Dexmedetomidine Infusion during Awake Craniotomy. *J Neuroanaesthesiol Crit Care.* 2018; 5:33.
1274. Soni A, Surana RK, Jha SK. Smartphone based optical biosensor for the detection of urea in saliva. *Sens Actuators B Chem.* 2018; 269:346-53.
1275. Soni S, Muthukrishnan SP, Sood M, Kaur S, Mehta N, Sharma R. A novel method for assessing patients with schizophrenia and their first-degree relatives by increasing cognitive load of visuo-spatial working memory. *Asia Pac Psychiatry.* 2018; 10:e12333.
1276. Soni S, Muthukrishnan SP, Sood M, Kaur S, Sharma R. Hyperactivation of left inferior parietal lobule and left temporal gyri shortens resting EEG microstate in schizophrenia. *Schiz Res.* 2018; 201:204-7.
1277. Sood A, Duseja A, Kabrawala M, Amrose P, Goswami B, Chowdhury A, et al. Sofosbuvir-velpatasvir single-tablet regimen administered for 12 weeks in a phase 3 study with minimal monitoring in India. *Hepatol Int.* 2019; 13:173-9.
1278. Sood A, Mishra A, Ambekar A. Trends in alcohol consumption and expenditure: Analysis of household data from nationally representative sample from India. *Asian J Psychiatr.* 2019; 40:116-23.
1279. Sood M, Chadda RK, Mishra AK, Kumari K, Kukreti R. Attitude toward antipsychotics and its correlation with psychopathology and insight in patients with schizophrenia. *Indian J Soc Psychiatry.* 2018; 34:200-2
1280. Sood M, Krishnan V, Chadda RK, Kalpana, Kukreti R. Psychopathology of Schizophrenia in South Asia: Has there been a change over the last few decades? *Asian J Psychiatr.* 2019; 39:80-3.

1281. Sood S, Mahajan N, Singh R, Agarwal S, Shende T, Kapil A, et al. Typing of *Neisseria gonorrhoeae* isolates by Phenotypic and Genotypic techniques in New Delhi, India. *J Lab Physicians*. 2019; 11:45-50.
1282. Soubam P, Mishra S, Suri A, Dhingra R, Mochan S, Lalwani S, et al. Standardization of the technique of silicon injection of human cadaveric heads for opacification of cerebral vasculature in Indian conditions. *Neurol India*. 2018; 66:439-43.
1283. Sreenivasan SA, Garg K, Mishra S, Singh PK, Singh M, Chandra PS. Letter To Editor Local Steroid Application During Anterior Cervical Dissectomy And Fusion. *J Neurosurg Spine*. 2018; 30:296-7.
1284. Sreenivasan SA, Garg K, Singh M, Chandra PS. Letter to the Editor. Cervical intramedullary tumor resection and kyphotic malalignment. *J Neurosurg Spine*. 2018; 29:348-50.
1285. Sreenivasan SA, Phalak M, Borkar SA, Kale SS. Letter to the Editor. Percutaneous transforaminal oendoscopic discectomy versus microendoscopic discectomy. *J Neurosurg Spine*. 2018; 29:481-2.
1286. Srilatha PS, Wadhvani M, Vohra R, Gogia V, Garg S, Pandey V. Treatment before macular grid in patients of diabetic macular edema. *Oman J Ophthalmol*. 2018; 11:254-8.
1287. Srinivasan G, Khakha, DC. Does Perceived Social Support and Insight Influence Schizophrenic Patients Medication Adherence? *Res Rev J Neurosci* . 2018; 8:12-8.
1288. Srinivasan G, Murthy GVS, Mohan S, Mani K, Vashist P, John N, et al. Scanning laser ophthalmoscopy in an elderly Indian population. *Ophthalmic Epidemiol*. 2018; 25:345-50.
1289. Sriranga R, Ray A, Sinha S. Bronchial Outpouchings in a Case of Obstructive Airway Disease. *J Bronchology Interv Pulmonol*. 2018; 25:e14-6.
1290. Srivastava AK, Warriar AR. Not to forget: Seizures in acute stroke. *Neurol India*. 2018; 66:952-4.
1291. Srivastava MVP, Vishnu VY. Exercises after stroke: The essential endurance. *Neurol India*. 2018; 66:1306-8.
1292. Srivastava S, Mahey R, Kachhawa G, Bhatla N, Upadhyay AD, Kriplani A. Comparison of intramyometrial vasopressin plus rectal misoprostol with intramyometrial vasopressin alone to decrease blood loss during laparoscopic myomectomy: Randomised clinical trial. *Eur J Obstet Gynecol Reprod Biol*. 2018; 228:279-83.
1293. Srivastava S, Ramanujam B, Ihtisham K, Tripathi M. A case of narcolepsy with HLA-typing from North India. *Neurol India*. 2018; 66:1485-6.
1294. Srujana D, Kaur M, Urkude J, Rathi A, Sharma N, Titiyal JS. Long-term functional and anatomical outcomes of repeat graft after optically failed therapeutic keratoplasty. *Am J Ophthalmol*. 2018; 189:166-75.
1295. Subbiah A, Bagchi S, Bhowmik D, Mahajan S, Yadav R, Chhabra Y, et al. Dengue fever in renal allograft recipients: Clinical course and outcome. *Transpl Infect Dis*. 2018; 20: e12875.
1296. Subbiah A, Mahajan S, Yadav RK, Agarwal SK. Intravenous immunoglobulin therapy for dengue capillary leak syndrome in a renal allograft recipient. *BMJ Case Rep*. 2018 Jun 19; 2018. pii: bcr-2018-225225.
1297. Subhadarshani S, Gupta V, Taneja N, Yadav S, Gupta S. Efficacy and Safety of a Novel Method of Insulated Intralesional Radiofrequency Ablation for Deep Dermal and Subcutaneous Lesions: A 3-Year Institutional Experience. *Dermatol Surg*. 2018; 44:714-20.
1298. Subhadarshani S, Parambath N, Gupta S. Use of a lumbar puncture needle to reduce the number of needle insertions in infiltration local anaesthesia of large areas in dermatologic surgery. *Australas J Dermatol*. 2019; 60:72-3.
1299. Subhadarshani S, Sarangi J, Verma KK. Dermoscopy of Subungual Wart. *Dermatol Pract Concept*. 2019; 9: 22-23.
1300. Subramaniam R, Dadhwal V, Gamanagatti S. Abnormally adherent placenta: Current concepts and anaesthetic management. *Trends Anaesth Crit Care*. 2019; 24:32-9.
1301. <https://www.ncbi.nlm.nih.gov/pubmed/30104819> Subramaniam R, Mishra P, Subramaniam R, Bansal S. Role of anesthesiologist in *ex utero*intrapartum treatment procedure: A case and review of anesthetic management. *J Anaesthesiol Clin Pharmacol*. 2018; 34:148-54.
1302. Sukhija J, Gupta PC, Bhatia I, Kumari N, Phuljhele S. Comparison of Graded Inferior Oblique Recession to Graded Myectomy for Primary Inferior Oblique Overaction. *J Clin Exp Ophthalmol*. 9:748.
1303. Sundar D, Kumar A, Chawla R, Sen S, Ravani R, Kakkar P, et al. Microscope-integrated optical coherence tomography-aided intraoperative diagnosis and management of peripheral tractional retinoschisis. *Indian J Ophthalmol*. 2018; 66:1323-4.
1304. Sundar D, Takkar B, Venkatesh P, Chawla R, Temkar S, Azad SV, et al. Evaluation of hyaloid-retinal relationship during triamcinolone-assisted vitrectomy for primary rhegmatogenous retinal detachment. *Eur J Ophthalmol*. 2018; 28:607-13.
1305. Sundar DM, Mandal S, Ravani R, Kumar V. Platelet Transfusion Related Panophthalmitis and Endophthalmitis in Patients with Dengue Hemorrhagic Fever. *Am J Trop Med Hyg*. 2018; 99:1053-4.

1306. Sundar MD, Roop P, Kumar A, Chawla R, Hasan N. Do oblate eyeballs exist? A rare case of rhegmatogenous retinal detachment in an elliptical globe. *Indian J Ophthalmol*. 2019; 67:302-5.
1307. Takkar B, Azad R, Kamble N, Azad S. Retinal Nerve Fiber Layer Changes Following Primary Retinal Detachment Repair with Silicone Oil Tamponade and Subsequent Oil Removal. *J Ophthalmic Vis Res*. 2018; 13:124-9.
1308. Takkar B, Gaur N, Obedulla H, Chauhan RC, Temkar S, Venkatesh P, et al. Observer variation in quantitative assessment of retinal shortening with ultrasound in patients of total rhegmatogenous retinal detachment. *Indian J Ophthalmol*. 2018; 66:1115-8.
1309. Takkar B, Khokhar S, Agarwal D, Venkatesh P. Ultra-wide field imaging of giant circumferential chorioretinal fold following post-operative hypotony. *Indian J Ophthalmol*. 2019; 67:407.
1310. Takkar B, Khokhar S, Agarwal E. Re: Weakley et al.: Myopic shift 5 years after intraocular lens implantation in the infant aphakia treatment study (Ophthalmology. 2017; 124:822-827). *Ophthalmology*. 2018; 125:e69.
1311. Takkar B, Khokhar S, Kumar U, Venkatesh P. Necrotising scleritis, keratitis and uveitis in primary antiphospholipid syndrome. *BMJ Case Rep*. 2018; bcr-2017-220647.
1312. Takkar B, Tandon N, Venkatesh P. De novo ossification of the choroid in a case of multifocal fibrosclerosis. *Can J Ophthalmol*. 2018; 53:e62-5.
1313. Takkar B, Venkatesh P, Gaur N, Garg SP, Vohra R, Ghose S. Patterns of uveitis in children at the apex institute for eye care in India: analysis and review of literature. *Int Ophthalmol*. 2018; 38:2061-8.
1314. Talawar P, Kumar A, Bhoi D, Singh A. Initial experience of erector spinae plane block in patients undergoing breast surgery: A case series. *Saudi Journal Anaesth*. 2019; 13:72.
1315. Talupula RM, Ray A, Manchanda S, Sood R. Reverse Lemierre's syndrome: a case report. *Egypt J Bronchol*. 2018; 12:363-6.
1316. Talwar S, Sankhyan L, Patel C, Sreenivas V, Choudhary SK, Airan B. Evaluation of differential pulmonary perfusion using 99mTc macroaggregated albumin after the Fontan procedure. *Interact Cardiovasc Thorac Surg*. 2018; 26:651-9.
1317. Tandon V, Chandra PS, Doddamani RS, Subianto H, Bajaj J, Garg A, et al. Stereotactic Radiofrequency Thermocoagulation of Hypothalamic Hamartoma Using Robotic Guidance (ROSA) Coregistered with O-arm Guidance-Preliminary Technical Note. *World Neurosurg*. 2018; 112:267-74.
1318. Tandon V, Lang M, Chandra PS, Sharan A, Garg A, Tripathi M. Is Edema a Matter of Concern After Laser Ablation of Epileptogenic Focus? *World Neurosurg*. 2018; 113:366-72.
1319. Tarafdar A S, Gupta S. Knowledge of and Attitude on Assessment of Substance Use disorders of Nurses Working in General Wards. *Indian J Psy Nurs*. 2018; 15:33-8.
1320. Tarique M, Naz H, Kurra SV, Saini C, Naqvi RA, Rai R, et al. Interleukin-10 Producing Regulatory B Cells Transformed CD4+CD25- Into Tregs and Enhanced Regulatory T Cells Function in Human Leprosy. *Front Immunol*. 2018; 9:1636.
1321. Temkar S, Bafna RK, Damodaran S, Agarwal D, Kumar V. Retinal necklace: Chain of cysts in retinal detachment. *Indian J Ophthalmol*. 2018; 66:1331-2.
1322. Temkar S, Damodaran S, Chawla R, Behera S, Bafna RK, Parmanand K. Floating venous loop in regressed retinopathy of prematurity. *Indian J Ophthalmol*. 2018; 66:568-9.
1323. Temkar S, Karuppaiah N, Takkar B, Bhowmik D, Tripathi M, Ramakrishnan S, et al. Impact of estimated glomerular filtration rate on diabetic macular edema. *Int Ophthalmol*. 2018; 38:1043-50.
1324. Tewari N, Mathur VP, Rajwar A, Mridha A, Mishra D. 940 nm Diode Laser assisted management of Tongue abscess. *J Dent Child (Chic)*. 2018; 85:98-101.
1325. Tewari N, Mathur VP, Singh N, Singh S, Pandey RK. Long term effects of traumatic dental injuries of primary dentition on permanent successors: a retrospective study of 596 teeth. *Dent Traumatol*. 2018; 34:129-34.
1326. Tewari N, Rajwar A, Mathur VP, Chaudhari PK. Oral Features in Griscelli Syndrome type II: a rare case report. *Spec Care Dentist*. 2018; 38:421-5.
1327. Tewari R, Kumar V, Ravani R, Dubey D, Chandra P, Kumar A. Macular hole-associated retinal detachment in Best vitelliform dystrophy: Series of two cases and literature review. *Indian J Ophthalmol*. 2018; 66:708-11.
1328. Thakar A, Gupta MP, Srivastava A, Agrawal D, Kumar A. Nonsurgical Treatment for Posttraumatic Complete Facial Nerve Paralysis. *JAMA Otolaryngol Head Neck Surg*. 2018; 144:315-21.
1329. Thakran S, Gupta PK, Kabra V, Saha I, Jain P, Gupta RK, et al. Characterization of breast lesion using T1-perfusion magnetic resonance imaging: Qualitative vs. quantitative analysis. *Diagn Interv Imaging*. 2018; 99:633-42.
1330. Thergaonkar RW, Bhardwaj S, Sinha A, Dinda AK, Kumar R, Bagga A, et al. Posttransplant Lymphoproliferative Disorder: Experience from a Pediatric Nephrology Unit in North India. *Indian J Nephrol*. 2018; 28:374-7.

1331. Thiopurine Working Group. Thiopurine Therapy in Inflammatory Bowel Diseases: Making New Friends Should Not Mean Losing Old Ones. *Gastroenterology*. 2019; 156:11-4.
1332. Titiyal JS, Falera R, Kaur M, Arora T. Management of late onset flocculent after cataract with capsular bag lavage and posterior continuous curvilinear capsulorhexis. *Indian J Ophthalmol*. 2018; 66:984-7.
1333. Titiyal JS, Karunakaran A, Kaur M, Rathi A, Agarwal T, Sharma N. Collagen Cross-Linked Therapeutic Grafts in Fungal Keratitis. *Ophthalmology*. 2018; 125:1471-3.
1334. Titiyal JS, Kaur M, Brar AS, Falera R. Meniscus sign to identify the lenticule edge in small-incision lenticule extraction. *Cornea*. 2018; 37:799-801.
1335. Titiyal JS, Kaur M, Jose CP, Falera R, Kinkar A, Bageshwar LM. Comparative evaluation of toric intraocular lens alignment and visual quality with image guided surgery and conventional three step manual marking. *Clin Ophthalmol*. 2018; 12:747-53.
1336. Titiyal JS, Kaur M, Rathi A, Falera R. Femtosecond laser– assisted successful management of subluxated cataractous lens with vitreous in anterior chamber. *Indian J Ophthalmol*. 2019; 67:155-7.
1337. Titiyal JS, Kaur M, Shaikh F, Bari A. Acute-angle Bevel sign to assess donor lenticule orientation in ultra-thin descemet stripping automated endothelial keratoplasty. *BMJ Case Rep*. 2019; 12:e227927.
1338. Titiyal JS, Kaur M, Shaikh F, Gagrani M, Brar AS, Rathi A. Small incision lenticule extraction (SMILE) techniques: patient selection and perspectives. *Clin Ophthalmol*. 2018; 12:1685-99.
1339. Tiwari A, Verma N, Singh A, Nandi C, Randhawa J. Carbon coated core-shell multifunctional fluorescent SPIONs. *Nanoscale*. 2018; 10:1038-9.
1340. Tiwari V, Gamanagatti S, Mittal R, Nag H, Khan SA. Correlation between MRI and hip arthroscopy in children with Legg-Calve-Perthes disease. *Musculoskelet Surg*. 2018; 102:153-7.
1341. Tiwari V, Goyal A, Nagar M, Santoshi JA. Hyperphosphataemic familial tumoral calcinosis: clinical picture. *Lancet*. 2019; 393:168.
1342. Tiwari V, Rajeswari MR, Tiwari M. Proteomic analysis of iron-regulated membrane proteins identify FhuE receptor as a target to inhibit siderophore-mediated iron acquisition in *Acinetobacter baumannii*. *Int J Biol Macromol*. 2018; 125: 1156-67.
1343. Tolahunase M, Sagar R, Dada R. 5-HTTLPR and *MTHFR 677C>T* polymorphisms and response to yoga-based lifestyle intervention in major depressive disorder: A randomized active-controlled trial. *Indian J Psychiatry*. 2018; 60:410-26.
1344. Tolahunase M, Sagar R, Faiq M, Dada R. Yoga- and Meditation-Based Lifestyle Intervention Increases Neuroplasticity and Reduces Severity of Major Depressive Disorder: A Randomized Controlled Trial. *Restor Neurol Neurosci*. 2018; 36:423-42.
1345. Tolahunase M, Sagar R, Dada R. Reducing the Rate of Biological Aging by Yoga and Meditation in Major Depression. *Indian J Sci Res*. 2018; 18:9-13.
1346. Tolahunase MR, Sagar R, Dada R. 5-HTTLPR and *MTHFR 677C>T* polymorphisms and response to yoga-based lifestyle intervention in major depressive disorder: A randomized active-controlled trial. *Indian J Psychiatry*. 2018; 60:410-26.
1347. Tolahunase MR, Sagar R, Faiq M, Dada R. Yoga- and meditation-based lifestyle intervention increases neuroplasticity and reduces severity of major depressive disorder: A randomized controlled trial. *Restor Neurol Neurosci*. 2018; 36:423-42.
1348. Tomar GS, Mishra RK, Chaturvedi A. Glossopharyngeal vagal reflex: A matter of concern during neurosurgery. *Neurology India*. 2018; 66:1822-4.
1349. Trikha A, Singh PM. Management of major obstetric hemorrhage. *Indian J Anaesth*. 2018; 62:698-703.
1350. Trikha V, Gaba S, Agrawal P, Das S, Kumar A, Chowdhury B. CT based management of high energy tibial plateau fractures: A retrospective review of 53 cases. *J Clin Orthop Trauma*. 2019; 10:201-8.
1351. Tripathi M, Kumar A, Bal C. Neuroimaging in Parkinsonian Disorders.(Review Article). *Neurol India*. 2018; 66(Suppl):S68-78.
1352. Tripathi P, Gupta A, Tyagi S. Compound Heterozygote of Hb D-Punjab and Hb D-Iran: An Interesting Finding. *Indian J Hematol Blood Transfus*. 2019; 35:172-3.
1353. Tripathi P, Mishra P, Ranjan R, Tyagi S, Seth T, Saxena R. Factor VII deficiency - an enigma; clinicohematological profile in 12 cases. *Hematology*. 2019; 24:97- 02.
1354. Tripathy K, Chawla R, Temkar S, Sagar P, Kashyap S, Pushker N, et al. Phthisis Bulbi-a Clinicopathological Perspective. *Semin Ophthalmol*. 2018; 33:788-803.

1355. Tripathy K, Chawla R, Wadekar BR, Venkatesh P, Sharma YR. Evaluation of rhegmatogenous retinal detachments using Optos ultrawide field fundus fluorescein angiography and comparison with ETDRS 7 field overlay. *J Curr Ophthalmol*. 2018; 30:263-7.
1356. Tripathy K, Chawla R. Letter to the Editor: Optical Coherence Tomography Angiography of Choroidal Hemangioma. *Ophthalmic Surg Lasers Imaging Retina*. 2018; 49:560.
1357. Tripathy S, Parida GK, Kumar R. Quantitative Assessment of Gynecologic Malignancies. *PET Clin*. 2018; 13:269-88.
1358. Tyagi A, Pramanik R, Bakhshi R, Vishnubhatla S, Bakhshi S. Apoptosis: A biomarker of high-risk phenotype in pediatric acute myeloid leukemia? *Int J Lab Hematol*. 2019; 41:141-7.
1359. Tyagi A, Pramanik R, Vishnubhatla S, Ali S, Bakhshi R, Chopra A, et al. Pattern of mitochondrial D-loop variations and their relation with mitochondrial encoded genes in pediatric acute myeloid leukemia. *Mutat Res*. 2018; 810:13-8.
1360. Tyagi A, Pramanik R, Vishnubhatla S, Bakhshi R, Bakhshi S. Prognostic impact of mitochondrial DNA D-loop variations in pediatric acute myeloid leukemia. *Oncotarget*. 2019; 10:1334-43.
1361. Upadhyay AD, Dwivedi SN, Sreenivas V, Dhawan A. Epidemiological Modelling of Tobacco Use to Find Its Correlates among Adolescents in India: Comparative Appraisal of Conventional and Hierarchical Models. *Demography India*. 2018; 47:61-70.
1362. Usha P, Gopichandran L, Pathak P, Parakh N, Ramakrishnan S, Singh S. A study to evaluate the feasibility of a nurse-led follow-up clinic among postmyocardial infarction patients attending the Cardiology Outpatient Department at CN Centre, AIIMS, New Delhi. *J Prac Cardiovasc Sci*. 2018; 4:198-205.
1363. Singh V, Deo SVS, Dwivedi SN, Khan MA. An Epidemiological Model to Find out Factors Associated with Nodal Involvement among Indian Oral Cancer Patients. *Open J Epidemiol*. 2018; 8:117-29.
1364. Vanathi M, Goel S, Ganger A, Agarwal T, Dada T, Khokhar S. Corneal tomography and biomechanics in primary pterygium. *Int Ophthalmol*. 2018; 38:663-71.
1365. Vanathi M. Advances in Cornea. *Open Ophthalmol J*. 2018; 12:130-3.
1366. Varghese C, Nongkynrih B, Onakpoya I, McCall M, Barkley S, Collins TE. Better health and wellbeing for billion more people: integrating non-communicable diseases in primary care. *BMJ*. 2019; 364:1327.
1367. Vasan SK, Roy A, Samuel VT, Antonisamy B, Bhargava SK, Alex AG, et al. IndEcho study: cohort study investigating birth size, childhood growth and young adult cardiovascular risk factors as predictors of midlife myocardial structure and function in South Asians. *BMJ Open*. 2018; 8:e019675.
1368. Vashist A, Malhotra V, Sharma G, Tyagi JS, Clark-Curtiss JE. Interplay of PhoP and DevR response regulators defines expression of the dormancy regulon in virulent Mycobacterium tuberculosis. *J Biol Chem*. 2018; 293:16413-25.
1369. Vashistha V, Choudhari C, Garg A, Gupta A, Parthasarathy G, Mohan C, et al. Gender based variations in presentation and management of lung cancer at a south Asian tertiary referral centre. *J Thorac Oncol*. 2018; 13(Suppl):S23.
1370. Velpandian T, Halder N, Nath M, Das U, Moksha L, Gowtham L, et al. Un-segregated waste disposal: an alarming threat of antimicrobials in surface and ground water sources in Delhi. *Environ Sci Pollut Res Int*. 2018; 25:29518-28.
1371. Venkatesh P, Kashyap S, Temkar S, Gogia V, Garg G, Bafna RK. Endoillumination (chandelier) and wide-angle viewing-assisted fine-needle aspiration biopsy of intraocular mass lesions. *Indian J Ophthalmol*. 2018; 66:845-7.
1372. Venkatesh P, Tayade A, Gogia V, Gupta S, Shah BM, Vohra R. Short-term Intensive Immunosuppression: A Randomized, Three-arm Study of Intravenous Pulse Methylprednisolone and Cyclophosphamide in Macular Serpiginous Choroiditis. *Ocul Immunol Inflamm*. 2018; 26:469-76.
1373. Venkateshmurthy NS, Ajay VS, Mohan S, Jindal D, Anand S, Kondal D, et al. m-Power Heart Project - a nurse care coordinator led, mHealth enabled intervention to improve the management of hypertension in India: study protocol for a cluster randomized trial. *Trials*. 2018; 19:429.
1374. Venugopalan G, Dey S, Chakrawarty A, Chatterjee P, Sati HC, Dwivedi SN, et al. Raised serum cystatin C can be a potential biomarker of frailty detected by cumulative deficit model. *Aging Med*. 2018; 2:1-5.
1375. Verma AK, Singh A, Gatti S, Lionetti E, Galeazzi T, Monachesi C, et al. Validation of a novel single-drop rapid human leukocyte antigen-DQ2/-DQ8 typing method to identify subjects susceptible to celiac disease. *JGH Open*. 2018; 2:311-6.
1376. Verma KK, Zimerson E, Bruze M, Engfeldt M, Svedman C, Isaksson M. Is a high concentration of hexavalent chromium in Indian cement causing an increase in the frequency of cement dermatitis in India? *Contact Dermatitis*. 2018; 79:49-51.

1377. Verma P, Sharma AK, Shankar H, Rao DN, Sharma A. Role of Trace Elements, Oxidative Stress and Immune System: a Triad in Premature Ovarian Failure. *Biol Trace Elem Res.* 2018; 184:325-33.
1378. Verma PM, Gupta S. Competency in Informatics for Nursing Professional in India: Imbibing the Tech-Culture among Nursing Professionals. *Int J Nurs Educ.* 2019; 11:67-3.
1379. Verma R, Anand KS. Mendelian Homogeneous Family Association of Writer's Cramp. *Biomed J Sci Tech Res.* 5:4780-3.
1380. Verma R, Kumar N, Kumar S. Effectiveness of adjunctive repetitive transcranial magnetic stimulation in management of treatment-resistant depression: A retrospective analysis. *Indian J Psychiatry.* 2018; 60:329-33.
1381. Verma R, Kumar N, Kuppili PP. Repetitive Transcranial Magnetic Stimulation: The Magic Bullet for Managing Treatment-Resistant Obsessive-Compulsive Disorder in a Congenitally Deaf and Mute Woman. *Prim Care Companion CNS Disord.* 2018; 20:17102199.
1382. Verma R, Kumar N, Mahapatra A, Shah B. Effectiveness of tDCS augmentation for co-morbid obsessive compulsive disorder in chronic schizophrenia: A case report. *Asian J Psychiatr.* 2018; 38:9-11.
1383. Verma R, Verma K. Virtual reality compared with in vivo exposure in the treatment of social anxiety disorder. *Br J Psychiatry.* 2018; 213:617.
1384. Verma S, Jagtap U, Goyal A, Mukhopadhyay A. A novel gene-diet pair modulates *C. elegans* aging. *PloS Genet.* 2018; 14:e1007608.
1385. Verma S, Shah R, Bhat A, Bhat GR, Dada R, Kumar R. A familial case report of a 13; 22 chromosomal translocation with recurrent intracytoplasmic sperm injection failure. *Balkan J Med Genet.* 2018; 21:73-7.
1386. Verma SK, Borkar SA, Singh PK, Tandon V, Gurjar HK, Sinha S, et al. Traumatic Posterior Fossa Extradural Hematoma: Experience At Level I Trauma Center. *Asian J Neurosurg.* 2018; 13:227-32.
1387. Verma V, Jaiswal AK, Mishra S. Neurotoxic Effect of Insecticides on Human Nervous System. *J Forensic Chem Toxicol.* 2018; 4:23-39.
1388. Vettakkara KMN, Banerjee S, Mittal A, Goel P, Kumar P, Baitha U, et al. Not so sweet; severe Sweet's syndrome presenting as SIRS and pleural effusion. *J Family Med Prim Care.* 2018; 7:1584-7.
1389. Vig S, Kumar KR, Poudel D. Acute exacerbation of Chiari malformation: A rare cause for non-awakening from anaesthesia. *Indian J Anaesth.* 2018; 62:238-9.
1390. Vijay G, Mandal A, Sankar J, Kapil A, Lodha R, Kabra SK. Ventilator Associated Pneumonia in Pediatric Intensive Care Unit: Incidence, Risk Factors and Etiological Agents. *Indian J Pediatr.* 2018; 85:861-6.
1391. Vincent V, Thakkar H, Aggarwal S, Mridha AR, Ramakrishnan L, Singh A. ATP binding cassette transporter A1 (ABCA1) expression in adipose tissue and its modulation with insulin resistance in obesity. *Diabetes Metab Syndr Obes.* 2019; 12:275-84.
1392. Vinny PW, Vishnu VY, Padma MV. Thrombectomy 6 to 24 Hours after Stroke. *N Engl J Med.* 2018; 378:1161.
1393. Vinny PW, Vishnu VY, Srivastava MVP. Thrombectomy for Stroke with Selection by Perfusion Imaging. *N Engl J Med.* 2018; 378:1849.
1394. Vishnu VY, Srivastava MVP. Innovations in Acute Stroke reperfusion strategies. *Ann Indian Acad Neurol.* 2019; 22:6-12.
1395. Wadhvani M, Phuljhele S, Kumar R, Shameer A. Cervical carcinoma leading to orbital apex syndrome and blindness. *BMJ Case Rep.* 2019; 12:e226587.
1396. Wadhvani M, Vashist P, Singh SS, Gupta N, Malhotra S, Gupta A, et al. Diabetic retinopathy screening programme utilising non-mydriatic fundus imaging in slum populations of New Delhi, India. *Trop Med Int Health.* 2018; 23:405-14.
1397. Whitcomb DC, Shimosegawa T, Chari ST, Forsmark CE, Frulloni L, Garg P, et al. International consensus statements on early chronic Pancreatitis. Recommendations from the working group for the international consensus guidelines for chronic pancreatitis in collaboration with The International Association of Pancreatology, American Pancreatic Association, Japan Pancreas Society, Pancreas Fest Working Group and European Pancreatic Club. *Pancreatology.* 2018; 18:516-27.
1398. Yadav A, Abilash S, Debbarma A, Gupta SK. Establishment of a Postmortem Centre Mortuary-I: Basic Infrastructure. *RFP J Hosp Adm.* 2018; 2:67-72.
1399. Yadav A, Aggarwal R, Kundu R, Soni KD. Unusual cause of hypotension in a polytrauma victim: A case of fahr's syndrome. *Indian J Crit Care Med.* 2018; 22:621-3.
1400. Yadav A, Dahiya R, Bhargav JR, Adarsh K, Sharma M, Sarin RK. Aluminium Phosphide versus Zinc Phosphide Lethality- A Lurking Danger In Rural Indian Homes. *J Indian Soc Toxicol.* 2018; 14:42-3.

1401. Yadav A, Dey A, Kulbhusan, Sharma N, Gupta SK. Toxicological Viscera Analysis in India: Current Scenario, Problems & Suggestions- One Year Study of Autopsy Cases Where Viscera Had Been Preserved. *J Forensic Chem Toxicol.* 2018; 4:5-9.
1402. Yadav A, Dey A, Prasad K, Gupta SK. Cadaveric Organ Transplantation and Tissue Harvesting: An Unexplored Domain. *RFP J Hosp Adm.* 2018; 2:31-4.
1403. Yadav A, Gupta M, Gupta SK, Kumar S. Swimming Pool Injuries: Diving in a Swimming Pool can be Fatal. *Indian J Forensic Med Path.* 2018; 11:143-8.
1404. Yadav A, Gupta M, Sikary AK, Gupta SK. Importance of Autopsy Report and Evidence Preservation in Judicial Conviction: An Illustration in a Rape and Murder Case. *J Forensic Chem Toxicol.* 2018; 4: 99-103.
1405. Yadav A, Gupta SK, Gupta M, Abhilash S. Medical Termination of Pregnancy: Ethical, Legal and Social Consideration. *RFP J Hosp Adm.* 2018; 2:73-76.
1406. Yadav CP, Sreenivas V, Khan MA, Pandey RM. An Overview of Statistical Models for Recurrent Events Analysis: A Review. *Epidemiology (Sunnyvale).* 2018; 8:354.
1407. Yadav D, Agarwal S, Sharma A, Malik E, Kandasamy D, Thakar A, et al. Synovial sarcoma masquerading as medullary thyroid carcinoma. *Cytopathology.* 2018; 29: 468-70.
1408. Yadav D, Khandpur S, Ramam M, Singh MK, Sharma VK. Utility of Horizontal Sections of Scalp Biopsies in Differentiating between Androgenetic Alopecia and Alopecia Areata. *Dermatology.* 2018; 234:137-47.
1409. Yadav D, Singh S, Bhari N, Gupta S. Angiolymphoid hyperplasia of external ear treated with intralesional radiofrequency ablation. *BMJ Case Rep.* 2018; pii: bcr-2017-223447.
1410. Yadav K, Goel AD, Yadav V, Upadhyay RP, Palepu S, Pandav CS. Meta-analysis of efficacy of iron and iodine fortified salt in improving iron nutrition status. *IJPH.* 2018. *Indian J Public Health.* 2019; 63:58-64.
1411. Yadav K, Pandav CS. National Iodine Deficiency Disorders Control Programme: Current status & future strategy. *Indian J Med Res.* 2018; 148:503-10.
1412. Yadav R, Mishra RK, Chaturvedi A, Rath GP. Effect of Pregabalin on Preoperative Anxiety and Postoperative Pain in Spine Surgery: A Randomized Controlled Study. *J Neuroanaesthesiol Crit Care* 2018; 5:8-14.
1413. Yadav R, Yadav RK, Khadgawat R, Pandey RM, Upadhyay AD, Mehta N. Randomized Controlled Trial of A 12-Week Yoga-Based (Including Diet) Lifestyle vs. Dietary Intervention on Cardio-Metabolic Risk Factors and Continuous Risk Score in Indian Adults with Metabolic Syndrome. *Behav Med.* 2019; 7:1-12.
1414. Yadav S, Gupta S. A simple device for ablation of keloidal tissue and serial deposition of intralesional drugs. *J Am Acad Dermatol.* 2018; 78:e107-9.
1415. Yadav V, Bakolia P, Malhotra N, Mahey R, Singh N, Kriplani A. Comparison of Obstetric Outcomes of Pregnancies after Donor-Oocyte In vitro Fertilization and Self-Oocyte In vitro Fertilization: A Retrospective Cohort Study *J Hum Reprod Sci.* 2018; 11:370-5.
1416. Yadav V, Sharma JB, Kachhawa G, Kulshrestha V, Mahey R, Kumari R, et al. Obstetrical and Perinatal Outcome in Pregnant Women with Extrapulmonary Tuberculosis. *Indian J Tuberc.* 2019; 66:158-62.
1417. Yadav VS, Das BK, Gautam H, Sood S, Kapil A, Mohapatra S. *Chryseobacterium indologenes*: An emerging uropathogen among hematological malignancy patients. *South Asian J Cancer.* 2018; 7:218
1418. Yagnick NS, Singh R, Tripathi M, Mohindra S, Deora H, Suri A, et al. Need for Grass Root Innovation in Developing Countries: Case for Stationary Binder Clips in Scalp Hemostasis. *World Neurosurg.* 2019; 121:222-6.
1419. Yavvari PS, Verma P, Mustfa SA, Pal S, Kumar S, Awasthi AK, et al. A nanogel based oral gene delivery system targeting SUMOylation machinery to combat gut inflammation. *Nanoscale.* 2019; 11:4970-86.
1420. Yenamandra VK, Vellarikkal SK, Chowdhury MR, Jayarajan R, Verma A, Scaria V, et al. Genotype-Phenotype Correlations of Dystrophic Epidermolysis Bullosa in India: Experience from a Tertiary Care Centre. *Acta Derm Venereol.* 2018; 98:873-9.
1421. Yoganathan S, Bagga A, Gulati S, Toteja GS, Hari P, Sinha A, et al. Prevalence and predictors of peripheral neuropathy in nondiabetic children with chronic kidney disease. *Muscle Nerve.* 2018; 57:792-98.
1422. Yumnam SD, Rajesh K. Effectiveness of Standardised Psycho-Education for Primary Caregivers of Patients in Tertiary Care Hospital. *Indian J Psy Nurs.* 2018; 15:46-52.
1423. Zeitler P, Arslanian S, Fu J, Pinhas-Hamiel O, Reinehr T, Tandon N, et al. ISPAD Clinical Practice Consensus Guidelines 2018: Type 2 diabetes mellitus in youth. *Pediatr Diabetes.* 2018; 19(Suppl 27):28-46.
1424. Zenteno M, Lee A, Satyarthee GD, Moscote-Salazar LR. Endovascular Management of Intracranial Pial Arteriovenous Fistulas: Experience of Largest Series At A Single Center Over Six Years. *J Neurosci Rural Pract.* 2018; 9:406-9.

1425. Zenteno M, Lee A, Satyarthee GD, Pinilla G, Agrawal A, Moscote-Salazar LR. Cognitive Improvement after Endovascular Treatment in A Case of Intracranial Dural Fistula With Concomitant Dementia. *MAMC J Med Sci.* 2018; 4:32-7.
1426. Zere E, Chaudhari PK, Saran J, Dhingra K, Tiwari N. Developing Class III malocclusions: challenges and solutions. *Clin Cosmet Investig Dent.* 2018; 10:99-116.
1427. Zhou Y, Unno K, Hyjek E, Liu H, Zimmerman T, Karmakar S, et al. Expression of functional folate receptors in multiple myeloma. *Leuk Lymphoma.* 2018; 59:2982-9.

Abstracts

1. Abhitya Gulia, Nishkarsh Gupta, Rakesh Garg, Vinod Kumar, Sachidanand Jee Bharti, Seema Mishra, Sushma Bhatnagar. Assessment of Quality of Life in Head and Neck Cancer Patients Visiting Palliative Care Outpatient Department. *Indian J Palliat Care.* 2018; 24:258.
2. Adhikari N, Biswas A, Gogia A, Sahoo R, Garg A, Nehra A, et al. A phase II trial of response adapted whole brain radiotherapy after high-dose methotrexate based chemotherapy in patients with newly diagnosed primary central nervous system lymphoma. *J Clin Oncol.* 36:e14088.
3. Agarwal A, Rout G, Vuyyuru S, Gunjan D, Kedia S, Nayak B. Efficacy of liver stiffness measurement and platelet count in screening for high grade varies in patients with cirrhosis. *J Hepatol.* 2018; 68(Suppl1):S736.
4. Agarwal A, Vishnu VY, Bhatia R, Goyal V, Singh MB, Joseph L, Garg A, Srivastava MVP. Citicoline in Acute Ischemic Stroke- a Randomized Controlled Trial. *Int J Stroke.* 2018; 13(Suppl2):S104.
5. Agarwal M, Chaudhary MR, Bakhshi S, Saxena R, Dwivedi SN, Kabra M, et al. Gene copy number alterations in Indian children with acute lymphoblastic leukemia. *Pediatr Hematol Oncol J.* 2018; 3 (Suppl):S2.
6. Agarwal M, Rashmi S, Bakhshi S, Sadanand D, Madhulika K, Rachna S. Gene Copy Number Alterations and Association with Prognostic Factors in Childhood Acute Lymphoblastic Leukemia. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S95.
7. Agarwal R, Singh G, Mani P, Pandey M, Sachdev J, Verma KK, et al. Identification of clinical dermatophytes using MALDI-TOF mass spectrometry. *Med Mycol.* 2018; 56 (Suppl 2): S97.
8. Agarwal S, Garg R, Bhatnagar S, Mishra S, Gupta N, Bharti SJ, et al. To assess The Prevalence and Predictors of Fatigue and its Impact on Quality of Life in Advanced Cancer Patients Receiving Palliative Care. *Indian J Palliat Care.* 2018; 24:258.
9. Agarwala S, Murli D, Dhua A, Jain V, Sharma K, Bakhshi S, et al. Ewing Sarcoma of Ribs: Outcome of Surgical Management as a Part of Multimodality Treatment. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S464.
10. Aggarwal A, Dash NR, Pal S, Sharma A, Deo S, Sahni P, et al. Hyperthermic intraperitoneal chemotherapy in gall bladder carcinoma: a pilot study. *HPB.* 2018; 20 (Suppl 2):S297-8.
11. Agrawal K, Garg R, Bhatnagar S, Mishra S, Gupta N, Bharti SJ, et al. Assessment of Knowledge and Awareness of End-of-Life Care among Doctors Working in Intensive Care Units. *Indian J Palliat Care.* 2018; 24:264.
12. Agrawal M, Krishnan S, Phalak M, Gupta D, Chandra SP, Kale SS. Complex Pediatric Chiari Malformation – Is Fixation Necessary? *Childs Nerv Syst.* 2018; 34:2061.
13. Ahmad A, Muthukrishnan SP, Kaur S, Tayade P, Chakrabarty B, Gulati S, et al. Peak alpha frequency of children with ASD is similar to age-matched controls at rest. *Indian J Physiol Pharmacol.* 2018; 62:126.
14. Ahuja D, Bharati SJ, Gupta N, Kumar V, Garg R, Mishra S, et al. Prevalence and Risk Factors of Cognitive Dysfunction in Advanced Cancer Patients Admitted in Palliative Care Unit. *Indian J Palliat Care.* 2018; 24:234.
15. Ajisha PA, Bhatnagar S, Mishra S, Kumar V, Bharti SJ, Gupta N, et al. Journey of Cancer Patients Attending A Tertiary Cancer Center in India: A Prospective Observational Study. *Indian J Palliat Care.* 2018; 24:2248.
16. Alam S, Prasad OP, Ranjan P, Madhu M. Competence based surgical education. *Glob J Res Anal.* 2019; 8:199-200.
17. Alladi S, Mekala S, Varghese FA, Iyer GK, Dutt A, Ellajosyula R, et al. Harmonising research in dementia diagnosis across wide linguistic and educational diversity. *Alzheimer Dement.* 2018; 14:P1604.
18. Amar R, Pranay T, Julieana D. Prognostic significance of thrombopoietin after radiotherapy or surgery in cases of gastrointestinal malignancies. *Blood Res.* 2018; 53(Suppl 2).
19. Amar R, Pranay T, Julieana D. Plasma cell leukemia, a case series. *Blood Res.* 2018; 53(Suppl 2).
20. Ambekar A, Mandal P, Pakhre A, Tripathi R. Substance Use Disorders in Women – Assessment and Management Issues. *Indian J Psychiatr.* 2019; 61 (Suppl 3):435.
21. Anand A, Gunjan D, Gopi S, Kaushal K, Poudel S, Sharma S, et al. The prevalence of vascular complications in patients with chronic pancreatitis. *Indian J Gastroenterol.* 2018; 37(Suppl1):A108-9.
22. Anand S, Agarwala S, Jain V, Dhua A, Bakhshi S, Seth R, et al. Neuroblastoma with Opsoclonus-Myoclonus-Ataxia Syndrome (OMAS): Outcomes of Surgical Management Over Twenty Years. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S465.

23. Anjum S, Sen S, Kashyap S, Chosdol K, Pushker N, Bakhshi S, et al. Expression of Notch Signaling Molecules in Lacrimal Gland Adenoid Cystic Carcinoma. *Mod pathol.* 2019; 32(suppl 2):1621.
24. Ankit, Samanchi R, Kaur S, Sharma R, Tayade P. Cortical sources of visuospatial complexity in hindi language: A qEEG study. *Indian J Physiol Pharmacol.* 2018; 62:78.
25. Ansari MT, Singh S. Pollicization in mirror hand. *J Hand Surg (Eur Vol).* 2018;43(Suppl 2):S17-S210.
26. Arora G, Perveen G, Damle NA, Gupta R, Tripathi M, Bal CS, et al. Can early dynamic imaging obviate the need for post-diuresis imaging on 68Ga-PSMA-HBED-CC PET/CT for Prostate Cancer? *JNucl Med.* 2018; 59(Suppl1):1459.
27. Arora R, Rahman R, Joe W, Bakhshi S, Dhawan D, Radhakrishnan V, et al. Families of Children Newly Diagnosed with Cancer Incur Significant Out-of-Pocket Expenditure for Treatment –Report of a Multi-Site Prospective Longitudinal Study from India (InPOG-ACC-16-01). *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S674.
28. Arora S, Passah A, Tripathi M, Bal C, Kumar R. Comparison of 68Ga-DOTANOC PET/CT, 131I-MIBG SPECT/ CT and conventional imaging in uncommon primary and metastatic paragangliomas. *Eur J Nucl Med Mol Imaging.* 2018; 45(Suppl1):S66.
29. Arunraj ST, Damle NA, Gupta Y, Pal S, Sharma M, Kumar R, et al. ⁶⁸Ga-DOTA-Exendin-4 PET/CT and ⁶⁸Ga-DOTA-NOC PET/CT in localization of clinically suspected insulinomas. *J Nucl Med.* 2018; 59(Suppl1):49.
30. Arya DS, Malik S, Suchal K, Bhatia J. A18239 Apigenin ameliorates streptozotocin induced diabetic nephropathy in rats by modulation of oxidative stress, apoptosis and inflammation through MAPK pathway. *J Hypertens.* 2018; 36:e63.
31. Badhwar S, Chandran DS, Jaryal AK, Narang R, Patel C, Deepak KK. Uncoupling of feedforward control on blood pressure by heart rate in patients with recent myocardial infarction. *FASEB J.* 2018; 32(Suppl):588.23.
32. Bakhshi R, Tyagi A, Pramanik R, Sreenivas V, Ali S, Bakhshi S. Pattern of mtDNA (D-Loop) Variations and their Relation with Mitochondrial Encoded Gene in AML. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S173.
33. Bakhshi S, Biswas B, Pushpam D, Kumar A, Thakar A, Sharma DN. Equivalent Outcome with Radiotherapy Only Versus Surgery as Local Treatment Modality in Head and Neck Ewing Sarcoma Family of Tumors. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S465.
34. Bakhshi S, Srivastava R, Pushpam D, Toteja G, Dhawan D. Micronutrients do not Impact Overall Survival, Event Free Survival and Complete Remission in Acute Lymphoblastic Leukemia: A Prospective Observational Study of 155 Patients. *Pediatr Blood Cancer* 2018; 65(S2):e27455:S498.
35. Baloda V, Vallonthaiel AG, Yadav R, Singh L, Kilambi R, Vishnubathla S, et al. Histological differences between non-cirrhotic portal fibrosis and extra-hepatic portal vein obstruction. *J Clin Experiment Hepatol.* 2018; 8 (Suppl1):S116-7.
36. Bansal D, Nayyar R, Singh P, Jain S. Individualized management of obliterative urethral stricture in females – five patients five management strategies. *Indian J Urol.* 2019; 35(Suppl1):S8
37. Bansal K, Kharbanda OP, Sharma JB, Sood M, Priya H, Kriplani A. Effect of Oral health Promotion Program on Knowledge of Pregnant Women. *J Dent Res.* 2018; 2018; 97:ID 1872.
38. Bansal VK, Krishna A, Prajapati OP, Kumar S, Garg PK, Misra MC. Long-Term Outcomes Following Primary Closure after Laparoscopic Common Bile Duct Exploration: Experience of 355 Cases. *J Am Coll Surg.* 2018; 227:e37.
39. Batabyal T, Sharma R, Sagar R, Kandasamy D, Kaur S. Slow but steady wins the race?-Behavioural manifestation of ADHD during an N back visuospatial working memory task. *Indian J Physiol Pharmacol.* 2018; 62:76.
40. Bhan S, Gupta N, Garg R, Kumar V, Bharati S, Mishra S, et al. Awareness and Understanding about Palliative Care in Patients Visiting Palliative Care Outpatient Department. *Indian J Palliat Care.* 2018; 24:261.
41. Bhandare, M, Chaudhari V, Pradeep R, Ramesh H, Dhar P, Pal S, et al. Surgery for cystic tumors of pancreas: report of high volume multi institutional Indian experience over a decade. *HPB.* 2018; 20 (Suppl 2):S552.
42. Bhardwaj H, Sehgal R, Roy TS, A Srivastava. Real time imaging of breast skin envelope using fluorescent dye. *J Anat Soc India.* 2018; 67: S56.
43. Bhargava P, Arya DS, Bhatia J. A18830. Cardioprotective role of hesperidin in experimentally induced cardiac hypertrophy in rats. *J Hypertens.* 2018; 36:e93.
44. Bhargava R, Balhara YPS, Batra P, Basu A, Sood M. Internet use: emerging issue & implications. *Indian J Soc Psychiatry.* 2019; 34:345.
45. Bhat P, Goyal V, Kumaran S, Goyal C, Srivastava AK, Behari M, et al. Neuromodulation by rTMS in Parkinsons Disease: A fMRI Study. *Mov Disord.* 2018; 33(suppl2):S675.
46. Bhatia J, Malik S, Suchal K. Kaempferol ameliorates myocardial injury in diabetic rats by suppressing oxidative stress, inflammation and apoptosis. *J Hypertens.* 2018; 36:e89.
47. Bhattacharya A, Manhas J, Bhat M, Palanichamy JK, Sen S. Characterizing colorectal stem cells to develop novel diagnostic and prognostic markers for colorectal cancer. *J Am Col Surg.* 2018; 227 (Suppl 1): S62.

48. Bhattacharyya S, Halder N, Basker S, Chawla R, Velpandian T. Proteomic profiling of aqueous humor in rat model of diabetes. *Indian J Physiol Pharmacol.* 2018; 62(Suppl):192.
49. Bisht S, Chaurasia P, Dada R. Impact of yoga based lifestyle intervention on sperm oxidative DNA damage: study on fathers of non-familial sporadic heritable retinoblastoma patients. *Fertil Steril.* 2018; 110 (Suppl):e168-9.
50. Biswas A, Adhikari N, Gogia A, Sahoo R, Garg A, Sharma M, et al. High Dose Methotrexate Based Chemotherapy and Response Adapted Whole Brain Radiation Therapy in Primary CNS Lymphoma. *Int J Radiat Oncol Biol Phys.* 2018; 102(Suppl 1):S192.
51. Biswas A, Bakhshi S, Suri V, Sharma M, Julka P. Combined Modality Management of Paediatric Primary Central Nervous System Lymphoma: Clinical Experience from a Regional Cancer Centre in North India. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S428.
52. Biswas A, Kashyap L, Adhikari N, Gogia A, Sahoo R, Sharma A, et al. EP-1253: Secondary central nervous system lymphoma clinical experience from a regional cancer centre in India. *Radiotherapy and Oncology* 2018; 127(Suppl 1):S692.
53. Biswas A, Sahoo R, Kumar R, Mallick S, Sikka K, Bakhshi S, et al. Combined Modality Management of Esthesioneuroblastoma in Paediatric and Adolescent Patients: Clinical Experience from a Regional Cancer Centre in North India. *Pediatr Blood Cancer* 2018; 65(S2):e27455:S77.
54. Biswas RS, Dash NR, Singh AN, Sahni P, Pal S. Outcome following hepatectomy for complex bile duct injuries. *Trop Gastroenterol.* 2018; 39 (Suppl 1):S25.
55. Burman S, Garg R, Bhatnagar S, Mishra S, Kumar V, Bharti SJ, et al. To Study The Awareness and Attitudes towards End of Life Care in Primary Caregivers of Patients with Advanced Cancer. *Indian J Palliat Care.* 2018; 24:263.
56. Chacko SG, Tayade P, Kaur S, Sharma R. Creation of a high resolution EEG based Brain Computer Interface for classifying motor imagery of daily life activities. *IEEE Xplore: Proc IEEE.* 2019; 206.
57. Chadda R, Lal R, Jain R, Rao R. New Psychoactive Substances: An Emerging Challenge in Addiction Psychiatry. *Indian J Psychiatry.* 2019; 61 (Suppl 3):S397
58. Chahal S, Singh J, Deb KS, Chadda R. Chemotherapy induced mania in CNS Lymphoma: Acasereportandnarrativereview. *Indian J Psychiatry.* 2019; 61(Suppl 3):S531.
59. Chaman N, Grover I, Rashid S, Singh N, Gunjan D, Saraya A. Differential expression of hepatic CYP2R1 in patients with cirrhosis. *Indian J Gastroenterol.* 2018; 37(Suppl1):A76-7.
60. Chandran N, Deb KS, Narang R, Chadda RK. Association of Depression with Cardiac Arrhythmia in Post Myocardial Infarction Patients. *Indian J Psychiatry.* 2019; 61(Suppl 2):S382-3.
61. Chattopadhyay A, Uikay MS, Verma R, Kumar N. Intermittent theta burst stimulation (iTBS) for managing treatment resistant depression. E-Poster. *Indian J Psychiatry* 2019; 61(Suppl 3):S624.
62. Chattopdhyay A, Patil V, Sood M. Management of a case of dissociative disorder. *Indian J Soc Psychiatry.* 2019; 34:361.
63. Chaubey J, Pawar S, Sharma SK, Sinha S, Jorwal P. High Degree of Fluoroquinolones Resistance Among Extrapulmonary Tuberculosis Patients at a Tertiary Care Center in North India. *Am J Respir Crit Care Med.* 2018; 197:A1145.
64. Chaudhari P, Kharbanda OP, Chaudhary R, Pandey RM, Bansal K, Chauhan S, et al. Factors Associated with Caries Severity Prevalence in Cleft-Lip/Palate (CL/P) Children. *J Dent Res.* 2018; 97:ID 3254.
65. Chauhan R, Pati HP, Chopra A, Mahapatra M. Utility of single tube 10-color flowcytometry screening panel in the diagnosis of myelodysplastic syndrome. *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):7-8.
66. Chavali S, Kapoor I, Mahajan C, Prabhakar H. Changes in Thromboelastometry in Patients Undergoing Epilepsy Surgery. *J Neurosurg Anesthesiol.* 2018; 30:457.
67. Chhikara S, Sazawal S, Chaubey R, Mahapatra M, Seth T, Saxena R. Analysis of BCRABL kinase mutations in Imatinibmesylate resistant chronic myeloid leukemia patients: AIIMS Experience . *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):294.
68. Chhikara S, Sazawal S, Singh K, Chaubey R, Mahapatra M, Seth T, et al. Distribution of BCRABL fusion transcripts and their impact on treatment response in imatinib treated adult CML patients in India. *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):322.
69. Chitturi V, Ahuja N, Kaur S, Sharma R. EEG spectral correlates of cognitive interference. *Indian J Physiol Pharmacol.* 2018; 62(Suppl):75.
70. Christa SE, Jaryal AK, Yadav RK, Roy A, Chandran DS, Deepak KK. Effects of yoga based cardiac rehabilitation on vascular and endothelial function in patients post myocardial infarction - A randomized controlled trial. *FASEB J;* 2018.32(Suppl):588.23.
71. Dabas Y, Mohan A, Xess I. Galactomannan antigen as a diagnostic and prognostic marker in ICU subpopulation suspected of Invasive Aspergillosis. *Med Mycol.* 2018; 56 (Suppl 2): S34.

72. Dabas Y, Xess I. Molecular identification and antifungal susceptibility patterns of invasive *Aspergillus* species following CLSI and EUCAST guidelines. *Med Mycol.* 2018; 56 (Suppl 2): S58.
73. Dabas Y, Xess I. Environmentally acquired mutations in *Aspergillus fumigatus* leading to azole resistance: An Asian situation. *Med Mycol.* 2018; 56 (Suppl 2): S50.
74. Dada R, Dhawan V, Kumar M, Deka D, Malhotra N, Singh N, et al. Effect of lifestyle factors on spermatozoal health in recurrent pregnancy loss. *Andrology.* 2018; Suppl: 78.
75. Das U, Titiyal JS, Singh B, Sreenivas V, Jayaram B, Halder N, Velpandian T. Intraocular Penetration and QSPR Modeling of 8 Congeneric Antifungal and Antiprotozoal Agents in Rabbits After Systemic Administration. *Indian J Physiol Pharmacol.* 2018; 62(Suppl):98.
76. Dash D, Tripathi M, Ihtisham K. Spectrum of movement disorders in patients of autoimmune encephalitis of non-neoplastic aetiology. *Mov Disorders.* 2018; 33(Suppl2):908.
77. Dash NR, Roy S, Krishna P, Madhusudhan KS. A case of haemosuccus pancreaticus treated with a technically challenging pancreatoduodenectomy and a novel reconstruction of proper hepatic artery. *HPB.* 2018; 20 (Suppl 2):S835.
78. Dash NR, Saraya A, Rashid S, Rashid S. Circulating miR-107 could be a potential biomarker for pancreatic ductal adenocarcinoma. *HPB.* 2018; 20 (Suppl 2):S556.
79. Datta SK. Active Communication between laboratory professional & clinician: Case Studies. *Indian J Clin Biochem.* 2018; 33 (Suppl 1):S10.
80. Dayal P, Om Sai RV, Prasad S, Kaloiya GS. Co-morbidity of Personality Disorders in patients with Substance Use Disorders & Therapeutic Pessimism. *Indian J Psychiatr.* 2019; 61 (Suppl 3):S433.
81. Deb KS, Verma R, Kedia S, Hans G. Community preparedness in disaster: how to minimize post disaster psychological sequelae. Symposia. *Indian J Soc Psychiatry.* 2018; 34:346.
82. Deep R, Jain R, Chawla N, Ganesh R, Modak T. Response to lithium prophylaxis among patients with bipolar disorder: Relationship to clinical factors and inflammatory cytokine (TNF- α). *Bipolar Disord.* 2019; 21(S1): 74.
83. Deep R, Singh S, Kumar SK, Mahal P, Vishwakarma A. Assessment of the lithium related knowledge, attitude and their relationship to adherence among bipolar disorder patients on lithium maintenance therapy. *Bipolar Disord.* 2019; 21(S1):113.
84. Deepak KK. The Pros and Cons of pursuing clinical Physiology. *Indian J Physiol Pharmacol.* 2018; 62(Suppl):33.
85. Devnani B, Gupta S, Haresh KP, Julka PK, Rath GK. Pineal parenchymal tumors: Patterns of care from a tertiary cancer centre in India. *Ann Oncol.* 2018; 29(Suppl 8):mdy273.391.
86. Dey D, Agrawal SK, Shrivastava V, Bhattacharya A, Jingar P, Manhas J, et al. *Symphytum officinale* enhances osteogenesis in human bone marrow-derived mesenchymal stem cells *in vitro*. *Ind J Clin Biochem.* 2018; 33 (Suppl 1): 76.
87. Dey D, Shrivastava V, Singal CMS, Mehta A, Bhat MA, Sharma JB, et al. Evaluating the effect of hypoxia on human fetal neural stem cells *in vitro*. *Ind J Clin Biochem.* 2018; 33 (Suppl 1): 45.
88. Dhawan A, Sarkar S, Kaloiya GS. Paying attention to the family members of individuals with substance use disorders. *Indian J Soc Psychiatr.* 2018; 34:343-4.
89. Dhawan I, Makhija N, Choudhury M, Choudhury A. Modified Tricuspid Annular Plane Systolic Excursion for Assessment for Right Ventricular Systolic Function. *J Cardithorac Vasc Anesth.* 2018; 32(Suppl 1):S41-1.
90. Dhawan V, Kumar M, Deka D, Malhotra N, Singh N, Dadhwal V, et al. Yoga and meditation: impact on dysregulated sperm transcripts in recurrent pregnancy loss. *Andrology.* 2018; Suppl: 93.
91. Dhawan V, Kumar M, Singh N, Dadhwal V, Dada R. Sperm transcripts and genomic integrity: role in implantation and embryo viability in IVF cycles. *Fertil Steril.* 2018; 110 (Suppl):e93-4.
92. Dheer P, Gupta P, Taywade S, Passah A, Pandey AK, Patel C. Ordered subset expectation maximization parameters for image reconstruction in Tc99mMIBI myocardial perfusion single photon emission computed tomography in Indian population. *Indian J Nucl Med.* 2018; 33(Suppl):S106.
93. Dhingra K, Vandana KL. Concentrated growth factor for treating periodontal osseous defects and gingival recession: a systematic review. *J Clin Periodontol.* 2018; 45(S19):237.
94. Dhingra K, Vandana KL. Effect of 980nm diode laser gingivectomy on fluorosed enamel surface in orthodontic patients. *Lasers Surg Med.* 2019; 51:S42.
95. Dhull VS, Arora S, Gaur S, Parida GK, Passah A, Kumar R. Ga68-dotanoc Pet/ct For Restaging Gastrointestinal Neuroendocrine Tumors After Primary Treatment. *Eur J Nucl Med Mol Imaging.* 2018; 45(Suppl1):S474.
96. Divya MR, Goyal V, Srivastava AK, Behari M, Shukla G. Evaluation of various movement disorders in patients of genetically proven Spino Cerebellar Ataxia: A study from a tertiary care center in Northern India. *Park Relat Disord.* 2018; 46:e23.

97. Dutta U, Shukla S, Dutta A, Venkataraman J, Ghoshal U, Goenka MK, et al. ISG Dyspepsia Task Force: Prevailing clinical practices in management of dyspepsia in India. *Indian J Gastroenterol.* 2018; 37: A20
98. Elavarasi A, Goyal V, Vishnu VY, Singh M, Srivastava PMV. Rapid onset hemidystonia-hemichorea in DYT 12: Is “SWAN NECK” limb deformity a clinical sign? *Movement Disorders.* 2018; 33(Suppl2):743.
99. Eva, Netam R, Talwar A, Mohan A, Yadav RK, Mittal S. Effect of a short-term yoga-based lifestyle intervention on lung function and quality of life in bronchial asthma patients. *Eur Res J.* 2018; 52:PA3974.
100. Faruqi N, Joshi R, Lowe J, Arora R, Anis H, Kalra M, et al. Exploring Barriers to Accessing Care for Childhood Cancers in India: A Qualitative Study (InNPOG-ACC-16-03). *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S660.
101. Faruqi N, Joshi R, Lowe, Arora R, Anis H, Kalra M., et al. Exploring Barriers To Accessing Care For Childhood Cancers In India: A Qualitative Study (Inpog-Acc-16-03). *Pediatr Hematol Oncol J.* 2018; 3 (Suppl):S1-2.
102. Ganesh R, Modak T, Singh SK, Deb KS. Profile of donors referred for psychiatric assessment before living kidney transplantation in a tertiary care setting. *Indian J Psychiatry.* 2019; 61(Suppl 3):S538–9.
103. Ganesh R, Sood M, Verma R, Bhargava R. The relationship between illness disability and functioning with caregiver’s perception of needs in patients with first episode schizophrenia: An exploratory study. *Indian J Soc Psychiatry.* 2019; 34: 339.
104. Ganguly S, Seth R, Kumar R, Sharma MC, Meena JP, Gupta A. Characterization Of Bone Marrow Involvement In Pediatric Hodgkin Lymphoma Using 18f-Fdg Pet/Ct And Its Comparison With Blind Bone Marrow Biopsy. *Pediatr Hematol Oncol J.* 2018; 3 (Suppl):S19-20.
105. Garg B, Dixit V, Parida G, Sen S, Sati HC, Kumar R. Application of quantitative bone scan using kbone values to identify regional bone metabolism changes in postmenopausal osteoporotic women treated either with alendronate or teriparatide. *Osteoporosis Int.* 2018; 29 (Suppl 1):S166.
106. Garg D, Srivastava AK, Prasad K, Shukla G, Vibha D, Pandit AK, et al. Differentiation of autonomic dysfunction in multiple system atrophy subtypes and parkinson’s disease. *Ann Indian Acad Neurol.* 2018; 21(suppl2):S148.
107. Garg H, Nayak B, Singh P, Tiwari D, Yadav S, Kumar R, et al. Does surgical approach affect outcomes after partial nephrectomy? A retrospective comparison of open, laparoscopic and robotic partial nephrectomy. *World J Urol.* 2018; 36(Suppl1):336.
108. Garg H, Verma R, Balhara YPS, Sarkar S, Kumar S, Kumar N, et al. Effect of targeted prefrontal cortex modulation with bilateral transcranial direct current stimulation (tDCS) in reducing craving in patients with opioid dependence: a case controlled trial. *Brain Stimul.* 2019; 12:408.
109. Gautam H, Choudhary AH, Mohapatra S, Sood S, Das BK, Kapil A. Central line-associated bloodstream infection (CLABSI) in Cancer patients: Role of central line insertion practices and audit system in prevention. *Infect Dis Health.* 2018; 23 (Suppl1): S19-20.
110. George J, Pal S, Mangla V, Dash NR, Sahni P, Pande GK et al. Is endoscopic management of oesophageal varices in extrahepatic portal venous obstruction (EHPVO) a risk factor for portal biliopathy? *HPB.* 2018; 20 (Suppl 2):S753.
111. Girish B, Roy KK, Kumar S, Singh N, Singhal S, Meena J. A Comparative Study of Transverse Uterine Fundal Incision Vs Classical Uterine Incision in Women with Placenta Praevia with Percreta Undergoing Peripartum Hysterectomy. *BJOG.* 2018; 125 (Suppl 1):76.
112. Goel P, Sharma K, Khanna P, Bajpai M. Laparoscopic Management of Intra- Abdominal Tumors - Feasible or Not? *Pediatr Blood Cancer.* 2018; 65(Suppl1):S258.
113. Goel T, Sharma JB, Mahey R, Kachhawa G, Kriplani A. Effect of Anti Tubercular Treatment on Laparoscopic Obstetrics and gynecology department at a hospital and Hysteroscopic Findings in Infertile Women with Genital Tuberculosis. *J Min Inv Gynaecol.* 2018; 25 (Suppl): S248.
114. Gowda M, Deo S, Dhamija E, Thulkar S, Dwivedi S. TURBO study: TUmoR and Breast vOlumetry by clinical and radiological methods: results of breast volumetry. 16th St. Gallen International Breast Cancer Conference. *Breast.* 2019; 44(Suppl 1):S109.
115. Gowtham L, Halder N, Dada T, Jayasundar R, Singh B, Velpandian T. Aqueous humor metabolomic profiling of glaucomatous patients. *Indian J Physiol Pharmacol.* 2018; 62 (Suppl):82.
116. Goyal H, Patel C, Parida G, Goyal V, Bal C. Evaluation of Cardiac Sympathetic Denervation using 18F-FDOPA PET-CT in Idiopathic Parkinson Disease. *J Nucl Med.* 2018; 59:230.
117. Goyal H, Bal CS, Patel CD, Goyal V, Tripathi M, Gupta P, et al. Evaluation of cardiac sympathetic denervation using L-3,4-dihydroxy-6-F18fluorodihydroxyphenylalanine-positron emission tomography-computed tomography in Parkinson disease. *Indian J Nucl Med.* 2018; 33 (Suppl):S32.
118. Goyal H, Tripathi M, Goyal V, Patel CD, Kumar P, Bal CS. Semiquantitative analysis of 18F-FDOPA brain PET-CT in Idiopathic Parkinson Disease Patients in correlation with clinical rating scale and in tremor predominant subgroup. *Eur J Nucl Med Mol Imaging.* 2018; 45(Suppl1):S402.

119. Goyal P, Gupta R, Sagar R, Verma KK. Clinical correlates, Psychiatric co-morbidity, Disability and Quality of Life in patients with Migraine at a tertiary care Centre. *Indian J Psychiatry*. 2019; 61:S372.
120. Goyal V, Bhat P, Goyal C, Srivastava AK, Kumaran S, Behari M, et al. Effects of rTMS on three cortical areas in Parkinson's Disease. *Mov Disord*. 2018; 33(Suppl2):S127.
121. Goyal V, Priyanka B, Srivastava AK, Kumaran SS. Neuromodulation by rTMS in Parkinson's disease. *Park Relat Disord*. 2018; 46:e88.
122. Grover A, Agarwala A, Sharma R, Jain V. Insights of dietary pattern among children and adolescents with type 1 diabetes in Delhi. *Pediatr Diabetes*. 2018; 19 (Suppl 26): 134-5.
123. Grover I, Gunjan D, Singh N, Goswami R, Ramakrishnan L, Saraya A. Vitamin D Deficiency and Metabolic Bone Disease is Highly Prevalent in Patients with Cirrhosis- a Hospital Based Study. *Gastroenterol*. 2018; 154(Suppl1):S533.
124. Grover I, Gunjan D, Singh N, Saraya A. Micronutrients Assessment in Patients with Cirrhosis. *Gastroenterol*. 2018; 154(Suppl1):S1060.
125. Grover I, Singh N, Gunjan D, Sati HC, Saraya A. Assessment of quality of life in patients with cirrhosis. *J Clin Exp Hepatol*. 2018, 8(Suppl1):S129.
126. Guleria R, Luthra K, Mohan A, Upadhyay K, Rafi W, Kakaria VK, et al. Evaluation of promoter hypermethylation in tissue and blood of non-small cell lung cancer patients and association with survival. *Eur Respir J*. 2018; 52:PA2792.
127. Guleria R, Mohan A, Hadda V, Madan K, Sohal P, Luthra K, et al. ETS-1 mRNA and its association with T-BET and Th1 cytokine expression in active pulmonary sarcoidosis. *Eur Respir J*. 2018; 52:PA5203.
128. Guleria R, Mohan A, Khilnani GC, Madan K, Hadda V, Vashistha V, et al. Evaluating and treating lesser-income patients with lung cancer in south asia: Where are the delays? *J Clin Oncol*. 2018;36(Suppl):e21094.
129. Guleria R, Mohan A, Madan K, Arora S, Tiwari P. Comparison of yoga with pulmonary rehabilitation on body composition, inflammatory biomarkers and dyspnoea in patients with COPD. *Eur Respir J*. 2018; 52:PA835.
130. Guleria R, Mohan A, Madan K, Bansal S, Mittal S, Jain D, et al. Mini-thoracoscopy vs Semirigid Thoracoscopy in Undiagnosed Exudative Pleural Effusions: A Randomized Controlled Trial. *Eur Respir J*. 2018; 52:OA2166.
131. Gupta A, Meena JP, Seth R. Combination Antifungals as an Effective Means of Salvage in Pediatric Leukemia Patients with Invasive Fungal Infections. *Pediatr Blood Cancer*. 2018; 65 (Suppl 2):S104.
132. Gupta A, Sazawal S, Mahapatra M, Pati H, Tyagi S, Saxena R. Immunohistochemistry as a tool to detect Calreticulin mutation in patients with Myelofibrosis and essential thrombocytopenia and its comparison with polymerase chain reaction. *HemaSphere*. 2018; 2 (Suppl 1):1011.
133. Gupta A, Sazawal S, Mahapatra M, Pati H, Saxena R. Immunohistochemistry as a tool to detect Calreticulin mutation in patients with Myelofibrosis and essential thrombocytopenia and its comparison with PCR. *Indian J Hematol Blood Transfus*. 2018; 34 (Suppl 1):326.
134. Gupta M, Gupta N, Bhatnagar S, Bharati SJ, Garg R, Kumar V, et al. To Determine the Financial Burden in Palliative Care Patients Attending A Tertiary Care Centre. *Indian J Palliat Care*. 2018; 24:228-82.
135. Gupta N, Aggrawal M, Dhawan R, Seth T, Mirgh S, Meenakshi BA, et al. Prevalence and predisposing factors of non-adherence to Imatinib in patients with chronic myeloid leukemia: Its impact on treatment outcome. *Indian J Hematol Blood Transfus*. 2018; 34 (Suppl 1):320.
136. Gupta N, Khan R, Kumar R, Seth T, Garg B, Sharma A. Involvement of versican, a chondroitin sulfate proteoglycan in the pathogenesis of multiple myeloma. *ESMO Open*. 2018; 3 (Suppl 2):A338.
137. Gupta R, Gupta N, Bharati SJ, Garg R, Kumar V, Mishra S, Bhatnagar S. Prevalence of Neuropathic Cancer Pain and its Impact on Quality of Life in Palliative Care Setup at Tertiary Care Centre: An Observational Study. *Indian J Palliat Care*. 2018; 24:228.
138. Gupta S, Bakhshi S, Kamal V. Impact of loss-of-function and dominant-negative IKZF1 deletions on outcome in BCR-ABL1 negative pediatric B-cell acute lymphoblastic leukemia. *Pediatr Blood Cancer*. 2018; 65(S2):e27455:S119.
139. Gupta S, Sankar J, Lodha R, Kabra SK. Predictors of Sepsis Induced Myocardial Dysfunction at Admission in Children with Septic Shock. *Pediatr Crit Care Med*. 2018; 19 (Suppl 1):44.
140. Gupta S, Sharma A, Gupta N, Mani K, Kharbanda OP. Single Nucleotide Polymorphisms of VEGF and HIF-1alpha in Oral Submucous Fibrosis: A pilot study. *Oral Surg Oral Med Oral Pathol Oral Radiol*. 2018; 126:e207.
141. Gupta S, Singh J, Verma R, Sood M. A cross sectional study on knowledge about the illness and its treatment among patients with severe mental illness and their caregivers. *Ind J Soc Psychiatry*. 2019; 34:338.
142. Gupta SK, Bakhshi S, Kamal V. Clinical impact of IKZF1 deletions in BCR-ABL1 negative pediatric B-cell acute Lymphoblastic leukemia. *Indian J Hematol Blood Transfus*. 2018; 34(Suppl 1):242.
143. Gupta SK, Bakhshi S, Kamal V. Relevance of functional subtyping of IKZF1 deletion- loss-of-function or dominant-negative, in pediatric B-cell acute lymphoblastic leukemia. *Twin Res Hum Genet*. 2018; 21:432.

144. Gupta T, Jain R, Mohan A, Singh UB, Velpandian T, Bhatnagar A, et al. Diagnosis and treatment of tuberculosis: Low Plasma Levels of Anti Tuberculosis Drugs as A Risk Factor for non-response In Patients With Pulmonary TB on Category II regimen. *Am J Respir Crit Care Med* 195.
145. Haldar R, Aggrawal M, Mahapatra M, Dhawan R, Seth T, Tyagi S, et al. Paroxysmal Nocturnal Hemoglobinuria in childhood and adolescence: A 5-year retrospective analysis from a single tertiary care center in India. *HemaSphere*. 2018; 2 (Suppl 1):833-4.
146. Haldar R, Aggrawal M, Mahapatra M, Seth T, Kumar U, Dhawan R, et al. Myeloid sarcomas in AML translocation (8:21): Is it still a favourite risk group? *HemaSphere*. 2018; 2 (Suppl 1):81-2.
147. Halder A, Kumar H, Kalsi AP, Jain M. Dihydrotestosterone (DHT): A potential biomarker of hyperandrogenemia in polycystic ovary syndrome. *Indian J Endocr Metab*. 2018; 22 (Suppl 1) :S72.
148. Halder N, Velpandian T. Precorneal Tear Film Pharmacokinetics of Extemporaneously Compounded Piperacillin and Tazobactam In Rabbits. *Indian J Physiol Pharmacol*. 2018; 62(Suppl):99.
149. Harish N, Bakhshi S, Patel C, Gupta RK, Sharma, Sharma A, et al. Role of PET-CT in staging and extent of chloroma in acute myeloid leukemia: A prospective study. *Eur J Nucl Med Mol Imaging*. 2018; 45(Suppl1):S342.
150. Harish N, Bakhshi S, Patel C, Sharma A, Gupta R, Sharma A, et al. Role of 18F-FDG PET/CT in detection of disease burden and response assessment in patients with myeloid sarcoma. *J Nucl Med*. 2018; 59(Suppl1):1594.
151. Harish N, Kumar R, Bakhshi S, Patel C, Gupta RK, Sharma A, et al. Utility of fluoro-2-deoxyglucose positron emission tomography-computed tomography in diagnostic evaluation of myeloid sarcoma: A prospective study. *Indian J Nucl Med*. 2018; 33(Supple):S53.
152. Harsh P, Kharbanda OP, Gupta S, Ivaturi A. Improving Proficiency among Oral-health Para-professionals in Early Detection of Oral Cancer. *J Dent Res*. 97:3368.
153. Hazra S, Srikumar V, Handa G, Yadav SL, Wadhwa S, Kochhar KP, et al. fNIRS a new tool for assessment of central sensitization in fibromyalgia. *Ann Phys Rehabil Med*. 2018; 61(Suppl):e106-7. <https://www.sciencedirect.com/science/article/pii/S1877065718303038>
154. Helen MC, SinghD, Deepak KK. Identifying Deep Breath Effect on Cardiovascular Signals Using Conditional Entropy: An Information Domain Approach. *Biomed Eng: Appl Basis Commun*. 2018; 30:1850012.
155. Himani, Kumar R, Ansari JA, Mahdi AA, Karunanand B, Datta SK. Evaluation of blood lead levels and Vitamin D receptor gene polymorphism (ApaI and BsmI) in occupationally exposed battery workers. *Ind J Clin Biochem*. 2018; 33 (Suppl 1):S26.
156. Ivaturi A, Kharbanda OP, Harsh P, Gupta S. Picture the Mouth: Galvanising Tobacco Cessation Efforts Using Photographs of Lesions. *J Dent Res*. 2018; 97:0624.
157. Izzuddeen Y, Gupta S, Haresh KP, Giridhar P, Kashyap L, Rath GK. Randomized study of conventional versus hypo-fractionated radiotherapy in diffuse intrinsic pontine glioma. *J Clin Oncol*. 2018; 36(Suppl):e14075.
158. Jha J, Singh MK, Pushker N, Sen S, Kashyap S. ATM as a DNA damage response protein in uveal melanoma: Association with clinicopathological factors and prognostic outcome. *Ann Oncol*. 2018; 29(suppl 8):1901P.
159. Jacob TG, Kumar M, Chaudhary P, Garg PK, Roy TS. Autophagy in experimental acute pancreatitis. *J Anat Soc India*. 2018; 67: S53-64.
160. Jain A, Irom A, Mahapatra M, Seth T, Saxena R, Sazawal S. Comparison of molecular responses and outcomes in chronic myeloid leukemia-chronic phase patients treated with Nilotinib initially followed by Imatinib, compared to treatment with Imatinib upfront. *HemaSphere*. 2018; 2 (Suppl 1):874.
161. Jain D, Antony VM, Kakkar A, Thakar A, Deo SVS, Bishop J. Immunoexpression in Sinonasal Adenoid Cystic Carcinomas. *Mod Pathol*. 2019; 32:1184.
162. Jain D, Guleria P, Husain N, Shukla S, Kumar S, Parshad R. PD-L1 Immuno-Expression Assay in Thymomas: A Study from India. *J Thorac Oncol*. 2018; 13(Suppl):S604-5
163. Jain D, Guleria P, Parshad R, Malik P, Kumar S. Histotyping of Indian Thymomas: A Comprehensive Clinicopathologic Study. *J Thorac Oncol*. 2018; 13(Suppl):S605.
164. Jain D, Guleria P, Parshad R, Marx A. GTF2I Mutation in Thymomas: Indian and German Study. *J Thorac Oncol*. 2018; 13(Suppl):S604.
165. Jain D, Guleria P. Morphological spectrum of thymomas: A review of 145 cases using WHO 2015 classification. *Arch Pathol Lab Med*. 2018; 142:1431.
166. Jain D, Kakkar A, Guleria P, Kumar S. Immunohistochemical Assessment of BRCA1 Associated Protein-1 (BAP1) in Pulmonary Mucoepidermoid Carcinomas. *J Thoracic Oncol*. 2018; 13:S554-5.
167. Jain D, Madan KA. Common tumor with uncommon histology: Tracheal chondro-osseous inflammatory myofibroblastic tumor. *Arch Pathol Lab Med*. 2018; 142:1431.
168. Jain D, Singh V, Kumar V, Kumar S, Malik P, Faruq M. KRAS and EGFR mutation coexistence in pulmonary adenocarcinomas. *Arch Pathol Lab Med*. 2018; 142:1435.

169. Jain D, Supraja K, Mohan A, Iyer VK. Challenges in PD-L1 Immunoexpression in Liquid Based Cytology Samples of Advanced Stage Non-Small Cell Lung Carcinomas. *J Thorac Oncol.* 2018; 13(Suppl):S550-1.
170. Jain S, Midha S, Jagannath S, Gupta S, Nayak B, Gupta M, et al. Mo1225-IL-6 Significantly Improves Predictive Value of Systemic Inflammatory Response Syndrome for Organ Failure in Acute Pancreatitis. *Gastroenterol.* 2018; 154(Suppl1):S710.
171. Jain S, Namdeo D, Kedia S, Sahu P, Das P, Sahni P, et al. High Cytomegalovirus DNA load in mucosal biopsies predicts steroid failure as well as colectomy in acute severe ulcerative colitis. *J Crohn's Colitis.* 2019; 13:P320.
172. Jain V, Dhua AK, Bakhshi S, Srinivas M, Thulkar S, Jana M, et al. Treatment outcomes of Malignant Germ cell tumor: A Single centre experience of 22 years. *Pediatr Blood Cancer.* 2018; 65(Suppl 1):S259-60.
173. Jain V, Kumar A, M Jana M, Kalaivani M. Association of single nucleotide polymorphisms in TNFA, PNPLA3, ADIPOQ and APOC3 genes with obesity and non-alcoholic fatty liver disease in north Indian adolescents. *Horm Res Paediatr.* 2018; 90 (Suppl 1):285.
174. Jain V, Kumar B, Kurpad A. Growth and body composition of term healthy Indian infants from birth to 2 years of age. *Horm Res Paediatr.* 2018; 90 (Suppl 1):439.
175. Jain V, Upadhyaya B, Agarwala A. Hidden hunger in overweight/obese Indian adolescents. *Horm Res Paediatr.* 2018; 90 (Suppl 1):351-2
176. Jain V, Upadhyaya B, Kumar B. Effect of micronutrient intake on serum glucose and insulin in adolescents with overweight/ obesity. *Pediatr Diabetes.* 2018; 19 (Suppl 26):42.
177. Jethani J, Dar L, Joshi V, Angel B, Choudhary A, Brijwal M. Viral Infections in adults following hematopoietic stem cell transplant (HSCT). *Asian J Pharm Clin Res.* 2019; 12: 74.
178. Jeyakumar P, Panwar R, Aggarwal A, Shalimar S, Pal S, Dash NR, et al. Surgical resection for non-hepatic gastrointestinal malignancies in patients with chronic liver disease: Risks and early post-operative outcomes. *Trop Gastroenterol.* 2018; 39 (Suppl 1):S65.
179. Jha S, Yadav RK, Sharma HB. Believe It or Not: Yoga and Yoga-Based Interventions. *Proc Physiol Soc.* 41:PCA160.
180. Joseph R, Vishnu VY, Bhatia R, Kohli S, Agarwal A, Padma V. Demographic, clinical and imaging profile, etiologic classification, management strategies and outcomes of Strokes in elderly (80 years and above)- A five year retrospective study. *Int J Stroke.* 2018; 13(Suppl2):S200
181. Kakkar A, Kumar M, Jain D, Mathur SR, Iyer VK, Kumar R. Rapid on-site evaluation technique: diagnostic utility and accuracy in salivary gland aspirates. *Cytopathology.* 2018; 29(Suppl 1):22.
182. Kaloiya GS. Workshop: Cognitive Behavioural Interventions for managing Nicotine Dependence. *Indian J Psychiatr.* 2019; 61 (Suppl 3):S449.
183. Kamat N, Kedia S, Aggarwal KK, Makharia G, Ahuja V. National survey of physicians on awareness of inflammatory bowel disease in India. *Indian J Gastroenterol.* 2018;37:A44
184. Kamat N, Kedia S, Sachdev S, Jain S, Sahu P, Makharia G, et al. Correlation of patient reported outcome measure with clinical disease activity and fecal calprotectin in patients with ulcerative coliti. 2019; 13:P185.
185. Kamra T, D Aditya, Deepak KK. A perspective on autonomic function testing and research in India. *Indian J Physiol Pharmacol.* 2018; 62(Suppl):222. https://www.ijpp.com/IJPP archives/2018_62_5/Conferenvece Proceedings of 64th APPICON 2018.pdf
186. Kancharia H, Malik PS, Khurana S, Gundu N, Yadav A, Pathy S, et al. Outcomes with systemic chemotherapy in Advanced NSCLC patients with performance status 2 and above without Driver mutation. *J Thorac Oncol.* 2018; 13:S886-7.
187. Kanga U, Mourya M, Seth T, Chowdhury K, Mitra DK, Coshic P, et al. Graft versus host disease manifestations: Impact of Immunomodulatory factors –HLA-G expressions Th-1, Th-2 cytokines T-reg cell frequency. *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):37.
188. Kanga U, Mourya M, Tandon M, Coshic P. Role of HLA-G Exon 8 Polymorphism in Conferring Genetic Susceptibility to Type 1 Diabetes Among North Indians. *HLA.* 2018. 91:456.
189. Kanishka, Zacharia A, Soni S, Ahuja N, Tayade P, Kaur S, et al. Valence influences perception during binocular rivalry in patients with schizophrenia. *Indian J Physiol Pharmacol.* 2018; 62:77.
190. Kanodia R, Kumar R, Bhasker S, Biswas A, Verma H, Chander S. Survival and QOL Outcomes with Quality Palliative QUAD SHOT Radiotherapy in Advanced Head and Neck Cancer (HNC) – An Alternative Regimen in Low Resource Countries. *J Pain Symptom Manage.* 2018; 6:e124.
191. Kanodia R, Kumar R, Bhasker S, Biswas A, Verma H, Chander S. Impact of Palliative Quad Shot RT on psychosocial outcomes in locally advanced HNC in MLIC's. *Radiother Oncol.* 2019; 132(Suppl1):79-80.
192. Kanodia R, Kumar R, Bhasker S, Biswas A, Verma H, Chander S. Palliative quad shot radiotherapy in advanced head and neck cancer (HNC) – an alternative regimen in low resource countries. *Support Care Cancer.* 2018; 26(S2):S205.

193. Kanodia R, Kumar R, Bhasker S, Biswas A, Verma H, Pandey RM, et al. Survival and QOL outcomes with quality palliative quad shot radiotherapy in advanced head and neck cancer (HNC) – an alternative regimen in low resource countries. *J Pain Symptom Manage.* 2018; 56:e124.
194. Kapoor N, Prasad K, Shukla G, Srivastava AK, Vibha D. Association between gender, involved hemisphere and outcome after stroke and influence of socioeconomic status on stroke outcome: An ambispective cohort study. *Ann Indian Acad Neurol.* 2018; 21(suppl2):S104.
195. Kapoor PM. Perioperative goal directed therapy in CABG. *J Korean Med Sci.* 2019; 1:e19.
196. Kashyap M, Mishra A, Tiwari A, Bakhshi S. Change of Nutritional Status During Chemotherapy and Factors Predicting Nutritional Status at 6 Month Interval. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S34.
197. Kashyap S, Singh L, Singh MK, Sen S, Chawla B, Bakhshi S. Expression of Transcriptional Target of p53 Protein in Human Retinoblastoma. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S345.
198. Kathiresan P, Sharma S, Bagra I, Deb KS, Chadda R. Suicide attempt during Unresponsive episode-Is it Complex Partial Seizures or Dissociative episode?- Diagnostic Challenges. *Indian J Psychiatry.* 2019. 61(Suppl 3):S512.
199. Kaushal A, Bindra A, Chouhan RS. Measurement of Neutrophil Gelatinase-Associated Lipocalin for Acute Kidney Injury following Neuroradiological Procedure(s) in Patients with Aneurysmal Subarachnoid Hemorrhage: A Preliminary Study. *J Neuroanesthesiol Crit Care.* 2019; 6:S12-3.
200. Kaushik P, Patel CD, Kumar R, Gulati GS, Parakh N, Seth S, et al. Role of 68Ga-DOTANOC positron emission tomography/computed tomography and myocardial perfusion imaging in cardiac sarcoidosis: A comparison to cardiac magnetic resonance. *Indian J Nucl Med.* 2018; 33 (Suppl):S31.
201. Kedia S, Ghosh TS, Das B, Jain S, Gupta V, Bopanna S, et al. Gut microbiome diversity in acute severe colitis is distinct from mild to moderate ulcerative colitis. *J Crohn's Colitis.* 2019; 13:P057.
202. Kharbada OP, Wadhawan N, Dhingra K, Tewari N, Grover A. Oral health in India: Researchers' Perspective Part II: Periodontal Diseases, Geriatric Dentistry and Special Health Care Needs. *J Pierre Fauchard Acad.* 2018; 32:48-56.
203. Kharbada OP, Wadhawan N, Grover A, Dhingra K, Tewari N. Oral health in India: Researchers' Perspective Part I. *J of Pierre Fauchard Academy.* 2018; 32:6-15.
204. Khullar S, Pandey M, Agarwal R, Mani P, Sachdev J, Singh G, et al. Coinfection of mucormycosis and aspergillosis: case series. *Med Mycol.* 2018; 56 (Suppl 2): S97.
205. Kilambi R, Singh AN, Pal S, Dash NR, Sahni P. Extensive resections in carcinoma gall bladder: worth it or not? *HPB.* 2018; 20 (Suppl 2):S713.
206. Kilambi, R, Singh AN, Pal S, Das P, Madhusudhan KS. An unusual case of chronic pancreatitis. *HPB.* 2018; 20 (Suppl 2):S583.
207. Kishor K, Sharma A, Pandey H, Chaudhary A, Ranjan R, Kumar R, et al. Influence of tissue factor promoter polymorphism on risk of deep Vein Thrombosis. *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):150.
208. Kohli S, Vishnu VY, Bhatia R, Pandit AK, Joseph R, Agarwal A, et al. Descriptive Analysis Of Re-Perfusion Strategies In Acute Ischemic Strokes Admitted In Tertiary Care Centre. *Int J Stroke.* 2018; 13(Suppl2):S123.
209. Koli DK. Prosthodontic rehabilitation of acquired mandibular defects -from inability to ability. *J Indian Prosthodont Soc.* 2018; 18(Suppl2):S108-9.
210. Korula A, Bhattacharyya J, Jain H, Kapoor R, Philip CC, Bhattacharyya M, et al. Hematological Cancer Consortium: Multi-Center Acute Lymphoblastic Leukemia Registry Data from India. *Blood.* 2018; 132(Suppl1):1374.
211. Kothari S, Dhawan R, Aggrawal M, Seth T, Rath S, Mahapatra M. Blood 2018 132:4002; doi: <https://doi.org/10.1182/blood-2018-99-120366>
212. Kriplani I, Kriplani A, Dalal V, Mahey R, Kachhawa G, Goel T. Laparoscopic Management of Caesarean Scar Ectopic Pregnancy A Report of 2 Cases. *J Min Inv Gynecol.* 2018; 25 (Suppl):S134.
213. Kumar A, Faruq M, Werner R, Sharma R, Jain V. Mutational analysis of SRD5A2 and AR genes in Indian children with 46 XY disorders of sex development. *Horm Res Paediatr.* 2018; 90 (Suppl 1):640-1.
214. Kumar A, Himani, Thakkar H, Mahajan S, Singh A, Datta SK. Effect of single episode of hemodialysis on organochlorine pesticide (OCPs) levels in chronic kidney disease patients (CKD-5D) with chronic nonoccupational exposure. *Ind J Clin Biochem.* 2018; 33 (Suppl 1):S50.
215. Kumar A, Jain V. Mutations in SHOX, GHR and IGFALS. Genes among Indian Children with 'Idiopathic Short Stature'. *Horm Res Paediatr.* 2018; 90 (Suppl 1):433.
216. Kumar A, Pramanik R, Chopra A, Kapil A, Vishnubhatla S, Bakhshi S. Early Stoppage versus Continuation of Antimicrobial Therapy in Low Risk Pediatric Cancer Patients with Febrile Neutropenia, Before Recovery of Counts: A Feasibility and Pilot Study. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S520.

217. Kumar A, Sehgal R, Roy TS. Ossified ligaments in relation to foramina and bony landmarks of the middle cranial fossa. *J Anat Soc India*. 2018; 67:S55-60.
218. Kumar N, Verma R, Singh SM. Effect of high-frequency repetitive Transcranial Magnetic Stimulation (rTMS) in Cognitive function and predominantly Negative symptoms in person suffering from Schizophrenia in a randomized sham controlled double blind trial. Symposium. *Indian J Psychiatry*. 2019; 61(Suppl 3):S401.
219. Kumar P, Damle NA, Bal CS. Count loss in a modern gamma camera with Iodine-131 (¹³¹I) using decaying source method: a phantom study. *J Nucl Med*. 2018;59 (Suppl 1):1787.
220. Kumar P, Damle NA, Bal CS. Lesion-wise comparison of pre-therapy and post-therapy effective half-life of Iodine-131 in pediatric and young adult patients with differentiated thyroid cancer (DTC) undergoing radioiodine therapy. *J Nucl Med*. 2018; 59 (Suppl 1): 312.
221. Kumar P, Nag TC, Velpandian T, Roy TS, Wadhwa S. A morphological study and expression patterns of iron regulatory proteins in aging Wistar rats retina after iron overload. *Acta Ophthalmologica*. 2018; 96:68.
222. Kumar R, Gupta N, Seth T, Sharma A. Novel combination of tanshinone I and Dexamethasone induces apoptosis in Myeloma cells by modulating ERK/P38/JNK/NFKB Signalling pathway. *ESMO Open*. 2018; 3 (Suppl 2):A199.
223. Kumar R, Nalli H, Gupta RK, Bakhshi S, Patel C, Sharma A, et al. Role of 18F-FDG PET/CT in Evaluation of Response to Therapy In Patients With Chloroma. *Eur J Nucl Med Mol Imaging*. 2018; 45(Suppl1):S563.
224. Kumar R, Raju S, Goyal H, Bal C, Sharma A, Kumar S. Dual Point 68Ga-PSMA PET/CT Imaging: Potential tool for Diagnostic improvement of Prostate Carcinoma. *J Nucl Med*. 2018; 59 (Suppl 1):1495.
225. Kumar R, Sazawal S, Sharma A, Kishor K, Mahapatra M, Saxena R. Utility of prognostic markers in chronic lymphocytic leukemia: IGVH gene mutational status, P53 gene mutation, ZAP70 expression and s-B2 microglobulin levels are independent prognostic markers. *Indian J Hematol Blood Transfus*. 2018; 34 (Suppl 1):307.
226. Kumar R, Sharma A, Vishali, Mohan A, Bhalla A, Sreenivas V, et al. Role of texture parameters evaluated from F18-FDG PET/CT in treatment response assessment of Non-Small cell lung cancer. *J Nucl Med*. 2018; 59:281.
227. Kumar V, Chawla A, Paulose P, Logani A. A volume based CBCT index for grading of apical periodontitis. *J Dent Res*. 2018; 97:ID 1383.
228. Kumawat R, Gowda SH, Debnath E, Rashid S, Niwas R, Suri A, et al. Association of MTHFR gene polymorphisms with glioma and meningioma patients in Indian population. *Ann Oncol*. 2018; 29 (Suppl 9): ix21-ix22.
229. Lal R. Management of Substance Use – Public Health Strategies. *Indian J Psychiatr*. 2019; 61 (Suppl 3):S455.
230. Leon C, Tayade P, Sagar R, Sharma R, Kaur S. Exploring emotional and cognitive interference conduct in ADHD children. *Indian J Physiol Pharmacol*. 2018; 62:75.
231. Lodha R, Kabra SK, Sankar J, Jat KR, Banothu K. Gastroesophageal Reflux in Mechanically Ventilated Children: Not A Risk Factor for Ventilator Associated Pneumonia (VAP)? *J Pediatr Crit Care*. 2018; 5:99-100.
232. Lopes BA, Meyer C, Duployez N, Palmi C, Alonso C, Tsaour G, et al. The interplay between IKZF1 and COBL deletions in leukemia. *Klin Padiatr*. 2018; 230:171.
233. Lunkard S, Mahapatra M, Seth T, Mohapatra S, Aggrawal M, Dhawan R, et al. Outcome of high-risk febrile neutropenic patients with gut colonization with carbapenem resistant enterobacteriaceae (CRE) in surveillance cultures. *HemaSphere*. 2018; 2 (Suppl 1):544-5.
234. Madan K, Mittal S, Mohan A, Hadda V, Jain D, Khilnani GC, et al. EBUS-TBNA Versus EUS-B-FNA for Needle Aspiration of Mediastinal Lesions (TEAM): A Randomized Controlled Trial TEAM - Tracheal Versus Esophageal Approach for Aspiration of Mediastinal Lesions. *Am J Respir Crit Care Med*. 2018; 197:A4434.
235. Mahajan A, Arora R, Dinand V, Kalra M, Jain S, Bakhshi S, et al. Hodgkin lymphoma in the children under 5 years of age: do they behave differently? *Pediatr Hematol Oncol J*. 2018; 3 (Suppl): S23.
236. Mahajan A, Arora R, Dinand V, Kalra M, Jain S, Bakhshi S, et al. Initial Report on InPOG-HL-15-01- A Risk-Stratified Response-based Collaborative Protocol for Newly Diagnosed Childhood Hodgkin Lymphoma Patients in India. *Pediatr Blood Cancer*. 2018; 65 (S2): e27455:S204.
237. Mahendru K, Gupta N, Soneja M, Garg R, Kumar V, Bharti SJ, et al. Need of Palliative Care in Rheumatoid Arthritis: A Prospective Observational Study. *Indian J Palliat Care*. 2018; 24: 247.
238. Makhija N, Magoon R. Ischemia Begets Right Ventricular Dysfunction After Cone Repair for Ebstein's Anomaly. *J Cardiothorac Vasc Anesth*. 2018; 32 (Suppl 1): S93-102.
239. Malik E, Jyotsna VP, Sharma MC, Agarwal S, Kandasamy D, Sharma A. Genetic, clinical and histopathological findings in patients with sporadic anterior pituitary adenoma. *Indian J Endocrinol Metab*. 2018; 22:54.
240. Malik N, Chattopadhyay P, Sarkar C, Suri A, Sinha S, Chosdol K. FAT1 acts as an oncogene and regulate the expression of Mir-221/222-3p in glioblastoma. *ESMO Open*. 2018; 3 (Suppl 2):A463.

241. Malik N, Chattopadhyay P, Sarkar C, Suri A, Sinha S, Chosdol K. Regulation of Programmed cell death 10 (PDCD10) by FAT1 gene in human glioblastoma. *Ann Oncol.* 2018; 29 (Suppl 9): ix21-ix22.
242. Mallick S, Giridhar P, Rath GK. Tracheal adenoid cystic carcinoma: A systematic review and meta-analysis. *Ann Oncol.* 2018; 29(Suppl 9):ix148.
243. Mallick S, Haresh KP, Gupta S, Sharma S, Laviraj MA, Upadhyay AD, et al. Hypofractionated accelerated radiotherapy (HART) with concurrent and maintenance temozolomide in newly diagnosed glioblastoma: a phase II randomized trial (HART-GBM). *J Clin Oncol.* 2018; 36(Suppl): e14090.
244. Manhas J, Bhattacharya A, Agrawal SK, Bhat MA, Das P, Pal S, et al. Identifying characteristics of cancer stem cells in colorectal tumors of different histopathological grades in an effort to diagnose and treat aggressive tumors. *Indian J Clin Biochem.* 2018; 33 (Suppl 1): 5.
245. Manhas J, Dey D, Bhattacharya A, Das P, Palanichamy JK, Sen S. Investigating the role of a novel tumor suppressor gene, TUSC1, in colorectal cancer. *Indian J Clin Biochem.* 2018; 33 (Suppl 1): 44.
246. Marik B, Bagga A, Sinha A, Hari P, Sharma A. Mutational screening in patients with familial hypophosphatemic rickets. *J Mol Genet Med.* 2018; 2:46.
247. Maurya M, Nag TC, Kumar P. Retinal changes in continuous light: an electron
248. Mawar S, Koul P, Prakash R, Rai Sanjay. Effect of a community based nurse led program on management of hypertension among geriatric population in an urban community of Delhi. *J Cardiovasc Dis Diag.* 2018; 06:36.
249. Meena JP, Brijwal M, Jethani J, Seth R, Gupta AK, Jat KR, et al. Prevalence and Clinical Outcome of Respiratory Viral Infections (RVI) Among Children with Cancer and Febrile Neutropenia. *Pediatr Blood Cancer.* 2018; 65 (Suppl 2):S527.
250. Meena JP, Gupta AK, Parihar MR, Seth R. Clinical Profile and Treatment Outcome of non Hodgkin Lymphoma in Children: A Report from a Tertiary Care Hospital from Developing Country. *Pediatr Blood Cancer.* 2018; 65 (Suppl 2):S204-5.
251. Meenakshi BA, Seth T, Mahapatra M, Pati HP, Dhawan R, Aggrawal M, et al. A prospective observational study to understand the cumulative effect of cytarabine as consolidation in acute myeloid leukemia. *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):280-1.
252. Mehrotra R, Nethan ST, Ravi P, Grover S, Sharma S, Rath GK, et al. A revisit at 16-years for individuals from peri-urban New Delhi for tobacco use and associated oral lesions. *Transl Res Oral Oncol.* 2019; 4:1-9.
253. Mehtab W, Sachdev S, Malhotra A, Singh A, Singh N, Makharia G. Estimation of gluten content in unlabeled and labeled gluten-free food products and commonly used food items consumed by celiac disease patients. *Indian J Gastroenterol.* 2018;37:128.
254. Mehtab W, Sachdev V, Malhotra A, Singh N, Makharia G K. Comparative analysis of cost and nutritional composition of gluten-free food with their gluten containing counterparts. *Indian J Gastroenterol.* 2018; 37:129
255. Mirgh S, Mahapatra M, Seth T, Saxena R, Pati H, Tyagi. Young adults with Multiple Myeloma: Unveiling a different spectrum in a resource constrained setting. *HemaSphere.* 2018; 2 (Suppl 1):998.
256. Mirgh SP, Seth T, Mahapatra M, Aggrawal M, Dhawan R, Saxena R, et al. Comparison of Allopurinol and Febuxostat for prevention of hyperuricemia in acute leukemias. *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):43-4.
257. Misra S, Kumar A, Talwar P, Sagar R, Kumar P, Gulati A, et al. Diagnostic accuracy of total leucocyte count and C-reactive protein as blood based protein biomarkers in differentiating hemorrhagic stroke from ischemic stroke. *Int J Stroke.* 2018; 13(suppl2):139.
258. Misra S, Talwar P, Kumar A, Sagar R, Kumar P, Pandit AK, et al. Blood based protein biomarkers for the differentiation of ischemic stroke from stroke mimics: A systematic review and meta-analysis. *Int J Stroke.* 2018; 13(Suppl2):25.
259. Misra S, Talwar P, Kumar P, Rai A, Kumar A, Aggarwal P, et al. Factors associated with hospital arrival time of acute stroke patients in Emergency Department of All India Institute of Medical Sciences, New Delhi: A cross-sectional study. *Ann Indian Acad Neurol.* 2018; 21(Suppl2):S77.
260. Mohapatra V, Reddy SHS, Madhusudan KS, Dash NR, Shalimar S, Pal S et al. Utility of portal vein embolization in surgical management of locally advanced gallbladder cancer. *HPB.* 2018; 20 (Suppl 2):S752.
261. Moksha L, Halder N, Kumar A, Singh B, Chawla R, Velpandian T. Functional importance of efflux drug transporter modulation in blood ocular barriers during inflammation. *Indian J Physiol Pharmacol.* 2018; 62(Suppl):100.
262. More S, Mishra S, Bhatnagar S, Garg R, Gupta N, Bharti SJ, et al. Mapping Palliative Care Awareness in India Through Internet Search Trends. *Indian J Palliat Care.* 2018; 24:248.
263. Nair R, Seth T, Mahapatra M, Saxena R. Impact of infection prior to the initiation of induction chemotherapy on induction outcomes in patients with newly diagnosed acute leukemia in a tertiary centre hospital in India. *HemaSphere.* 2018; 2 (Suppl 1):791-2.

264. Nambirajan A, Longchar M, Mallick SR, Kakkar A, Madan K, Mathur SR, et al. Role of EBUS-TBNA in Evaluation of Mediastinal Lymphadenopathy and Masses in Patients with Known or Suspected Extra-Pulmonary Malignancies. *J Thoracic Oncol.* 2018; 13:S544.
265. Nanda S, Arya S, Bhatia R. Nociceptive flexion reflex and subjective pain: A report of comparison (AW-RS02). *Indian J Physiol Pharmacol.* 2018; 62:73.
266. Nanda S, Arya S, Tiwari VK, Srikumar V, Kumar U, Bhatia R. Transcranial magnetic stimulation (TMS)-induced motor evoked potential (MEP) in chronic pain (566). *Brain Stim.* 2019; 12:496.
267. Narang MK, Srivastava AK, Rajan R, Singh MB, Shukla G, Srivastava MVP. Tremor in spinocerebellar ataxia type12 (SCA-12) mimics essential tremor (ET). *Park Relat Disord.* 2018; 46:e36.
268. Nayak B, Bansal D, Sing P, Seth A, Nayyar R, Ramachandran R. Randomized controlled trial to compare the length of stay, perioperative outcomes and complications in patients undergoing radical cystectomy with and without the enhanced recovery after surgery (ERAS) protocol in a tertiary care centre in India. *Eur Urol Suppl.* 18:e1326.
269. Nayak B, Khan N, Singh P, Seth A, Dinda A, Kaushal S. Micro RNA 182 and Micro RNA 187 as Potential Biomarkers in Prostate Cancer Patients. *World J Urol.* 2018; 36(Suppl1):345
270. Nayak B, Khan N, Singh P, Seth A, Dinda AK, Kaushal S. mi RNA 182 and 187 as potential biomarker in prostate cancer patients and its correlation with staging of prostate cancer. *Eur Urol Suppl.* 2018; 17:e2908-9.
271. Nayyar R, Saini S, Sharma A, Dogra P. Perils of trans-urethral resection of bladder tumors: Objective evidence to its oncological safety using circulating tumor cells as a marker. *J Endourol.* 2018; 32(Suppl 2):A7.
272. Nebhinani N, Verma R, Sarkar S, Kar S, Ranjan R, Bhad R. Performing a Peer Review: Workshop for Young Mental Health Professionals. Workshops. *Indian J Psychiatry.* 2019; 61(Suppl 3):448-9.
273. Paikaray SK, Gogia A, Kumar L, Sharma A, Biswas A, Sharma MC, et al. A phase III open label randomized study to compare the efficacy of lenalidomide-rituximab vs bendamustine-rituximab in treatment naive follicular lymphoma. *J Clin Oncol.* 2018; 36(suppl):e19552.
274. Pal S, Kilambi R, Singh AN, Roy S, Bhoje A. Modified Appleby procedure in locally advanced carcinoma of the body of pancreas with inadequate circulation through the pancreaticoduodenal arcade. *HPB.* 2018; 20 (Suppl 2):S669.
275. Pandey A, Sharma A, Praveen, Mohan A, Bhalla A, Das C, et al. Role of Texture parameters evaluated from baseline whole body F18-FDG PET/CT in prediction of overall survival in Non-small cell lung cancer. *J Nucl Med.* 2018; 59(Suppl1):210.
276. Pandey AK, Lal S, Sharma A, Kumar R, Patel C, Bal CS. Optimization of number of principal components to be used for reconstructing 99mTc-MDP bone scan for reporting purpose. *Indian J Nucl Med.* 2018; 33(Suppl):S106.
277. Pandey AK, Lal S, Sharma A, Kumar R, Patel C, Bal CS. Optimization of number of principal components to be used for reconstructing 99mTc-MDP bone scan for reporting purpose. *Indian J Nucl Med.* 2018 Dec; 33 (Supple): S108.
278. Pandey M, Xess I, Agarwal R, Dabas Y, Singh G. Diagnostic value of molecular methods in diagnosis of mucormycosis. *Med Mycol.* 2018; 56 (Suppl 2): S103.
279. Pandit A, Gupta N, Kumar V, Garg R, Bharati SJ, Madan K, et al. Effect of Palliative Bronchoscopic Interventions on Quality of Life of Patients with Central Airway Narrowing: A Retrospective Review. *Indian J Palliat Care.* 2018; 24:239.
280. Parshad R, Kapila S, Verma E, Gupta S, Goyal V, Kashyap L, et al. VATS Thymectomy – Experience in 100 Cases over 5 years. *Surg Endosc.* 2018; 32(Suppl2):S610.
281. Parshad R, Shabsikiran NJ, Bhattacharjee HK, Gupta S, Sharma R, Kashyap L. Thoraco-Laparoscopic Approach to Bochdalek Hernia Repair in Adults: A Novel Technique. *Surg Endosc.* 2018; 32:S427.
282. Parshad R, Verma E, Goyal V, Bhatia R, Sharma R, Kashyap L, et al. Surgical and Mid Term Neurological Outcome of Video Assisted Thymectomy in Patients with Myasthenia Gravis. *Surg Endosc.* 2018; 130:32(Suppl1):S320
283. Patel A, Biswas B, Toteja G, Singh A, Bakhshi S. Serum Zinc Level and Pediatric Acute Myeloid Leukemia: A Prospective Observational Study. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S185.
284. Patel A, Garg R, Bhatnagar S, Mishra S, Gupta N, Bharti SJ, et al. Assessment of Quality of Life among Care Givers and Children with Cancer in Palliative Care Setup at Tertiary Care Centre: An Observational Descriptive Prospective Study. *Indian J Palliat Care.* 2018; 24:271.
285. Patel A, Sharma MC, Sreenivas V, Bakhshi S. Outcome and Clinical Predictors of Pediatric Lymphoblastic Lymphoma Treated with a Uniform Protocol: A Single Center Experience of 65 Patients from India. *Pediatr Blood Cancer.* 2018; 65(S2):S209.
286. Patel CD, Goyal H, Goyal V, Gupta P, Bal CS, Tripathi M. Evaluation of Myocardial Sympathetic Denervation in Advanced Parkinson Disease Patients with Autonomic dysfunction using 18F-FDOPA PET-CT. *Eur J Nucl Med Mol Imaging.* 2018; 45(Suppl1):S159.

287. Pathy S, Kumar L, Dashwal V, Sharma DN. Review Of Practice And Outcomes Of External Beam Radiotherapy Followed By HDR Brachtherapy In Elderly Patients With Cervical Cancer. *Brachytherapy*. 2018; 17:S118-9.
288. Pathy S, Kumar R, Sharma DN, Biswas R, Sharma S, Binjola A. Small bowel doses in Vaginal Cuff Brachytherapy in Post hysterectomy cervical cancer patients: A volumetric Dosimetric study in patients treated with point based technique. *Brachytherapy*. 2018; 17:S120-1.
289. Patil V, Patra BN, Balhara YPS, Khandelwal SK. Disability and stigma among patients with substance use disorder: A pilot study. *Indian J Psychiatry*. 2019; 61(Suppl 3):S478.
290. Paul SB, Sreenivas V, Singh S, Nadda N, Dhamija E, Shalimar S, et al. Resurrection of serum alphafetoprotein: utility in monitoring treatment response in hepatocellular carcinoma. *J Clin Exp Hepatol*. 2018; 8(Suppl1):S98.
291. Pentapati SSK, Salve H. Association of second hand smoke exposure and depression: A systematic review and meta-analysis. *Tob Induc Dis*. 2018; 16 (Suppl 3): A50.
292. Perveen G, Arora G, Damle NA, Gupta R, Tripathi M, Bal CS, et al. Role of early dynamic PET/CT with ⁶⁸Ga-PSMA-HBED-CC in patients with adenocarcinoma prostate. *J Nucl Med*. 2018; 59(Suppl1):1500.
293. Phalak M, Singh G, Sharma R, Gupta D, Agrawal D, Kale S. Post-traumatic hydrocephalus in pediatric patients: Presentation, management and outcome—An apex trauma centre experience. *Childs Nerv Syst*. 2018; 34:2088.
294. Pandey H, Ranjan R, Pandey S, Sharma A, Kishor K, Mahapatra M, et al. Molecular and Hematological characterization of delta-beta thalassemia (HPFH) hereditary persistence of Fetal Hemoglobin with inherited co-factors. *Indian J Hematol Blood Transfus*. 2018; 34 (Suppl 1):80.
295. Prabhakar H, Kapoor I, Mahajan C. Assessment of Airway in Patients with Acromegaly Undergoing Surgery: Predicting Successful Tracheal Intubation. *J Neurosurg Anesthesiol*. 2018; 30:419.
296. Prabhu M, Damle N, Kumari G, Tripathi M, Bal CS, Arora G, et al. A pilot study to assess the role of early dynamic PET/CT with ¹⁸F-Fluorocholine in imaging of parathyroid adenomas. *J Nucl Med*. 2018; 59(Suppl1):1326.
297. Prakash H, Ghosh AK, Rudramurthy SM, Singh P, Xess I, Savio J, et al. A prospective multi-centre study on mucormycosis in India: epidemiology, diagnosis and treatment. *Med Mycol*. 2018; 56 (Suppl 2): S114.
298. Prakash P, Ramachandran R, Tandon N, Kumar R. Blood Pressure and Sugar Trends and Quality of Life in Patients Undergoing Pheochromocytoma Surgery. *J Urol*. 2018; 199(4S):e30-1.
299. Prakash S, Priyatma, Saroj M. Expression of GDF-15 in NAFLD and Metabolic syndrome. *Ind J Clin Biochem*. 2018; 33 (Suppl 1): S18.
300. Prathiban R, Chandran DS, Prasher B, Jaryal AK, Deepak KK. Estimating regularity and complexity of HRV time-series in Prakriti classified healthy individuals using approximate entropy and sample entropy. *Indian J Physiol Pharmacol*. 2018; 62(Suppl):183. [https://www.ijpp.com/IJPP_archives/2018_62_5/Conferenvece Proceedings of 64th APPICON 2018.pdf](https://www.ijpp.com/IJPP_archives/2018_62_5/Conferenvece%20Proceedings%20of%2064th%20APPICON%202018.pdf)
301. Premkumar C, Das U, Moksha L, Halder N, Velpandian T. Poultry Antibiotics- An emerging multidrug resistant superbug threat in Delhi. *Indian J Physiol Pharmacol*. 2018; 62(Suppl):176.
302. Priyam K, Sharma MK, Jacob TG, Garg PK, Roy TS. Characterization of a Mouse Model of Early Chronic Pancreatitis. *Pancreas*. 2018; 47:1418.
303. Priyatma, Saroj M, Makharia G, Prakash S. Circulating Chromogranin and MMP-7 expression in gastric cancer. *Ind J Clin Biochem*. 2018; 33 (Suppl 1):S100.
304. Pushpam D, Chopra A, Kumari M, Sreenivas V, Kumar R, Bakhshi S. Absolute Lymphocyte Count at the End of Induction as a Surrogate Marker for Minimal Residual Disease in T Acute Lymphoblastic Leukemia: A Pilot Study. *Pediatr Blood Cancer*. 2018; 65(S2):e27455:S153.
305. Pushpam D, Rajpoot N, Chopra A, Sreenivas V, Kumar R, Bakhshi S. Correlation of Absolute Lymphocyte Count and Peripheral Blood Lymphocyte Subset with Minimal Residual Disease at End of Induction in Pediatric B Cell Acute Lymphoblastic Leukemia. *Pediatr Blood Cancer*. 2018; 65(S2):e27455:S152.
306. Quraishi R, Singh D, Ambekar A, Jain R, Rao R. Gamma glutamyltransferase measurement in dried serum spots. *Alcohol Clin Exp Res*. 2018; 42 (Suppl 2):24A.
307. Raheja A, Sinha S, Mansoori N, Subramanian A, Kale SS. Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury. *J Neurol Surg A Cent Eur Neurosurg*. 2018; 79(S 01):S1-27.
308. Raj A, Madhusudhan KS, Dey AB, Singh AN, Panwar R, Dash NR et al. Prevalence of frailty and its association with morbidity in elderly surgical patients. *Trop Gastroenterol*. 2018; 39 (Suppl 1):S80.
309. Rajan R, Pandit A, Venugopalan V, Vibha D, Krishnan S, Srivastava AK, et al. An automated algorithm for detection and quantification of tremor from pen-on-paper Archimedes spirals. *Mov Disord*. 2018; 33(suppl 2):S514.
310. Raju S, Kumar R, Goyal H, Kumar S, Sharma A, Bal C. Diuretic ⁶⁸Ga-PSMA PET/CT : Evaluation of a Novel technique in Prostate Carcinoma. *J Nucl Med*. 2018; 59(Suppl1):1458.

311. Rana S, Kaloiya GS, Grover NG. Parenting: Can it be a cornerstone of Preventive Psychiatry. *Indian J Psychiatr.* 2019; 61 (Suppl 3):S416.
312. Ranjan P, Kataria K, Maitra D, Lohani KR. Speech rehabilitation after Thyroid surgery. *Glob J Res Anal.* 2019; 8:153-4.
313. Ranjan P, Srivastava A, Kataria K, Qaiser D, Sharma CK, Surya T, et al. A, Efficacy of Intravenous Fluorescein in carcinoma breast to assess Axillary metastasis in post chemotherapy patients: A novel approach. *Eur J Cancer.* 2018; 92(Suppl3):S82.
314. Ranjan R, Sharma A, Kumar S, Kishor K, Pandey H, Seth T, et al. Screening of factor XIII Val34 LeU polymorphism for identifying its role in Indian myocardial infarction patients. *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):127.
315. Rao R, Kedia S K, Prashanth R, Agrawal A, Ambekar A, Dhawan A. Factors Affecting Long-term Retention on Opioid Agonist Maintenance Treatment in a Community Drug Treatment Clinic: A Retrospective Cohort Study from India. *Am J Addict.* 2018; 27:311.
316. Rastogi S, Sharma A, Aggarwal A, Barwad A, Dhamija E, Panday R. Outcomes of advanced soft tissue sarcoma from dedicated medical oncology sarcoma clinic in North India and evaluation of the respective model. *J Clin Oncol.* 2018; 36 (suppl):e23561
317. Rath G, Mishra N, Chaturvedi A, Bithal P. Effect of goal-directed intraoperative fluid therapy on hospital stay in patients undergoing excision of supratentorial tumors. *J Neurosurg Anesthesiol.* 2018; 30:421.
318. Ray MD. Effect of HIPEC on immune micro environment. *Pleura and Peritoneum.* 2018; 3:sA416.
319. Raza MS, Kapil A, Goyal V, Lodha R, Sood S, Gautam H, et al. Impact of the real time PCR in the diagnosis of acute bacterial meningitis in infants in a tertiary health care center in India. *Int J Infect Dis.* 2019; 79 (Suppl 1): 86.
320. Roy K, Sharma R, Jain V. Severe lead toxicity due to Ayurvedic medicine in a child with type 1 diabetes. *Pediatr Diabetes.* 2018; 19 (Suppl 26): 149
321. Roy P, Narula G, Arora B, Bakhshi S, Trehan A, Radhakrishnan V, et al. Implementation of risk adapted therapeutic strategy for childhood acute lymphoblastic leukaemia – interim report of the pilot InPOG-ALL-15-01 study. *Pediatr Hematol Oncol J.* 2018; 3 (Suppl):S19.
322. Roy S, Dash N, Pal S, Sahni P, Chattopadhyay TK, Nundy S et al. Emergency proximal lienorenal shunt (LRS) for variceal bleeding in patients with extrahepatic portal venous obstruction (EHPVO). *HPB.* 2018; 20 (Suppl 2):S437.
323. Roy TS, Pillutla S, Jacob TG, Thakar A, Bhardwaj DN. Estimation of total capillary length in the human striavascularis using design-based stereology. *J Anat Soc India.* 2018; 67: S56.
324. Rudramurthy SM, Dhaliwal M, Singh R, Xess I, Michael SJ, Walia K, et al. Report from the AMRSN-Antimicrobial Resistance Surveillance Network; data from 2013–2017 spanning four geographically distant tertiary care hospitals in India. *Med Mycol.* 2018; 56 (Suppl 2): S111.
325. S Singh, R Lal, YPS Balhara, KK Deepak. Reduced heart rate variability in alcohol use disorder: relationship with severity of depressive symptoms in post acute alcohol withdrawal state. *Ind J of Psych.* 2018; 60(Suppl1):S109.
326. Sagar R, Patra BN, Gupta P, Kumar M. Study on Gap Analysis in Mental Health Care Services in Child Care Institutions (CCI) of Delhi State. *Indian J Psychiatry.* 2019; 61(suppl3):S399.
327. Sagar S, Maqbool M, Sharma U, Mir N, Kumar S, Sagar R. Effectiveness of YOGA on Quality of Life, Self Esteem & Psychopathology among patient with Lower Limb Amputation admitted at Surgical Unit of level I Trauma Center, AIIMS: A Pilot Study. *Indian J Psychiatry.* 2019; 61:S563.
328. Sahoo R, Patekar M, Adhikari N, Biswas A, Raina V, Kumar L, et al Primary Central Nervous System Lymphoma in India: A 17-year Experience from AIIMS. *Clin lymphoma Myeloma Leuk.* 2018; 18 (Suppl 1):S286.
329. Sahota GS, Panwar R, Aggarwal A, Singh AN, Kedia S, Shalimar S et al., Elective splenectomy for hypersplenism in patients with chronic liver disease. *Trop Gastroenterol.* 2018; 39 (Suppl 1):S62.
330. Sahota GS, Roy S, Dash NR, Pal S, Sahni P. Management of biliary cystadenomas: 10 years' experience. *Trop Gastroenterol.* 2018; 39 (Suppl 1):S66.
331. Saini M, Samanchi R, Ahmed A, Kaur S, Sharma R, Tayade P. Cortical sources of verbal OM chanting: A qEEG study. *Indian J Physiol Pharmacol.* 2018; 62:77.
332. Samanchi R, Dada T, Kaur S, Mehta N, Sharma R. Lower activity in alpha and gamma bands at anterior cingulate in glaucoma. *Indian J Physiol Pharmacol.* 2018; 62:81.
333. Sarangi J, Mohamed S, Pal S, Yadav R, Datta Gupta S, Panda SK, Das P. Methylation analysis of tumor suppressor genes in aberrant crypt foci of human colon. *Indian J Pathol Microbiol.* 2018;61(Suppl1):S18.
334. Sazawal S, Chhikara S, Chaubey R, Mahapatra M, Seth T, Saxena R. Chronic Myeloid Leukemia with rare fusion transcript B2A3 (E13A3) BCRABL1: A report of four cases from AIIMS. *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):293.

335. Seth R, Seth S, Meena J, Gupta A. Outcomes of Children with Leukemia Admitted with Septic Shock and Myocardial Dysfunction: Role of Intravenous Globulins. *Pediatr Blood Cancer*. 2018; 65 (Suppl 2):S541.
336. Seth R, Pathak N, Meena J, Gupta A. The After-Treatment Completion Card (ATCC): Medical Passport for a Child Cancer Survivor. *Pediatr Blood Cancer*. 2018; 65 (Suppl 2):S697-8.
337. Shah A, Jain D, Ababneh E, Agaimy A, Hoschar A, Wenig B, et al. SMARCB1-Deficient Adenocarcinoma of the Sinonasal Tract: A Potentially Under-Recognized Form of Sinonasal Adenocarcinoma. *Mod Pathol*. 2019; 32:1219.
338. Shakya S, Faruq M, Srivastava AK, Singh I, Garg A, Rajan R, et al. Clinical and mutation spectrum of Ataxia with oculomotor apraxia-2: An Indian perspective. *Mov Disord*. 2018; 33(suppl 2):S304.
339. Shakya S, Srivastava AK, Faruq M, Kumar D. Twofold load of tandem repeat expansion and their impact on ADCA patients. *Park Relat Disord*. 2018; 46:e61.
340. Sharad N, Singh G, Xess I, Agarwal R, Seth T, Reeta KH. Therapeutic drug monitoring (TDM) of voriconazole in haematologic malignancy patients. *Med Mycol*. 2018; 56 (Suppl 2): S100.
341. Sharan P, Deb KS, Hans G. Ketamine use in treatment resistant depression. *Indian J Psychiatry*. 2019; 61(Suppl 3):S417.
342. Sharma A, Aggarwal A, Barwad A, Dhamija E, Panday R, Kumar VS, et al. Retrospective analysis of management and outcome of advanced soft tissue sarcomas (STS) with rare histology. *J Clin Oncol*. 2018; 36(suppl):e23564.
343. Sharma A, Chaudhary SP, Raina V, Shukla NK, Sreenivas V, Prakash S, et al. Final results of a phase II/III, randomized, double blind, placebo-controlled study to investigate the efficacy of a high potency multistrain probiotic, on chemotherapy induced diarrhea in cancer patients receiving fluoropyrimidines and/or Irinotecan based therapy. *Ann Oncol*. 2018; 29 (Suppl 8): Mdy 424.085.
344. Sharma A, Mohan A, Bhalla A, Vishnubhatla S, Das C, Pandey A, et al. Role of metabolic tumor volume based parameters evaluated from baseline whole body F18-FDG PET/CT in prediction of overall survival in Non-small cell lung cancer. *J Nucl Med*. 2018; 59(Suppl1):207.
345. Sharma A, Naresh G, Aggarwal A, Barwad A, Dhamija E, Panday R, et al. Retrospective analysis of management and outcome of advanced soft tissue sarcomas (STS) with rare histology. *J Clin Oncol*. 2018; 36(Suppl):e23564.
346. Sharma A, Ranjan R, Kishor K, Pandey H, Kumar R, Mahapatra M, et al. HR2 haplotype and ARG485LYS polymorphism: Association with FV level, APC ratio and their role in the development of DVT. *Indian J Hematol Blood Transfus*. 2018; 34 (Suppl 1):148.
347. Sharma A, Sharma R, Jain V. Quality of life and problem areas associated with emotional distress in Indian children with type 1 diabetes. *Pediatr Diabetes*. 2018; 19 (Suppl 26):64.
348. Sharma H, Kumar N, Bhatia R, Mohanty R, Vishnu VY, Sharma R, et al. Role of Serum Growth Factors (Vascular Endothelial Growth Factor and Brain-Derived Neurotrophic Factor) in Repetitive Trans Cranial Magnetic Stimulation Assisted Recovery In Subacute Stroke. *Int J Stroke*. 2018; 13(Suppl2):S123.
349. Sharma H, Vishnu VY, Kumar N, Sreenivas V, Rajeswari MR, Bhatia R, et al. Efficacy of low frequency repetitive transcranial magnetic stimulation (rTMS) in Ischemic stroke- A double blind randomised controlled Trial. *Int J Stroke*. 2018; 13(Suppl2):S13-127.
350. Sharma K, Agarwala S, Jana M, Kandasamy D, Jain V, Dhua A, et al. Hepatoblastoma: Role Diffusion Weighted MRI (DW-MR) in Detection of Satellite Lesions not Detected with Multi-Phase CT Scans. *Pediatr Blood Cancer*. 2018; 65(S2):e27455:S489.
351. Sharma N, Das P, Yadav R, Ahuja V, Saraya A, Gupta SD. Assessment of genomic diversity of Helicobacter pylori strains in gastric biopsies from residents of high altitutte areas of ladakh and lower plains of north india. *Indian J Pathol Microbiol*. 2018;61(Suppl1):S20.
352. Sharma N, Saraya A, Gupta SD, Das P, Yadav R. *H. pylori* genotyping and genomic diversity assessment in gastric biopsies from residents of high altitude (Ladakh) and lower plains of North India. *J Gastroenterol Hepatol*. 2018; 33(Suppl 4):104.
353. Sharma P, Arora G, Mishra A, Kumar R. Diagnostic accuracy of Tc-99m Methionine SPECT/CT for recurrent glioma: Comparison with F-18 FDG PET/CT and contrast-enhanced MRI. *J Nucl Med*. 2018; 59(Suppl1):1688.
354. Sharma P, Yadav RK. Relative fold changes in mRNA level of genes related to stress, inflammation and ageing in obesity after yoga-based lifestyle intervention. *Indian J Physiol Pharmacol*. 2018; 62:188.
355. Sharma R, Mahapatra M, Sazawal S, Seth T, Mishra P, Chhikara S, et al. Role of pre-treatment multi-drug resistance gene expression in minimal residual disease development and prognosis of adult B-lineage acute lymphoblastic leukemia patients. *Indian J Hematol Blood Transfus*. 2018; 34 (Suppl 1):235.
356. Sharma R, Singh BK, Jorwal P, Soneja M, Kumar P, Base-line fluoroquinolone resistance among MDR-TB isolates. Are we armed enough to eliminate TB disease?, *Int J Tuberc. Lung Dis*. 2018, 22(11), Supl. 2, Page S208.

357. Sharma S, Kedia S, Ahuja V, Singh N, Sahu P, Kumar S, et al. Exclusive enteral nutrition is effective in adults with Crohn's disease: Experience from a tertiary care hospital in India. *Indian J Gastroenterol.* 2018;37:128.
358. Shchekotikhin A, Tikhomirov A, Kaur P, Shtil A. The role of functional groups in the antitumor properties of antrafuram. *ESMO Open.* 2018; 3 (Suppl 2): PO-458.
359. Shivangi, Yadav K, Chandran DS, Jaryal AK, Mallick HN, Deepak KK. Dynamic cerebral autoregulation during Head down tilt. *Indian J Physiol Pharmacol.* 2018; 62(Suppl):84. https://www.ijpp.com/IJPP_archives/2018_62_5/Conferenvece Proceedings of 64th APPICON 2018.pdf
360. Shivanna P, Deo S, Shukla NK, Bhorawal S, Thakur R, Bakshi S, et al. Clinicopathological features, treatment patterns and outcomes of pulmonary metastasectomy. 2018; *J Thorac Oncol.* 13:S122–3.
361. Shrivastava V, Dey D, Singal CMS, Sharma JB, Seth P, Sen S. Evaluating hypoxic injury in astrocytes derived from human fetal neural stem cells *in vitro*. *Ind J Clin Biochem.* 2018; 33 (Suppl 1):72.
362. Singh AN, Jain H, Pal S, Das P, Yadav R, Sahota G et al. Posterior (SMA-first) approach vs. standard pancreatoduodenectomy in patients with periampullary cancer: a randomized trial. *HPB.* 2018; 20 (Suppl 2):S230-1.
363. Singh BK, Sharma R, Soneja M, Jorwal P. Pre-evaluation of Pyrazinamide Drug Resistance among MDR-TB isolates: A study from an apex tertiary care center of India. *Int. J. Tuberc. Lung Dis.* 2018, 22(11), Supl. 2, Page S407, (ISSN 1027-3719)
364. Singh D, Reeta KH, Sharma U, Jagannathan NR, Dinda AK, Gupta YK. Monomethyl fumarate mitigates ischemia reperfusion damage by activating Nrf2/HO1 pathway in experimental model of ischemic stroke in rat. *Eur Stroke J.* 2018; 3(Suppl 1):530-1.
365. Singh G, Anand S, Lall B, Srivastava A, Singh V. A Low-Cost Portable Wireless Multi-frequency Electrical Impedance Tomography System. *Arab J Sci Eng.* 2019; 44:2305-20.
366. Singh G, Xess I, Pandey M, Agarwal R. Spectrum of *Scedosporium apiospermum* infections in a tertiary care centre in North India: Experience over three years. *Med Mycol.* 2018; 56 (Suppl 2): S101.
367. Singh H, Swarup V, Singh R, Singh I, Faruq M, Srivastava AK, et al. Transcriptional profiling of peripheral blood monocytes from child Friedreich's ataxia patient: New molecules and patterns of gene expression. *Mov Disord.* 2018; 33(suppl 2):S302
368. Singh HN, Swarup V, Srivastava AK. Differential gene expression analysis reveals pathway based functional association of dysregulated genes in Friedreich's ataxia. *Park Relat Disord.* 2018; 46:e34.
369. Singh I, Shakya S, Singh RK, Goyal V, Srivastava AK. Prevalence of hemochromatosis (HFE) gene mutations in Friedreich's Ataxia patients and peripheral neuropathy. *Park Relat Disord.* 2018; 46:e4.
370. Singh I, Verma A, Suroliya V, Hooda U, Faruq M, Ahuja V, et al. Gluten sensitivity in progressive cerebellar ataxia patients from India. *MovDisord.* 2018; 33(suppl2):S298.
371. Singh L, Singh MK, Pushker N, Bakhshi S, Rizvi MA, Sen S, et al. Immune checkpoints and T-lymphocytes as immunotherapeutic target in the treatment of sebaceous gland carcinoma. *Ann Oncol.* 2018; 29(suppl 8):1191P.
372. Singh MK, Meel R, Pushker N, Sen S, Chodsol K, Bakhshi S, et al. Activation of non-canonical NFκB (NC-NFκB) pathway in inflammatory environment of uveal melanoma. *Ann Oncol.* 2018; 29(suppl8): 1273P.
373. Singh N, Grover I, Gunjan D, Upadhyay AD, Saraya A. Nutritional Status Assessment by Bioelectrical Impedance Analysis: Comparison in Patients with Chronic Pancreatitis and Cirrhosis. *Gastroenterol.* 2018; 154(Suppl1):S718-9.
374. Singh N, Gunjan D, Saraya A. Assessment of quality of life in patients with chronic pancreatitis. *Indian J Gastroenterol.* 2018; 37(Suppl1):A109-10.
375. Singh N, Srivastava AK, Kumar A, Pandit AK, Rajan R, Vibha D, et al. To study clinical, histological and radiological features of adult neurological mitochondrial disorders amongst Indian patients. *Ann Indian Acad Neurol.* 2018; 21 (suppl2):S116.
376. Singh P, Kumar R, Nayak B, Sharma A. Prevalence of HPV16 and HPV18 subtypes in penile cancer patients of Indian origin and their association with htert promoter methylation and telomerase activity. *World J Urol.* 2018; 36(Suppl1):113.
377. Singh P, Srivastava N, Nayak B, Garg B. Spectrum of clinical and urodynamic findings in patients of spinal tuberculosis with lower urinary tract symptoms, before and after spinal surgical intervention. *World J Urol.* 2018; 36(Suppl1):357.
378. Singh R, Singhal D, Pandit MA, Sarkar S, Gupta R, Balhara YPS, et al. Genetic and Epigenetic study in Opioid dependence patients. *Indian J Psychiatry.* 2019; 61 (Suppl 3):481.
379. Singh R, Sonakar AK, Srivastava AK, Faruq M. Modifiers of age at onset in spinocerebellar ataxia type 2(SCA2): CAG length of other SCA loci do not influence age at onset in SCA2. *Park Relat Disord.* 2018; 46:e61-2.
380. Singh S, Pandey AK, Sharma A, Patel C, Bal CS. Optimization of the value of MEVIS Image Registration Toolkit module parameters for positron emission tomography/computed tomography image registration on personal computer. *Indian J Nucl Med.* 2018; 33(Suppl):S110.

381. Singh V, Kumar S, PrakashK, Jaryal AK, Deepak KK. Effects of Hypercapnia on Dynamic Cerebral Autoregulation During Transient Hypotension. *Stroke*. 2018; 46(Suppl1): TP403.
382. Singh V, Malik PS, Jain D. MAP kinase signaling pathway in pulmonary adenocarcinomas: A study from India. *J Thorac Oncol*. 2018; 13(Suppl 4):S33.
383. Singh VP, Mishra S, Bhatnagar S, Gupta N, Bharti SJ, Garg R, et al. Chemotherapy Induced Oral Mucositis-Initial Experiences: A Case Series. . *Indian J Palliat Care*. 2018; 24:278.
384. Singh, S, Sharma, V, Kalojya, GS et al. Symposium: Do I Think about Thinking? Recent Trends in Metacognition. Meta Cognition in Substance Use. *Indian J Psychiatr*. 2019; 61 (Suppl 3):S412.
385. Sirohiya P, Bhatnagar S, Mishra S, Garg R, Gupta N, Kumar V, et al. Transition of Mindset after Attending Home based Palliative Care Services. *Indian J Palliat Care*. 2018; 24:256.
386. Sohal P, Aggarwal H, Hadda V, Madan K, Mohan A, Guleria R. Serum Levels of Il-13 And Tnf-A Can Differentiate Between Pulmonary Sarcoidosis and Tb. *Chest*. 2018; 154(Suppl):130A.
387. Sonakar AK, Srivastava AK, Faruq M, Srivastava MVP. Phenotypic differences in genetically characterized Spinocerebellar Ataxia Type 2(SCA2): A largest case series from India. *Park Relat Disord*. 2018; 46:e7.
388. Soubam P, Mishra S, Suri A, Dhingra R, Mochan S, Lalwani S, et al. Standardization of the technique of silicon injection of human cadaveric heads for opacification of cerebral vasculature in Indian conditions. *Neurol India*. 2018; 66:439.
389. Srinivas R, Roy S, Verma R, Kumar N. Seizure and psychosis: forced normalization a case report & narrative review. *Indian J Psychiatry*. 2019; 61(Suppl 3):570.
390. Srivastava AK, Narang M, Rajan R, Shukla G, Faruq M, Pandit AK, et al. Electrophysiological characteristics of tremor in spinocerebellar, ataxia type12 (SCA-12) and essential tremor (ET). *Mov Disord*. 2018; 33(suppl2):S301.
391. Srivastava P, Chandran DS, Jaryal AK, Jyotsna VP, Deepak KK. Study of Vascular and Endothelial Function in Type II Diabetes with Newly Diagnosed. *FASEB J*. 2018; 32(Suppl):584.3.
392. Surabhi G, Kumar U, Dada R: Efficacy of Yoga and Meditation Based Lifestyle Intervention on Inflammatory Markers in Patients with Rheumatoid Arthritis. *Int J Med Health Sci*. 2018;12:91114.
393. Suroliya V, Faruq M, Srivastava AK. A strategic approach to understand microsatellite repeat loci among Indian spinocerebellar ataxia patients. *Mov Disord*. 2018;33(suppl2):S290.
394. Suroliya V, Srivastava AK, Faruq M. New insight in the screening of tandem repeats among spinocerebellar ataxia patients. *Park Relat Disord*. 2018; 46:e62.
395. Swarup V, Singh R, Singh H, Singh I, Faruq M, Srivastava AK, et al. MicroRNAs Unveil Metabolic Imbalance in Spinocerebellar Ataxia Type-2. *Mov Disord*. 2018; 33(suppl2):S295.
396. Swarup V, Singh R, Singh HN, Faruq M, Srivastava AK. Identification of MicroRNAs and their target genes modulating Spinocerebellar Ataxia type-2 (SCA2) pathogenesis. *Park Relat Disord*. 2018; 46:e5-6.
397. Syed N, Yasser R, Waseem R, Khan N, Deepak KK. "O"- Endurimeter: Innovative instrument designed from the testing muscle endurance in experimental animals. *Indian J Physiol Pharmacol*. 2018; 62(Suppl):86. https://www.ijpp.com/IJPP archives/2018_62_5/Conferenvce Proceedings of 64th APPICON 2018.pdf
398. Takkar A, Ahmed I, Shakya S, Srivastava AK. Clinico-genetic correlation in Indian Spinocerebellar ataxia Type 1 (SCA1) patients. *MovDisord*. 2018; 33 (suppl 2) S293.
399. Takkar A, Srivastava AK, Faruq M. Clinico-genetic correlation in Indian Spinocerebellar ataxia Type 1 (SCA1) patients. *Park Relat Disord*. 2018; 46:e4.
400. Talwar A, Trivedi N, Akhtar, Guleria R, Bade G, Ghosh D. Pranayama Improves Inflammatory Profile in COPD. *Am J Resp and Crit Care Med*. 2018; 197:A2171.
401. Talwar A, Trivedi A, Sampath M, Bade G. Effect of Gender and Abdominal Obesity on Airway Mechanics. *Eur Respir J*. 2018; 52:PA528.
402. Talwar P, Misra S, Kumar A, Pandit AK, Vibha D, Rai A, et al. Blood urea nitrogen/creatinine ratio as a predictor of poor outcome in ischemic stroke. *Ann Indian Acad Neurol*. 2018; 21(Suppl2):S159.
403. Talwar P, Misra S, Pandit AK, Kumar A, Kumar P, Sagar R, et al. Association between matrix metalloproteinase family gene polymorphisms and risk of ischemic stroke: A systematic review and meta-analysis. *Int J Stroke*. 2018; 13(Suppl2):P61.
404. Talwar P, Pandit AK, Misra S, Kumar A, Kumar P, Sagar R, et al. Effect of exposure to particulate matter air pollution on mortality and poor prognosis after stroke. *Int J Stroke*. 2018; 13(Suppl2):P13.
405. Tamuli D, Godiyal A K, Kaur M, Jaryal AK, Srivastava AK, Deepak KK. Autonomic function based classification of spinocerebellar ataxia type 1 and 2 using machine learning classifiers. *Indian J Physiol Pharmacol*. 2018; 62(Suppl): 72. https://www.ijpp.com/IJPP archives/2018_62_5/Conferenvce Proceedings of 64th APPICON 2018.pdf
406. Tamuli D, Kaur M, Kumaran S, Jaryal A, Srivastava AK, Deepak K. Cortical and brainstem neurodegeneration associate with the clinical severity in spinocerebellar ataxia patients. *Mov Disord*. 2018; 33(suppl2):S283

407. Tewari A, Jhanjee S, Dhawan A, Bhargava R, Kalia N. Prevalence of Alcohol use and binge drinking in urban female students attending women college. *Indian J Psychiatr.* 2019; 61 (Suppl 3):S477-8.
408. Tewari A, Jhanjee S, Dhawan A, Bhargava R, Kalia N. Prevalence of Tobacco use in urban female students attending women college. *Indian J Psychiatr.* 2019; 61 (Suppl 3):S593.
409. Thomas A, Srivastava AK, Vibha D, Takkar A, Kumar A, Pandit AK, et al. Evaluation of clinical parameters and vascular endothelial growth factor in relation to disease progression in Amyotrophic lateral sclerosis. *Ann Indian Acad Neurol.* 2018; 21(Suppl2):S179-80.
410. Thummala S, Rastogi A, Sahni P, Pal S, Dash N, Singh A et al. In vivo split liver transplantation and organ sharing between two institutions. *Trop Gastroenterol.* 2018; 39 (Suppl 1):S75.
411. Tiwari A, Kashyap M, Mishra A, Bakhshi S. Malnutrition and Associated Factors in Paediatric Cancer Patient at Baseline. *Pediatr Blood Cancer.* 2018; 65(S2):e27455:S527.
412. Tiwari A, Rastogi S, Deo SVS, Sharma DN, Sharma MC, Bakshi S. 1627P. Single arm prospective study evaluating the role of neoadjuvant chemotherapy in soft tissue sarcoma. *Ann Oncol.* 2018; 29(Suppl8):viii585.
413. Tiwari VK, Mattoo B, Uma K, Kumaran SS, Bhatia R. Effect of fMRI-guided neural navigation rTMS on pain status in fibromyalgia (OR-11). *Indian J Physiol Pharmacol.* 2018; 62:79.
414. Tiwari VK, Nanda S, Mattoo B, Kumar U, Bhatia R. Effect of rTMS on pain descriptors and corticomotor fibromyalgia: a randomized controlled trial (562). *Brain Stim.* 2019; 12:495.
415. Tolahunase MR, Sagar R, Chaurasia P, Dada R. Impact of yoga- and meditation-based lifestyle intervention on depression, quality of life, and cellular aging in infertile couples. *Fertil Steril.* 2018; 110 (Suppl):e67.
416. Tripathi M, Tripathi M, Parida G, Damle NA, Kumar R, Bal C. Biomarker based prediction of progression to dementia: F18-FDG PET in amnesic-MCI. *J Nucl Med.* 2018; 59(Suppl1):1665.
417. Tripathi P, Pati HP, Mahapatra M., Tyagi S, Saxena R. Utility of Labile plasma iron assay in Thalassemia Major Patients. *Indian J Hematol Blood Transfus.* 2018; 34 (Suppl 1):21-2.
418. Verma K, Gupta P, Kumar R, Kumar P, Bal CS. Evaluation of effectiveness and safety of isotope P-32 / Re-188 incorporated radioactive skin patches for treatment of basal cell carcinoma. *Brit J Dermatol.* 2018; 179 (Suppl 1): 13.
419. Verma K, Hima Bindu S, Sethuraman G, Kalaivani M. Increase in concentration of allergen decreases occlusion and patch test reaction time - a time-dose relationship for patch test reactivity! *Brit J Dermatol.* 2018; 179 (Suppl 1): 34.
420. Vig S, Kumar V, Gupta N, Garg R, Bharati SJ, Mishra S, et al. Effect of Pregabalin on Incidence of Chronic Post Mastectomy Pain Syndrome: Prospective Randomized Pilot Study. *Indian J Palliat Care.* 2018; 24:228.
421. Vishnu VY, Pulikottil V, Lal V, Sylaja P, Narasimhan L, Nair P, et al. Comparison of diagnostic accuracy in clinical vascular Neurology between neurology residents and a novel Neurology app on an ios platform: A multi-center cross sectional observational study. *Int J Stroke.* 2018; 13(Suppl2):S13.
422. Xess I, Singh G, Pandey M, Agarwal R. Emerging Rhizopus microspores infections in India. *Med Mycol.* 2018; 56 (Suppl 2): S93.
423. Yadav DK, Sharma S, Gupta DK. Clinical presentation and outcome of pediatric Non-Wilms renal tumor. *Pediatr Blood Cancer.* 2018; 65 (Suppl 2):S494-5.
424. Yadav D, Kumar R, Bal C. F-18 FDG PET/CT imaging in staging and response assessment in children with langerhans cell histiocytosis. *J Nucl Med.* 2018; 59(Suppl1):1604.
425. Yadav K, Shivangi, Chandran DS, Akanksha, Jaryal AK, Poonam C, et al. Change in forearm vascular resistance during non-hypotensive hypovolemia; Role of low pressure baroreceptors. *Indian J Physiol Pharmacol.* 2018; 62(Suppl):85.
426. Yadav M, Ballal S, Tripathi M, Damle NA, Bal CS. ¹⁷⁷Lu-DKFZ-PSMA-617 therapy in metastatic castration resistant prostate cancer: safety, efficacy and quality of life assessment. *J Nucl Med.* 2018; 59(Suppl1):524.
427. Yadav MP, Ballal S, Tripathi M, Damle NA, Sahoo RK, Bal C. Lu-177-DKFZ-PSMA-617 Therapy In Metastatic Castration Resistant Prostate Cancer: Safety, Efficacy And Quality Of Life Assessment. *Eur J Nucl Med Mol Imaging.* 2018; 45(Suppl1):S128.
428. Yadukrishna S, Ahuja V, Kedia S, Jain S, Makharia G, Teja V, et al. Thromboembolic complications in patients with inflammatory bowel disease predict poor prognosis. *J Crohn's Colitis.* 2019; 37:P147.
429. Zacharia A, Kaur S, Sharma R. Lower activation of the right parahippocampal gyrus leads to perceptual reversals during binocular rivalry. *Indian J Physiol Pharmacol.* 2018; 62:75.

Chapters in Books

1. Agarwal R, Paul VK, Deorari A. Newborn infants. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics.* 9th Ed. New Delhi: CBS Publishers; 2019:125-77.
2. Agarwal R, Sankhyani N, Jain V. Growth. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics.* 9th Ed. New Delhi: CBS Publishers; 2019:7-37.

3. Agarwal R, Sankhyan N. Development. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:38-53.
4. Aggarwal R. Chest drains insertion. In: Prabhakar H, Mahajan C, Kapoor I (eds). *Essentials of Anaesthesia for Neurotrauma*. CRC Press; 2018: 517-27.
5. Agrawal SK, Bhattacharya A, Manhas J, Sen S. Molecular Diagnostics in colorectal Cancer. In: Shukla KK, Sharma P, Mishra S (eds). *Molecular Diagnostics in Cancer Patients*. Singapore: Springer Nature; 2019: 143-55.
6. Airan B, Hote M. Heart Transplantation in India: Successes and Challenges. In: Goswami KG (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 863-72.
7. Ambekar A, Chawla N. Cannabis: Neurobiology to Policy. In: Dihingia S, Bhuyan D, Das BS (eds). *Psychiatry Update*. Dibrugarh: Indian Psychiatric Society, East Zone; 2018: 260-79.
8. Anand P, Jain V. Disorders of sex development. In: Agarwal R, Deorari A, Paul VK, Sankar J, Sachdeva A (eds). *AIIMS Protocols in Neonatology*. 2nd ed. New Delhi: Noble Vision; 2019:485-98.
9. Anand RK, Soni KD, Singh A, Bhatt R. Clinical case Scenarios. In: Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 268-75.
10. Arava S, Harisha K, Ruma Ray. The pathophysiology of mitral stenosis. In: Parakh N, Math RS, Chaturvedi V (eds). *Mitral stenosis*. New Delhi: CRC press; 2018: 27-47.
11. Arora MK, Baidya DK. Guidelines for Management of sepsis and septic shock. In: Malhotra SK. *Practice guidelines in Anesthesia-2*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 222-7.
12. Arora MK, Baidya DK. Management of sepsis and septic shock. In: Malhotra SK (ed). *Practice guidelines in Anesthesia-2*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 222-7.
13. Arunkumar S, Bhowmik D. Banff Classification of Renal Allograft Pathology: Updates and Future Directions. In: Dakshinamoorthy KV, Siva Kumar V, Ram (eds). *Articles Every Nephrologist Should Know*. Hyderabad: SVIMS; 2019.
14. Bagaria D, Gupta A, Kumar S. Management Options for Solid Organ Injuries. In: Puneet (ed). *Roshan Lall Gupta's Recent Advances in Surgery-Vol 15*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 64-85.
15. Bagga A, Sinha A, Srivastava RN. Disorders of Kidney and Urinary Tract. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:460-503.
16. Bagga A. Important Medical Procedures. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:736-45.
17. Bagri N, Kumar U. Immunotherapy for nonspecific aortoarteritis. In: Goswami KC (ed). *Essentials of Postgraduate Cardiology*. New Delhi: Evangel Publishing; 2019: 581-5.
18. Bahadur S, Thakar A. Guidelines in management of early laryngeal cancers. In: Bahadur S, Thakar A, Mohanti BK (eds). *Carcinoma of the Larynx and Hypopharynx*. Singapore: Springer; 2019: 63-76.
19. Baidya DK, Malik A. Blue, falls and sesame protocol. In: Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 229-37.
20. Bairwa D, Kumar U. Biosimilars in Rheumatology: Beginning of a new era. In: Pareek KK (ed). *Medicine Update 2019*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 731-6.
21. Balhara YPS, Sharan P, Rao R, Sagar R, Garg R, Kaur J. Introduction to Health and Disorders. In: Sood M, Chadha N, Ratra A. (eds). *MCFT-002 Mental Health and Disorders*. New Delhi: Indira Gandhi National Open University; 2018: 9-112
22. Bansal VK, Krishna A, Ghosh N, Bittner R, Misra MC. Comparison TAPP vs. TEP: Which Technique Is Better? In: Bittner R, Köckerling F, Fitzgibbons RJ, LeBlanc KA, Mittal SK, Chowbey P (eds). *Laparo-endoscopic Hernia Surgery*. Germany: Springer; 2018: 151-70.
23. Basu D, Hans G. Social Impact of Terrorism and Extremism. In: Chadda RK, Kumar V, Sarkar S (eds). *Social Psychiatry: Principles & Clinical Perspectives*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 458-468.
24. Bhalla AS, Gupta AK, Mukund A. Technical considerations in Pediatric imaging. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2411-22.
25. Bhalla AS, Gupta AK, Sharma R. Tubercular infection of the urinary tract. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2034-49.
26. Bhalla AS, Jana M. Imaging approach to recurrent or nonresolving pneumonia. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 272-290.

27. Bhalla AS, Manchanda S, Kumar A, Das CJ. Maxillofacial Imaging: Imaging of Cysts, Tumors and Tumor-like Conditions of the Jaw. In: Khandelwal N, Gupta AK, Garg A (eds). *AIIMS-MAMC-PGI Imaging Series-Diagnostic Radiology: Neuroradiology including head and Neck imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 686-715.
28. Bhalla AS, Manchanda S. Imaging of Nontuberculous Mycobacteria Pulmonary Infections. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 146-58.
29. Bhalla AS, Naranje P. Imaging of Parasitic Infections affecting the Chest. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 106-123.
30. Bhalla AS, Vyas Surabhi, Madan K. Complications of chest infections. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 291-311.
31. Bhalla AS. Plain Radiographs and Procedures. In: Kamath S (ed). *API Text book of Medicine*. 11th ed. Mumbai: CBS Publishers & Distributors; 2019: 2325-38.
32. Bhatia R, Garg D. Current perspectives in acute ischemic stroke management. In: Hand R (ed). *Progress in Medicine Vol 28*. Evangel; 2018.
33. Bhatia R, Gupta S. Surgical management of vitiligo of lips, eyelids, and genitals. In: Gupta S, Olsson MJ, Parsad D, Lim HW, Geel NV, Pandya AG (eds). *Vitiligo: Medical and Surgical Management*. Oxford: Wiley-Blackwell; 2018:371-88.
34. Bhatia R, Ramam M. Dermatopathology Clues in Pigmentary Disorders. In: Kumarasinghe P (ed). *Pigmentary Skin Disorders*. Cham, Switzerland: Springer; 2018:27-53.
35. Bhatia R, Singh N, Bali P. Therapeutics - Goals, Current And Emerging Therapy In Multiple Sclerosis. IAN CME Textbook 2018. Elsevier 2018.
36. Bhattacharjee S, Maitra S. Ultrasound-guided Percutaneous Dilatational Tracheostomy and Cricothyrotomy. In: Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 82-92.
37. Chadda RK, Gupta R. The interface of psychopharmacology and psychotherapy. In: Singh PK, Kumar V (eds). *Advancing Frontiers of Psychiatric Therapeutics*. 1st ed. Patna: Indian Psychiatric Society; 2019 .
38. Chadda RK, N Chawla, S Sarkar. Concept of Social Psychiatry. In: Chadda RK, Kumar V, Sarkar S (eds). *Social Psychiatry: Principles & Clinical Perspectives*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 43-58.
39. Chadda RK. History of Social Psychiatry in India. In: Chadda RK, Kumar V, Sarkar S (eds). *Social Psychiatry: Principles & Clinical Perspectives*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 29-42.
40. Chakrabarty B, Gulati S. Developmental and behavioral disorders. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:54-9.
41. Chandra PS. Basilar invagination and atlantoaxial Dislocation: Reduction using the DCER technique. In: Zaveri G, Mulukutla RD (eds). *The ASSI Monographs Craniovertebral Junction*. Thieme; 2018: 107-22.
42. Chandran DS, Kaur M. Neurophysiology. In: Prabhakar H, Mahajan C, Kapoor I (eds). *Essentials of Anesthesia for Neurotrauma*. New York: CRC Press, Taylor & Francis group; 2018: 31-56.
43. Chandrasekhara SH, Jagia P, Sinha M. CT and MR Angiography Evaluation of Peripheral Arterial and Venous Disease. In: Chopra HK, Nanda NC, Narula J. (eds). *Advances in Clinical Cardiovascular Imaging Echocardiography & Interventions (ACCI-EI): A Textbook of Cardiology*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 938-45.
44. Chatterjee B, Singh Sen M, Chawla N. Substance use in adolescence. In: Kalojiya GS, Singh G, Sarkar S, Dayal P, Balhara YPS (eds). *Basics of Addiction Psychology*. New Delhi: NDDTC, AIIMS; 2019.
45. Chatterjee P. Geriatric Syndromes. In: Kamath S (eds). *API Textbook of Medicine*. 11th Ed. Mumbai: Association of Physicians of India; 2019:2402-5.
46. Chidambaram S Siva. Emerging trends in healthcare management libraries in E-Learning Environment. In: Elavazhagan K, Parvez A, Ashraf T, Mandhirasalam M, Raghavan KK (eds). *Emerging Trends in Librarianship: Role of Libraries in Learning Environment*. Trichirappali: LRC Indian Institute of Management Trichirappali. 2018:367-77.
47. Chidambaram S Siva. Perspectives on Electronic Resources Management. In: Chidambaram S Siva, Babbar P (eds). *National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)*. New Delhi: Jaypee Brothers Medical Publishers; 2018:1-8.
48. Chidambaram S Siva. Recent Development of Data Sharing in Biomedical Journals: A Bird Eye View. In: Rai P, Singh A (eds). *Digital Transformation Strategies and Trends in E-Learning: Preservation, Policy and Privacy*. New Delhi: Segment Books. 2018:421-32.
49. Choudhary SK, Bhoje A. Adult Cardiac Surgery. In: Prabhakaran D, Kumar RK, Naik N, Kaul U (eds). *Tandon's Textbook of Cardiology*. New Delhi: Wolters Kluwer; 2019: 669-727.

50. Choudhary SK, Bhoje A. Surgery for Mitral Stenosis. In: Parakh N, Math RS, Chaturvedi V (eds). *Mitral Stenosis*. New Delhi: CRC Press Taylor and Francis; 2018: 219-40.
51. Choudhary SK, Goyal A. Aortic Diseases: When to Proceed with Surgery? In: Goswami KC (ed). *Essentials of Postgraduate Cardiology*. New Delhi: Evangel Publishing; 2018: 598-606.
52. Choudhary SK, Manek P. Surgery in Cardiac Tumors. In: Deb PK. (ed). *CSI Textbook of Cardiology: The Indian Perspective*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 926-36.
53. Choudhary SK, Nanda S. Non-specific aortoarteritis: Indian perspective. In: Deb PK. (ed). *CSI Textbook of Cardiology: The Indian Perspective*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 621-40.
54. Dar L. All Chapters (Contributor). In: *National Laboratory Guidelines for Testing of Viral Hepatitis*. New Delhi: MoHFW, Govt. of India; 2018: 1-65.
55. Das B. Laboratory Diagnosis of Meningococcal Meningitis. In: Chaudhry R (ed). *Meningococcal Meningitis Recent Perspectives*. New Delhi: KWX Communications; 2018: 58-67.
56. Das B. Meningococcal Meningitis in North India – Study of an Endemic Disease. In: Chaudhry R (ed). *Meningococcal Meningitis Recent Perspectives*. New Delhi: KWX Communications; 2018: 17-30.
57. Das R, Satapathy AK, Kabra SK. Community Acquired Pneumonia. In: Lodha R, Kabra SK (eds). *Antibiotics for Common Infections in Children: An Evidence Based Approach*. 2nd Ed. New Delhi: The Indian Journal of Pediatrics; 2019:36-42.
58. Deora S, Goswami KC. Acute Coronary Syndrome in Elderly. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 281-5.
59. Deora S, Goswami KC. Deep Vein Thrombosis: Controversies and Consensus. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 916-22.
60. Deora S, Goswami KC. Smokeless Tobacco and Cardiovascular Disease. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 3-7.
61. Deora S, Goswami KC. Tilt Table Testing in Syncope. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 682-5.
62. Dey AB, Indani H. Medicine in an Ageing World. In: Kamath S (eds). *API Textbook of Medicine*. 11th Ed. Mumbai: Association of Physicians of India; 2019: 2391-4.
63. Dhawan A, Mongia M. Spirituality and Mental Health. In: Chadda RK, Kumar V, Sarkar S (eds). *Social Psychiatry: Principles and Clinical Perspectives*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 151-8.
64. Dhopeswarkar RA, Yadav R, Goswami KC. Ventricular Arrhythmias in Acute Myocardial Infarction. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 741-4.
65. Dhua AK, Gupta A. Suspected intestinal obstruction (atresia, ARM). In: Agarwal R, Deorari A, Paul VK, Sankar J, Sachdeva A (eds). *AIIMS Protocols in Neonatology*. 2nd Ed. New Delhi: Noble Vision; 2019:281-91.
66. Falera R, Kaur M, Titiyal JS. Postoperative Complications in Small Incision Lenticule Extraction. In: Tatiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 113-36.
67. Gaikwad SB, Garg A. Imaging of Supratentorial Brain Tumours. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 333-55.
68. Gaikwad SB, Kumar A, Prabhakar A. Normal cerebral angiography. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 44-54.
69. Gaikwad SB, Prabhakar A. Imaging and intervention in cerebral ischaemia. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 133-55.
70. Gaikwad SB, Prabhakar A. Imaging of epilepsy. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 341-63.
71. Gaikwad SB. Endovascular management of intracranial Aneurysm. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 161-78.
72. Gaikwad SB. Spinal Vascular Malformations. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 774-84.

73. Gamanagatti S, Kandasamy D, Gupta AK. Picture Archiving and Communication System and Radiology Information System. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 1162-72.
74. Gamanagatti S, Kumar A, Gupta AK, Vyas S. Imaging of Head Trauma. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 693-718.
75. Gamanagatti S, Kumar A, Gupta AK, Vyas S. Imaging of Head Trauma. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology Including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 753-79.
76. Ganga K, Sharma A, Gulati GS. CT and MR Angiographic Evaluation of Aortic Diseases. In: Chopra HK, Nanda NC, Narula J. (eds). *Advances in Clinical Cardiovascular Imaging Echocardiography & Interventions (ACCI-EI): A Textbook of Cardiology*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 522-34.
77. Garg A. Imaging of Infratentorial Brain Tumours. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 356-81.
78. Garg A. Imaging of Spinal Neoplasms. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 751-73.
79. Goswami K C, Krishnamurthy P. Cardiac Tumors: Practical Approach and Management. In: Goswami KC (ed). *Essentials of Postgraduate Cardiology*. New Delhi: Evangel Publishing; 2018: 787-800.
80. Goswami K C, Ramakrishnan S, Siddharthan D. Aneurysms of the Sinuses of Valsalva. In: Goswami KC (ed). *Essentials of Postgraduate Cardiology*. New Delhi: Evangel Publishing; 2018: 392-400.
81. Goswami KC, Gupta A. Newer Antianginals. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 583-7.
82. Goswami KC, Kumar V, Senguttuvan NB. Sports and Heart Diseases. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 1061-6.
83. Goyal A, Bhalla AS. Approach to nodules and cavities in suspected Chest Infections. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 364-84.
84. Goyal A, Bhalla AS. Interventional Radiology in Chest Infections. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 312-30.
85. Goyal A, Choudhary SK. Spinal cord Ischemia in Aortic Surgery: current concepts and strategies. In: Sekhar R (ed). *Yearbook of Vascular and Endovascular Surgery-2*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 273-98.
86. Goyal A, Tandon N. Endocrine Disorders and Cardiovascular Disease. In: Prabhakaran D, Kumar RK, Naik N, Kaul U (eds). *Tandon's Textbook of Cardiology*. New Delhi: Wolters Kluwer India Pvt Ltd; 2019: 1501-9.
87. Guerra L, Dellambra E, Paterna P, Gupta S. Safety concerns in transplantation of in-vitro cultured cellular grafts. In: Gupta S, Olsson MJ, Parsad D, Lim HW, Geel NV, Pandya AG (eds). *Vitiligo: Medical and Surgical Management*. Oxford: Wiley-Blackwell; 2018:363-8.
88. Gulati S. Neuromuscular disorders. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:581-92.
89. Gupta AJK, Jana M. Dual-energy Computed Tomography. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 923-41.
90. Gupta AK, Jana M. Pediatric Radiology. In: Parthasarathy A, Menon PSN, Nair MKC (eds). *IAP Textbook of Pediatrics*. 7th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 1313-28.
91. Gupta AK. Gastrointestinal masses in children. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2581-98.
92. Gupta AK. Imaging of anorectal anomalies. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2569-80.
93. Gupta AK. Skeletal maturity assessment. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2771-6.
94. Gupta DK, Singla R, Kedia S. Use of 3D Print Technology for Training on Craniosynostosis Procedures. In: Gupta DK, Mahapatra AK (eds). *Tenets of Craniosynostosis*. Hyderabad: Thieme Publication; 2018: 49-55.

95. Gupta N, Kabra M. Genetic disorders. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:631-43.
96. Gupta N, Kabra M. Inborn error of metabolism. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:644-59.
97. Gupta N, Kabra M. Therapies for Rare Diseases–The Current Scenario. In: Kabra SK (ed). *Hot Topics in Pediatrics*. New Delhi: The Indian Journal of Pediatrics; 2019: 318-38.
98. Gupta N, Langeh N, Kabra M. Application of Chromosomal Microarray and Next generation sequencing in Pediatric Practice. In: Kabra SK (ed). *Hot Topics in Pediatrics*. New Delhi: The Indian Journal of Pediatrics; 2019:1-14.
99. Gupta S, Geel NV. Introduction. In: Gupta S, Olsson MJ, Parsad D, Lim HW, Geel NV, Pandya AG (eds). *Vitiligo: Medical and Surgical Management*. Oxford: Wiley-Blackwell; 2018:3-8.
100. Gupta V, Bhatia R, Sharma VK. Prevention strategies in atopic dermatitis. In: Sarkar R (ed). *World Clinics Dermatology: Atopic Dermatitis*. New Delhi: Jaypee Brothers Medical Publishers; 2018:81-90.
101. Gupta V, Gupta S, Sahni K, Gupta S. Novel methods of preparing cell suspension for transplantation in vitiligo. In: Gupta S, Olsson MJ, Parsad D, Lim HW, Geel NV, Pandya AG (eds). *Vitiligo: Medical and Surgical Management*. Oxford: Wiley-Blackwell; 2018:309-16.
102. Gupta V, Gupta S. Future direction in the treatment of vitiligo. In: Gupta S, Olsson MJ, Parsad D, Lim HW, Geel NV, Pandya AG (eds). *Vitiligo: Medical and Surgical Management*. Oxford: Wiley-Blackwell; 2018:475-90.
103. Gupta V, Gupta S. Sexually Transmitted Infections in Dark Skin. In: Orfanos C, Zouboulis CC, Assaf C (eds). *Pigmented Ethnic Skin and Imported Dermatoses*. Cham, Switzerland: Springer; 2018:83-94.
104. Gupta V, Ramam M. Patient evaluation, patient expectation assessment and psychological management of vitiligo. In: Gupta S, Olsson MJ, Parsad D, Lim HW, Geel NV, Pandya AG (eds). *Vitiligo: Medical and Surgical Management*. Oxford: Wiley Blackwell; 2018:61-8.
105. Gupta V, Sonthalia S, Bhat YJ, Langar S, Bosseila M. Inflammatory and infectious conditions. In: Lallas A, Errichetti E, Ioannides (eds). *Dermoscopy in General dermatology*. Boca Raton: CRC Press; 2018:295-309.
106. Hari P. Urinary Tract Infection. In: Vasudev AS, Ugra D, Mehta K, Banerjee S, Saha A (eds). *IAP Specialty Series on Pediatric Nephrology*. 3rd Ed. New Delhi: Jaypee Brothers Medical Publishers; 2019:173-83.
107. Hari S, Gupta AK. Congenital anomalies of the urinary tract. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2649-72.
108. Hari S, Thulkar S, Gupta AK. A systematic approach to imaging of breast lesions. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 3940-68.
109. Jagia P, Ganga K, Sharma A. Basics of Cardiac Computed Tomography. In: Chopra HK, Nanda NC, Narula J. (eds). *Advances in Clinical Cardiovascular Imaging Echocardiography & Interventions (ACCI-EI): A Textbook of Cardiology*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 3-9.
110. Jagia P, Pandey N. Computed Tomography Angiographic Evaluation in Pulmonary Embolism and Deep Vein Thrombosis. In: Chopra HK, Nanda NC, Narula J. (eds). *Advances in Clinical Cardiovascular Imaging Echocardiography & Interventions (ACCI-EI): A Textbook of Cardiology*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 839-46.
111. Jagia P, Sharma A, Sharma S. Multislice CT for cardiac evaluation. In: Prabhakaran D, Kumar RK, Naik N, Kaul U (eds). *Tandon's Textbook of Cardiology*. New Delhi: Wolters Kluwer; 2019: 498-507.
112. Jagia P, Sharma A. Computed Tomography Coronary Angiography— Essentials for Cardiologists. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 566-71.
113. Jain A, Chandra P, Meena P. Retinopathy of Prematurity. In: Gupta P, Menon PSN, Ramji S, Lodha R (eds). *PG Textbook of Pediatrics*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 568-76.
114. Jain D, Arava S, Kumar R. Pathology of lung infections. In: Bhalla AS, Jana M (eds). *Clinico Radiological Series Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 36-42.
115. Jain D, Herzog BH, Maggi LB. Genetic alterations in cancer. In: Govindan R, Devarakonda S (eds). *Cancer genomics for the Clinician*. New York: Demos Medical Publishing; 2019:1-14.
116. Jain D, Roy-Chowdhuri S, VanderLaan P. Bronchus. In: Cagle PT (ed). *Pulmonary pathology: An Atlas and Text*. 3rd ed. Philadelphia: Wolters Kluwer Health; 2018: 3-5.
117. Jain D, VanderLaan P, Roy-Chowdhuri S. Alveoli. In: Cagle PT (ed). *Pulmonary pathology: An Atlas and Text*. 3rd ed. Philadelphia: Wolters Kluwer Health; 2018: 10-11.
118. Jain D. Pathology of Sinonasal lesions. In: Bhalla AS, Jana M (eds). *Clinico Radiological Series: Sinonasal Imaging*. New Delhi: Elsevier; 2018: 137-49.

119. Jain V, Agarwala S. Congenital lung malformations. In: Lodha R, Kabra M (eds). *Essential Pediatric Pulmonology*. 3rd Ed. New Delhi: Jaypee Brothers Medical Publishers; 2018:325-32.
120. Jain V. Precocious puberty. In: Subramanya NK. *IAP PG Teaching Module 2018*. Mumbai: IAP, 2018.
121. Jana M, Bhalla AS, Gupta AK. Role of chest radiograph and ultrasound in respiratory disorders in children. In: Lodha R, Kabra SK (eds). *Essential Pediatric Pulmonology*. 3rd ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 22-7.
122. Jana M, Bhalla AS. Ultrasound in chest infections. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 12-24.
123. Jana M, Kabra SK. Approach to infections in immunocompromised host. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 183-99.
124. Jana M, Lodha R. Imaging in pediatric lower respiratory tract infections. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 254-271.
125. Jana M, Naranje P, Bhalla AS. Examination section. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 454-70.
126. Jat KR, Post resuscitation sedation and analgesia. In: Jayashree M, Kulgod V, Sharma AK (eds). *IAP ALS Handbook: Bring Back Breaths & Beats*. New Delhi: Indian Academy of Pediatrics; 2018:188-90.
127. Joseph Devarajan SL, Prabhakar A. Imaging in Craniosynostosis. In: Gupta DK, Mahapatra AK (eds). *Tenets of Craniosynostosis*. Hyderabad: Thieme Publication; 2018.
128. Kabra SK. Disorders of Respiratory System. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:371-93.
129. Kandasamy D, Jana M, Gupta AK. Ulcero-constrictive diseases of the Gut. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 1426-50.
130. Kapoor I, Mahajan C Prabhakar H. Introduction. In: Prabhakar H, Mahajan C, Kapoor I (ed). *Essentials of Anaesthesia for Neurotrauma*. USA: Taylor and Francis, CRC Press; 2018: 3-5.
131. Kapoor I, Mahajan C, Prabhakar H. Basics of Neuroanesthesia - Anatomy, Physiology and Pharmacology. In: Prabhakar H, Singhal V, Gupta N (eds). *Co-existing Diseases and Neuroanesthesia*. USA: Springer; 2018; 5-14.
132. Kapoor I, Mahajan C, Prabhakar H. Introduction. In: Prabhakar H (ed). *Paediatric Neuroanesthesia, Oxford Clinical Practice Series*. USA: Oxford University Press; 2018: 1-3.
133. Kapoor I, Prabhakar H, Mahajan C. Anaesthesia in a Patient on Anticoagulant Dabigatran presenting for Emergency Surgery. In: Straker T, Rajan S (ed). *Anesthesiology: A Problem –Based Learning Approach*. USA: Oxford University Press; 2019: 315-24.
134. Kapoor PM. Cardiology (Part 1). In: Mehta Y (ed). *MCQs in Critical care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 1-24.
135. Kapoor PM. Echo in Extracorporeal Membrane Oxygenation in Critical Care. In: Chopra HK, Nanda NC, Narula J. (eds). *Advances in Clinical Cardiovascular Imaging Echocardiography & Interventions (ACCI-EI): A Textbook of Cardiology*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 1069-82.
136. Kapoor PM. Extracorporeal Membrane Oxygenation in Atrial Fibrillation. In: Chopra HK, Wander GS, Chandra P, Kumar V. (eds). *Atrial Fibrillation Update: A Textbook of Cardiology System*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 873 – 80.
137. Kaur M, Titiyal JS. Intraoperative Complications in Small Incision Lenticule Extraction. In: Titiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 88-112.
138. Kaur M, Titiyal JS. Post SMILE Enhancement and Retreatment. In: Titiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 137-47.
139. Kaur M, Titiyal JS. Surgical Technique of Small Incision Lenticule Extraction. In: Titiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 46-64.
140. Kaur R, Jana M. Imaging in chest tuberculosis. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 124-45.
141. Kedia S, Gupta DK. Fronto-orbital Advancement: Principles and Techniques. In: Gupta DK, Mahapatra AK (eds). *Tenets of Craniosynostosis*. Hyderabad: Thieme Publication; 2018: 101-11.
142. Khadgawat R, Goyal A. Acute adrenal crisis. In: Sharma JK, Kapoor D (eds). *Emergencies in Diabetes and Endocrine Diseases*. Evangel, 2019, pp. 177-187.

143. Khaitan BK, Bhatia R. Drug provocation in cutaneous adverse drug reaction. In: Gupta LK, Martin AM (eds). *IADVL Textbook on Cutaneous adverse drug reaction*. Mumbai: Bhalani Publishing House; 2018: 84-8.
144. Khan J, Chidambaram S Siva, Vishwakarma MK, Rawat R. Implementation Process of Electronic Thesis & Dissertation (ETD) Digital Library at B.B. Dikshit Library: Current Status. In: Chidambaram S Siva, Babbar P (eds). *National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)*. New Delhi: Jaypee Brothers Medical Publishers; 2018:112-7.
145. Khandelwal P, Sahoo T, Sinha A. Acute renal failure. In: Agarwal R, Deorari A, Paul VK, Sankar J, Sachdeva A (eds). *AIIMS Protocols in Neonatology*. 2nd Ed. New Delhi: Noble Vision; 2019:419-40.
146. Khanna N, Bhari N. Skin Disorders. In: Paul VK, Bagga A (eds). *Ghai's Essentials of Pediatrics*. 9th ed. New Delhi: CBS Publishers; 2018:669-703.
147. Khanna P, Bhatt R. Practice guidelines for perioperative blood transfusion. In: Malhotra SK (ed). *Practice guidelines in Anesthesia-2*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 243-48.
148. Kiran EK, Boyapati G, Dannana CS, Malhotra R. Revision for Stiff Total Knee Arthroplasty. In: Malhotra R, Gautam D (eds). *Mastering Orthopaedic Techniques: Revision Knee Arthroplasty*. New Delhi: Jaypee Brothers Medical Publishers; 2019:379-90.
149. Krishna A, Bansal VK, Misra MC. Complications, Pitfalls and Prevention of Complications of Laparoscopic Incisional and Ventral Hernia Repair and Comparison to Open Repair. In: Bittner R, Köckerling F, Fitzgibbons RJ, LeBlanc KA, Mittal SK, Chowbey P (eds). *Laparo-endoscopic Hernia Surgery*. Germany: Springer; 2018: 311-32.
150. Kumar A, Gupta AK. Hypoxic ischaemic encephalopathy. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2867-85.
151. Kumar A, Gupta AK. Radiological evaluation of appendicular trauma. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 3902-16.
152. Kumar A, Jana M, Naranje P, Bhalla AS. Imaging of skull base lesions. In: Khandelwal N, Gupta AK, Garg A (eds). *AIIMS-MAMC-PGI Imaging Series- Diagnostic Radiology: Neuroradiology including head and Neck imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 663-685.
153. Kumar A, Khandelwal N, Gaikwad SB, Ahuja C, Gupta V. Endovascular management of Arterio venous Malformations. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 179-94.
154. Kumar A, Soneja M. Applications in Critical Care Medicine. In: Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 10-30.
155. Kumar H. Embryogenesis of Craniosynostosis. In: Gupta DK, Mahapatra AK (eds). *Tenets of Craniosynostosis*. Hyderabad: Thieme Publication; 2018:13-8.
156. Kumar N, Mukhopadhyay A. Using ChIP-based approaches to characterize FOXO recruitment to its target promoters. In: Link W (ed). *FOXO Transcription Factors: Methods and Protocol*. (Series: Methods in Molecular Biology 1890). New York: Humana Press; 2019: 115-30.
157. Kumar P, Bal CS. Dosimetry with I-131 in Differentiated Thyroid Cancer. In: Pant GS (ed). *Basic Physics and Radiation Safety in Nuclear Medicine*. 2nd ed. Himalaya Publishing House; 2018: 218-35.
158. Kumar R, Sagar P. Surgical anatomy and tumour spread in larynx and hypopharynx. In: Bahadur S, Thakar A, Mohanti BK (eds). *Carcinoma of the Larynx and Hypopharynx*. Singapore: Springer; 2019: 1-12.
159. Kumar R, Vashist A, Mathur A, Sarangi SC, Padhy BM, Gupta YK. Nanogels: Stimuli-responsive Drug Delivery Carriers. In: Vashist A, Kaushik AK, Ahmad S, Nair M (eds). *Nanogels for Biomedical Applications*. Cambridge, UK: Royal Society of Chemistry; 2018: 161-80.
160. Kumar S, Ojha V. Varicose Veins: Interventional Approach. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 907-15.
161. Kuziemy C, Maeder AJ, John O, Gogia SB, Basu A, Meher SK, et al. Role of artificial intelligence within the telehealth domain. In: IMAI. *IMIA Yearbook of medical Informatics*. Stuttgart: Schattauer; 2019:85-91.
162. Mahajan C, Kapoor I, Prabhakar H. Neuropharmacology. In: Soriano SG, McClain CD (ed). *Essentials of Paediatric Neuroanesthesia*. USA: Cambridge University Press; 2019: 23-31.
163. Mahapatra A, Sood M. Social Psychiatry in clinical Practice. In: Dhingia S, Bhuyan D. *Psychiatry Update*. Dibrugarh: Indian Psychiatry Society; 2018.
164. Mahapatra AK, Gupta D, Kedia S, Raju S, Sharma R, Subhash P, et al. Illustrative Cases. In: Gupta DK, Mahapatra AK (eds). *Tenets of Craniosynostosis*. Hyderabad: Thieme Publication; 2018:163-75.

165. Mahey R, Pai HD, Pai A. What is new in Assisted Reproduction Technology? In: Palteshkar N, Pai HD, Pai RD, Tandulwadkar S, Shah KR, Kundnani NT (eds). *Newer Trends in ART*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 566-9.
166. Malhotra R, Gautam D. Choice of Implant in Revision Knee Arthroplasty. In: Malhotra R, Gautam D (eds). *Mastering Orthopaedic Techniques: Revision Knee Arthroplasty*. New Delhi: Jaypee Brothers Medical Publishers; 2019:95-114.
167. Malhotra R, Gautam D. Imaging of Failed Total Knee Arthroplasty. In: Malhotra R, Gautam D (eds). *Mastering Orthopaedic Techniques: Revision Knee Arthroplasty*. New Delhi: Jaypee Brothers Medical Publishers; 2019:21-44.
168. Malhotra R, Gautam D. Knee Balancing in Revision Total Knee Arthroplasty. In: Sancheti P, Sorial R, Shyam A, Gugale SS (eds). *Comprehensive Guide in Knee & Hip Arthroplasty (Asia Pacific Arthroplasty Society - Delta Compendium)*. 3rd Ed. New Delhi: Jaypee Brothers Medical Publishers; 2019:260-6.
169. Malhotra R, Gautam D. Management of Disrupted Extensor Mechanism in Revision Knee Arthroplasty. In: Malhotra R, Gautam D (eds). *Mastering Orthopaedic Techniques: Revision Knee Arthroplasty*. New Delhi: Jaypee Brothers Medical Publishers; 2019:215-32.
170. Manchanda A, Gupta AK. Skeletal disorders of metabolic & endocrine origin. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 3686-719.
171. Manchanda S, Bhalla AS. Approach to Pneumonia and consolidation. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 343-63.
172. Manchanda S, Bhalla AS. Reporting templates. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 435-53.
173. Manchanda S, Kaur R. Imaging of Bacterial Pneumonia. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 45-59.
174. Manchanda S, Khilnani GC. Imaging of Hospital-acquired Pneumonia or Ventilator-acquired Pneumonia. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 173-82.
175. Manglani D, Gupta SK. Congenital Mitral Stenosis. In: Parakh N, Math RS, Chaturvedi V (eds). *Mitral Stenosis*. New Delhi: CRC Press Taylor and Francis; 2018: 787-800.
176. Manglani D, Gupta SK. The pathophysiology of mitral stenosis. In: Parakh N, Math RS, Chaturvedi V (eds). *Mitral Stenosis*. New Delhi: CRC Press Taylor and Francis; 2018: 27-47.
177. Meena J, Sinha A, End Stage Renal Disease. In: Kabra SK (ed). *Hot Topics in Pediatrics*. New Delhi: The Indian Journal of Pediatrics; 2019:300-17.
178. Mishra D. Scope & Future of Forensic Odontology- Including current global and Indian scenario. In: Chowdhry A (ed). *Handbook of Forensic Odontology- Including current global and Indian scenario*. New Delhi: Century Publications; 2018: 182-190.
179. Mittal M, Jain V. Disorders of parathyroid gland. In: Khadilkar V, Bajpai A, Prasad HK. *IAP Textbook on Pediatric Endocrinology*. New Delhi: Jaypee Brothers Medical Publishers; 2019:349-58.
180. Mohan S, Makharia GK. Celiac disease: Challenges and opportunities in India. In: Bhat N, Anand AC (eds). *Progress in Gastroenterology and Hepatology*. Chandigarh: Indian Society of gastroenterology; 113-20.
181. Mohapatra S, Singh G. Microbiology of Pulmonary infections. In: Bhalla AS, Jana M (eds). *Clinico Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 25-35.
182. Mridha AR, Barwad AW. Pathology of Bony/Cartilaginous Sinonasal Tumors. In: Bhalla AS, Jana M (eds). *Clinico Radiological Series: Sinonasal Imaging*. New Delhi: Elsevier; 2018: 150-9.
183. Nair S, Kaur M, Titiyal JS. Evolution of Femtosecond Laser Technology in Refractive Surgery. In: Titiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 1-8.
184. Nair S, Kaur M, Titiyal JS. Patient Counseling and Preoperative Evaluation. In: Titiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 9-20.
185. Naranje P, Bhalla AS, Pipavath S. Fungal Infections in Chest: Part 2. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 92-105.
186. Naranje P, Bhalla AS. Imaging of Pulmonary Infections Following Solid Organ Transplantation. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 218-37.
187. Naranje P, Das A. Approach to Airway Infections. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 418-34.

188. Naranje P, Guleria R. Imaging of Infections of Pleura and Chest Wall. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 385-403.
189. Naranje P, Hadda V. Fungal Infections in Chest: Part 1. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 71-91.
190. Naranje P, Jana M. Approach to Infections of the Mediastinum. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 404-17.
191. Naranje P, Yadav M, Das CJ, Gupta AK. Imaging of pulmonary neoplasms. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 3216-40.
192. Narsaria P, Lodha R. Pediatric Critical Care. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:721-35.
193. Nath RK, Goswami KC. Revascularizing Nonculprit Artery in AMI: Uniform Strategy or Case-based Approach. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 265-70.
194. Ojha V, Kumar S. Magnetic resonance imaging in valvular heart disease. In: Chopra HK, Nanda NC, Narula J. (eds). *Advances in Clinical Cardiovascular Imaging Echocardiography & Interventions (ACCI-EI): A Textbook of Cardiology*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 877-92.
195. Padma MV, Vishnu VY, Management of Anticoagulant Induced Intracranial Hemorrhage. APICON text book of Medicine, 2018.
196. Pal T, Khandpur S, Sardana K. Vascular lasers. In: Sardana K (ed). *Lasers and Energy devices in Aesthetic Dermatology Practice*. New Delhi: Jaypee Brothers Medical Publishers; 2019:320-52.
197. Pandey AK. Counting Statistics. In: Pant GS (ed). *Basic Physics and Radiation Safety in Nuclear Medicine*. 2nd ed. Himalaya Publishing House; 2018: 40-66.
198. Panikar D, Tripathi M. Progress in clinical Neurosciences. Delhi, Thieme 2018: 191-195.
199. Pant GS, Pandey AK. Radioactivity. In: Pant GS (ed). *Basic Physics and Radiation Safety in Nuclear Medicine*. 2nd ed. Himalaya Publishing House; 2018: 25-39.
200. Panwar R, Sahni P. Drawing Observations from Data and Making Conclusions. In: Parija S, Kate V (eds). *Thesis Writing for Master's and PhD Program*. Singapore: Springer; 2018:167-74.
201. Parakh N, Goswami KC. Stroke in Cath Lab. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 901-6.
202. Parida GK, Singhal A, Patel CD. Interpreting Nuclear Stress Test. In: Goswami KC (ed). *Essentials of Post Graduate Cardiology*. New Delhi: Evangel Publishing; 2019: 736-45.
203. Parshad R, kumar A, Joshi G. Barret's Esophagus. In: Puneet (ed). *Roshan Lal Gupta's Recent Advances in Surgery*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 108-28.
204. Patel CD, Mukherjee A. Myocardial Perfusion Single-photon Emission Computed Tomography in Assessment of Left Ventricular Dyssynchrony. In: Chopra HK, Nanda NC, Narula J (eds). *Advances in Clinical Cardiovascular Imaging Echocardiography & Interventions (ACCI-EI): A Textbook of Cardiology*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 670-82.
205. Patra BN, Chadda RK. How to write a research protocol? In: S Grover, S Amin (eds). *A Primer of Research, Publication and Presentation*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 1-14.
206. Pattanayak R, Kumar S. Social determinants of Behavior. In: Chadda RK, Kumar V, Sarkar S (eds). *Social Psychiatry: Principles & Clinical Perspectives*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 213-222.
207. Paul SB, Gamanagatti S, Gupta AK, Acharya SK. Clinical aspects of liver cirrhosis: a perspective for the radiologist. In: Sandhu MS, Garg A, Gupta AK, (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 1519-35.
208. Paul VK, Agarwala A, Lodha R. Nutrition. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:86-108.
209. Paul VK. Introduction to Pediatrics. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:1-6.
210. Phuljhele S, Saxena R, Sharma P, Saini M. Complications of Strabismus Surgery. In: Agrawal S (ed). *Strabismus: For every Ophthalmologist*. Singapore: Springer; 2019: 159-70.
211. Prabhakar A. Functional MRI. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 121-33.

212. Prabhat KC, Goyal L, Rana SS, Dhingra K, Kshetrimayum N. Nanocomposites and Nano-Inomers for Orthodontic Bracket Bonding. In: Asiri AM, Mohammad IA (eds). *Application of Nanocomposite Material in Dentistry*. Philadelphia: Woodhead Publishing Elsevier; 2018: 171-80.
213. Priya N, Chidambaram S Siva. Usage of Springer's Bio-Medical E-Journals at AIIMS: Analysis through Counter Usage. In: Chidambaram S Siva, Babbar P (eds). *National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)*. New Delhi: Jaypee Brothers Medical Publishers; 2018:51-61.
214. Priya N. Introducing Plagiarism Services through iThenticate at BB Diskshit Library. In: Chidambaram S Siva, Babbar P (eds). *National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)*. New Delhi: Jaypee Brothers Medical Publishers; 2018:132-9.
215. Priyadarshi M, Sinha A. Antenatal hydronephrosis. In: Agarwal R, Deorari A, Paul VK, Sankar J, Sachdeva A (eds). *AIIMS Protocols in Neonatology*. 2nd Ed. New Delhi: Noble Vision; 2019:441-2.
216. Qureshi R, Ambekar A. Genetics of Alcohol Use Disorders. In: Dihingia S, Bhuyan D, Das BS (eds). *Psychiatry Update*. Dibrugarh: Indian Psychiatric Society, East Zone; 2018: 221-42.
217. Sharma R, Bagga A. Micronutrients in Health and Disease. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:109-24.
218. Raheja A, Couldwell WT. Petroclival meningiomas. In: Couldwell WT (ed). *Skull Base Surgery of the Posterior Fossa*. Switzerland: Springer; 2018: 89-102.
219. Rajabi H, Pandey AK. Image filtering in nuclear medicine. In: Pant GS (ed). *Basic Physics and Radiation Safety in Nuclear Medicine*. 2nd ed. Himalaya Publishing House; 2018: 152-63.
220. Ramakrishnan S, Balaji A, Goswami KC. Total Anomalous Pulmonary Venous Connection. In: Goswami KC (ed). *Essentials of Postgraduate Cardiology*. New Delhi: Evangel Publishing; 2018: 469-75.
221. Rao R, Kathiresan P. Opioid Substitution Therapy – Past, Present and Future. In: Dihingia S, Bhuyan D, Das BS (eds). *Psychiatry Update*. Dibrugarh: Indian Psychiatric Society, East Zone; 2018:243-60.
222. Rathi A, Kaur M, Brar AS, Sah R, Titiyal JS. SMILE versus Femtosecond LASIK: Weighing the Pros and Cons. In: Tatiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 148-60.
223. Rathi A, Kaur M, Titiyal JS. Stepwise Approach for Beginners: Navigating the Learning Curve. In: Tatiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 65-76.
224. Rathi A, Kaur M, Titiyal JS. Understanding the Machine and Laser Settings. In: Tatiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 32-45.
225. Rawat R. Growth and development of Wi-Fi networking system in B.B. Dikshit Library (AIIMS): A pilot study. In: Chidambaram S Siva, Babbar P (eds). *National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)*. New Delhi: Jaypee Brothers Medical Publishers; 2018:85-90.
226. Ray BR. Airway Ultrasound. In: Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 68-81.
227. Roy-Chowdhuri S, Saqi A, Jain D, VanderLaan P. Reactive Changes, Nonspecific Findings, and Age-Related Changes. In: Cagle PT (ed). *Pulmonary pathology: An Atlas and Text*. 3rd ed. Philadelphia: Wolters Kluwer Health; 2018: 24-27.
228. Sagar P, Thakar A, Samant S. Otorhinolaryngology. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th New Delhi: CBS Publishers & Distributors. 2019: 357-70.
229. Sagar R, Satapathy S. Effects of Child Sexual Abuse (CSA) In: Roy JN. *Dialogue Quarterly*. Focus: India: Child Security and Protection, Vol 20 No2, New Delhi:Astha Bharti; 2018:38-43.
230. Sagar R, Garg R, Sinha UK, Mehta M, Naik U. Block-1 Working with Children and Adolescents. IGNOU Course Material. New Delhi:IGNOU; 2018.
231. Sagar R, Gupta R. Social determinants of Behavior. In: Chadda RK, Kumar V, Sarkar S (eds). *Social Psychiatry: Principles & Clinical Perspectives*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 93-101.
232. Sahay P, Kaur M, Brar AS, Titiyal JS. Corneal Wound Healing, Morphological and Biomechanical Changes after Small Incision Lenticule Extraction. In: Tatiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 21-31.
233. Sahay P, Kaur M, Titiyal JS. Refractive and Physiological Outcomes of Small Incision Lenticule Extraction. In: Tatiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 77-87.

234. Sahni K, Gupta S. Non-cultured extracted follicle outer root sheath cell suspension transplantation. In: Gupta S, Olsson MJ, Parsad D, Lim HW, Geel NV, Pandya AG (eds). *Vitiligo: Medical and Surgical Management*. Oxford: Wiley-Blackwell; 2018:293-8.
235. Sahoo T, Sharma R, Jain V. Congenital hypothyroidism. In: Agarwal R, Deorari A, Paul VK, Sankar J, Sachdeva A (eds). *AIIMS Protocols in Neonatology*. 2nd Ed. New Delhi: Noble Vision; 2019:382-95.
236. Sankar J. Poisonings, Injuries and Accidents. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:704-20.
237. Saqi A, Yang HM, Jain D, VanderLaan P, Roy-Chowdhuri S. Normal Cytology of the Lung and Pleura. In: Cagle PT (ed). *Pulmonary pathology: An Atlas and Text*. 3rd ed. Philadelphia: Wolters Kluwer Health; 2018: 14-17.
238. Sarangi SC. Antiepileptic Drugs: Use in Epilepsy and Adverse Effects. In: Mukherjee A (ed). *IAN Textbook of Neurology*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 261-5.
239. Saroha AK. Status on Collection Development of E-Books at B.B. Dikshit Library, AIIMS. In: Chidambaram S Siva, Babbar P (eds). *National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)*. New Delhi: Jaypee Brothers Medical Publishers; 2018:140-2.
240. Satapathy S, Adhish SV. Self-Management Skills: Essential Key to Excellence in Health Management. In: Goel S, Aggarwal AK (eds). *Essentials of Health Management*. New Delhi: Oxford University Press; 2018.
241. Saxena A. Approach to Cyanosis in Newborn. In: Goswami KC (ed). *Essentials of Postgraduate Cardiology*. New Delhi: Evangel Publishing; 2018: 371-7.
242. Saxena A. Challenges in the Diagnosis and Management of Acute Rheumatic Fever. In: Goswami KC (ed). *Essentials of Postgraduate Cardiology*. New Delhi: Evangel Publishing; 2018: 39-45.
243. Saxena A. Congestive Heart Failure. In: A Parthasarthy. (ed). *IAP Textbook of Pediatrics*. 7th ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 592-601.
244. Saxena A. Epidemiology of Congenital Heart Disease in India. In: Deb PK. (ed). *CSI Textbook of Cardiology: The Indian Perspective*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 307-21.
245. Saxena A. Rheumatic Fever and Rheumatic Heart Disease. In: Prabhakaran D, Kumar RK, Naik N, Kaul U (eds). *Tandon's Textbook of Cardiology*. New Delhi: Wolters Kluwer; 2019: 1045-62.
246. Saxena A. Tetralogy of Fallot and Variants. In: Gupta P, Menon PSN, Ramji S, Lodha R. (eds). *PG Textbook of Paediatrics*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 2182-8.
247. Saxena R, Phuljhele S, Mishra D. Neuro-Ophthalmology. In: Mishra D, Bhushan P, Singh MK (eds). *Essentials in Ophthalmology*. New Delhi: RELX India Pvt Ltd.; 2019: 162-77.
248. Selvan H. Kaur M, Titiyal JS. Future Technological Advances in Small Incision Lenticule Extraction. In: Tatiyal JS, Kaur M (eds). *Small Incision Lenticule Extraction (SMILE): Surgical Technique and Challenges*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 161-74.
249. Senguttuvan NB, Goswami KC. Myocardial Viability Assessment: How Do We Apply in Clinical Practice? In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 559-65.
250. Senguttuvan NB, Naik N, Goswami KC. Fractional Flow Reserve and Instantaneous Wave-free Ratio— Which Should Be the Gold Standard? In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 411-8.
251. Seth R. Childhood Malignancies. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:593-619.
252. Seth T. Evaluation of a Child with Thrombosis. In: Parthasarathy A, Menon PSN, Nair MKC (eds). *IAP Text Book of Pediatrics*. 7th Ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 928-35.
253. Seth T. Myelodysplastic syndrome. In: Kamath SA, Shah SN, Nadkar MY (eds). *API Textbook of Medicine*. 11th Ed. Mumbai: Association of Physicians of India (API); 2019: 938-41.
254. Sharma A, Bhamri K, Gulati GS, Parakh N. Electrocardiogram, chest radiograph and ancillary investigations. In: Parakh N, Math RS, Chaturvedi V (eds). *Mitral Stenosis*. New Delhi: CRC Press Taylor and Francis; 2018: 73-88.
255. Sharma G, Kaur G, Mehra N. Influence of host genetic variability on HIV infection in India. Proceedings of the workshop on blood borne virus HIV: Monitoring the burden, 25 Jan 2019, Women's polytechnic, Hapania, Govt of Tripura
256. Sharma KA, Bhatla N, Jose R, Jose J. Pregnancy and heart disease. In: Prabhakaran D, Kumar RK, Naik N, Kaul U (eds). *Tandon's Textbook of Cardiology*. New Delhi: Wolters Kluwer (India); 2019: 1447-58.
257. Sharma N, Maharana PK, Sahay P, Saluja G, Agarwal T. Viral Keratitis. In: Prajna NV (ed). *Peyman's Principles and Practice of Ophthalmology*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 492-504.

258. Sharma PK, Goswami KC. Best Method for Risk Stratification in CAD—Anatomy, Physiology, or Both. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 167-72.
259. Sharma R, Bhalla AS, Gupta AK. Imaging the adrenal gland. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2239-63.
260. Sharma R, Gamanagatti S, Gupta AK, Kandasamy D. Imaging of Low Backache. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 785-816.
261. Sharma R, Gamanagatti S, Kandasamy D, Gupta AK. Imaging of low backache. Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology Including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 849-84.
262. Sharma R, Kandasamy D. Magnetic Resonance Imaging. In: Kamath S (ed). *API Text book of Medicine*. 11th ed. Mumbai: CBS Publishers & Distributors; 2019: 2359-71.
263. Sharma R, Madhusudhan KS, Gupta AK. Mediastinum. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 3162-88.
264. Sharma S, Gupta AK. Imaging of Intersex disorders. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2736-48.
265. Sharma S, Hari S, Srivastava DN, KS Madhusudhan. Imaging of the Globe and Orbit. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology Including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 503-523.
266. Shetkar SS, Ramakrishnan S, Goswami KC. Natural History of Mitral and Aortic Valve Regurgitation. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 696-704.
267. Shrivastava P. Development of Video journals in health science: A case study of AIIMS, New Delhi Library. In: Chidambaram S Siva, Babbar P (eds). *National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)*. New Delhi: Jaypee Brothers Medical Publishers; 2018:126-31.
268. Shrivastava P. Open government Data Digital Repositories around the world: A study of Ckan Instances. In: Chand S, Makviya RN, Jha AA (eds). *Knowledge Organisation in Academic Libraries*. New Delhi: Manakin Press; 2018:371-92.
269. Shukla D, Chidambaram S Siva. Comparative Study of i-Search@Dr. BB Dikshit Library and PubMed with specific focus on Searching & Retrieval facilities. In: Chidambaram S Siva, Babbar P (eds). *National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 78-84.
270. Siddharthan D, Goswami KC. Orthostatic Hypotension. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 696-704.
271. Singh AK, Iyer K. Ultrasound for vascular access. In: Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 57-67.
272. Singh AK. Ultrasonography in deep vein thrombosis. In: Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 260-7.
273. Singh GP, Kumar N. Ultrasonography In Neurocritical Care. In: Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 196-207.
274. Singh S. Embryogenesis of Craniosynostosis. In: Gupta D, Mahapatra A (eds). *Tenets of Craniosynostosis: Surgical principles and advanced multidisciplinary care*. Noida: Thieme; 2018: 13-8.
275. Singh SP, Bansal S. Ultrasonography in Cardiac Evaluation. In: Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 115-37.
276. Singhal S, Kriplani A. Robotics in Gynaecology. In: Palteshkar N, Tambe P, Palteshkar P (eds). *Dasgupta's Recent advances in Obstetrics and Gynaecology (Vol. 10)*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 95-103.
277. Singhal T, Lodha R, Kabra SK. Infections and Infestations. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:205-72.
278. Singh R, Gupta N, Vanathi M, Tandon R. Dry Eyes. In: Prajna NV (ed). *Peyman's Principles and Practice of Ophthalmology*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 456-67.
279. Sinha A, Acid base disturbances. In: Chawla N, Sethi SK (eds). *IAP Textbook of Pediatric and Neonatal Emergencies*. 2nd Ed. New Delhi: Jaypee Brothers Medical Publishers; 2019:6-15.

280. Sinha A, Singh S. Immunization and immunodeficiency. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:178-204.
281. Sinha A, Steroid resistant nephrotic syndrome. In: Kabra SK (ed). *Hot Topics in Pediatrics*. New Delhi: The Indian Journal of Pediatrics; 2019:121-37.
282. Sinha R, Gupta N, Sachdev R, Tandon R, Titiyal JS. Corneal Dystrophies. In: Agrawal S (ed). *Gems of Ophthalmology—Cornea and Sclera*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 219-67.
283. Soni KD, Aggarwal R. Role of Continuous Renal Replacement therapy in the management of Acute Kidney Injury. In: Sehgal R, Trikha A (eds). *Yearbook of Anaesthesiology*. 8th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 252-66.
284. Soni KD, Kumar A, Gupta A. Trauma Cases In ICU. In: Mehta Y, Sharma J (eds). *Atlas of Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 383-402.
285. Sood M, Krishnan V. Preventive Psychiatry. In: Chadda RK, Kumar V, Sarkar S (eds). *Social Psychiatry: Principles & Clinical Perspectives*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 383-395.
286. Srivastava PMV, Vishnu VY. Current Reperfusion Strategy in Acute Ischemic Stroke. In: Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers and Medical Publishers; 2018: 887-91.
287. Subramaniam R. Complications of adrenal surgery. In: Fleisher LA, Rosenbaum SH (eds). *Complications in Anesthesia*. 3rd ed. Pennsylvania: Elsevier; 2018: 177-81.
288. Suresh J, Dhar A, Bhan A. Aortic Aneurysm Surgery in Cardiometabolic: Is the outcome different? In: Chopra HK, Joshi SR, Wander GS, Kasliwal RR, Kumar V, Pancholia AK (eds). *Cardiometabolic Update-A textbook of Cardiology*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 180-2.
289. Talwar S, Niraghatam HV. LVAD- Should Indians borrow to afford them? In: Goswami KG (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 852-62.
290. Tandon R. Ophthalmic Disorders. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019: 660-68.
291. Tandon V, Mahapatra AK. Introduction – Craniosynostosis. In: Gupta DK, Mahapatra AK (eds). *Tenets of Craniosynostosis*. Hyderabad: Thieme Publication; 2018.
292. Thakar A, Sikka K. Trans Oral Laser Microsurgery. In: Bahadur S, Thakar A, Mohanti BK (eds). *Carcinoma of the Larynx and Hypopharynx*. Singapore: Springer; 2019: 99-110.
293. Thukral A, Jat KR. Rational Drug Therapy. In: Paul VK, Bagga A (eds). *Ghai Essential Pediatrics*. 9th Ed. New Delhi: CBS Publishers; 2019:746-61.
294. Thulkar S, Gupta AK. Chest masses. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 2507-19.
295. Trikha A, Kaur M. Guidelines for perioperative Hypertension management. In: Malhotra SK (ed). *Practice guidelines in Anesthesia-2*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 204-11.
296. Tripathi M. Living Well for Persons with Epilepsy and their Caregivers. New Delhi Viva Books Private Limited, 2019
297. Vaishak K, Thakar A, Hitesh Verma, Multiple complications of chronic otitis media and single stage management, Santosh Kacker, Complicated cases in vertigo & dizziness, 2, New Delhi, Kontentworx publisher, 2019, 27-32.
298. Varma VK, Chadda RK. History of Social Psychiatry. In: Chadda RK, Kumar V, Sarkar S (eds). *Social Psychiatry: Principles & Clinical Perspectives*. New Delhi: Jaypee Brothers Medical Publishers; 2019: 3-13.
299. Verma H, kumar Irugu DV, Prajwal S, Perilymphatic fistula- missed the train., Santosh Kacker, Complicated cases in vertigo & dizziness, 2, New Delhi, Kontentworx publisher, 2019, 33-38.
300. Vishwakarma MK, Khan J, Priya N. RemoteXs: A case study of the Remote Access Tool at AIIMS Library, New Delhi. In: Kaul HK, Mani GNR, Kaul S (Eds). *Knowledge, Library and Information Networking*. New Delhi: DELNET; 2018:118-26.
301. Vyas S, Bhalla AS, Gupta AK. Diffuse liver diseases. In: Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 1501-18.
302. Vyas S, Bhalla AS. HIV related pulmonary Manifestations. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 238-53.
303. Vyas S, Mohan A. Imaging of community acquired pneumonia. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 159-72.

304. Wadhwa S. Amputations, Prosthetics and Orthotics. In: Maheshwari J, Mhaskar VA (eds). *Essential Orthopaedics (Including Clinical Methods)*. 6th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 328-33.
305. Yadav M, Chandrashekhara SH, Jana M. Hematopoietic stem cell transplantation: Imaging of chest infections. In: Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018: 200-17.
306. Yadav M, Goyal A, Bhalla AS, Sharma S. Malignancies of Upper Aerodigestive Tract. In: Khandelwal N, Gupta AK, Garg A (eds). *AIIMS-MAMC-PGI Imaging Series- Diagnostic Radiology: Neuroradiology including head and Neck imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2018: 634-62.
307. Yadav MK, Goyal A, Bhalla AS, Sharma S. Malignancies of Upper Aerodigestive Tract. In: Khandelwal N, Gupta AK, Garg A (eds). *Diagnostic Radiology: Neuroradiology Including Head and Neck Imaging*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019: 634-662.
308. Yang HM, Saqi A, Jain D, Roy-Chowdhuri S, VanderLaan P. Non-cellular structures. In: Cagle PT (ed). *Pulmonary pathology: An Atlas and Text*. 3rd ed. Philadelphia: Wolters Kluwer Health; 2018: 28-33.

Books

1. Agarwal R, Deorari A, Paul VK, Sankar J, Sachdeva A (eds). *AIIMS Protocols in Neonatology*. 2nd Ed. New Delhi: Noble Vision; 2019
2. Ambekar A, Agrawal A, Rao R, Mishra AK, Khandelwal SK, Chadda RK (eds). *Magnitude of Substance Use in India*. New Delhi: Ministry of Social Justice and Empowerment, Government of India; 2018.
3. Arunkumar S, Bhowmik D. Banff Classification of Renal Allograft Pathology: Updates and Future Directions. In: Dakshinamoorthy KV, Siva Kumar V, Ram (eds). *Articles Every Nephrologist Should Know*. Hyderabad: SVIMS; 2019.
4. Bahadur S, Thakar A, Mohanti BK (eds). *Carcinoma of the Larynx and Hypopharynx*. Singapore: Springer; 2019: 1-226.
5. Bhalla AS, Jana M (eds). *Clinico-Radiological Series: Imaging of Chest Infections*. New Delhi: Jaypee Brothers Medical Publishers; 2018.
6. Chadda RK, Kumar V, Sarkar S (eds). *Social Psychiatry: Principles and Clinical Perspectives*. New Delhi: Jaypee Brothers Medical Publishers; 2019.
7. Chattopadhyay TK, Sahni P, Pal S (eds). *G. I. Surgery Annual Volume 25*. New Delhi: Springer; 2019:1-269.
8. Chidambaram S Siva, Babbar P (eds). *National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)*. New Delhi: Jaypee Brothers Medical Publishers; 2018.
9. Deorari AK. *Practical procedures for the Newborn Nursery: A manual for Physicians & Nurses- AIIMS NICU Protocols*. 4thEd. New Delhi: Noble Vision; 2018.
10. Goswami KC (ed). *CSI Cardiology Update 2018*. New Delhi: Jaypee Brothers Medical Publishers; 2018.
11. Goswami KC (ed). *Essentials of Postgraduate Cardiology*. New Delhi: Evangel Publishing; 2018.
12. Gupta DK, Mahapatra AK (eds). *Tenets of Craniosynostosis*. Hyderabad: Thieme Publication; 2018.
13. Kalojiya GS, Singh G, Sarkar S, Dayal P, Balhara YPS (eds). *Basics of Addiction Psychology*. New Delhi: NDDTC, AIIMS; 2019.
14. Kapoor PM (ed). *Perioperative Transesophageal Echocardiography*. New Delhi: Jaypee Brothers Medical Publishers; 2019.
15. Khanna P (ed). *Ultrasound in Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018.
16. Kumar S, Padubidri VG, Daftary S. *Shaw's Textbook of Gynaecology*. 17th ed. New Delhi: Elsevier India; 2018.
17. Lodha R, Kabra SK (eds). *Antibiotics for Common Infections in Children: An Evidence Based Approach*. 2nd Ed. New Delhi: The Indian Journal of Pediatrics; 2019.
18. Malhotra R, Gautam D (eds). *Mastering Orthopaedic Techniques: Revision Knee Arthroplasty*. New Delhi: Jaypee Brothers Medical Publishers; 2019.
19. Neha, Agarwal A, Seth R. *Recipe book for children with cancer*. New Delhi: Batra Publications; 2019.
20. Prabhakar H (ed). *Paediatric Neuroanesthesia, Oxford Clinical Practice Series*. USA: Oxford University Press; 2018: 460
21. Prabhakar H, Mahajan C, Kapoor I (ed). *Essentials of Anaesthesia for Neurotrauma*. USA: Taylor and Francis, CRC Press; 2018
22. Prabhakar H, Singhal V, Gupta N (eds). *Co-existing Diseases and Neuroanesthesia*. USA: Springer; 2018.
23. Randhawa VS, Singh G (eds). *Textbook of Microbiology*. New Delhi: Peepee Publishers; 2019.

24. Sandhu MS, Garg A, Gupta AK (eds). *AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology (3 Volumes)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2019.
25. Sehgal R, Trikha A (eds). *Yearbook of Anesthesiology-8*. New Delhi: Jaypee Brothers Medical Publishers; 2019.
26. Sharma M, Sharma A. *Tumhari Adbhut immune pranali (Hindi)*. Delhi: Bhumika Advt and Print Media Press; 2018.
27. Sharma VK, Gupta V (eds). *Sexually Transmitted Infections*. New Delhi: Viva Books; 2018.
28. Sood S. *Microbiology for Nurses*, 3rd ed, New Delhi, Elsevier, Reprint 2018
29. Trikha A, Singh PM (eds). *Monitoring in Anaesthesia and Critical Care*. New Delhi: Jaypee Brothers Medical Publishers; 2018.
30. Tripathi M. *Delicious KETO Recipes*. New Delhi: Viva Books Private Limited; 2019: 1-180.
31. Verma IC, Kabra SK (eds). *Advances in Pediatrics Volume 10*. New Delhi: The Indian Journal of Pediatrics; 2019.
32. Verma IC, Kabra SK (eds). *Advances in Pediatrics Volume 9*. New Delhi: The Indian Journal of Pediatrics; 2018.
33. Yadav S, Seth R, Mathur V. *Manual on oral care for children with cancer*. New Delhi: Batra Publications; 2019.

13.1. Budget and Finance

ALL INDIA INSTITUTE OF MEDICAL SCIENCES (MAIN) BALANCE SHEET AS AT 31-03-2019

(Amount-Rs.)

CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	2018-19	2017-18
Corpus/Capital fund and Liabilities	1	45237582250	37181444955
Reserves and Surplus	2	3613521480	3216644653
Earmarked / Endowment Fund	3	98996372	73185700
Secured Loans & Borrowings	4	0	0
Unsecured Loans & Borrowings	5	0	0
Deferred Credit Liabilities	6	0	0
Current Liabilities and Provisions	7	2534013546	2256923923
TOTAL		51484113648	42728199231
ASSETS			
Fixed Assets	8	34969632885	29892284054
Investments from Earmarked / Endowment funds	9	160510000	50010000
Investments-others	10	253253424	253253424
Current Assets, Loan & Advances etc.	11	16100717339	12532651753
Misc. Expenditure (to the extent not written off or adjusted)			
TOTAL		51484113648	42728199231
Accounting policies and notes forming part of accounts	24		

Accounts Officer

Financial Advisor

Sr. Financial Advisor

Director

ALL INDIA INSTITUTE OF MEDICAL SCIENCES (MAIN)
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2019

(Amount-Rs.)

INCOME	Schedule	2018-19	2017-18
Income from Sales/Services	12	307541206	311381385
Grants/Subsidies	13	14733402569	12897041408
Fees/Subscriptions	14	212516061	137345952
Income from Investments (Income on Invest. From earmeked/endow. Funds transfered to funds)	15	0	0
Income for Royalty, Publication etc.	16	212591830	0
Interest Earned	17	244602000	242008004
Other Income	18	941858558	927053379
Increase/(decrease) in stock of Finished goods and works-in-progress	19	0	0
TOTAL (A)		16652512224	14514830128
EXPENDITURE			
Establishment Expenses	20	10445535358	8936739835
Other Administrative Expenses etc.	21	2741700557	1807479112
Material and supply	21B	3068411374	2997628780
Expenditure on Grants, Subsidies etc.	22	0	0
Interest	23	0	0
Depreciation (Net Total at the year-end - corresponding to Schedule 8)			
TOTAL (B)		16255647289	13741847727
Balance being excess of Income over Expenditure (A-B)		396864935	772982401
Transfer to Special Reserve (Specify each)			
Transfer to /from General Reserve			
BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/CAPITAL FUND		396864935	772982401
TOTAL		16652512224	14514830128

Accounts Officer

Financial Advisor

Sr. Financial Advisor

Director

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019**

(Amount-Rs.)

	2018-19	2017-18
SCHEDULE 1- CORPUS/CAPITLA FUND:		
Balances as at the beginning of the year	37181444955	27266998170
Add : Contributions towards Corpus/Capital Fund	8131708953	9914462824
Less Condemnation during the year	75571658	16039
BALANCE AS AT THE YEAR-END	45237582250	37181444955

	2018-19	2017-18
SCHEDULE 2- RESERVES AND SURPLUS:		
<u>1. Capital Reserve:</u>		
As per last Account	2914919	2914919
Addition during the year	11892	
Less: Deductions during the year	2926811	
2. Revaluation Reserve		
As per last Account		
Addition during the year		
Less: Deductions during the year		
3. Special Reserves		
As per last Account		
Addition during the year	3213729734	2440747333
Less: Deductions during the year	396864935	772982401
4. General Reserve		
As per last Account	0	0
Addition during the year	3610594669	
Less: Deductions during the year		
TOTAL	3613521480	3213729734
	3613521480	3216644653

Accounts Officer

Financial Advisor

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019**

(Amount-Rs.)

SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS	2018-19	2017-18
a) Opening balance of the funds	73185700	
b) Additions to the Funds:		
i. Donations/grants	13967735	67966668
ii. Income from investments made on account of funds	9139788	219032
iii. Other additions (specify nature) CSR	2703149.00	5000000
TOTAL (a+b)	98996372	73185700
c) Utilisation/Expenditure towards objectives of funds	0	0
i. <u>Capital Expenditure</u>		
- Fixed Assets		
- Others		
ii. <u>Revenue Expenditure</u>		
- Salaries, Wages and allowances etc.		
- Rent		
- Other Administrative expenses		
Total	0	0
NET BALANCE AS AT THE YEAR-END (a+b-c)	98996372	73185700

Accounts Officer

Financial Advisor

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019**

(Amount-Rs.)

SCHEDULE 4-SECURED LOANS AND BORROWINGS:	2018-19		2017-18	
1. Central Government				
2. State Government				
3. Financial Institutions				
a) Term Loans				
b) Interest accrued and due				
4. Banks:				
a) Term Loans				
- Interest accrued and due				
b) Other Loans (specify)				
- Interest accrued and due				
5. Other Institutions and Agencies				
6. Debentures and Bonds				
7. Others (Specify)				
TOTAL			0	0

Accounts Officer

Financial Advisor

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019**

	2018-19	2017-18
SCHEDULE 5 - UNSECURED LOANS AND BORROWING		
1. Central Government		
2. State Government		
3. Financial Institutions		
4. Banks:		
a) Term Loans		
b) Other Loans (specify)		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Fixed Deposits		
8. Others (Specify)		
TOTAL	0	0

Note: Amounts due within one year

	2018-19	2017-18
SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:		
a) Acceptances secured by hypothecation of capital equipment and other assets		
b) Others		
TOTAL	0	0

Note: Amount due within one year

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MDICAL SCIENCES
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount -Rs.)

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS	2018-19		2017-18	
A. CURRENT LIABILITIES AND PROVISIONS				
1. Acceptances				
2. Sundry Creditors:				
a) For Goods				
a) Others (Custom Duty to be paid)		34220408		18854849
3. Advances Received				
4. Interest accrued but not due on:				
a) Secured Loans/borrowings				
a) Unsecured Loans/borrowings				
5. Statutory Liabilities:				
a) Overdue				
a) Others				
6. Other current Liabilities		2499793138		2238069074
TOTAL (A)		2534013546		2256923923
B. PROVISIONS				
1. For Taxation				
2. Gratuity				
3. Superannuation/Pension				
6. Accumulated Leave Encashment				
6. Trade Warranties/Claims				
6. Others (specify)				
TOTAL (B)				
TOTAL (A+B)		2534013546		2256923923

Accounts Officer

Financial Advisor

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES (MAIN)
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019**

(Amount - Rs.)

SCHEDULE 8 FIXED ASSETS DISCRPTION	GROSS BLOCK			DEPRICIATION			NET BLOCK		
	Cost/valuation As at beginning of the year	Additions during the year	Deductions during the year	Cost/ Valuation at the year end	As at the beginning of the year	On Deducti ons during the year	Total up to the year-end	2018-19	2017-18
A. FIXED ASSETS:									
1 LAND:									
a) Freehold / Leasehold	841194087			841194087	0	0	0	841194087	841194087
BUILDING									
2 S:									
a) On Freehold Land	16503624159	2810456019		19314080178	0	0	0	19314080178	16503624159
b) On Leasehold Land				0				0	0
c) Ownership Flats/ Premises				0				0	0
d) Superstructures on Land not belonging to the entity				0				0	0
PLANT MACHINERY & EQUIPMENT									
3	11385251758	2093808648	71312474	13407747932			0	13407747932	11385251758
4	50263813	690347	497200	50456960			0	50456960	50263813
5				0				0	0
6	190852900	37245600	3761984	224336516	0	0	0	224336516	190852900
7	921097337	210719875	0	1131817212			0	1131817212	921097337
8									
TOTAL OF CURRENT YEAR	29892284054	5152920489	75571658	34969632885	0	0	0	34969632885	29892284054

Accounts Officer

Financial Advisor

AII INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount-Rs.)

SCHECULE 9 - INVESTMENTS FROM EARMARKED / ENDOWMEN	2018-19	2017-18
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debenutres and Bonds		
5. Subsidiaries and Joint Venutres		
6. Others Fixed Deposits (Endowment fund)	160500000	50000000
7. Seed money for opening of Bank Account (Donation)	10000	10000
<u>TOTAL</u>	160510000	50010000

SCHECULE 10 - INVESTMENTS - OTHERS	2018-19	2017-18
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debenutres and Bonds		
5. Subsidiaries and Joint Venutres		
6. Others (NPS Fixed Deposit)	240000000	240000000
7. Investment of Donations	13253424	13253424
<u>TOTAL</u>	253253424	253253424

Accounts Officer

Financial Advisor

AII INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rs.)

SCHEDULE II - CURRENT ASSETS, LOANS, ADVANCES ETC.	2018-19	2017-18
A CURRENT ASSETS:		
1. <u>Inventories:</u>		
a) Stores and Spares		
b) Loose Tools		
c) Stock-in-trade		
Finished Goods		
Work-in-progress		
Raw Material		
2. <u>Sundry Debtors:</u>		
a) Debts Outstanding	56242163	109742163
b) Others (outside recoveries)	0	0
c) Misc. recoveries receivable from Centres (Engg. Work)		
3. <u>Cash balances in hand (including cheques/ drafts and imprest)</u>	918650	931150
4. <u>Bank Balances:</u>		
a) <u>With Scheduled Banks:</u>		
On Current Accounts	2024883864	3754443504
On Deposit Accounts (includes margin money)	18489924	15315377
On FDRs	2000000000	
b) <u>With non-Scheduled Banks:</u>		
On Current Accounts		
On Deposit Accounts		
On Savings Accounts		
5. <u>Post Office - Savings Accounts</u>		
TOTAL (A)	4100534601	3880432194

Accounts Officer

Financial Adviosr

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rs.)

2017-18	2018-19	2017-18
SCHEDULE 11- CURRENT ASSETS, LOANS, ADVANCES ETC. (Contd.)		
B <u>LOANS, ADVANCES AND OTHER ASSETS</u>		
1. <u>Loans:</u>		
a) Staff	3990673	2986235
b) Other Entities engaged in activities/objectives similar to that of Entity		
c) Other (Adv for purchase of iron and steel	2340588	2340588
2. <u>Advances and other amounts recoverable in cash or in kind or for value to be received:</u>		
a) On Capital Account		
b) Prepayments		
c) Others (Advance Payments)	11993851477	8646892736
3. <u>Income Accrued:</u>		
a) On Investments from Earmarked/Endowment Funds		
b) On Investments - Others		
c) On Loans and Advances		
d) Others (includes income due unrealised - Rs.....)		
4. <u>Claims Receivable:</u>		
TOTAL (B)	12000182738	8652219559
TOTAL (A + B)	16100717339	12532651753

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED
31-03-2019

		(Amount - Rs.)	
SCHEDULE 12 - INCOME FROM SALES / SERVICES		2018-19	2017-18
1) Income from Sales			
1. Sale of Finished Goods			
2. Sale of Raw Material			
3. Sale of Scraps			
2) Income from Services			
a) Hospital receipts			
b) Professional / Consultancy Services			
c) Agency Commission and Brokerage			
d) Maintenance Services (Equipment/Property)			
e) Others (Specify) Hospital Receipt			
TOTAL		307541206	311381385

		2018-19	2017-18
SCHEDULE 13 - GRANTS /SUBSIDIES			
(Irrevocable Grants & Subsidies Received)			
1. Central Government			
2. State Government(s)			
3. Government Agencies			
4. Institutions/ Welfare Bodies			
5. International Organisations			
6. Others (Specify)			
TOTAL		14733402569	12897041408

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR
ENDED 31-03-2019

		(Amount-Rs.)	
		2018-19	2017-18
SCHEDULE 14 - FEES/SUBSCRIPTIONS			
1. Tuition Fee		69283146	44836568
2. Licence Fee		49832288	27941996
3. Seminar/Program Fees		0	0
4. Exam. Receipt		0	0
5. Others (Specify) EHS		93400627	64567388
TOTAL		212516061	137345952
SCHEDULE 15 - INCOME FROM INVESTMENTS			
(Income on Invest. From Earmarked/Endowment Funds transferred to Funds)			
		Investment from Earmarked Fund	
		2018-19	2017-18
1. Interest			
a) On Govt. Securities			
a) Other Bonds/Debentures			
2. Dividends:			
a) On Shares			
a) On Mutual Fund Securities			
3. Rents			
4. Others (Specify)			
TOTAL		0	0
TRANSFERRED TO EARMARKED/EDNOWNMENT FUNDS			

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE
PERIOD/YEAR ENDED 31-03-2019

(Amount-Rs.)

SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ET	2018-19	2017-18
1. Income from Royalty		
2. Income from Publications		
3. Others (specify) NPS	212591830	0
TOTAL	212591830	0

SCHEDULE 17 - INTEREST EARNED	2018-19	2017-18
1. On Term Deposits:		
a) With Scheduled Banks	243180431	242002474
b) With Non-Scheduled Banks		
c) With Institutions		
d) Others		
2. On Savings Accounts:		
a) With Scheduled Banks		
b) With Non-Scheduled Banks		
c) Post Office Savings Accounts		
d) Others		
3. On Loans:		
a) Employees/Staff	1421569	5530
b) Others		
4. Inerest on Debtors and other Receivables		
TOTAL	244602000	242008004

Note - Tax deducted at source to be indicated

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

(Amount-Rs.)		2018-19	2017-18
SCHEDULE 18 - OTHERS INCOME			
1. Misc. Receipt		15031001	29104286
2. Estb. Receipt (Scheme)		60199321	72674289
3. Exam Section Receipt		866628236	824388504
4. General Donations		0	886300
TOTAL		941858558	927053379
SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS			
a) Closing stock			
- Finished Goods			
- Work-in-progress			
b) Less: Opening Stock			
- Finished Goods			
- Work-in-progress			
NET INCREASE/(DECREASE) [a+b]			0
SCHEDULE 20 - ESTABLISHMENT EXPENSES			
Salaries and Wages		8195420979	7286897250
Travelling Allowance		39120542	36500867
Contribution to Provident Fund		17351441	23258400
Contribution to Other Fund (Scheme Cell)		120000	480000
Staff Welfare Expenses (DLIS)		1992389599	1372706536
Expenses on Employees "Retirement and Terminal Benefits"		197709959	215970432
Others (NPS)		3422838	926350
Leave Salary Pension Contribution			
TOTAL		10445535358	8936739835

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED
31-03-2019

(Amount-Rs.)

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.	2018-19	2017-18
a) Purchases of hospital stores		
b) Labour and processing expenses		
c) Cartage and Carriage Inwards		
d) Electricity and power	685677911	585417220
e) Water charges	50139349	46003652
f) Insurance		
g) Repairs and maintenance (AMC/CAMC)	0	665480858
h) Repairs and maintenance of Buildings	733955308	289095288
i) Rent, Rates and Taxes		
j) Vehicles, Running and Maintenance		
k) Postage, Telephone and Communication Charges		
l) Printing and Stationary		
m) Travelling and Conveyance Expenses	73843579	76450853
n) Expenses on Seminar/Workshops		
o) Subscription Expenses		
p) Expenses on Fees		
q) Auditors Remuneration		
r) Hospitality Expenses		
s) Professional Charges		
t) Provision for Bad and Doubtful Debts/Advances		
u) Irrecoverable Balances Written-off		
v) Packing Charges		
w) Hostel		
x) Bank Charges	360891	2384
y) Advertisement and Publicity		
z) Others (specify) (Contingency charge)	1197723519	145028857
TOTAL	2741700557	1807479112

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

(Amount-Rs.)

SCHEDULE 21B - Material and Supplies	2018-19	2017-18
Hospital stores	3068411374	2997628780
Total	3068411374	2997628780

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES (MAIN)
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR
ENDED 31-03-2019

		(Amount-Rs.)	
SCHEDULE 22-EXPENDITURE ON GRANTS, SUBSIDIES ETC.	2018-19	2017-18	
a). Grants given to Institutions/Organizations			
b). Subsidies given to Institutions/organisations			
Total	0		0
Note - name of the Entities, their activities along with the amount of grants/subsidies are to be disclosed.			

SCHEDULE 23-INTEREST	2018-19	2017-18
a) On fixed Loans		
b) On other Loans (including Bank charges)		
c) Others (Specify) Endowment interest transfer to Research Section	0	0
Total	0	0

Accounts Officer

Financial Advisor

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI
RECEIPTS AND PAYMENTS FOR THE YEAR 2018-2019**

(Amount in Rs.)

RECEIPTS	2018-19	2017-18	PAYMENTS	2018-19	2017-18
Opening Balance					
a) Cash in Hand	931150	1037150	Expenses		
b) Bank Balances			i) Establishment Expenses (Scheduled 20A)	10428183917	8913481435
i) In current accounts	3754443504	2783029202	ii) Others Administrative Expenses (Scheduled 21A)	2708584370	1782702027
ii) In deposit accounts	15315377	6275770	iii) Purchase of Hospital stores	3061814008	2946591920
			iv) SAP (Expenditure)	42572573	13750664
Grants Received from Govt. of India			Exptr on Capital /Work-in-Progress		
i) Revenue	23295000000	20310000000	i) Purchase of Fixed Assets	2566067642	990569426
ii) Capital	8730000000	9360000000	ii) Advance on Capital Work in progress	5549604515	8862842177
iii) Capital (Oversight Committee)	0	1333100000			
iv) HEFA	260000000	0	Govt. Grants trasferred to Centres		
NDDTC			Dr. R.P. Centre		
i) Revenue	205000000	194000000	i)Capital Assets	400000000	240000000
ii) Capital	117500000	250000000	ii)Grant in Aid Salary	930000000	840000000
			iii)Grant in Aid General	400000000	350000000
			iv) Swatchta Action Plan	0	50000000
Grants received for specific purpose					
i) Scheme Cell	779518927	1156516487	C.N. Centre		
ii) Grants received in patient treatment A/c	139410415	127190639	i)Capital Assets	318885000	211232218
iii) Swatchta Action Palh	5000000	450000000	ii)Grant in Aid Salary	2728000000	2515366000
iv) Kayakalp Award	0	75000000	iii)Grant in Aid General	764000000	650000000
v) Patient treatment at AIIMS (Main)	269092883	172509706	iv) Swatchta Action Plan	100000000	
vi) Grant Receipt (Geriatric Medicine)	547500000	163000000			
Endowment/Donation			Dr.B.R.A.I.R.C.H. (including NCI Jhajjar)		
i) Poor patient A/c	5368230	2342241	i) Capital Assets	266680553	110000000
ii) Endowment fund	0	0	ii) Grant in Aid Salary	911296695	782043000
Income on Investments from			iii)Grant in Aid General	660000000	465000000
i) Endowment fund (Infosys)	0	0	iv) Swatchta Ation Plan	0	50000000
ii) NPS (Intrest)	17401106	12034419			
Interest Received			J.P.N. APEX TRAUMA CENTRE		
i) On Bank deposits	255682500	252063188	i)Capital Assets	138646715	175096714
ii) Loans, Advances etc.	1421569	5530	ii)Grant in Aid (General)	840000000	680000000
RECEIPTS			iii)Grant in Aid (Salary)	1085166374	976221458
i) GPF	651512119	538095876	iv) Swatchta Action Plan	0	50000000
ii) Out side recoveries	1318110934	1133068549			
iii) Deposit work (Power Grid Corp.)	0	39811727	CENTRE FOR DENTAL EDUCATION & RESEARCH		
iv) Receipt Legacy date (NPS)	42302779	530087777	i)Capital Assets	20088421	27623687
			ii) Grant in Aid General	127500000	102500000

RECEIPTS	2018-19	2017-18	PAYMENTS	2018-19	2017-18
v) FD Maturity Accounts (NPS)	20000000	0	iii) Grant in Aid Salary	64935117	50997549
vi) FD Maturity (Poor Pt. A/c)	2874547	590788	iv) Swatchta Action Plan	0	50000000
vii) Unclaimed cheques/dues transfer as receipts	0	58590200			
Deposit received for AIIMS Jodhpur	0	41000000	CIMR		
			i) Capital Assets	1490358	14684557
Other Income			ii) Grant in Aid Gneral	699245	830585
i) Misc Receipts	15031001	29104286	NCI Jhajjar		
ii) Examination Receipt	850003808	824388504	i) Grant in Aid General (Repayment) (HEFA)	261500000	0
iii) Hospital Receipts	301062438	293977385			
iv) Tuition Fee	69283146	44836568			
v) Licence Fee	49832288	27941996	Intra Mural Grant	50000000	50000000
vi) Employees Health Scheme (EHS)	93400627	64567388	UNDCP	0	71900000
vii) A/c No.10874585570 Closed (Examination)	16624428	0			
			N.D.T.C.		
			i) Grant Transfer to NDDTC	252500000	219000000
			ii) Loan to NDDTC	15000000	31000000
			iii) Swatchta Action Plan	0	50000000
			<u>OTHERS PAYMENTS</u>		
IX. Other Receipts					
i) Fund Received for specific purpose (Direct Received)	611717494	146910754	i) Payment against specific grant (Scheme Cell)	1197292174	1045925402
ii) Cochelar Inplant Patient Treatment	27949839	28332000	ii) Payment for patient treatment A/c	116265430	101616014
iii) Others	73218636	102603126	iii) Poor patient A/c	4340102	1571050
iv) AIIMS Donation Accounts Credit B/A	836297	886300	iv) GPF	651197057	537413484
v) Donation (Research Section)	11331438	0	v) Outside recoveries	1301236866	1125452226
vi) NPS (Credit Bank Advice)	162220892	0	vi) Deposit Work (Power Grid Corporation) HSCC	0	84000000
vii) NPS CNC	50370938	0	vii) Geriatric Block (HSCC)/Gearatric	409000000	210000000
viii) Oration of Donation (Cashier)	1800000	0	viii) Patient treatment A/c at AIIMS (Main)	268367056	168079105
ix) CSR (Hospital Billing)	25500000	0	ix) FD Poor Patient Accounts	0	467189
x) PD Accounts	0	1000000	x) Other misc payments	122413960	96013905
xi) Revolving Funds	114519000	115426000	xi) Cochelar Inplant Patient Treatment	27479364	28399050
xii) AIIMS PMO Patient A/c	38649929	0	xii) CSR (Hospt. Billing)	5519129	0
xiii) CSRREC A/C (Hospt. Billing)	107738295	0	xiii) PD Accounts	2986026	2524255
xiv) PMAJY (Hospt. Billing)			xiv) Revolving Funds	110385000	95321651
(i) Funds Received	20000000	0	xv) AIIMS PMO Patient A/c	26920922	0
(ii) Refund received agains claim	7649882	0	xvi) CSRREC (Hospt. Billing)	79512301	0
			xvii) Kayakalp	440146	0
xv) CSR	5000000	5000000	xviii) PMAJY (Hospt. Billing)	5811885	0
			xiv) CSR	2296851	0
			xx) Custome Duty Accounts	259348451	132410268

RECEIPTS	2018-19	2017-18	PAYMENTS	2018-19	2017-18
Custom Duty Accounts	311407003	119483246	xxi) FD (Endowment Fund)	50000000	0
			xxii) F.D (Research Donation A/c	10000000	0
			xxiii) AIIMS Jodhpur	0	41000000
FD	30250000000	0	xxiv) FD	30250000000	0
FD Matured (Endowment Fund)	495000000	500000	xxv) FD Res. Sec.	100000000	
			<u>NPS ACCOUNTS</u>		
			i) Payment Legacy data	59712634	538289755
			ii) Bank charges	124	0
			Investment made	0	20000000
			FDR (Kalmal Bucksee)	0	0
			Endowment fund	0	0
			Investment (FD)	0	0
			Bank charges	0	0
			Expenditure	0	0
			<u>Closing Balances</u>		
			i) Cash in Hand	918650	931150
			ii) Bank Balances		
			a) In Current accounts	2024883864	3754443504
			b) In FDRs	200000000	0
			c) In Deposit accounts	18489924	15315377
Total	73698033419	40422606802	Total	73698033419	40422606802

0

Accounts Officer

Financial Advisor

Sr. Financial Advisor

Director

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI
SCHEDULES FORMING PART OF RECEIPTS AND PAYMENTS FOR THE PERIOD/YEAR
ENDED 31.03.2019
ESTABLISHMENT EXPENSES

		(Amount-Rs.)	
Scheduled 20 A		2018-19	2017-18
a)	Salaries and Wages	8195420979	7286897250
b)	Travelling Allowance (TA)	39120542	36500867
c)	Leave Salary Pension Contribution		
	Payment	3422838	
	less Receipts	0	926350
d)	Expenses on Employees "Retirement and Terminal Benefits"	1992389599	1372706536
e)	Deposit Linked Insurance Scheme	120000	480000
f)	Others		0
i)	New Pension Scheme		
	Deposit to National Securities Depository Ltd.	392291689	
	Deposit to NPS A/c		
	Less Receipts (NPS) from the employees	194581730	215970432
	TOTAL	10428183917	8913481435

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI
SCHEDULES FORMING PART OF RECEIPTS AND PAYMENTS FOR THE
OTHERS ADMINISTRATIVE EXPENSES

Scheduled 21A	(Amount-Rs.)	
	2018-19	2017-18
a) Repairs and maintenance	733720168	947619882
b) Travelling and conveyance Expenses	73843579	76450853
c) Contingency office	1164840879	127208036
d) Electricity and power	685677911	585417220
e) Water charges	50139349	46003652
d) Others (Bank Charges)	362484	2384
TOTAL	2708584370	1782702027

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI
Receipts and Payments accounts of General Provident Funds for the Financial year 2018-19

		(Amount in Rs.)			
Receipts	18-19	17-18	Payments	18-19	17-18
Opening Balance	198612428.75	112743375.00	GPF Withdrawal	1180062261.81	726435470.00
Time barred cheque to A/c	0	2805014.00	Investment during the year	2615650390.60	848405019.00
Subscription/Receipts	1268799781.00	835286256.00	Bank Charges	4425.00	2645.00
Interest	244739500.00	251294050.00	Closing Balance	179370129.13	198612429.00
Investment Maturity	2262935496.79	571326868.00			
Total	3975087206.54	1773455563.00	Total	3975087206.54	1773455563.00

GPF

Income and Expenditure Accounts for the Financial Year 2018-19

		(Amount in Rs.)			
Expenditure	18-19	17-18	Income	18-19	17-18
Interest on subscription	466488427.00	410574377.00	Interest received	244739500.00	251294050.00
Bank Charges	4425.00	2645.00	Excess of exp over income	221753352.00	159282972.00
Total	466492852.00	410577022.00	Total	466492852.00	410577022.00

Accounts Officer

Financial Advisor

Balance sheet of General Provident Funds of AIIMS as on 31st March 2019

Liability	18-19		17-18		Assets		18-19	17-18
					Investment			
Opening Balance (GPF)	5761328663.00				Opening Balance	5440511113.00		
Add: GPF Subscriptions	1268799781.00				Addition during the year	2615650390.68		
Add: GPF Interest credited	466488427.00				Less: Maturity during the year	2262935496.79	5793226007.00	5440511113.00
Add: Time barred Ch to A/c	0				Bank Balance		179370129.13	198612429.00
Less: Withdrawal	1180062261.81	6316554609.00	5761328663.00		O/B excess of income over exp.	122205121.00		
Surpluses					Add. Excess exp. Over income during the year			
Cumulative Excess of income over expenditure					Total	221753352.00	343958473.00	122205121.00
Opening Balance							6316554609.00	5761328663.00
Less: Excess of Exp over income during the year								
Total							6316554609.00	5761328663.00

(Amount in Rs.)

Accounts Officer

Financial Advisor

Schedule 24

Accounting Policies and Notes forming part of Accounts

1. The Activities of the Institute is mainly funded from the grants from Government of India and Accounts of the Institute are prepared in accordance with Generally accepted Accounting principles.
2. The accounts have been prepared on cash basis i.e. on actual Receipt and Payments basis.
3. No depreciation on Assets i.e. Machinery & Equipments, vehicles, buildings etc have been provided in the accounts and assets are carried out at the historical cost. Assets at the time of condemnation on completion of useful life are removed from the Assets as well as from the capital corpus.
4. No provisions for liability of Gratuity, pension and leave encashment etc have been made in the accounts as the grants from the Government of India are received for actual expenditure. The payment of Gratuity, pension and leave encashment etc are accounted in the accounts only at the time of actual payments.
5. No closing stock of Store and supplies at the end of accounting period is incorporated in the accounts as all expenditure on stores and supplies are treated as final expenditure at the time of payments in the accounts.
6. Income of the Institute is exempted from Income-Tax under Section 11 of the Income Tax Act, 1961.
7. All Assets (Machinery & Equipments, vehicles etc) funded from the grants for the Research projects are used for the activities of the Research projects and are not included in the assets of the Institute . Such Assets (Machinery & Equipments, vehicles etc,) are either returned to the funding agencies or used in the Departments after the completions of the projects as per sanction of the funding agencies.
8. A statement showing the expenditure made by various Project Investigators for Research Projects during 2018-19 and balance amount lying with the Institute as on 31-03-2019 is attached with the Accounts.
9. Since, the centre are administered separately their final accounts are also maintained separate. However, the amount of grant released to their Centers are reflected in the final accounts of AIIMS Main. Accounts of various Centre's of the Institute as on 31-03-2019 are annexed with the AIIMS Main Accounts.
10. Advances for treatment under the packages were treated as revenue and expenditure incurred against those treatments was shown in expenditure. During the current year advances received against the packages for treatment are shown under the revolving fund and expenditure incurred against the revolving fund. Balances in the revolving fund shown as liability. The impact of these changes of accounting policy is not assessable and not significant.
11. Accounts for the year ended 31-03-2019 are prepared in the new format and grouping and regrouping and classification, wherever necessary have been changed/adopted for better presentation.
12. Assets of the Institute in every Departments/Centre's are physically verified once in year by the faculty/officer nominated for the purpose and no significant/major deviations have been reported.
13. Stores and supplies of the Institute in every Departments/Centre's are physically verified once in year by the faculty/officer nominated for the purpose and no significant/major deviations have been reported.
14. Institute is maintaining various Revolving funds for test/procedures required for patients care and same are included in the concerned Accounts of the Institute.
15. Donations/receipts from various sources without any attached conditions are treated as income of the concerned centre or of Institute as the case may be.
16. All Accounting policies and Notes Forming Part of Accounts listed above are also applied in the preparation of the Accounts of the Centers also.

Accounts Officer

Financial Advisor

Sr. Financial Advisor

Director

**BILLING SECTION (AIIMS)
STATEMENT OF ACCOUNT OF RECEIPTS AND PAYMENTS
NATIONAL ILLNES ASSISTANCE FUND (NIAF) : 2018-19**

S. No.	RECEIPTS	RS.	PAYMENT	RS.
1.	Opening balance as on 1.04.2018	396068732.53	Payment made during the year 2018-19	222075568.00
2.	Grant received during the year 2018-19	212126230.00	Bank clearing charges debited by the bank during the year	00.00
3.	Interest received from Bank during the year 2018-19	16604483.00	Interest earned transferred to AIIMS Main A/c	13251084.00
4.			Closing balance as on 31.03.19	
			1. Cash at bank Rs. 89472793.53	389472793.53
			2. FDR Rs. 250000000	
			3. FDR Rs. 50000000	
	Total	624799445.53	Total	624799445.53

**ACCOUNTS OFFICER
HOSPITAL BILLING SECTION**

**HOSPITAL BILLING SECTION, AIIMS
AIIMS DELHI AROGYA KOSH
A/C NO. – 33477690609**

Financial Year – 2018-2019

S. No.	RECEIPT	RS.	PAYMENT	RS.
1.	Opening balance as on 01.04.2018	18153071.00	Payment made during the year 2018-19	5910015.00
2.	Grant received during the year 2018-19	6005426.00	Bank clearing charges debited by the bank	649.00
3.	Interest received from bank	Nil	Closing balance as on 31.03.2019	18247833.00
	Total	24158497.00	Total	24158497.00

ACCOUNTS OFFICER

Cardio-Thoracic & Neuro Sciences Centre (Consolidate)

Receipts and Payments for the year ended 31.03.2019

Receipts	2018-19	2017-18	Payments	2018-19	2017-18
I. Opening balances			I. Expenses		
a) cash in Hand	66,000	66,000	a) Establishment Expenses (corresponding to schedule 21)	2,726,562,030	2,515,368,878
b) Bank Balances			b) Administrative Expenses (corresponding to Schedule 22)	368,053,449	239,497,294
(i) In current Account			c) Material & Supply (Corresponding to Schedule 23)	462,847,016	356,941,872
CNC Main	245,439,239	161,723,947			
Gamma Knife	89,945,198	40,477,909			
Angio Pts. A/c	38,587,244	15,438,301			
Neuro Surgery Pts. A/c	52,893,371	37,151,884			
C.T. Pts. A/c	91,101,096	67,544,607			
Aiims Neuro Sciences Poor Pts. A/c	257,251	207,900			
(ii) In Deposit Account	-	-			
(iii) In Savings Account	-	-			
c) Fixed Deposits					
Fixed Deposits (Gamma Knife)	240,000,000	240,000,000			
Fixed Deposits (Angio Pts. A/c)	109,800,000	109,800,000			
Fixed Deposits (Neuro Surgery Pts. A/c)	31,800,000	31,800,000			
Fixed Deposits (CT. Pts. A/c)	50,000,000				
II. Grant Received			II. Payments made against funds for various Projects		
a) From Government of India--Through Aiims Main Capital (Assets New)					
(i) Grant in Aid (Plan)	338,885,000	211,232,218	Grant Refund to AIIMS Main	20,000,000	
Revenue General			II. Payments made against funds for various Projects		
(ii) Grant in Aid- (Salary)	2,728,000,000	2,515,366,000			
(iii) Grant in Aid- (General)	764,000,000	650,000,000			
(iv) Grant in Aid- (SAP)- CTC	-	50,000,000	(iv) Grant in Aid- (SAP)- CTC	1,672,177	404,400
(v) Grant in Aid- (SAP)- NSC	-	50,000,000	(v) Grant in Aid- (SAP)- NSC	1,691,074	404,400
b) From State Government					

Receipts	2018-19	2017-18	Payments	2018-19	2017-18
c) From Other Sources (details)					
(Grant for capital and Revenue expenditure to shown					
III. Income on Investments From			III. Investments and deposits made		
a) Earmarked Funds/ Endowments funds	-	-	a) Out of Earmarked/Endowment funds	-	-
b) Revolving Fund			b) Revolving Fund		
i) Blood Test/Lab Test	11,863,700	11,065,090	i) Blood Test/Lab Test	428,475	4,705,210
ii) Cardiac Test	5,105,750	5,142,760	ii) Cardiac Test	855,205	242,738
iii) Stress Thallium	2,488,000	2,579,000	iii) Stress Thallium	5,931,121	2,272,833
IV) Neurology Patients Fund	10,384,063	11,814,279	IV) Neurology Patients Fund	17,631,067	8,705,468
			Trf. To Various Pts. A/c From Neurology Patient A/c	1,339,840	2,129,929
V) MRI Charges	3,479,750	3,583,500			
vi) Stem Cell	742,000	74,000			
Gamma Knife A/c	44,001,710	43081073	Gamma Knife A/c	2629980	3,264,881
Angio Pts. A/c	186,714,129	221982973.9	Angio Pts. A/c	245497725	205,721,326
Ct. Pts. A/c	336,404,457	372829470	Ct. Pts. A/c	354162698	299,167,569
NS Pts. A/c	152,185,426	135490483	NS Pts. A/c	144345943	121,934,711
c) Own Funds (Other Investments)	-	-			
IV. Interest Received			IV. Expenditure on Fixed Assets & Capital		
a) On Bank Deposits (CNC Main)	29,093,970	10771488	Work-in-Progress		
On Bank Deposits (Gamma Knife)	16,746,881	9651831	a) Purchase of Fixed Assets	88,820,261	176,119,651
On Bank Deposits (Angio Pts. A/c)	5,538,841	6890294	b) Expenditure on Capital Work-in-progress	-	-
On Bank Deposits (Neuro Surgery Pts. A/c)	1,113,232	2192180	c) Letter of Credit (M&E)	151,064,739	106,634,607
On Bank Deposits (C.T. Pts. A/c)	2,677,133	0	V. Refund of surplus money/Loans		
			a) To the Government of India	-	-
b) loans And Advances etc.	1,981,442	1589524	b) To the State Government	-	-
V. Other Income			c) To other providers of funds	-	-
Miscellaneous Receipt	1,993,616	1955300	VI. Finance Charges (Interest)		
Hospital Receipt (CNC Main)	69,123,455	61442379	Bank Charges (CNC Main)	1,537	2,142
			Bank Charges (Gamma Knife)	1,357	734
VI. Amount Borrowed			Bank Charges (Angio Pts. A/c)	3,540	2,999
			Bank Charges (Neuro Surgery Pts. A/c)	3,277	6,465
			Bank Charges (C.T. Pts. A/c)	4,543	105,412
			Bank Charges (Aims Neuro Sciences Poor)	649	649
VII. Any Other Receipts (Give Details)			VII. Other Payments (Specify)		
a) Donation	325,000	442530	Donation/Grant	249,819	250,264
b) Earnest Money Deposits	7,115,000	4804000	Earnest Money Deposits	2,878,995	1,810,820

Receipts	2018-19	2017-18	Payments	2018-19	2017-18
			c) Fixed Deposits		
			Fixed Deposits (Gamma Knife)	360,000,000	240,000,000
			Fixed Deposits (Angio Pts. A/c)	79,800,000	109,800,000
			Fixed Deposits (Neuro Surgery Pts. A/c)	31,800,000	31,800,000
			Fixed Deposits (CT Pts. A/c)	80,000,000	50,000,000
Total	6,542,023,997	5,730,487,640	Total	6,542,023,997	5,730,487,640

F & CAO, CNC

CHIEF, NSC

CHIEF, CTC

Cardio-Thoracic & Neuro Sciences Centre (Consolidate)

Balance Sheet as at 31.03.2019

		(Amount in Rs.)	
<u>CORPUS/CAPITAL FUND AND LIABILITIES</u>	Schedule	Current Year	Previous Year
Corpus/Capital Fund	1	6,721,192,017	6,402,307,017
Reserves and Surplus	2	68,515,493	6,960,654
Earmarked/ Endowment Funds	3	99,050,549	102,338,619
Revolving Funds	4	778,954,058	798,407,127
Secured Loans and Borrowings	5	-	-
Unsecured Loans and Borrowings	6	-	-
Deferred Credit Liabilities	7	-	-
Current Liabilities and Provisions	8	61,674,526	56,485,722
TOTAL		7,729,386,643	7,366,499,139
<u>ASSETS</u>			
Fixed Assets	9	6,230,814,067	6,005,770,555
Investments-From Earmarked/Endowment Funds	10	-	-
Investment-Others	11	551,600,000	431,600,000
Current Assets, Loans, Advances Etc.	12	946,972,576	929,128,584
Miscellaneous Expenditure		-	-
(To the extent not written off or adjusted)			
Balance of excess of expenditure over income			
TOTAL		7,729,386,643	7,366,499,139
Significant Accounting Policies	25		
Contingent Liabilities and Notes on Accounts	26		

CHIEF, CTC

CHIEF, NSC

F& CAO, CNC

Cardio-Thoracic & Neuro Sciences Centre

Income and Expenditure Account for the year ending on 31.03.2019

INCOME	Schedule	Current Year	Pervious Year	(Amount Rs.)
Income from Sales/services	13	70,885,415	62,033,065	
Grants/Subsidies	14	3,492,000,000	3,090,652,978	
Fees/Subscriptions	15	-	-	
Income from Investments (Income on Invest. From earmarked/endow. Funds Transferred to Funds)	16	-	-	
Income from Royalty, publications etc.	17	-	-	
Interest Earned	18	57,151,499	31,095,317	
Other Income	19	1,993,616	1,955,300	
Increase/(decrease) of Finished goods and works-in-progress	20	-	-	
TOTAL(A)		3,622,030,530	3,185,736,660	
EXPENDITURE				
Establishment Expenses	21	2,726,562,030	2,515,368,878	
Other Administrative Expenses etc.	22	368,053,449	239,497,294	
Adjustment of Advances	22 (A)	2,998,292	-	
Material & Supply	23	462,847,016	356,941,872	
Expenditure on Grants, Subsidies Etc.	24	-	-	
Interest & Finance Expenses	25	14,903	118,401	
Depreciation (Net Total at the year-end-corresponding to Schedule 11)				
TOTAL (B)		3,560,475,691	3,111,926,445	
Balance being excess of Income over Expenditure (A-B)				
Transfer to Special Reserve (Specify each)		61,554,839	73,810,215	
Transfer to/from General Reserve		-	-	
Balance being surplus/(deficit) carried to corpus/capital fund		61,554,839	73,810,215	
Significant Accounting Policies				
Contingent Liabilities and Notes on Accounts				
	26			
	27			

CHIEF, CTC

CHIEF, NSC

F& CAO, CNC

Cardio-Thoracic & Neuro Sciences Centre

Schedules forming part of the Balance Sheet as at 31.03.2019

	Current Year	Previous Year
(Amount in Rs.)		
<u>Schedule 1 – Corpus/ Capital Funds</u>		
Balance as at the beginning of the year (CNC Main)	6,350,915,314	-
Add: Contributions towards Corpus/Capital Fund (Through Aiiims Main)	318,885,000	6,350,915,314
Less: Refund to Aiiims Main		
Add: Corpus/Capital Created out of Donation	51,391,703	51,391,703
<u>Add/Deduct:</u> Balance of net income / (expenditure) transferred from the Income and Expenditure Account	-	-
Balance as at the end of the year	6,721,192,017	6,402,307,017

	Current Year	Previous Year
(Amount Rs.)		
<u>Schedule 2 – Reserves and Surplus</u>		
<u>1. Capital Reserve</u>		
Balance as at the beginning of the year	6,960,654	6,960,654
Add: Additions during the year	61,554,839	
2. Revaluation Reserves		
Balance as at the beginning of the year	-	-
Add: Additions during the year	-	-
Less: Deductions during the year	-	-
3. Special Reserve		
Balance as at the beginning of the year	-	-
Add: Additions during the year	-	-
Less: Deductions during the year	-	-
4. General Reserve		
Balance as at the beginning of the year	-	-
Add: Additions during the year	-	-
Less: Deductions during the year	-	-
5. Excess of income over expenditure	-	-
TOTAL	68,515,493	6,960,654

(Amount in Rs.)

Schedule-3 Earmarked/Endowment Funds	Cardiology	CTVS	Neurology	Neuro-Surgery	Other	Swachhta Action Plan (SAP)		Current Year		Previous Year	
						CTC	NSC	Total	Total	Total	Total
a) Opening balance of the funds											
b) Additions to the Funds	64,306	188,750	909,327	1,966,505	18,531	49,595,600	49,595,600	102,338,619	2,955,153		
i. Donations/grants	-	-	25,000	150,000	150,000	-	-	325,000	100,442,530		
ii. Income from investments made on account of funds	-	-	-	-	-	-	-	-	-		
iii. Received from patients	-	-	-	-	-	-	-	-	-		
iv. Other additions (specify nature)	-	-	-	-	-	-	-	-	-		
TOTAL (a+b)	64,306	188,750	934,327	2,116,505	168,531	49,595,600	49,595,600	102,663,619	103,397,683		
c) Utilisation/Expenditure towards objectives of funds											
i. Capital Expenditure											
Fixed Assets	-	-	-	-	-	1,672,177	1,691,074	3,363,251	808,800		
Others	-	-	-	-	-	-	-	-	-		
TOTAL (ci)	-	-	-	-	-	1,672,177	1,691,074	3,363,251	808,800		
ii. Revenue Expenditure											
Salaries, Wages and allowances etc.	-	-	-	-	-	-	-	-	-		
Rent	-	-	-	-	-	-	-	-	-		
Bank Charges	-	-	-	-	-	-	-	-	-		
Other Administrative expenses	-	-	99,819	-	150,000	-	-	249,819	250,264		
TOTAL c (ii)	-	-	99,819	-	150,000	-	-	249,819	250,264		
TOTAL (c)	-	-	99,819	-	150,000	1,672,177	1,691,074	249,819	1,059,064		
d) Refunds to Patients											
NET BALANCE AS AT THE YEAR-END (a+b-c-d)	64,306	188,750	834,508	2,116,505	18,531	47,923,423	47,904,526	99,050,549	102,338,619		

Schedule -4 Revolving Fund	Current Year										Previous Year	
	Lab Test	Cardiac Test	Stress Thallium	MRI	Stem Cell	Neurology Pt. Fund	CT. Pts. A/c	Gamma Knife A/c	Angio Pts. A/c	NS Pts. A/c	Total	Total
a) Opening balance of the funds	29,322,275	24,244,725	3,641,791	11,232,630	74,000	41,138,051	141,206,508	320,294,101	144,745,390	82,507,656	798,407,127	638,909,163
b) Additions to the Funds	11,863,700	5,105,750	2,488,000	3,479,750	742,000	10,384,063	336,404,457	44,001,710	186,714,129	152,185,426	753,368,985	764,229,118
i. Received from Patients												
ii. Grant received from Alims CNC (Angio Pts. A/c) for Exemption/BPL Pts												43,413,511
TOTAL (a+b)	41,185,975	29,350,475	6,129,791	14,712,380	816,000	51,522,114	477,610,965	364,295,811	331,459,519	234,693,082	1,551,776,112	1,446,551,792
c) Utilisation/Expenditure towards objectives of funds												
i. Capital Expenditure												
Fixed Assets	-	-	-	-	-	-	-	-	-	-	-	-
Others (Specify)	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL (c-i)												
ii Revenue Expenditure												
Material & Supply												
Refund to Patients	428,475	855,205	5,931,121			17,631,067	271,806,118	146,329	216,152,377	108,196,394	596,301,218	432,972,359
Poor/BPL Patient treatment expenditure							82,356,580	2,483,651	29,345,348	36,149,549	175,180,996	162,406,085
Free Procedure												19,982,348
Others (Specify)												23,431,163
Transfer to various pts. A/c						1,339,840					1,339,840	7,220,781
TOTAL (c-ii)	428,475	855,205	5,931,121			18,970,907	354,162,698	2,629,980	245,497,725	144,345,943	772,822,054	648,144,665
TOTAL (c)	428,475	855,205	5,931,121			18,970,907	354,162,698	2,629,980	245,497,725	144,345,943	772,822,054	648,144,665
Balance as at the end of the year (a+b-c)	40,757,500	28,495,270	198,670	14,712,380	816,000	32,551,207	123,448,267	361,665,831	85,961,794	90,347,139	778,954,058	798,407,127

(Amount in Rs.)

<u>Schedule 5 - Secured Loans And Borrowings</u>	Current Year	Previous Year
1. Capital Government	-	-
2. State Government (Specify)	-	-
3. Financial Institutions		
a) Term Loans	-	-
b) Interest accrued and due	-	-
4. Banks		
a) Term Loans		
- Interest accrued and due	-	-
b) Other Loans (specify)		
- Interest accrued and due	-	-
5. Other Institutions and Agencies	-	-
6. Debentures and Bonds	-	-
7. Others (specify)	-	-
TOTAL	-	-

Note: Amounts due within one year

(Amount in Rs.)		
<u>Schedule 6- Unsecured Loans And Borrowings</u>	Current Year	Previous Year
1. Capital Government	-	-
2. State Government (Specify)	-	-
3. Financial Institutions		
a) Term Loans	-	-
b) Interest accrued and due	-	-
4. Banks		
a) Term Loans		
- Interest accrued and due	-	-
b) Other Loans (specify)		
- Interest accrued and due	-	-
5. Other Institutions and Agencies	-	-
6. Debentures and Bonds	-	-
7. Others (specify)	-	-
TOTAL	-	-
Note: Amounts due within one year		

(Amount in Rs.)		
<u>Schedule 7- Deferred Credit Liabilities</u>	Current Year	Previous Year
a) Acceptance secured by hypothecation of capital equipment and other assets	-	-
b) Others	-	-
TOTAL	-	-
Note: Amount due within one year		

(Amount in Rs.)

Schedule 8-Current Liabilities	Current Year	Pervious Year
A. Current Liabilities		
1. Acceptances	-	-
2. Sundry Creditors		
a) For Goods	-	-
b) Others		
3. Advances Received	-	-
4. Interest accrued but not due on		
a) Secured Loans/borrowings	-	-
b) Unsecured Loans/borrowings	-	-
5. Statutory Liabilities		
a) Overdue	-	-
b) Others	-	-
6. Other Current Liabilities	1,252,320	349,521
7. EMD	60,092,789	55,856,784
8. Imprest	20,000	20,000
9. Aiims Neuro Sciences Poor Pts. A/c	309,417	259,417
TOTAL (A)	61,674,526	56,485,722
B. Provisions		
1. For Taxation	-	-
2. Gratuity	-	-
3. Superannuation/ Pension	-	-
4. Accumulated Leave Encashment	-	-
5. Trade Warranties/ Claims	-	-
6. Accumulated Depreication	-	-
7. Others	-	-
TOTAL (B)	-	-
TOTAL (A)+(B)	61,674,526	56,485,722

SCHEDULE 9 - FIXED ASSETS										(Amount in Rs.)			
Particulars	GROSS BLOCK						DEPRECIATION			NET BLOCK			
	Cost/Valuation as at beginning of the year	Additions during the year	Deductions during the year	Additions during the year (Letter of Credit)	Additions during the year (PDA)	Additions during the year (Custom Duty)	Cost/Valuation at the year-end	As at the begini. of the year	For the year	On ded. during the year	Total up to the year-end	As at the current year-end	As at the previous year-end
FIXED ASSETS													
LAND													
a) Freehold	-	-	-	-	-	-	-	-	-	-	-	-	-
b) Leasehold	-	-	-	-	-	-	-	-	-	-	-	-	-
BUILDINGS													
a) On Freehold Land	-	-	-	-	-	-	-	-	-	-	-	-	-
b) On Leasehold Land	-	-	-	-	-	-	-	-	-	-	-	-	-
c) Ownership Flats/Premises	-	-	-	-	-	-	-	-	-	-	-	-	-
d) Superstructures on Land not belonging to the entity	-	-	-	-	-	-	-	-	-	-	-	-	-
INTANGIBLE FIXED ASSETS													
a) Software	-	-	-	-	-	-	-	-	-	-	-	-	-
PLANT, MACHINERY & EQUIPMENT*	5,362,203,310	84,391,536		116,358,180	228,770	19,636,301	5,582,818,097	-	-	-	-	5,582,818,097	5,362,203,310
Spare & Accessories (CTC)	65,573,564						65,573,564					65,573,564	65,573,564
Spare & Accessories (NSC)	86,631,063						86,631,063					86,631,063	86,631,063
Letter of Credit Spare & Accessories (NSC)	11,918,584						11,918,584					11,918,584	11,918,584
Letter of Credit Spare & Accessories (CTC)	556,416						556,416					556,416	556,416
VEHICLES	4,381,989						4,381,989					4,381,989	4,381,989
FURNITURE, FIXTURES	6,749,181	1,740,991					8,490,172					8,490,172	6,749,181
COMPUTER/ PERIPHERALS	7,452,748	2,687,734					10,140,482					10,140,482	7,452,748
ELECTRIC INSTALLATIONS	-	-					-					-	-
LIBRARY BOOKS	-	-					-					-	-
Tube well & Water-supply	-	-					-					-	-
OFFICE EQUIPMENT	-	-					-					-	-
TOTAL OF CURRENT YEAR	5,545,466,855	88,820,261					5,770,510,367					5,770,510,367	5,545,466,855
PREVIOUS YEAR													
CAPITAL WORK-IN-PROGRESS	460,303,700	-					460,303,700					460,303,700	460,303,700
TOTAL	6,005,770,555	88,820,261		116,358,180	228,770	19,636,301	6,230,814,067					6,230,814,067	6,005,770,555

(Date to be given to cost of assets on hire purchase basis included above)

Schedule 10 - Investments from Earmarked/Endowment Funds			(Amount in Rs.)	
	Current Year	Previous Year		
1. In Government Securities	-	-		
2. Other approved Securities	-	-		
3. Shares	-	-		
4. Debentures and Bonds	-	-		
5. Subsidiaries and Joint Ventures	-	-		
6. Others (to be specified)	-	-		
TOTAL	-	-		

Schedule 11 - Investments Others			(Amount in Rs.)	
	Current Year	Previous Year		
1. In Government Securities	-	-		
2. Other approved Securities	-	-		
3. Shares	-	-		
4. Debentures and Bonds	-	-		
5. Subsidiaries and Joint Ventures	-	-		
6. Others (to be specified)	-	-		
i. Fixed Deposit (Gamma Knife)	360,000,000	240,000,000		
ii. Fixed Deposit (Angio Pts. A/c)	79,800,000	109,800,000		
iii. Fixed Deposit (Neuro Surgery Pts. A/c)	31,800,000	31,800,000		
iv. Fixed Deposit (C T Pts. A/c)	80,000,000	50,000,000.00		
TOTAL	551,600,000.00	431,600,000.00		

(Amount in Rs.)

Schedule 12-Current Assets, Loans, Advances Etc.	Current Year	Previous Year
A. Current Assets		
1. Inventories		
a) Stores and Spares	-	-
b) Loose Tools	-	-
c) Stock in trade		
Finished Goods	-	-
Work-in-progress	-	-
Raw Materials	-	-
2. Sundry Debtors		
a) Debts outstanding for a period exceeding six months		
b) Others	3,245,441	3,245,441
3. Cash balances in hand (Including cheques/drafts and imprest)		
a) Imprest	66,000	66,000
4. Bank Balances		
a) With Scheduled Banks:		
-On Current Accounts	338,844,328	245,439,239
Gamma Knife	28,062,452	89,945,198
Angio Pts. A/c	15,338,949	38,587,244
C.T. Pts. A/c	46,015,445	91,101,096
Neuro Surgery Pts. A/c	61,842,809	52,893,371
Aiiims Neuro Sciences Poor Pts. A/c	306,602	257,251
-On Deposit Accounts (Includes margin money)	-	-
-On Savings Accounts	-	-
b) With Non-Scheduled Banks:		
-On Current Accounts	-	-
-On Deposit Accounts	-	-
-On Savings Accounts	-	-
5. Post Office - Savings Accounts	-	-
TOTAL (A)	493,722,027	521,534,841

		(Amount in Rs.)	
		Current Year	Pervious Year
SCHEDULE 12-CURRENT ASSETS LOANS, ADVANCES ETC. (CONTD.)			
B. LOANS, ADVANCES AND OTHER ASSETS			
1. Loans			
a) Staff		6,240,560	2,939,535
b) Other Entities engaged in activities/objectives similar to that of the Entity			
c) Other (Patient Treatment- CGHS)			
2. Advances and other amounts recoverable in cash or in kind or for value to be received			
a) On Capital Accounts			
b) Prepayments			
c) Temporary Contingent Advances			
d) Others			
3. Income Accrued			
a) On Investments fro Earmarked / Endowment Funds			
b) On Investments-Others			
c) On Loans and Advances			
d) Others			
(Includes income due unrealized-Rs.....)			
4. Claims Receivable			
5. Letter of Credit		121,207,172	86,500,613
6. Custom Duty		93,383,493	34,019,794
7. Pre-Deposits Advance		300,848	529,618
8. TDR		-	50,000,000
9. Advance Against Work		174,596,762	174,596,762
10. Advance Payment DAVP		2,709,744	5,708,036
11. Mach. & Equipmt Trf From CT Patients A/c		49,025,000	49,025,000
12. Patient Treatment (CGHS)		5,786,970	4,274,385
TOTAL (B)		453,250,549	407,593,743
TOTAL (A)+(B)		946,972,576	929,128,584

(Amount in Rs.)

SCHEDULE 13-INCOME FROM SALES/SERVICE	Current Year	Previous Year
1) Income from sales		
a) Sales of Finished Goods	-	-
b) Sales of Raw Material	-	-
c) Sales of Scraps	-	-
2) Income from Services		
a) Labour and Processing Charges		
b) Professional/Consultancy Service	-	-
c) Agency Commission and Brokerage	-	-
d) Maintenance Services (Equipment/Property)	-	-
e) Hospital Receipts (CNC Main)	69,123,455	61,442,379
f) Hospital Receipts (Gamma Knife)	-	-
g) Hospital Receipts (Angio Patients A/c)	-	-
h) Hospital Receipts (C.T. Pts. A/c)	-	-
i) Hospital Receipts (Neuro Surgery Pts. A/c)	-	-
j) Patient Treatment CGHS	1,761,960	590,686
k) Others (Specify) Suspence Receipt	-	-
TOTAL	70,885,415	62,033,065

SCHEDULE 14-GRANTS/SUBSIDIES	Current Year	Current Year
(Irrevocable Grant & Subsidies Received)-Through Aiims Main		
1) Central Government	-	-
Revenue General (Plan)		
(ii) Grant in Aid- (Salary)	-	-
(iii) Grant in Aid- (General)	-	-
Non Plan		
(iii) Grant in Aid- (General)	764,000,000	575,286,978
(ii) Grant in Aid- (Salary)	2,728,000,000	2,515,366,000
Grant in Aid (SAP)- CTC	-	-
Grant in Aid (SAP) - NSC	-	-
2) State Government(s)	-	-
3) Governments Agencies	-	-
4) Institutions/Welfare Bodies	-	-
5) International Organisations	-	-
6) Others (Specify)	-	-
TOTAL	3,492,000,000	3,090,652,978

(Amount in Rs.)	
SCHEDULE 15- FEES/SUBSCRIPTIONS	Previous Year
1) Entrance Fees	-
2) Annual Fees/Subscriptions	-
3) Seminar/Program Fees	-
4) Consultancy Fees	-
5) Tender Fees	-
TOTAL	-
Note- Accounting Policies towards each item are to be disclosed	

(Amount in Rs.)				
SCHEDULE 16- INCOME FROM INVESTMENTS	Investment from Earmark Fund		Investment Other	
(Income on Invest. Earmarked/Endowment Funds transferred to Funds)	Current Year	Previous Year	Current Year	Previous Year
1) Interest				
a) On Govt. Securities	-	-	-	-
b) Other Bonds/Debentures	-	-	-	-
2) Dividends				
a) On Shares	-	-	-	-
b) On Mutual Fund Securities	-	-	-	-
3) Rents	-	-	-	-
4) Other (Specify)	-	-	-	-
TOTAL	-	-	-	-
Note- Transferred to earmarked/endowment funds				

(Amount in Rs.)		
SCHEDULE 17- INCOME FROM ROYALTY, PUBLICATION ETC.	Current Year	Previous Year
1) Income from Royalty	-	-
2) Income from Publications	-	-
3) Others (Specify)	-	-
TOTAL	-	-

(Amount in Rs.)		
SCHEDULE 18- INTEREST EARNED	Current Year	Previous Year
1) On Term Deposits		
a) with Schedule Banks (CNC Main)	29,093,970	10,771,488
with Schedule Banks (Gamma Knife)	16,746,881	9,651,831
with Schedule Banks (Angio Pts. A/c)	5,538,841	6,890,294
with Schedule Banks (C.T. Pts. A/c)	2,677,133	-
with Schedule Banks (Neuro Surgery Pts. A/c)	1,113,232	2,192,180
b) With Non-Scheduled Banks	-	-
c) With Institutions	-	-
d) Others	-	-
2) On Savings Accounts		
a) with Schedule Banks	-	-
b) With Non-Scheduled Banks	-	-
c) With Institutions	-	-
d) Others	-	-
3) On Loans		
a) Employee/Staff	1,981,442	1,589,524
b) Others	-	-
4) Interest on Debtors and Other Receivables		
TOTAL	57,151,499	31,095,317
Note- Tax deducted at source to be indicated		

(Amount in Rs.)

SCHEDULE 19- OTHER INCOME	Current Year	Previous Year
1) Profit on Sale/disposal of Assets		
a) Owned assets	-	-
b) Assets acquired out of grants, or received free of cost	-	-
2) Export Incentives realized		
a) Liquid Damage	-	-
3) Fees for Miscellaneous Services	-	-
4) Miscellaneous Receipt	1,993,616	1,955,300
5) Lice. Fee Recovery		-
TOTAL	1,993,616	1,955,300

(Amount in Rs.)

SCHEDULE 20- INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS	Current Year	Previous Year
a) Closing stock		
Finished Goods	-	-
Work-In-Progress	-	-
b) Less: Opening Stock		
Finished Goods	-	-
Work-In-Progress	-	-
NET INCREASE/(DECREASE) [a-b]	-	-

(Amount in Rs.)

SCHEDULE 21- ESTABLISHMENT EXPENSES	Current Year	Previous Year
a) Salaries and Wages (Plan)	469,488,108	457,760,909
b) Salaries and Wages (Non-Plan)	2,162,118,642	1,960,558,586
c) Contribution to Provident Fund	-	-
d) Contribution to Other Fund - (NPS)	87,133,450	88,000,814
e) Staff Welfare Expenses	-	-
f) Expenses on Employees Retirement and Terminal Benefits	-	-
g) Travelling and Conveyance Expenses	7,821,830	9,048,569
h) Others (specify)	-	-
TOTAL	2,726,562,030	2,515,368,878

(Amount in Rs.)

SCHEDULE 22- OTHER ADMINISTRATIVE EXPENSES ETC.	Current Year	Previous Year
Labour and processing expenses	-	-
Cartage and Carriage Inwards	-	-
Office Maintenance Exp.	5,734,144	1,930,947
Delegation Fee	-	-
Gas Charges	226,090	140,398
Vehicles Running and Maintenance	731,450	709,206
Postage, Telephone and Communication Charges	45,324	96,272
Advertisement	-	61,904
<i>Repairs and maintenance of Building</i>	42,954,315	47,069,551
Repairs and maintenance of Machinery	17,107,937	6,626,675
Vehicles Running and Maintenance	-	-
Maintenance of Minor Works	26,576,143	35,661,217
Printing and Stationary	-	-
Spare & Accessories (CTC)	32,798,832	-
Spare & Accessories (NSC)	60,148,578	-
Professional Charges	-	-
Packing Charges	-	-
Freight and Forwarding Expenses	-	-
Distributions Expenses	-	-
Security Services	55,481,496	32,707,217
Manpower Outsourcing Charges (BECL/Sulabh/MRT etc.)	74,984,746	62,490,557
Sanitation Service (BVG)	51,264,394	52,003,350
Others (specify)		
TOTAL	368,053,449	239,497,294

SCHEDULE 22 (A) Adjustment of Advances		(Amount in Rs.)	
	Current Year	Previous Year	
Advance Payment of DAVP	2,998,292	-	
Others (specify)			
TOTAL	2,998,292	0	

SCHEDULE 23- Material & Supply		(Amount in Rs.)	
	Current Year	Previous Year	
Material & Supply	400,215,957	338,217,902	
JSSK	1,993,270	-	
Exp. Of Consumable and Regent used to M & E	60,637,789	18723970	
TOTAL	462,847,016	356,941,872	

(Amount in Rs.)

SCHEDULE 24- EXPENDITURE ON GRANTS SUBSIDIES ETC.	Current Year	Previous Year
a) Grants given to Institutions/Organisations	-	-
b) Subsidies given to Institutions/Organisations	-	-
TOTAL	-	-

Note- Name of the Entities, their Activities along with the amount of Grants/Subsidies are to be disclosed.

(Amount in Rs.)

SCHEDULE 25- INTEREST & FINANCE EXPENSES	Current Year	Previous Year
a) On Fixed Loans	-	-
b) On Other Loans (including Bank Charges)	-	-
c) Bank Charges (CNC Main)	1,537	2,142
c) Bank Charges (Gamma Knife)	1,357	734
c) Bank Charges (Angio Pts. A/c)	3,540	2,999
c) Bank Charges (C.T. Pts. A/c)	4,543	105,412
c) Bank Charges (Neuro Surgery A/c)	3,277	6,465
c) Bank Charges (Poor Pts. A/c)	649	649
d) Others (specify)	-	-
TOTAL	14,903	118,401

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
BALANCE SHEET AS AT 31-03-2018

		(Amount in Rupees)	
<u>CORPUS/CAPITAL FUND AND LIABILITIES</u>	Schedule	2018-19	2017-18
CORPUS/CAPITAL FUND	1	3606471076	3206471076
RESERVES AND SURPLUS	2	72101573	140295935
EARMARKED/ ENDOWMENT FUNDS	3	77148456	70273056
SECURED LOANS AND BORROWINGS	4		
UNSECURED LOANS AND BORROWINGS	5		
DEFERRED CREDIT LIABILITIES	6		
CURRENT LIABILITIES AND PROVISIONS	7	29163997	11019679
TOTAL		3784885102	3428059746
<u>ASSETS</u>			
FIXED ASSETS	8	3293547341	2993197028
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9		
INVESTMENTS-OTHERS	10		
CURRENT ASSETS, LOANS , ADVANCES ETC.	11	491337761	434862718
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
TOTAL		3784885102	3428059746

ACCOUNTS OFFICER

CHIEF, RPC

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2018

		(Amount in Rupees)	
		2018-19	2017-18
		Schedule	
INCOME			
Income from Sales/Services (Hospital Receipts)			276391580
Grants/Subsidies		36551342	1190000000
Fees/Subscriptions		1330000000	
Income from Investments (Income on Invest. From earmarked/endow.Funds transferred to funds)			
Income for Royalty, Publication etc.			
Interest Earned		8269995	4756665
Other Income		492743	153380
Increase/(decrease) in stock of Finished goods and works-in-progress			
TOTAL (A)		1375314080	1471301625
EXPENDITURE			
Establishment Expenses		939015472	858476429
Other Administrative Expenses etc.		427437756	725128894
Expenditure on Grants, Subsidies etc.		77055214	
Interest			
Depreciation (Net Total at the year-end - corresponding to Schedule 8)			
TOTAL (B)		1443508442	1583605323
Balance being excess of Expenditure over Income (B-A)			
Transfer to Special Reserve (Specify each)		-68194362	-112303698
Transfer to /from General Reserve			
BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/ CAPITAL FUND		1375314080	1471301625

ACCOUNTS OFFICER

CHIEF, RPC

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
RECEIPT AND PAYMENTS FOR THE YEAR ENDED 31-03-2019

		(Amount in Rupees)		(Amount in Rupees)	
Receipts		2018-19	2017-18	Payments	
1. Opening Balances					
(a) Cash in Hand		26500	26500		939015472
Add: in compliance with Audit Observation (Audit Memo No.13/2)		3500	316189138		424575638
Total		30000			
(b) Bank Balances					
(i) In current accounts		283651688			11831155
Less: in compliance with Audit Observation (Audit Memo No.13/2)		3500			995802
Total		283648188			81859679
					174127696
2. Grant Received					
(a) From Government of India through AIIMS (Main)					
(i) Grant in Aid (Plan) (Capital Assets)		400000000	240000000		14208334
(ii) Grant in Aid (General)		400000000	3500000000		27055214
(iii) Grant in Aid (Salaries)		930000000	840000000		50000000
(iv) Swachhita Action Plan			50000000		183471508
(v) Grant in Aid (General) (Non-Plan)		0	0		30000000
(b) From state Government					169150628
					1306694
(c) NPS Amount received from NSDL		33282385			20430
(d) From other sources (RPC Research Projects)		18535561	23833839		
Amt transfer from Main RPC for RPC Patient Treatment Account		50000000			
Amt transfer from Main RPC for RPC Research Account		27055214			
3. Income on Investment from					
(a) Earmarked/Endow. Funds					
(b) Own funds (Oth. Investments)					
TFR					0
FD					7061
4. Interest received					8576
(a) On bank deposits		7915922	4294722		18959
(b) Interest earned on Patient Treatment Account		1392310			1097
(c) Interest earned on Research Project		1066695			
(d) Loans, Advances etc.					
Car		40000	101116		148213
HBA		308117	331441		5384176
Computer		5956	29386		5971254
Festival			0		154425093
					83378947
					71174550

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

	(Amount in Rupees)	
	2018-19	2017-18
<u>SCHEDULE 1- CORPUS/CAPITLA FUND:</u>		
Balances as at the beginning of the year	3206471076	2966471076
Add : Contributions towards Corpus/Capital Fund	400000000	240000000
Less : Fixed Assets Condemned during the year	0	0
	3606471076	3206471076
BALANCE AS AT THE YEAR-END	3606471076	3206471076
<u>SCHEDULE 2- RESERVES AND SURPLUS:</u>	Current Year	Pervious Year
1. <u>Capital Reserve:</u>		
As per last Account		
Addition during the year		
Less: Deductions during the year		
2. <u>Revaluation Reserve</u>		
As per last Account		
Addition during the year		
Less: Deductions during the year		
3. <u>Special Reserves</u>		
As per last Account		
Addition during the year		
Less: Deductions during the year		
4. <u>General Reserve</u>		
As per last Account	140295935	252599633
Addition during the year	-68194362	-112303698
Less: Deductions during the year		
	72101573	72101573
<u>TOTAL</u>	0	0
	72101573	140295935

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

<u>SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS</u>	<u>Patient Treatment Account</u>	Scheme Non-RPC		TOTALS	
		Scheme Non-RPC	SAP*	2018-19	2017-18
a) Opening balance of the funds	0	21268858	49004198	0	82594034
b) Additions to the Funds:	285192233	27055214			
i. Donations/grants		17592377		0	0
ii. Income from investments made on account of funds	1392310	1066695			
iii. Other additions (specify nature)					0
iv. Less Expenditure during the year					
TOTAL (a+b)	286584543	66983144	49004198	402571885	82594034
c) Utilisation/Expenditure towards objectives of funds					
i. <u>Capital Expenditure</u>					
- Fixed Assets					
- Others					
ii. <u>Revenue Expenditure</u>					
- Salaries, Wages and allowances etc.					
- Rent					
- Other Administrative expenses		20431856	49004198		12320978
- Exp on kits for patients	255987375				
Total	255987375	20431856	49004198	325423429	12320978
TOTAL (c)	255987375	20431856	49004198	325423429	12320978
<u>NET BALANCE AS AT THE YEAR-END (a+b-c)</u>	30597168	46551288	0	77148456	70273056

* Swachhta Action Plan

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

SCHEDULE 4-SECURED LOANS AND BORROWINGS:	2018-19		2017-18	
1. Central Government				
2. State Government				
3. Financial Institutions				
a) Term Loans				
b) Interest accrued and due				
4. Banks:				
a) Term Loans				
- Interest accrued and due				
b) Other Loans (specify)				
- Interest accrued and due				
5. Other Institutions and Agencies				
6. Debentures and Bonds				
7. Others (Specify)				
<u>TOTAL</u>	0	0	0	0

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

SCHEDULE 5 - UNSECURED LOANS AND BORROWING	2018-19	2017-18
1. Central Government		
2. State Government		
3. Financial Institutions		
4. Banks:		
a) Term Loans		
b) Other Loans (specify)		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Fixed Deposits		
8. Others (Specify)		
<u>TOTAL</u>	0	0

SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:	Current Year	Previous Year
a) Acceptances secured by hypothecation of capital equipment and other assets		
b) Others		
<u>TOTAL</u>	0	0

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS	2018-19		2017-18	
A. CURRENT LIABILITIES AND PROVISIONS				
1. Acceptances				
2. Sundry Creditors:				
a) For Goods				
a) Others (Engg. Outstanding)	1421013	1421013		
3. Advances Received for patients from Govt Agencies				
i) NIAF				
Opening Balance	1555040		1516267	
Received during the year	248705		113360	
Expenditure during the year	148213	1655532	74587	1555040
4. Projects Grants				
ii) NPCB		827		827
5. Interest accrued but not due on:				
a) Secured Loans/borrowings				
a) Unsecured Loans/borrowings				
6. Statutory Liabilities:				
a) Overdue				
a) Others				
7. Security Deposits (EMD)				
Opening Balance	9236734		11071806	
Received during the year	2932938		1671000	
Refund during the year	5384176	6785496	3506072	9236734
6. Other current Liabilities		227078		227078
9. Amt against NPS to be remitted to AIIMS (MAIN)				
Opening Balance	33282385			
Less : Remitted to AIIMS (MAIN)	14208334	19074051		
10. Custom Duty to be paid to Store (D.O.)				
Opening Balance	0	0		
Less : Remitted to Research AIIMS (MAIN)	0	0		0
TOTAL (A)		29163997		11019679
B. PROVISIONS				
1. For Taxation				
2. Gratuity				
3. Superannuation/Pension				
6. Accumulated Leave Encashment				
6. Trade Warranties/Claims				
6. Others (specify)				
TOTAL (B)				
TOTAL (A+B)		29163997		11019679

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

SCHEDULE 8-FIXED ASSETS DISCRIPTION	GROSS BLOCK			DEPRECIATION			NET BLOCK			
	Cost/valuation As at beginning of the year	Additions during the year	Deductions during the year	Cost/ Valuation at the year end	As at the beginning of the year	On additions during the year	On Deductions during the year	Total up to the year-end	As at the Current year-end	As at the Previous year-end
A. FIXED ASSETS:										
1 LAND:										
a) Freehold										
b) Leasehold										
2 BUILDINGS:										
a) On Freehold Land	233443859	0	0	233443859	0	0	0	0	233443859	233443859
b) On Leasehold Land										
c) Ownership Flats/ Premises										
d) Superstructures on Land not belonging to the entity										
3 PLANT MACHINERY & EQUIPMENT	2733879503	299023189	0	3032902692	0	0	0	0	3032902692	2733879503
4 VEHICLES	7689572	1306694	0	8996266	0	0	0	0	8996266	7689572
5 FURNITURE, FIXTURES OFFICE EQUIPMENT	18184094	20430	0	18204524	0	0	0	0	18204524	18184094
6 COMPUTER/PERIPHERALS										
8 ELECTRIC INSTALLATIONS										
9 LIBRARY BOOKS										
10 TUBEWELLS & W. SUPPLY										
11 OTHER FIXED ASSETS										
TOTAL OF CURRENT YEAR	2993197028	300350313	0	3293547341	0	0	0	0	3293547341	2993197028
PREVIOUS YEAR										
B. CAPITAL WORK-IN-PROGRESS										
TOTAL										

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)		
	<u>2018-19</u>	<u>2017-18</u>
<u>SCHECULE 9 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS</u>		
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debenutres and Bonds		
5. Subsidiaries and Joint Venutres		0
6. Others (to be specified)		
<u>TOTAL</u>	0	0

<u>SCHECULE 10 - INVESTMENTS - OTHERS</u>		
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debenutres and Bonds		
5. Subsidiaries and Joint Venutres		
6. Others (to be specified)		
<u>TOTAL</u>	0	0

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

		(Amount in Rupees)			
SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC.		2018-19		2017-18	
A CURRENT ASSETS:					
1. Advances for Procurement					
	a) M&E Foreign Purchases	Opening Balance	109002733	48591168	
		Addition during the year	169150628	85882779	
		Adjusted during the year	85882779	192270582	109002733
	b) Material and Supply	Opening Balance	10658362	21432899	
		Addition during the year	0	0	
		Adjusted during the year	876263	9782099	10658362
	c) Stock-in-trade	Finished Goods			
		Work-in-progress			
		Raw Material			
2. Sundry Debtors:					
	a) Debts Outstanding for a period exceeding six months		76253		76253
	b) Others				
3. Cash balances in hand (including cheques/ drafts and imprest)					
			32500		26500
4. Bank Balances:					
	a) With Scheduled Banks:				
	On Current Accounts		201260596		283651688
	Patient Treatment Account		30578209		0
	RPC Research Account		25686792		0
	On Deposit Accounts (includes margin money)				
	On Savings Accounts				
	b) With non-Scheduled Banks:				
	On Current Accounts				
	On Deposit Accounts				
	On Savings Accounts				
5. PDA Advance					
		opening balance	350055	451865	
		adjusted during the year	8805	341250	350055
6. Custom Duty Advance					
		Opening Balance	30781224	0	
		Added during the year	30000000	40842978	
		Adjusted during the year	29660097	31121127	30781224
				0	
TOTAL (A)			491149408		434546815

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

	(Amount in Rupees)	
	2018-19	2017-18
SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC. (Contd.)		
B		
<u>LOANS, ADVANCES AND OTHER ASSETS</u>		
1. <u>Loans:</u>		
a) Staff		
i) Motor car	0	0
Opening Balance		
Less : Recovered during the year	0	0
ii) House Building Advance	0	0
Opening Balance		
Less : Recovered during the year	0	0
iii) Computer Advance	290000	
Opening Balance		
Less : Recovered during the year	123500	
Add: Addition during the year	0	290000
iv) Festival Advance	25903	166500
Opening Balance		
Less : Recovered during the year	4050	
Add: Addition during the year	0	25903
2. <u>Advances and other amounts recoverable in cash or in kind or for value to be received:</u>		
a) On Capital Account		
b) Prepayments		
c) Others		
3. <u>Income Accrued:</u>		
a) On Investments from Earmarked / Endowment Funds		
b) On Investments - Others		
c) On Loans and Advances		
d) Others		
(includes income due unrealised - Rs.....)		
4. <u>Claims Receivable:</u>		
TOTAL (B)	188353	315903
TOTAL (A + B)	491337761	434862718

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

<u>SCHECULE 12 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS</u>	2018-19	2017-18
1) Income from Sales		
1. Hospital receipts	35608158	275116497
2. Administrative charges (Projects)	943184	1275083
3. Sale of Scraps		
2) Income from Services		
a) Labour and Processing Charges		
b) Professional / Consultancy Services		
c) Agency Commission and Brokerage		
d) Maintenance Services (Equipment/Property)		
e) Others (Specify) Hospital Receipt		
<u>TOTAL</u>	36551342	276391580

<u>SCHECULE 13 - GRANTS /SUBSIDIES</u>	2018-19	2017-18
1) Income from Sales		
(Irrevocable Grants & Subsidies Received)		
1. Central Government (Through AIIMS Main)	1330000000	1190000000
2. State Government(s)		
3. Government Agencies		
4. Institutions/ Welfare Bodies		
5. International Organisations		
6. Others (Specify)		
<u>TOTAL</u>	1330000000	1190000000

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
 Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

<u>SCHEDULE 14 - FEES/SUBSCRIPTIONS</u>	<u>(Amount in Rupees)</u>	
	2018-19	2017-18
1. Tuition & Examination Fee		
2. Licence Fee		
3. Seminar/Program Fees		
4. Consultancy Fees		
5. Others (Specify) EHS		
<u>TOTAL</u>	0	0

<u>SCHEDULE 15 - INCOME FROM INVESTMENTS</u>	<u>Investment from Earmarked Fund</u>		<u>Investment-Others</u>	
	2018-19	2017-18	2018-19	2017-18
(Income on Invest. From Earmarked/Endowment Funds transferred to Funds)				
1. Interest				
a) On Govt. Securities				
a) Other Bonds/Debentures				
2. Dividends:				
a) On Shares				
a) On Mutual Fund Securities				
3. Rents				
4. Others (Specify)				
<u>TOTAL</u>	0	0	0	0
<u>TRANSFERRED TO EARMARKED/EDNOWNMENT FUNDS</u>	0	0	0	0

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

(Amount in Rupees)

SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC.	2018-19	2017-18
1. Income from Royalty		
2. Income from Publications		
3. Others (specify)		
TOTAL	0	0

SCHEDULE 17 - INTEREST EARNED	2018-19	2017-18
1. On Term Deposits:		
a) With Scheduled Banks	7915922	4294722
b) With Non-Scheduled Banks		
c) With Institutions		
d) Others		
2. On Savings Accounts:		
a) With Scheduled Banks		
b) With Non-Scheduled Banks		
c) Post Office Savings Accounts		
d) Others		
3. On Loans:		
a) Employees/Staff	354073	461943
b) Others		
4. Interest on Debtors and other Receivables		
TOTAL	8269995	4756665

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

	(Amount in Rupees)	
	2018-19	2017-18
SCHEDULE 18 - OTHERS INCOME		
1. Misc. Receipt		
2. Estb. Receipt (Scheme)	492743	153380
3. Others (specify)		
TOTAL	492743	153380

	2018-19	2017-18
SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS		
a) Closing stock		
- Finished Goods		
- Work-in-progress		
b) Less: Opening Stock		
- Finished Goods		
- Work-in-progress		
NET INCREASE/(DECREASE) [a+b]	0	0

	Current Year	Previous Year
SCHEDULE 20 - ESTABLISHMENT EXPENSES		
Salaries and Wages	910451812	833419749
Allowances and Bonus		
Travelling Allowances	10871019	7702130
Contribution to NPS	17692641	17354550
Contribution to Other Fund (Scheme Cell)		
Staff Welfare Expenses		
Expenses on Employees ".:Retirement and Terminal Benefits"		
Others (NPS & LSPC)		
TOTAL	939015472	858476429

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019
(Amount in Rupees)

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.	2018-19	2017-18
a) Purchases (Material and Supply)	239132104	512653937
b) Material received against advance paid during last years	876263	10774537
c) Office Expenses	7313374	5587028
d) Securities	35526612	33225168
e) Other Outsourcing Agency	14735314	13083037
f) Administrartive Charges (Research Projects)	537725	506773
g) Repairs and maintenance (M&E)	16781216	2500212
h) Bank charges RPC, Patient Treatment Account and research projec	27117	8576
i) Payment to AIIMS RPC Patient Treatment A/C	0	
j) Vehicles, Running and Maintenance		
k) Postage, Telephone and Communication Charges		
l) Printing and Stationary		
m) Travelling and Conveyance Expenses		
n) Expenses on Seminar/Workshops		
o) Subscription Expenses		
p) Expenses on Sanitation	49770997	36212796
q) Maintaince of Buildings (Minor Work RG)	30974166	40065577
r) Maintaince of M&E (CAMC/AMC)		49047336
s) Maintaince of Building (Non-plan)	31762868	21463917
t) Provision for Bad and Doubtful Debts/Advances		
u) Irrecoverable Balances Written-off		
v) Swap Charges (IDBI Debit/Credit Card Commission)	0	0
w) Freight and Forwarding Expenses		
x) Distribution Expenses		
y) Insurance		
z) Advertisement and Publicity		
aa) Others (specify) (Contingency charge)		
TOTAL	427437756	725128894

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF RECEIPT & PAYMENT FOR THE YEAR ENDED 31-03-2019

(Amount in Rupees)

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.	2018-19	2017-18
a) Purchases (Material and Supply)	239132104	512653937
b) Office Expenses	7313374	5587028
c) Securities	35526612	33225168
d) Other Outsourcing Agency	14735314	13083037
e) SAP Payment	0	
f) Payment to AIIMS RPC Patient Treatment A/C	0	
g) Repairs and maintenance (M&E)	16781216	2500212
h) Excise Duty		
i) Rent, Rates and Taxes		
j) Vehicles, Running and Maintenance		
k) Postage, Telephone and Communication Charges		
l) Printing and Stationary		
m) Travelling and Conveyance Expenses		
n) Expenses on Seminar/Workshops		
o) Subscription Expenses		
p) Expenses on Sanitation	49770997	36212796
q) Maintaince of Buildings (Minor Work RG)	30974166	40065577
r) Maintaince of M&E (CAMC/AMC)	0	49047336
s) Maintaince of Building (Non-plan)	30341855	21463917
t) Provision for Bad and Doubtful Debts/Advances		
u) Irrecoverable Balances Written-off		
v) Swap Charges/Bank charges (IDBI Debit/Credit Card Commission)	0	0
w) Freight and Forwarding Expenses		
x) Distribution Expenses		
y) Advertisement and Publicity		
z) Others (specify) (Contingency charge)		
TOTAL	424575638	713839008

ACCOUNTS OFFICER

All India Institute of Medical Sciences, New Delhi
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

(Amount in Rupees)

SCHEDULE 22 - EXPENDITURE ON GRANTS, SUBSIDIES ETC.	2018-19	2017-18
a). Grants given to RPC Research Account	27055214	0
b). Grant given to RPC Patient Treatment Account	50000000	0
b). Subsidies given to Institutions/organisations		
Total	77055214	0

SCHEDULE 23 - INTEREST	2018-19	2017-18
a) On fixed Loans		
b) On other Loans (including Bank charges)		
c) Ohters(Specify)		
Total	0	0

ACCOUNTS OFFICER

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19**

		(Amount in Rs.)	
CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	Current Year 2018-19	Previous Year 2017-18
CORPUS/CAPITAL FUND	1	2,761,091,131	2,494,410,578
RESERVES AND SURPLUS	2	56,284,082	33,616,396
EARMARKED/ENDOWMENT FUNDS	3	157,228,257	186,492,645
SECURED LOANS AND BORROWINGS	4	-	-
UNSECURED LOANS AND BORROWINGS	5	-	-
DEFERRED CREDIT LIABILITIES	6	.....	.....
CURRENT LIABILITIES AND PROVISIONS	7	9,796,232	3,912,820
TOTAL		2,984,399,702	2,718,432,439
ASSETS			
FIXED ASSETS	8	2,380,561,426	2,139,140,027
INVESTMENTS – FROM EARMARKED/ENDOWMENT FUNDS	9	-	-
INVESTMENTS – OTHERS	10	-	-
CURRENT ASSETS, LOANS, ADVANCES ETC.	11	603,838,276	579,292,412
MISCELLANEOUS EXPENDITURE (Balance of excess of expenditure over income)		-	-
(to the extent not written off or adjusted)			
TOTAL		2,984,399,702	2,718,432,439
SIGNIFICANT ACCOUNTING POLICIES	24		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	25		

Accounts Officer

Chief (Dr.BRAIRCH)

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
INCOME AND EXPENDITURE ACCOUNT FOR THE FINANCIAL YEAR 2018-19**

		(Amount in Rs.)	
Schedule	Current Year 2018-19	Previous Year 2017-18	
INCOME			
Income from sales/services			-
Grants/Subsidies	25,275,987	23,839,849	
Fees/Subscriptions	1,571,296,695	1,247,043,000	
Income from Investments (Income on Invest, from earmarked/endow. Fund transferred to Funds)			-
Income from Royalty, Publication etc.			-
Interest Earned	6,696,406	3,401,586	
Other Income		98,457	
Increase/(decrease) in stock of Finished goods and works-in-progress			-
TOTAL(A)	1,603,269,088	1,274,382,892	
EXPENDITURE			
Establishment Expenses	905,629,239	777,928,149	
Other Administrative Expenses etc.	674,972,163	483,403,648	
Expenditure on Grants, Subsidies etc.			-
Interest			-
Depreciation (Net Total at the year-end – corresponding to schedule 8)			-
TOTAL(B)	1,580,601,402	1,261,331,797	
Balance being excess of Income over Expenditure (A-B)	22,667,686	13,051,095	
Transfer to Special Reserve (Specify each)			-
Transfer to /from General Reserve			-
BALANCE BEING SURPLUS/(DEFICIT) (Adjusted in Income & Expenditure)	22,667,686	13,051,095	
SIGNIFICANT ACCOUNTING POLICIES			
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS			
24			
25			

Accounts Officer

Chief (Dr. BRAIRCH)

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
RECEIPTS AND PAYMENTS FOR THE FINANCIAL YEAR 2018-19**

RECEIPTS		Current Year 2018-19	Previous Year 2017-18	PAYMENTS	Current Year 2018-19	Previous Year 2017-18
(Amounts in Rs.)						
I. Balances (Opening)						
(a) Cash In hand					905,629,239	777,928,149
(b) Bank Balances					674,972,163	483,403,648
(i) Current Accounts	208,495,385		110,442,002		5,476,603	
(ii) Deposit Account	30,000,000		36,000,000			
(a) Grant received from Government of India through AIIMS (Main) including NCI Jhajjar						
(i) Grant in Aid (Capital Assets)	266,680,553		110,000,000			
(ii) Grant in Aid (Salary)	911,296,695		782,043,000			
(iii) Grant in Aid (General)	660,000,000		465,000,000		107,355	459,969
(iv) Swachhta Action Plan	-		50,000,000		123,312,506	81,795,620
(c) From Other Sources-Scrap Sales	217,120		402,000		1,568,212	2,955,648
II. On Investments from						
(a) Earmarked/Endow. Funds					35,910,080	9,412,238
(b) Revolving Funds						....
(i) R T Revolving Fund	2,955,000		2,713,200		163,646,279	65,124,243
(ii) Medical Oncology Fund	471,100		399,900		84,365,482	43,805,454
(iii) Poor Patient A/c	1,000,384		882,100		20,000,000	1,000,000
(iv) Patient Treatment A/c	125,710,793		115,921,900			
(v) HMCPPF A/c	-		3,000,000			
NPS funds received from NSDL	12,870,015		-			
				I. Expenses		
				a) Establishment Expenses (corresponding to schedule 20)		
				b) Administrative Expenses (corresponding to schedule 21)		
				c) NPS Amount transferred to GFP		
				II. Payments made against funds for various projects		
				a) Out of Earmarked/Endowment funds		
				b) Revolving funds		
				(i) R T Revolving Fund		
				(ii) Medical Oncology Fund		
				(iii) Poor Patient A/c		
				(iv) Patient Treatment A/c		
				(v) HMCPPF A/c		
				(vii) Swachhta action Plan		
				III. Expenditure on Fixed Assets & Capital Work-in-progress		
				a) Purchase of Fixed Assets		
				b) Advance for M&E		
				b) Custome duty advance		
				IV. Refund of surplus money/Loans		
				a) To the Government of India		
				b) To the State Government		
				c) To other providers of fund		

III. Interest Received						
(a) On Bank deposits	6,696,406	3,401,586				
Interest on TDR	1,496,488	2,369,217				1,875,000
Interest on poor patient account						
Interest on patient treatment account						
(b) Loans & Advances etc.						6,214,000
IV. Other Income (Specify)						
(a) Donation/Grant						
(d) Hospital Receipts						
(e) TDR Issued	25,058,867	23,437,849				
(f) Employee Recovery						
(i) AIIMS Recoveries						17,053,061
(ii) Outside Recoveries						183,951,104
V. Other receipts						
(a) Earnest Money Deposits	365,000	4,236,000				
(b) Employees Recovery						7,590
i) Recoveries from employees		17,053,061				208,495,385
ii) Outside Recoveries		183,951,104				30,000,000
VI. Loan, Advances & Other Assets						
(i) Conveyance Advance	28,800	34,800				
(ii) Computer Advances	80,852	13,800				
(iii) Festival Advances Recovery	4,500	297,000				
Total	2,253,427,958	1,911,598,519	Total			1,911,598,519
					2,253,427,958	

Chief (Dr. BRAIRCH)

Accounts Officer

DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19

((Amount in Rs.))

	Current Year 2018-19		Previous Year 2017-18	
SCHEDULE 1 -CORPUS/CAPITAL FUND:				
Balance as at the beginning of the year		2,494,410,578		2,394,279,753
Add: Contributions towards Corpus/Capital Fund	266,680,553		110,000,000	
Less: M & E Condemned	-		9,869,175	
Less: Excess Capitalized	-			
Add/ (Deduct) : Balance of net income/(expenditure) Transferred from the Income and Expenditure Account	-	266,680,553	-	100,130,825
BALANCE AS AT THE YEAR-END		2,761,091,131		2,494,410,578
SCHEDULE 2 -RESERVES AND SURPLUS:				
1. Capital Reserve :				
As per last Account	....		....
Additional during the year	....		....
Less : Deductions during the year	(..)	.....	(..)	.....
2. Revaluation Reserve :				
As per last Account	....		....
Additional during the year	....		....
Less : Deductions during the year	(..)	.....	(..)	.....
3. Special Reserves :				
As per last Account	....		....
Additional during the year	....		....
Less : Deductions during the year	(..)	.....	(..)	.....
4. General Reserves :				
As per last Account	....		....
Additional during the year	-		....
Less : Deductions during the year	-		(..)	
5. Excess of Income over Expenditure				
As per last Account	33,616,396		20,565,301	
Additional during the year	22,667,686	56,284,082	13,051,095	33,616,396
Less : Deductions during the year		-		.....
TOTAL		56,284,082		33,616,396

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19**

(Amount in Rs.)

SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS	FUND-WISE BREAK UP						TOTALS	
	R.T. Revolving Fund	Medical Oncology Revolving Fund	Poor Patient A/c Fund	Patient Treatment A/c Fund	HMCPF	Swachhata Action Plan	Current Year 2018-19	Previous Year 2017-18
a) Opening balance of the funds	8,865,723	2,764,119	4,701,421	127,727,556	1,846,064	40,587,762	186,492,645	109,387,803
b) Additions to the Funds:								
i) Donations/grants	2,955,000	471,100	1,000,384	125,710,793	-	-	130,137,277	172,917,100
ii) Income from investments made on account of funds	-	-	1,496,488	-	-	-	-	-
iii) Other additions (specify nature)	-	-	-	-	-	-	1,496,488	2,369,217
TOTAL (a+b)	11,820,723	3,235,219	7,198,293	253,438,349	1,846,064	40,587,762	318,126,410	284,674,120
a) Utilization/Expenditure towards objectives of funds								
i) Capital Expenditure	-	-	-	-	-	-	-	-
- Fixed Assets	-	-	-	-	-	-	-	-
- Others	-	-	107,355	123,312,506	1,568,212	35,910,080	160,898,153	88,769,237
ii) Revenue Expenditure	-	-	107,355	123,312,506	1,568,212	35,910,080	160,898,153	88,769,237
- Salaries, Wages and allowances etc.	-	-	-	-	-	-	-	9,412,238
- Other Administrative expenses	-	-	-	-	-	-	-	-
- Total	-	-	-	-	-	-	-	-
TOTAL (c)	-	-	107,355	123,312,506	1,568,212	35,910,080	160,898,153	98,181,475
NET BALANCE AS AT THE YEAR-END (a+b-c)	11,820,723	3,235,219	7,090,938	130,125,843	277,852	4,677,682	157,228,257	186,492,645
Notes								
1. Disclosures shall be made under relevant heads based on conditions attaching to the grants								
2. Plan fund received from Central/State Governments are to be shown as separate Funds and not be mixed up with any other funds.								

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19**

SCHEDULE 4 - SECURED LOANS AND BORROWINGS:		((Amount in Rs.))	
		Current Year 2018-19	Previous Year 2017-18
1.	Central Government		
2.	State Government (Specify)		
3.	Financial Institutions	.....	.....
a)	Terms Loans	.....
b)	Interest accrued and due	.....	.....
4.	Banks:		
a)	Term Loans	.....	.....
-	Interest accrued and due	.....	.....
b)	Other Loans (Specify)	.....	.....
-	Interest accrued and due	.....	.....
5.	Other Institutions and Agencies		
6.	Debentures and Bonds		
7.	Others (Specify)		
TOTAL			
Note : Amounts due within one year			

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19**

(Amount in Rs.)

SCHEDULE 5 - UNSECURED LOANS AND BORROWINGS:	Current Year 2018-19	Previous Year 2017-18
1. Central Government
2. State Government (Specify)
3. Financial Institutions
4. Banks:		
a) Term Loans
b) Other Loans (Specify)
5. Other Institutions and Agencies
6. Debentures and Bonds
7. Fixed Deposits
8. Others (Specify)
Total		
Note : Amounts due within one year		

SCHEDULE 6 – DEFERRED CREDIT LIABILITIES:	Current Year 2018-19	Previous Year 2017-18
a) Acceptances secured by hypothecation of capital equipment and other assets
b) Others		
TOTAL
Note : Amounts due within one year		

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19**

SCHEDULE 7 – CURRENT LIABILITIES AND PROVISIONS		(Amount in Rs.)	
		Current Year 2018-19	Previous Year 2017-18
A. CURRENT LIABILITIES			
1. Acceptance			
2. Sundry Creditors:			
a) For Goods		.....	.....
b) Others		.....	.....
3. Advances Received		.....	.....
4. Interest accrued but not due on:		.....	.....
a) Secured Loans/borrowings			
b) Unsecured Loans/borrowings		.....	.....
5. Statutory Liabilities:			
a) Overdue		.....	.....
Others NPS fund Received from NSDL	12870015		
Less NPS Amonut transfer to GPF 2018-19	5476603	7,393,412	-
Less : Paid during the year		-	-
6. Other current liabilities		-	-
a) Bank Overdraft (as per Cash Book)			3,912,820
b) EMD/ Security Deposits	Opening Balance 3912820 Add During 2018-19 365000 Less Payment During 2018-19 1875000	2,402,820	-
c) FDR Issued		9,796,232	3,912,820
	TOTAL (A)	9,796,232	3,912,820
A. PROVISIONS			
1. For Taxation		.....	-
2. Gratuity		.....	-
3. Superannuation/Pension		.....	-
4. Accumulated Leave Encashment		.....	-
5. Trade Warranties/Claims		.....	-
Others (Specify)		.....	-
	TOTAL (B)	.....	-
	TOTAL (A+B)	9,796,232	3,912,820

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19**

(Amount in Rs.)

SCHEDULE 8 – FIXED ASSETS	GROSS BLOCK			DEPRECIATION			NET BLOCK		
	Cost/valuation as at beginning of the year	Additions during the year	Deductions during the year	Cost/valuation at the year-end	As at the beginning of the year	On Additions during the year	On Deductions during the year	As at the Current year-end	As at the previous year-end
A. FIXED ASSETS:									
1. LAND:									
a) Freehold Leasehold									
2. BUILDINGS:									
a) On Freehold Land	339,060,768			339,060,768				339,060,768	
b) On Leasehold Land									
c) Ownership Flats/Premises									
d) Superstructures on Land Not belonging to the entity									
3. PLANT MACHINERY & EQUIPMENT	1,784,852,614	241,068,396	-	2,025,921,010				2,025,921,010	1,784,852,614
4. VEHICLES	3,563,988	-		3,563,988				3,563,988	3,563,988
5. FURNITURE, DIXTURES	11,662,657	353,003		12,015,660				12,015,660	11,662,657
6. OFFICE EQUIPMENT									
7. COMPUTER/PERIPHERALS									
8. ELECTRIC INSTALLATIONS									
9. LIBRARY BOOKS									
10. TUBEWELLS & W.SUPPLY									
11. OTHER FIXED ASSETS									
TOTAL OF CAURRENT YEAR	2,139,140,027	241,421,399	-	2,380,561,426	-	-	-	2,380,561,426	2,139,140,027
PREVIOUS YEAR	2,066,588,433	82,420,769	9,869,175	2,139,140,027				2,139,140,027	2,066,588,433

(Note to be given as to cost of assets on hire purchase basis include above)

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19**

(Amount in Rs.)

SCHEDULE 9 – INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS	Current Year 2018-19	Previous Year 2017-18
1. In Government Securities	
2. Other approved Securities	
3. Shares	
4. Debentures and Bonds	
5. Subsidiaries and joint Ventures	
6. Others (to be specified)	
<u>TOTAL</u>	

SCHEDULE 10 – INVESTMENTS - OTHERS	Current Year 2018-19	Previous Year 2017-18
1. In Government Securities	
2. Other approved Securities	
3. Shares	
4. Debentures and Bonds	
5. Subsidiaries and joint Ventures	
6. Others (to be specified)	
<u>TOTAL</u>	

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19**

(Amount in Rs.)		Current Year 2018-19	Previous Year 2017-18
SCHEDULE II – CURRENT ASSETS, LOANS, ADVANCES ETC.			
A. CURRENT ASSETS:			
1.	Inventors:		
a)	Stores and Spares	-	-
b)	Loose Tools	-	-
c)	Stock-in-trade		
	Finished Goods	-	-
	Work-in-progress	-	-
	Raw Materials	-	-
2.	Sundry Debtors:		
a)	Debts Outstanding for a period exceeding six months	-	-
b)	Others	-	-
3.	Cash balance in hand (including cheques/drafts and imprest)	7,590	
4.	Bank Balances:		
	a) With Scheduled banks:		
	-On Current Accounts (IRCH)	98,451,346	64,220,344
	On Current Accounts (NCI)	31,470	
	-On Current Accounts (PATIENT TREATMENT A/C)	100,125,843	97,727,556
	-On Current Accounts (POOR PATIENT A/C)	7,090,938	4,701,421
	-On Current Accounts (HMCPF)	277,852	1,846,064
	-On Deposit Accounts (PATIENT TREATMENT A/C)(FDR)	30,000,000	30,000,000
	b) With non-Scheduled Banks:		
	-On Deposit Accounts (IRCH) (FDR)	-	40,000,000
	-On Current Accounts	-	-
	-On Deposit Accounts	-	-
	-On Saving Accounts	-	-
5.	Post Office Saving Accounts	-	238,495,385
	TOTAL (A)	235,985,039	238,495,385

Accounts Officer

DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE FINANCIAL YEAR - 2018-19

(Amount in Rs.)		Current Year 2018-19		Previous Year 2017-18	
SCHEDULE 11 – CURRENT ASSETS, LOANS, ADVANCES ETC. (Contd.)					
B. LOANS, ADVANCES AND OTHER ASSETS					
1. Loans:					
a)	Staff - Opening Balance	178,000	643,848	337,393	178,000
	Add: During dring the year	580,000		186,207	
	Less recovering during 2018-19	114,152		345,600	
b)	Other Entities engaged in activities/objectives similar to that of the Entity				
c)	Other (Specify)				
2. Advances and other amounts recoverable in cash or in kind or for value to be received:					
a)	On Capital Account				
	Machinery and Equipment	283,489,616		254,325,776	
	Opening Balance	84,365,482		43,805,454	
	Add: Addition during the year	53,673,434	314,181,664	14,641,614	283,489,616
	Less : Adjusted during the year				
	Customs Duty/PDA Advance				
	Opening Balance	54,503,411		56,158,323	
	Add: Addition during the year	20,000,000		1,000,000	
	Less : Adjusted during the year	24,101,686		2,221,621	
	Less : Previous year adjustment	-	50,401,725	433,291	54,503,411
b)	NDMC		2,626,000		2,626,000
c)	Others	-	-	-	-
3. Income Accrued:					
a)	On Investments from Earmarked/Endowment Funds	-	-	-	-
b)	On Investments – Others	-	-	-	-
c)	On Loans and Advances	-	-	-	-
d)	Others	-	-	-	-
(includes income due unrealized Rs.....)					
4.	Claims Receivable	-	-	-	-
TOTAL (B)			367,853,237		340,797,027
TOTAL (A+B)			603,838,276		579,292,412

Accounts Officer

DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE FINANCIAL YEAR - 2018-19

(Amount in Rs.)

SCHEDULE 12 – INCOME FROM SALES/SERVICES	Current Year 2018-19	Previous Year 2017-18
1) Income from Sales		
a) Sale of Finished Goods		402,000
b) Sale of Raw Material	217,120	
c) Sale of Scraps		
2) Income from Services		23,437,849
a) Hospital Receipts	25,058,867	
b) Professional/Consultancy Services		
c) Agency Commission and Brokerage		
d) Maintenance Services (Equipment/property)		
e) Others (Specify)		
TOTAL	25,275,987	23,839,849

SCHEDULE 13 – GRANTS/SUBSIDIES (Irrevocable Grants & Subsidies Received)	Current Year 2018-19	Previous Year 2017-18
1) Central Government (Through AIIMS Main)		1,247,043,000
2) State Government(s)	1,571,296,695	
3) Government Agencies		
4) Institutions/Welfare Bodies		
5) International Organizations		
TOTAL	1,571,296,695	1,247,043,000

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE FINANCIAL YEAR - 2018-19**

(Amount in Rs.)

SCHEDULE 14 – FEES/SUBSCRIPTIONS	Current Year 2018-19	Previous Year 2017-18
1) Entrance Fees		
2) Annual Fees/subscriptions		
3) Seminar/Program Fees		
4) Consultancy Fees		
5) Others (Specify)		
TOTAL		

Note – Accounting Policies towards each item are to be disclosed

SCHEDULE 15 – INCOME FROM INVESTMENTS	Investment from Earmarked Fund		Investment - Others	
(Income on Invest. From Ear4marked/Endowment Funds transferred to funds)	Current Year 2018-19	Previous Year 2017-18	Current Year 2018-19	Previous Year 2017-18
1) Interest
a) On Govt. Securities
b) Other Bonds/Debtentures
2) Dividends:				
a) On Shares
b) On Mutual Fund Securities
3) Rents
4) Others (Specify)				
TOTAL				
TRANSFERRED TO EARMARKED/ENDOWMENT FUNDS				

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE FINANCIAL YEAR - 2018-19**

(Amount in Rs.)

SCHEDULE 16 – INCOME FROM ROYALTY, PUBLICATIONS ETC.	Current Year 2018-19	Previous Year 2017-18
1) Income from Royalty		
2) Income from Publications		
3) Others (Specify)		
<u>TOTAL</u>		

DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE FINANCIAL YEAR - 2018-19		
SCHEDULE 17 – INTEREST EARNED	Current Year 2018-19	Previous Year 2017-18
1) On Term Deposits:		
a) With Scheduled Banks		
b) With Non-Scheduled Banks	6,696,406	3,401,586
c) With Institutions		
d) Others		
2) On Savings Accounts:		
a) With Scheduled Banks		
b) With Non-Scheduled Banks		
c) Post Office Savings Accounts		
d) Others		
3) On Loans:		
a) Employees/Staff		
b) Others		
4) Interest on Debtors and Other Receivables		
TOTAL	6,696,406	3,401,586

Note – Tax deducted at source to be indicated

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE FINANCIAL YEAR - 2018-19**

(Amount in Rs.)	
	Previous Year 2017-18
SCHEDULE 18 – OTHER INCOME	Current Year 2018-19
1) Profit on sale/disposal of Assets:	
a) Owned assets	
b) Assets acquired out of grants, or received free of cost	
2) Export Incentives realized	-
3) Fees for Miscellaneous Services	
4) Miscellaneous-Adjustment on account of Festival and computer advance	98,457
<u>TOTAL</u>	98,457
SCHEDULE 19 – INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS	Current Year 2018-19
a) Closing Stock	
-Finished Goods	
-Work-in-progress	
b) Less: Opening Stock	
-Finished Goods	
-Work-in-progress	
NET INCREASE/(DECREASE) (a+b)	
SCHEDULE 20 – ESTABLISHMENT EXPENSES	Current Year 2018-19
a) Salaries and Wages	890,450,458
b) Travelling Allowance	15,178,781
c) Contribution to Provident Fund	.....
d) Contribution to Other Fund (Specify)	.....
e) Staff Welfare Expenses	.....
f) Expenses on Employees Retirement and Terminal Benefits	.....
g) Others :Computer advance excess adjusted to salary and wages	.....
<u>TOTAL</u>	905,629,239
	Previous Year 2017-18
	769,236,293
	8,691,856

	777,928,149

Accounts Officer

**DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE FINANCIAL YEAR - 2018-19**

		(Amount in Rs.)	
SCHEDULE 21 – OTHER ADMINISTRATIVE EXPENSIVE ETC.		Current Year 2018-19	Previous Year 2017-18
a)	Purchase (Material and Supply)	420,321,204	247,231,797
b)	Regents	79,038,583	50,350,546
c)	Hiring of Manpower	72,771,772	55,649,615
d)	Minor Works (Engineering)	12,006,115	29,133,516
e)	Sanitation Expenses	6,328,894	24,542,293
f)	Maintenance of Building	22,682,249	15,053,860
g)	Repairs and maintenance (M&E)	17,128,957	11,214,734
h)	CAMC	36,975,261	49,596,612
i)	Others (specify) Contingency Bill	7,719,128	630,675
TOTAL		674,972,163	483,403,648

DR. BHIM RAO AMBEDKAR INSTITUTE OF ROTARY CANCER HOSPITAL, AIIMS
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE FINANCIAL YEAR - 2018-19

	Current Year 2018-19	Previous Year 2017-18
(Amount in Rs.)		
SCHEDULE 22 – EXPENDITURE ON GRANTS, SUBSIDIES ETC.		
a) Grants given to Institutions/Organisations		
b) Subsidies given to Institutions/Organisations		
<u>TOTAL</u>		

Note – Name of the Entities, their Activities along with the amount of Grants/subsidies are to be disclosed.

	Current Year 2018-19	Previous Year 2017-18
(Amount in Rs.)		
SCHEDULE 23 – INTEREST		
a) On Fixed Loans		
b) On Other Loans (including bank Charges)		
c) Others (specify)		
<u>TOTAL</u>		

Accounts Officer

All India Institute of Medical Sciences, New Delhi

अखिल भारतीय आयुर्विज्ञान संस्थान

Jai Prakash Narayan Apex Trauma Centre

जय प्रकाश नारायण एपेक्स ट्रोमा सेंटर

BALANCE SHEET AS AT 31-03-2019

तुलन पत्र ३१ मार्च, २०१९ तक

(Amount in Rupees)

CORPUS/CAPITAL FUND AND LIABILITIES		Schedule	2018-19	2017-18
CORPUS/CAPITAL FUND		1	3,080,668,244.00	2,982,352,665.00
RESERVES AND SURPLUS		2	162,126,645.00	153,940,082.00
EARMARKED/ ENDOWMENT FUNDS		3	26,958,208.00	45,730,055.00
SECURED LOANS AND BORROWINGS		4		
UNSECURED LOANS AND BORROWINGS		5		
DEFERRED CREDIT LIABILITIES		6		
CURRENT LIABILITIES AND PROVISIONS		7	46,214,776.00	37,468,957.00
TOTAL			3,315,967,873.00	3,219,491,759.00
ASSETS				
FIXED ASSETS		8	2,989,866,526.00	2,881,994,032.00
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS		9		
INVESTMENTS-OTHERS		10		
CURRENT ASSETS, LOANS , ADVANCES ETC.		11	326,101,347.82	337,497,727.00
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)				
TOTAL			3,315,967,873.82	3,219,491,759.00

F&CAO

CHIEF, JPNATC

All India Institute of Medical Sciences, New Delhi
 अखिल भारतीय आयुर्विज्ञान संस्थान
 Jai Prakash Narayan Apex Trauma Centre
 जय प्रकाश नारायण एपेक्स ट्रॉमा सेंटर

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2019
 आय और व्यय का खाता

		(Amount in Rupees)		
		Schedule	2018-19	2017-18
INCOME				
Income from Sales/Services (Hospital Receipts)		12	32445169	10005887
Grants/Subsidies		13	1925166374	1656221458
Fees/Subscriptions		14	0	0
Income from Investments (Income on Invest. From earmarked/endow.Funds transferred to funds)		15		
Income for Royalty, Publication etc.		16		
Interest Earned		17	13752061	9845810
Other Income		18		0
Increase/(decrease) in stock of Finished goods and works-in-progress		19		
TOTAL (A)			1971363604	1676073155
EXPENDITURE				
Establishment Expenses		20	1085166374	976221458
Other Administrative Expenses etc.		21	878010667	699219930
Expenditure on Grants, Subsidies etc.		22		
Interest		23		
Depreciation (Net Total at the year-end - corresponding to Schedule 8)				
TOTAL (B)			1963177041	1675441388
Balance being excess of Expenditure over income (B-A)				
Transfer to Special Reserve (Specify each)			8186563	631767
Transfer to /from General Reserve				
BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/ CAPITAL FUND			8186563	631767

F&CAO

CHIEF, JPNATC

All India Institute of Medical Sciences, New Delhi

अखिल भारतीय आयुर्विज्ञान संस्थान

Jai Prakash Narayan Apex Trauma Centre

जय प्रकाश नारायण एपेक्स ट्रॉमा सेंटर

RECEIPT AND PAYMENTS FOR THE YEAR ENDED 31-03-2019

आय और व्यय का खाता

		(Amount in Rupees)				
		2018-19	2017-18	Payments	2018-19	2017-18
Receipts				1. Expenses		
1. Opening Balances				(a) Establishment Expenses (corresponding to schedule 20)	1,085,166,374.00	976,221,458.00
(a) Cash in Hand	4.00		-	(b) Administrative Expenses (Corresponding to schedule 21A)	881,083,728.00	699,213,500.00
(b) Bank Balances	206,493,093.00	153,162,465.00		RTGS Charges and Other Bank Charges	4,956.00	6,430.00
(i) In current accounts				2. Payments made against funds for various projects		
(ii) In deposit accounts				(a) Non - RPC Scheme		
(iii) In saving accounts				(b) SAP	19,101,847.00	4,311,595.00
2. Grant Received				3. Investments and deposits made		
(a) From Government of India through AIIMS (Main)				(a) Out of Earmarked/Endowment Funds		
(i) Grant in Aid (Plan) (Salaries)	1,085,166,374.00	980,000,000.00		(b) Out of Own funds (Investments-others)		
(ii) Grant in Aid (General)	840,000,000.00	680,000,000.00				
(iii) Grant in Aid (Capital Assets)	138,646,715.00	225,000,000.00		4. Expenditure on Fixed Assets & Capital Work-in-Progress		
(iv) Swachhta Action Plan	-	50,000,000.00		(a) Purchase of Fixed Assets	120,575,138.00	60,999,150.00
(v) Grant from Ministry of Ayush	330,000.00	-		(b) Expenditure on capital work-in-progress		
(b) From state Government				(c) Custome Duty	5,000,000.00	-
(c) From other sources (Schemes)				(d) Latter of Credit	13,071,577.00	114,097,564.00
3. Income on Investment from				5. Refund of surplus money/loans		
(a) Earmarked/Endow. Funds				(a) To the Government of India		53,681,828.00
(b) Own funds (Oth. Investments)				(b) To the State Government		
				(c) To other provides of funds		
4. Interest received				6. Finance Charges (Interest)		
(a) On bank deposits	13,752,061.00	9,845,810.00		NEFT charges		
(b) Loans, Advances etc.				7. Other Payments		
Car				NIAF		
HBA				Refund of Earnest Money Deposit	4,590,000.00	2,778,000.00
Computer				Employees Recovery payment		
Scooter				Recoveries from employees remitted to AIIMS (Main)		
				Outside Recoveries		

All India Institute of Medical Sciences, New Delhi
 Jai Prakash Narayan Apex Trauma Centre
 SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

	2018-19		2017-18	
	SCHEDULE 1- CORPUS/CAPITAL FUND:			
Balances as at the beginning of the year	2982352665		2856911795	
Add : Contributions towards Corpus/Capital Fund	138646715		175096714	
Less : Fixed Assets Condemned during the year	40331136	3080668244	49655844	2982352665
BALANCE AS AT THE YEAR-END		3080668244		2982352665

	Current Year	
SCHEDULE 2- RESERVES AND SURPLUS:		
1. <u>Capital Reserve:</u>		
As per last Account		
Addition during the year		
Less: Deductions during the year		
2. Revaluation Reserve		
As per last Account		
Addition during the year		
Less: Deductions during the year		
3. Special Reserves		
As per last Account		
Addition during the year		
Less: Deductions during the year		
4. General Reserve		
As per last Account	153940082	153308315
Addition during the year	8186563	631767
Less: Deductions during the year		
TOTAL	162126645	153940082

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

	(Amount in Rupees)					
	Scheme Non-JPNATC			Scheme Non-JPNATC		TOTALS
	RIA Lab	SAP	Ayush	RIA Lab	SAP	2017-18
a) Opening balance of the funds	41650	45688405		41650	0	45730055
b) Additions to the Funds:						
i. Donations/grants from AYUSH	0	0	330000	0	50000000	50000000
ii. Income from investments made on account of funds				0		
iii. Other additions (specify nature)						
iv. Less Expenditure during the year						
TOTAL (a+b)	41650	45688405	330000	41650	50000000	50041650
c) Utilisation/Expenditure towards objectives of funds						
i. Capital Expenditure						
- Fixed Assets		19101847			4311595	4311595
- Others						
ii. Revenue Expenditure						
- Salaries, Wages and allowances etc.						
- Rent						
- Other Administrative expenses				0	0	0
Total		19101847		0	4311595	1910847
TOTAL (c)		19101847		0	4311595	4311595
NET BALANCE AS AT THE YEAR-END (a+b-c)	41650	26586558	330000			26958208

* Swachhta Action Plan

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

SCHEDULE 4-SECURED LOANS AND BORROWINGS:	2018-19		2017-18	
1. Central Government				
2. State Government				
3. Financial Institutions				
a) Term Loans				
b) Interest accrued and due				
4. Banks:				
a) Term Loans				
- Interest accrued and due				
b) Other Loans (specify)				
- Interest accrued and due				
5. Other Institutions and Agencies				
6. Debentures and Bonds				
7. Others (Specify)				
<u>TOTAL</u>	0	0	0	0

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

SCHEDULE 5 - UNSECURED LOANS AND BORROWING	2018-19	2017-18
1. Central Government		
2. State Government		
3. Financial Institutions		
4. Banks:		
a) Term Loans		
b) Other Loans (specify)		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Fixed Deposits		
8. Others (Specify)		
<u>TOTAL</u>	0	0

SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:	Current Year	Previous Year
a) Acceptances secured by hypothecation of capital equipment and other assets		
b) Others		
<u>TOTAL</u>	0	0

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS	2018-19		2017-18	
A. CURRENT LIABILITIES AND PROVISIONS				
1. Acceptances				
2. Sundry Creditors:				
a) For Goods				
a) Others				
3. Advances Received for patients from Govt Agencies				
i) NIAF				
Opening Balance			0	
Received during the year			0	
Expenditure during the year			0	0
4. Projects Grants				
ii) NPCB				0
5. Interest accrued but not due on:				
a) Secured Loans/borrowings				
a) Unsecured Loans/borrowings				
6. Statutory Liabilities:				
a) Overdue				
a) Others				
7. Security Deposits (EMD)				
Opening Balance	9813968		9710968	
Received during the year	3838000		2881000	
Refund during the year	4590000	9061968	2778000	9813968
6. Other current Liabilities		37152808		24576972
9. Amt against recoveries to be remitted to AIIMS (MAIN)				0
Opening Balance	3078017		0	
Add : Create during the year	0		3078017	
Less : Remitted to AIIMS (MAIN)	3078017	0	0	3078017
10. Custom Duty to be paid to Store (D.O.)				
Opening Balance			0	0
Less : Remitted to AIIMS (MAIN)			0	0
TOTAL (A)		46214776		37468957
B. PROVISIONS				
1. For Taxation				
2. Gratuity				
3. Superannuation/Pension				
6. Accumulated Leave Encashment				
6. Trade Warranties/Claims				
6. Others (specify)				
TOTAL (B)				
TOTAL (A+B)		46214776		37468957

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rupees)

SCHEDULE 8-FIXED ASSETS DISCRPTION	GROSS BLOCK			DEPRICIATION			NET BLOCK		
	Cost/valuation As at beginning of the year	Additions during the year	Deductions during the year	Cost/ Valuation at the year end	As at the beginning of the year	On Deductions during the year	Total up to the year-end	As at the Current year-end	As at the Previous year-end
A. FIXED ASSETS:									
1 LAND:									
a) Freehold	54310794			54310794				54310794	54310794
b) Leasehold									
2 BUILDINGS:									
a) On Freehold Land	689076549	0	0	689076549	0	0	0	689076549	689076549
b) On Leasehold Land									
c) Ownership Flats/ Premises									
d) Superstructures on Land not belonging to the entity									
3 PLANT MACHINERY & EQUIPMENT	2114916592	144869903	40331136	2219455359	0	0	0	2219455359	2114916592
4 VEHICLES	8395972	0	0	8395972	0	0	0	8395972	8395972
5 FURNITURE, FIXTURES OFFICE EQUIPMENT	15294125	3333727	0	18627852	0	0	0	18627852	15294125
6 COMPUTER/PERIPHERALS									
7 ELECTRIC INSTALLATIONS									
8 LIBRARY BOOKS									
9 TUBEWELLS & W. SUPPLY									
10 OTHER FIXED ASSETS									
TOTAL OF CURRENT YEAR	2881994032	148203630	40331136	2989866526	0	0	0	2989866526	2881994032
B. CAPITAL WORK-IN-PROGRESS									
TOTAL									

<i>Purchased of Assets (M&E) During the Year</i>	<i>Amount</i>	
<i>Assets During the Year as per Receipts and Payment Account</i>	138,646,715.00	
<i>Less- Furniture Purchased during the Year</i>	3,333,727.00	
Less- L.C. Margin During the Year (Seperately showed in Schedule 11)	13,071,577.00	
Less- M&E Payable Set off during the Year	-	F&CAO
Less- Custom Duty Incorporation during the year	5,000,000.00	
Add- Custom Duty Incorporation Adjusted during the Year	117,241,411.00	
	27,386,132.00	
Add- PDA Incorporation Adjusted during the Year	242,360.00	
Net Assets (M&E) Purchased during the year	144,869,903.00	

All India Institute of Medical Sciences, New Delhi
 Jai Prakash Narayan Apex Trauma Centre
 All India Institute of Medical Sciences, New Delhi

(Amount in Rupees)

<u>SCHEDULE 9 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS</u>	<u>2018-19</u>	<u>2017-18</u>
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debenutres and Bonds		
5. Subsidiaries and Joint Venutres		
6. Others (to be specified)		0
<u>TOTAL</u>	0	0

<u>SCHEDULE 10 - INVESTMENTS - OTHERS</u>	<u>2018-19</u>	<u>2017-18</u>
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debenutres and Bonds		
5. Subsidiaries and Joint Venutres		
6. Others (to be specified)		
<u>TOTAL</u>	0	0

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

		(Amount in Rupees)	
		2018-19	2017-18
SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC.			
A			
CURRENT ASSETS:			
1. <u>Advances for Procurement</u>			
a) M&E Foreign Purchases	Opening Balance Addition during the year Adjusted during the year	76007023 13071577	5424582 114097564 43515123
b) Material and Supply	Opening Balance Addition during the year Adjusted during the year	89078600	76007023
c) Stock-in-trade	Finished Goods Work-in-progress Raw Material		0 0 0
2. <u>Sundry Debtors:</u>			
a) Debts Outstanding for a period exceeding six months			0
b) Others			4
3. <u>Cash balances in hand (including cheques/ drafts and imprest)</u>			
4. <u>Bank Balances:</u>			
a) <u>With Scheduled Banks:</u>	On Current Accounts On Deposit Accounts (includes margin money) On Savings Accounts	204653632.8	206493093
b) <u>With non-Scheduled Banks:</u>	On Current Accounts On Deposit Accounts On Savings Accounts		
5. <u>PDA Advance</u>			
	opening balance adjusted during the year	7951625 242360	8006705 55080
6. <u>Custom Duty Advance</u>			
	Opening Balance Added during the year Adjusted during the year	32062302 5000000 27386132	36984897 0 4922595
8. <u>Others</u>			
a. HSCC		6500000	6500000
b. NDMC		5979000	5979000
c. IGL		1334680	1334680
d. TRIGEN		1170000	1170000
TOTAL (A)		326101347.8	337497727

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

	2018-19	2017-18
SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC. (Contd.)		
B		
LOANS, ADVANCES AND OTHER ASSETS		
1. <u>Loans:</u>		
a) Staff		
i) Motor car	|	|
Opening Balance		0
Less : Recovered during the year		0
ii) House Building Advance		
Opening Balance		0
Less : Recovered during the year		0
iii) Computer Advance		
Opening Balance		0
Less : Recovered during the year		0
Add: Addition during the year		0
iv) Festival Advance		
Opening Balance		159150
Less : Recovered during the year		159150
Add: Addition during the year		0
2. <u>Advances and other amounts recoverable in cash or in kind or for value to be received:</u>		
a) On Capital Account		
b) Prepayments		
c) Others		
3. <u>Income Accrued:</u>		
a) On Investments from Earmarked / Endowment Funds		
b) On Investments - Others		
c) On Loans and Advances		
d) Others		
(includes income due unrealised - Rs.....)		
4. <u>Claims Receivable:</u>		
TOTAL (B)		
		0
TOTAL (A + B)		
		337497727

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

SCHEDULE 12 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS		(Amount in Rupees)	
	2018-19	2017-18	
1) Income from Sales			
1. Hospital receipts	32445169	10005887	
2. Administrative charges (Projects)	0	0	
3. NSDL Employee's Share	0	0	
4. NSDL Employer's Share	0	0	
2) Income from Services			
a) Labour and Processing Charges			
b) Professional / Consultancy Services			
c) Agency Commission and Brokerage			
d) Maintenance Services (Equipment/Property)			
e) Others (Specify) Fees	0		
TOTAL	32445169	10005887	
SCHEDULE 13 - GRANTS / SUBSIDIES	2018-19	2017-18	
1) Income from Sales			
(Irrevocable Grants & Subsidies Received)			
1. Central Government (Through AIIMS Main)	1925166374	1656221458	
2. State Government(s)			
3. Government Agencies			
4. Institutions/ Welfare Bodies			
5. International Organisations			
6. Others (Specify) Grant from Ministry of Ayush	0		
TOTAL	1925166374	1656221458	

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

SCHEDULE 14 - FEES/SUBSCRIPTIONS	(Amount in Rupees)			
	2018-19	2017-18	2018-19	2017-18
1. Tuition & Examination Fee				
2. Licence Fee				
3. Seminar/Program Fees	28585		0	0
4. Consultancy Fees				
5. Others (Specify) EHS				
TOTAL			0	0

SCHEDULE 15 - INCOME FROM INVESTMENTS	Investment from Earmarked Fund		Investment-Others	
	2018-19	2017-18	2018-19	2017-18
(Income on Invest. From Earmarked/Endowment Funds transferred to Funds)				
1. Interest				
a) On Govt. Securities				
a) Other Bonds/Debentures				
2. Dividends:				
a) On Shares				
a) On Mutual Fund Securities				
3. Rents				
4. Others (Specify)				
TOTAL			0	0
TRANSFERRED TO EARMARKED/EDNOWNMENT FUNDS			0	0

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019
(Amount in Rupees)

SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC.	2018-19	2017-18
1. Income from Royalty		
2. Income from Publications		
3. Others (specify)		
TOTAL		0

SCHEDULE 17 - INTEREST EARNED	2018-19	2017-18
1. On Term Deposits:		
a) With Scheduled Banks	13752061	9845810
b) With Non-Scheduled Banks		
c) With Institutions		
d) Others		
2. On Savings Accounts:		
a) With Scheduled Banks		
b) With Non-Scheduled Banks		
c) Post Office Savings Accounts		
d) Others		
3. On Loans:		
a) Employees/Staff		0
b) Others		
4. Interest on Debtors and other Receivables		
TOTAL	13752061	9845810

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

<u>SCHEDULE 18 - OTHERS INCOME</u>	<u>2018-19</u>	<u>2017-18</u>
1. Misc. Receipt		
2. Estb. Receipt (Scheme)		0
3. Others (specify)		
TOTAL		0

<u>SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS</u>	<u>2018-19</u>	<u>2017-18</u>
a) Closing stock		
- Finished Goods		
- Work-in-progress		
b) Less: Opening Stock		
- Finished Goods		
- Work-in-progress		
NET INCREASE/(DECREASE) [a+b]		0

<u>SCHEDULE 20 - ESTABLISHMENT EXPENSES</u>	<u>Current Year</u>	<u>Previous Year</u>
Salaries and Wages	1081937255	973583321
Allowances and Bonus		
Travelling Allowances	3229119	2638137
Contribution to NPS		0
Contribution to Other Fund (Scheme Cell)		
Staff Welfare Expenses		
Expenses on Employees "":Retirement and Terminal Benefits"		
Others (NPS & LSPC)		
TOTAL	1,085,166,374.00	976221458

F&CAO

All India Institute of Medical Sciences, New Delhi
Jai Prakash Narayan Apex Trauma Centre
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019
(Amount in Rupees)

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.	2018-19	2017-18
a) Purchases (Material and Supply)	489153948	383285939
b) Material received against advance paid during last years		0
c) Office Expenses		0
d) Securities	68571200	53231411
e) Other Outsourcing Agency	100782470	97868920
f) Administrative Charges (Projects)		0
g) Engg. Maintenances	191553312	129284145
h) Bank charges	4956	6430
i) Rent, Rates and Taxes		
j) Vehicles, Running and Maintenance		
k) Postage, Telephone and Communication Charges		
l) Printing and Stationary		
m) Travelling and Conveyance Expenses		
n) Expenses on Seminar/Workshops		
o) Subscription Expenses		
p) Expenses on Sanitation		0
q) Maintaince of Buildings (Minor Work RG)	3144063	14482030
r) Maintaince of M&E (CAMC/AMC)		0
s) Maintaince of Building (Non-plan)		0
t) Provision for Bad and Doubtful Debts/Advances		
u) Irrecoverable Balances Written-off		
v) Swap Charges (IDBI Debit/Credit Card Commission)		0
w) Freight and Forwarding Expenses		
x) Distribution Expenses		
y) Insurance		
z) Advertisement and Publicity		
aa) Others (specify)(Contingency charge)	24800718	21061055
TOTAL	878010667	699219930

F&CAO

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
BALANCE SHEET AS AT 31-03-2019

		(Amount-Rs.)	
<u>CORPUS/CAPITAL FUND AND LIABILITIES</u>	Schedule	Current Year	Pervious Year
CORPUS/CAPITAL FUND	1	630,151,200	610,062,779
RESERVES AND SURPLUS	2	30,507,482	23,423,070
EARMARKED/ ENDOWMENT FUNDS	3	52,325,359	53,868,326
SECURED LOANS AND BORROWINGS	4	-	-
UNSECURED LOANS AND BORROWINGS	5	-	-
DEFERRED CREDIT LIABILITIES	6	-	-
CURRENT LIABILITIES AND PROVISIONS	7	7,773,112	12,023,656
TOTAL		720,757,153	699,377,831
<u>ASSETS</u>			
FIXED ASSETS	8	623,297,295	602,573,055
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9	-	-
INVESTMENTS-OTHERS	10	-	-
CURRENT ASSETS, LOANS , ADVANCES ETC.	11	97,459,858	96,804,776
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
TOTAL		720,757,153	699,377,831
SIGIFICANT ACCOUNTING POLICIES	24	-	-
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	25	-	-

Chief, CDER

(Accounts Officer)
CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

Name of Entity **CENTRE FOR DENTAL EDUCATION & RESEARCH**

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD/YEAR ENDED 31- 03-2019

	Schedule	Current Year	Previous Year
INCOME			
Hospital Receipts	12	2183330	2,310,620
Grants/Subsidies	13	192435117	153,497,549
Fees/Subscriptions	14	-	-
Income from Investments (Income on Invest. From earmeked/endow. Funds transferred to funds)	15	-	-
Income for Royalty, Publication etc.	16	-	-
Interest Earned	17	3837361	1,072,525
Other Income	18	219801	76,288
Increase/(decrease) in stock of Finished goods and works-in-progress	19	-	-
TOTAL (A)		198675609	156,956,982
EXPENDITURE			
Establishment Expenses	20	64935117	50997549
Other Administrative Expenses etc.	21	126630245	104,759,531
Adjusment of Advances	21 (A)	23420	
Expenditure on Grants, Subsidies etc.	22	-	-
Interest	23	2415	2685
Depreciation (Net Total at the year-end - corresponding to Schedule 8)			
TOTAL (B)		191591197	155,759,765
Balance being excess of Income over Expenditure (A-B)			
Transfer to Special Reserve (Specify each)		7084412	1,197,217
Transfer to /from General Reserve			
BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/ CAPITAL FUND			
SIGNIFICANT ACCOUNTING POLICIES	24		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	25		

Chief, CDER

(Accounts Officer) CDER

CENTRE FOR DENTAL EDUCATION & RESEARCH
ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI
RECEIPTS AND PAYMENTS FOR THE PERIOD/YEAR ENDED 31.03.2019

RECEIPTS	2018-19	2017-18	PAYMENTS	2018-19	2017-18
1. Opening Balance			I. Expenses		
a) Cash in Hand	5000	5000	a) Establishment Expenses (Schedule 20)	64935117	50997549
b) Bank Balances			b) Administrative Expenses (Schedule 21A)	126630245	104759531
i) In current accounts	87038803	36489313			
ii) In deposit accounts	-	-			
iii) saving accounts	-	-			
II. Grants Received			II. Payment made against funds for various projects		
a) From Government of India (Through AIIMS Main)			Dental Council of India	21000	-
Capital (Assets New)			Patient Treatment fund	1475478	823580
Grant-in-Aid (Plan)	30000000		Project MoHFW	-	99720
(Return to AIIMS Main)	9911579	27623687	Project NOHP	3876581	381436
Revenue General			Project PIT & FISSURE	330950	151103
a) Grant-in-Aid (Salary)	65500000		Project SUGAR	3000	5769
(Return to AIIMS Main)	564883		Project Web & Mobile App	-	3550000
b) Grant-in-Aid (General)			Workshop Drafting Policy	18177	-
c) From State Government		127500000	Swachhta Action Plan (SAP)	2709125	2053027
d) From other sources			WHO	9435	-
e) Grants received for specific purpose			WHO (MOOC)	-	-
Funds received for various projects			III. Investments and deposits made		
Dental Council Of India	21000		a) out of Earmarked/Endow. Funds		-
Patient Treatment fund	1509200	1202580	b) out of Own Funds(Oth. Investment)	-	-
Project MoHWF		99720	IV. Expenditure on Fixed Assets & Capital Work-in-Progress		
Project NOHP	4337440	1400000	a) Purchase of Fixed Assets	14282562	23358742
Project PIT & FISSURE	236914	252000	b) Expenditure on Capital Work-in-Progress	-	-
Project SUGAR	-	42693	c) Letter of Credit	5805859	3902002
Project Web & Mobile App	-	4391972			

Workshop Drafting Policy	300000	0	V. Refund of Surplus money/loans		
Swachhta Action Plan (SAP)	-	50000000	a) To the Government of India	-	-
WHO	96225		b) To the State Government	-	-
WHO (MOOC)	400000		c) To other providers of funds	-	-
III. Income on Investments from					
a) Earmarked/Endow. Funds	-	-			
b) Own Funds(Oth. Investment)	-	-	VI. Finance Charges (Interest)	2415	2685
IV. Interest Received					
a) On Bank deposits	3837361	1072525	VII. Other Payments		
b) Loans, Advances etc.			a) Employee Recovery	20687167	16344061
			b) Outside Recovery	1538030	727469
V. Other Income			c) Engg. Recovery	3347544	-
Hospital Receipt	2183330	2310620	d) Contingency Advance	-	25000
Miscellaneous Receipt	219801	76288	e) EMD	1181000	2227000
VI. Amount Borrowed					
VII. Any other receipts			VIII. Closing Balances		
Employee Recovery	20687167	16344061	a) Cash in Hand	5000	5000
Outside Recovery	1538030	727469	b) Bank Balances		
Engg. Recovery	-	-	i) In current accounts	88354704.02	87038803
Contingency Advance	1580	-	ii) In deposit accounts	-	-
EMD	278000	917000	iii) saving accounts	-	-
TOTAL	335213389	296452477	TOTAL	335213389	296452477

Chief, CDER

Accounts Officer (CDER)

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

SCHEDULE 1- CORPUS/CAPITLA FUND:	Current Year	Previous Year
Balances as at the beginning of the year	610,062,779	
Add : Contributions towards Corpus/Capital Fund	20,088,421	610062779
Less : Fixed Assets Condemned during the year		
BALANCE AS AT THE YEAR-END	630,151,200	610,062,779
SCHEDULE 2- RESERVES AND SURPLUS:		
1. <u>Capital Reserve:</u>		
As per last Account		
Addition during the year		
Less: Deductions during the year		
2. Revaluation Reserve		
As per last Account		
Addition during the year		
Less: Deductions during the year		
3. Special Reserves		
As per last Account		
Addition during the year		
Less: Deductions during the year		
4. General Reserve		
As per last Account	23,423,070	23423070
Addition during the year	7,084,412	
Less: Deductions during the year		
TOTAL	30,507,482	23423070

(Accounts Officer) CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

	FUND-WISE BREAK UP							TOTALS			
	NOHP	SAP Fund	Sugar Fund	Pit & Fissure	Web & Mobile App Project	Patient Treatment	Dental Council of India	WHO (MOOC)	Workshop Drafting Policy	Current Year	Previous Year
a) Opening balance of the funds	4,562,560	47,946,973	36,924	100,897	841,972	379,000	-	-	-	53,868,326	3543996
b) Additions to the Funds:											
i. Donations/grants	4,337,440	-	-	236,914	-	1,509,200	21,000	400,000	300,000	6,900,779	57388965
ii. Income from investments made on account of funds											
iii. Other additions (specify nature)											
TOTAL (a+b)	8,900,000	47,946,973	36,924	337,811	841,972	1,888,200	21,000	400,000	300,000	60,769,105	60932961
c) Utilisation/Expenditure towards objectives of funds											
i. <u>Capital Expenditure</u>											
- Fixed Assets											
- Others											
ii. <u>Revenue Expenditure</u>											
- Salaries, Wages and allowances etc.											
- Rent											
- Other Administrative expenses	3,876,581	2,709,125	3,000	330,950	-	1,475,478	21,000	-	18,177	8,443,746	7064635
Total	3,876,581	2,709,125	3,000	330,950	-	1,475,478	21,000	9,435	18,177	8,443,746	7,064,635
TOTAL (c)	5,023,419	45,237,848	33,924	6,861	841,972	412,722	-	86,790	281,823	52,325,359	53,868,326
NET BALANCE AS AT THE YEAR-END (a+b-c)											

Notes

- 1) Disclosures shall be made under relevant heads based on conditions attaching to the grants.
- 2) Plan Funds received from the Central/State Governments are to be shown as separate Funds and not to be mixed up with any other Funds.

(Accounts Officer)
CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

Name of Entity **CENTRE FOR DENTAL EDUCATION & RESEARCH**

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

SCHEDULE 4-SECURED LOANS AND BORROWINGS:		
1. Central Government		
2. State Government		
3. Financial Institutions		
a) Term Loans		
b) Interest accrued and due		
4. Banks:		
a) Term Loans		
- Interest accrued and due		
b) Other Loans (specify)		
- Interest accrued and due		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Others (Specify)		
TOTAL	0	0
<u>Note</u> : Amounts due within one year		

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

Name of Entity **CENTRE FOR DENTAL EDUCATION & RESEARCH**

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount-Rs.)

SCHEDULE 5 - UNSECURED LOANS AND BORROWING	Current Year	Previous Year
1. Central Government		
2. State Government		
3. Financial Institutions		
4. Banks:		
a) Term Loans		
b) Other Loans (specify)		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Fixed Deposits		
8. Others (Specify)		
TOTAL	0	0
<u>Note</u> : Amounts due within one year		

SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:	Current Year	Previous Year
a) Acceptances secured by hypothecation of capital equipment and other assets		
b) Others		
TOTAL	0	0
<u>Note</u> : Amount due within one year		

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS	Current Year	Previous Year
A. CURRENT LIABILITIES AND PROVISIONS		
1. Acceptances		
2. Sundry Creditors:		
a) For Goods		
a) Others		
3. Advances Received		
4. Interest accrued but not due on:		
a) Secured Loans/borrowings		
a) Unsecured Loans/borrowings		
5. Statutory Liabilities:		
a) Overdue		
a) Others		
6. Other current Liabilities		
Less: Paid during the year		
Addition : Created during the year	-	3,347,544
7. Security Deposits (Opening Balance)		
Add: Received during the year		
Less: Refunded during the year	7,773,112	8,676,112
TOTAL (A)	7,773,112	12,023,656
B. PROVISIONS		
1. For Taxation	-	-
2. Gratuity	-	-
3. Superannuation/Pension	-	-
6. Accumulated Leave Encashment	-	-
6. Trade Warranties/Claims	-	-
6. Others (specify)	-	-
TOTAL (B)	-	-
TOTAL (A+B)	7,773,112	12,023,656

(Accounts Officer)
CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount - Rs.)

SCHEDULE 8-FIXED ASSETS DISCRIPTION	GROSS BLOCK				DEPRECIATION			NET BLOCK			
	Cost/valuation As at beginning of the year	Additions during the year	Additions during the year (LC)	Deductions during the year	Cost/Valuation at the year end	As at the beginning of the year	On additions during the year	On Deductions during the year	Total up to the year-end	As at the Current year-end	As at the Previous year-end
A. FIXED ASSETS:											
1 LAND:											
a) Freehold											
b) Leasehold											
2 BUILDINGS:											
a) On Freehold Land	308762005	-			308762005					308762005	308762005
b) On Leasehold Land											
c) Ownership Flats/ Premises											
d) Superstructures on Land not belonging to the entity											
PLANT MACHINERY & EQUIPMENT	293811050	14282562	6441678		314535290					314535290	293811050
VEHICLES											
FURNITURE, FIXTURES											
OFFICE EQUIPMENT											
COMPUTER/PERIPHERALS											
ELECTRIC INSTALLATIONS											
LIBRARY BOOKS											
TUBEWELLS & W. SUPPLY											
OTHER FIXED ASSETS											
TOTAL OF CURRENT YEAR	602573055	14282562	6441678		623297295					623297295	602573055
PREVIOUS YEAR											
CAPITAL WORK-IN-PROGRESS											
TOTAL	602,573,055	14,282,562			623,297,295					623,297,295	602,573,055

(Note to be given as to cost of assets on hire purchase basis included above)

(Accounts Officer)
CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount - Rs.)

<u>SCHEUCLE 9 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS</u>		<u>Current Year</u>	<u>Previous Year</u>
1. In Government Securities			
2. Other approved Securities			
3. Shares			
4. Debenutres and Bonds			
5. Subsidiaries and Joint Venutres		0	0
6. Others (to be specified)			
	<u>TOTAL</u>	0	0

<u>SCHEUCLE 10 - INVESTMENTS - OTHERS</u>		<u>Current Year</u>	<u>Previous Year</u>
1. In Government Securities			
2. Other approved Securities			
3. Shares			
4. Debenutres and Bonds			
5. Subsidiaries and Joint Venutres			
6. Others (to be specified)			
	<u>TOTAL</u>	0	0

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC.		Current Year	Previous Year
A	CURRENT ASSETS:		
	1. <u>Inventories:</u>		
	a) Stores and Spares		
	b) Loose Tools		
	c) Stock-in-trade		
	Finished Goods		
	Work-in-progress		
	Raw Material		
	2. <u>Sundry Debtors:</u>		
	a) Debts Outstanding for a period exceeding six months		
	b) Others		
	3. <u>Cash balances in hand (including cheques/ drafts and imprest)</u>	5000	5000
	4. <u>Bank Balances:</u>		
	a) <u>With Scheduled Banks:</u>		
	On Current Accounts	88354704	87038803
	On Deposit Accounts (includes margin money)		
	On Savings Accounts		
	b) <u>With non-Scheduled Banks:</u>		
	On Current Accounts		
	On Deposit Accounts		
	On Savings Accounts		
	5. <u>Post Office - Savings Accounts</u>		
	TOTAL (A)	88359704	87043803

(Accounts Officer) CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

<u>SCHEDULE 11 (II) - CURRENT ASSETS, LOANS, ADVANCES ETC. (Contd.)</u>	<u>Current Year</u>	<u>Previous Year</u>
B		
<u>LOANS, ADVANCES AND OTHER ASSETS</u>		
1. <u>Loans:</u>		
a) Staff		
b) Other Entities engaged in activities/objectives similar to that of Entity		
c) Other (specify) Advance to Iron & steel and Hindustan steel		
2. <u>Advances and other amounts recoverable in cash or in kind or for value to be received:</u>		
a) On Capital Account		
b) Prepayments		
c) Others		
3. <u>Income Accrued:</u>		
a) On Investments from Earmarked / Endowment Funds		
b) On Investments - Others		
c) On Loans and Advances		
d) Others (includes income due unrealised - Rs.....)		
4. <u>Claims Receivable:</u>		
5. <u>Other Advance</u>		
i. Advance Paid to NDMC	2364500	2364500
ii. Security Deposit to NDMC	3000000	3000000
iii. Advance paid to DGS&D	469471	469471
iv. Letter of Credit	3266183	3902002
v. Contingency Advance	-	25000
<u>TOTAL (B)</u>	9100154	9760973
<u>TOTAL (A + B)</u>	97459858	96804776

(Accounts Officer)
CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount - Rs.)

<u>SCHEDULE 12 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS</u>	<u>Current Year</u>	<u>Previous Year</u>
1) Income from Sales		
1. Sale of Finished Goods		
2. Sale of Raw Material		
3. Sale of Scraps		
2) Income from Services		
a) Labour and Processing Charges		
b) Professional / Consultancy Services		
c) Agency Commission and Brokerage		
d) Maintenance Services (Equipment/Property)		
e) Others (Specify) Hospital Receipt	2183330	2310620
<u>TOTAL</u>	2183330	2310620
<u>SCHEDULE 13 - GRANTS /SUBSIDIES</u>	<u>Current Year</u>	<u>Previous Year</u>
1) Income from Sales		
(Irrevocable Grants & Subsidies Received)		
1. Central Government		
2. State Government(s)		
3. Government Agencies		
Grant in Aid (Salary)	64935117	50997549
Grant in Aid (General)	127500000	102500000
4. Institutions/ Welfare Bodies		
5. International Organisations		
6. Others (Specify)		
<u>TOTAL</u>	192435117	153497549

(Accounts Officer)
CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31-03-2019

SCHEDULE 14 - FEES/SUBSCRIPTIONS	(Amount-Rs.)	
	Current Year	Previous Year
1. Tuition & Examination Fee		
2. Licence Fee		
3. Seminar/Program Fees		
4. Consultancy Fees		
5. Others (Specify) EHS		
TOTAL	0	0
Note- Accounting Policies towards each item are to be disclosed		

SCHEDULE 15 - INCOME FROM INVESTMENTS	Investment from Earmarked Fund		Investment-Others	
(Income on Invest. From Earmarked/Endowment Funds transferred to Funds)	Current Year	Previous Year	Current Year	Previous Year
1. Interest				
a) On Govt. Securities				
a) Other Bonds/Debentures				
2. Dividends:				
a) On Shares				
a) On Mutual Fund Securities				
3. Rents				
4. Others (Specify)				
TOTAL				
TRANSFERRED TO EARMARKED/EDNOWNMENT FUNDS				

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

Name of Entity **CENTRE FOR DENTAL EDUCATION & RESEARCH**

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31-03-2019

(Amount-Rs.)

<u>SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC.</u>	Current Year	Previous Year
1. Income from Royalty		
2. Income from Publications		
3. Others (specify)		
<u>TOTAL</u>		

<u>SCHEDULE 17 - INTEREST EARNED</u>	Current Year	Previous Year
1. On Term Deposits:		
a) With Scheduled Banks	3837361	1072525
b) With Non-Scheduled Banks		
c) With Institutions		
d) Others		
2. On Savings Accounts:		
a) With Scheduled Banks		
b) With Non-Scheduled Banks		
c) Post Office Savings Accounts		
d) Others		
3. On Loans:		
a) Employees/Staff		
b) Others		
4. Interest on Debtors and other Receivables		
<u>TOTAL</u>	3837361	1072525

Note - Tax deducted at source to be indicated

(Accounts Officer)
CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31-03-2019

	(Amount-Rs.)	
	Current Year	Previous Year
<u>SCHEDULE 18 - OTHERS INCOME</u>		
1. Misc. Receipt		
2. Estb. Receipt (Scheme)	219801	76288
3. Others (specify)	-	-
<u>TOTAL</u>	219801	76288

	Current Year	Previous Year
<u>SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS</u>		
a) Closing stock		
- Finished Goods		
- Work-in-progress		
b) Less: Opening Stock		
- Finished Goods		
- Work-in-progress		
<u>NET INCREASE/(DECREASE) [a+b]</u>		

	Current Year	Previous Year
<u>SCHEDULE 20 - ESTABLISHMENT EXPENSES</u>		
Salaries and Wages		
Allowances and Bonus	64935117	50997549
Contribution to Provident Fund		
Contribution to Other Fund (Scheme Cell)		
Staff Welfare Expenses		
Expenses on Employees "Retirement and Terminal Benefits"		
Others (NPS & LSPC)		
<u>TOTAL</u>	64935117	50997549

(Accounts Officer) CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31-03-2019

(Amount-Rs.)

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.	Current Year	Previous Year
a) Purchases of Material & Supply	38686005	18450727
b) Labour and processing expenses		
c) Cartage and Carriage Inwards		
d) Electricitiy and power		
e) Water charges		
f) Insurance		
g) Out sourced manpower services		
i) Security services	16651709	14056742
ii) Sanitation services	13521880	12933499
iii) Man Power	17221096	15079667
h) Repairs and maintenance	39633996	43515059
i) Rent, Rates and Taxes		
j) Vehicles, Running and Maintenance		
k) Postage, Telephone and Communication Charges		
l) Printing and Stationary		
m) Travelling and Conveyance Expenses		
n) Expenses on Seminar/Workshops		
o) Subscription Expenses		
p) Expenses on Fees		
r) Hospitality Expenses		
s) Professional Charges		
t) Provision for Bad and Doubtful Debts/Advances		
u) Irrecoverable Balances Written-off		
v) Packing Charges		
w) Freight and Forwarding Expenses		
x) Distribution Expenses		
y) Advertisement and Publicity		
z) Others (specify) (Contingency charge)	915559	723837
TOTAL	126630245	104759531

(Accounts Officer)
CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31-03-2019

z

(Amount-Rs.)

<u>SCHEDULE 21 (A) Adjustment of Advances</u>	Current Year	Previous Year
1. Contingency Advance	23420	-
2. Others (specify)	-	-
<u>TOTAL</u>	23420	-

(Accounts Officer)
CDER

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)

Name of Entity CENTRE FOR DENTAL EDUCATION & RESEARCH

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31-03-2019

(Amount-Rs.)

<u>SCHEDULE 22- EXPENDITURE ON GRANTS, SUBSIDIES ETC.</u>	Current Year	Previous Year
a). Grants given to Institutions/Organizations	-	-
b). Subsidies given to Institutions/organisations	-	-
<u>Total</u>	-	-

Note - name of the Entities, their activities along with the amount of grants/subsidies are to be disclosed.

SCHEDULE 23- INTEREST	Current Year	Previous year.
a) On fixed Loans		
b) On other Loans (including Bank charges)	2415	2685
c) Others(Specify)		
<u>Total</u>	2415	2685

(Accounts Officer)
CDER

National Drug Dependence Treatment Centre
RECEIPT AND PAYMENTS FOR THE YEAR ENDED 31-03-2019

Receipts	2018-19	2017-18	Payments	2018-19	2017-18
1. Opening Balances			1. Expenses		
(a) Cash in Hand			(a) Establishment Expenses (Schedule 20)	138,631,377.00	131,269,356.00
(b) Bank Balances			(b) Administrative Expenses (Schedule 21A)	107,351,051.00	88,033,355.00
(i) In current accounts	60,305,453.00	22,037,668.00			
(ii) In deposit accounts			2. Advance payment		
(iii) In saving accounts			(i) Material and Supply	132,635.00	170,673.00
			(ii) Temp adv for training programme (DTCs Scheme)	27,901,917.00	19,257,228.00
2. Grant Received			3. Investments and deposits made		
(a) From Government of India (Ministry of H&FW)			(a) Out of Earmarked/Endowment Funds		
Grant in Aid (Capital Assets)	15,000,000.00	25,000,000.00	(b) Out of Own funds (Investments-others)		
Grant in Aid (General)	117,500,000.00	64,000,000.00			
Grant in Aid (Salaries)	145,000,000.00	130,000,000.00	4. Expenditure on Fixed Assets & Capital Work-in-Progress		
(b) Grant in aid (General)/DTCs Scheme	45,000,000.00		(a) Purchase of Fixed Assets (Schedule 8)	18,391,691.00	23,430,545.00
(c) From other sources(SAP)		50,000,000.00	(b) Expenditure on capital work-in-progress	-	-
3. Income on Investment from			5. Refund of surplus money/loans		
(a) Earmarked/Endow. Funds		-	(a) To the Government of India		
(b) Own funds (Oth. Investments)		-	(b) To the State Government		
			(c) Repayment of loan to AIIMS (Schedule 7)	85,000,000.00	9,000,000.00
4. Interest received			(d) Refund to UNDCP A/c	11,221.00	632.00
(a) On bank deposits		-	6. Finance Charges (Interest)		
(b) Loans, Advances etc.		-			
			7. Other Payments (Specify)		
5. Income from Hospital Services			Outside Recoveries (GPF, NPS, HBA, Income Tax, License Fee etc.)		
Hospital Receipts	689,040.00	622,365.00	(a) Projects	-	-
5. Other Income			(b) Refund of Earnest Money Deposit	50,000.00	-
Misc. Receipts	31,679.00	69,295.00	(c) Employees Recovery payment		
Wrongly receipt form UNDCP A/c	11,221.00		(j) Recoveries from employees remitted to AIIMS (Main)	915,054.00	750,601.00
6. Amount Borrowed					
Loan from AIIMS (Main)	30,000,000.00	40,000,000.00	(ii) Outside Recoveries	21,671,504.00	20,385,558.00
Loan from UNDCP		-	(iii) GPF (Subscription and Advances)	13,477,375.00	10,120,240.00
7. Any other receipts			(iv) NPS Recovery	4,187,563.00	4,731,165.00
(a) Projects			(v) NPS Recovery (without PRAN)	280,370.00	49,055.00
(b) Earnest Money Deposits			Previous year Recovery		
(c) Employees Recovery (Income Tax)	213,031.00		Loan, Advances and Other Assets		
(j) Recoveries from employees	920,209.00	750,601.00	Advance payment for purchase of Material and Supply		
(ii) Outside Recoveries	21,679,504.00	20,172,527.00	Computer Advance		
(iii) GPF (Subscription and Advances)	13,477,375.00	10,120,240.00	Festival Advance		
			Recovery/Deductions (Engg Works)		

Receipts	2018-19	2017-18	Payments	2018-19	2017-18
iv) NPS Recovery	4,187,563.00	4,731,165.00	Recovery/Deductions (other than Engg Works)	1,737,119.00	560,952.00
v) NPS Recovery (without PRAN)	280,370.00		Repayment of loan (UNDCP)	-	-
Loan, Adv. and Other Assets/Recovery			8. Closing Balances		
Car Advance Recovery			(a) Cash in hand		
Computer Advance Recovery			(b) Bank Balances		
House Building Advance Recovery			(i) In current accounts	36,293,687.00	60,305,453.00
Festival Advance Recovery			(ii) In deposit accounts		
Recovery/Deductions (Engg Works)			(iii) In saving accounts		
Recovery/Deductions (other than Engg Works)	1,737,119.00	560,952.00			
Total	456,032,564.00	368,064,813.00	Total	456,032,564.00	368,064,813.00

**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE
BALANCE SHEET AS AT 31-03-2019**

(Amount in Rupees)

CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	2018-19	2017-18
CORPUS/CAPITAL FUND	1	266,672,470.00	251,672,470.00
RESERVES AND SURPLUS	2	46,489,763.00	19,880,519.00
EARMARKED/ ENDOWMENT FUNDS	3	-	-
SECURED LOANS AND BORROWINGS	4	-	-
UNSECURED LOANS AND BORROWINGS	5	-	-
DEFERRED CREDIT LIABILITIES	6	-	-
CURRENT LIABILITIES AND PROVISIONS	7	15,411,370.00	70,546,325.00
TOTAL		328,573,603.00	342,099,314.00
ASSETS			
FIXED ASSETS	8	275,760,326.00	257,368,635.00
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9	-	-
INVESTMENTS-OTHERS	10	-	-
CURRENT ASSETS, LOANS , ADVANCES ETC. MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)	11	52,813,277.00	84,632,569.00
TOTAL		328,573,603.00	342,001,204.00

National Drug Dependence Treatment Centre
INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD/YEAR ENDED 31-03-2019

	Schedule	2018-19	2017-18
INCOME			
Income from Sales/Services (Hospital Receipts)	12	689,040.00	622,365.00
Grants/Subsidies	13	307,500,000.00	244,000,000.00
Fees/Subscriptions	14		
Income from Investments (Income on Invest. From earmeked/endow. Funds transferred to funds)	15		
Income for Royalty, Publication etc.	16		
Interest Earned	17	-	-
Other Income	18	31,679.00	69,295.00
Increase/(decrease) in stock of Finished goods and works-in-progress	19		
TOTAL (A)		308,220,719.00	244,691,660.00
EXPENDITURE			
Establishment Expenses	20	138,631,377.00	131,269,356.00
Other Administrative Expenses etc.	21	142,980,098.00	99,547,168.00
Expenditure on Grants, Subsidies etc.	22		
Interest	23		
Depreciation (Net Total at the year-end - corresponding to Schedule 8)			
TOTAL (B)		281,611,475.00	230,816,524.00
Balance being excess of Expenditure over income (B-A)			
Transfer to Special Reserve (Specify each)		26,609,244.00	13,875,136.00
Transfer to /from General Reserve			
BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/ CAPITAL FUND		308,220,719.00	244,691,660.00

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount-Rs.)

SCHEDULE 1- CORPUS/CAPITLA FUND:	2018-19		2017-18	
Balances as at the beginning of the year	251,672,470.00		226,672,470.00	
Add : Contributions towards Corpus/Capital Fund	15,000,000.00		25,000,000.00	
Less : Fixed Assets Condemned during the year		266,672,470.00		251,672,470.00
BALANCE AS AT THE YEAR-END		266,672,470.00		251,672,470.00

SCHEDULE 2- RESERVES AND SURPLUS:	2018-19		2017-18	
1. Capital Reserve:				
As per last Account				
Addition during the year				
Less: Deductions during the year				
2. Revaluation Reserve				
As per last Account				
Addition during the year				
Less: Deductions during the year				
3. Special Reserves				
As per last Account				
Addition during the year				
Less: Deductions during the year (AIIMS LOAN REVERSE)				
4. General Reserve				
As per last Account	19,880,519.00			19,880,519.00
Adjusted during the year	26,609,244.00	46,489,763.00		
TOTAL	-	46,489,763.00	-	19,880,519.00

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

<u>SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS</u>	(Amount-Rs.)	
	Scheme Non	TOTALS
	Scheme	2018-19 2017-18
a) Opening balance of the funds		
b) Additions to the Funds:		
i. Donations/grants		
ii. Income from investments made on account of funds	0	
iii. Other additions (specify nature)		
iv. Less Expenditure during the year		0
TOTAL (a+b)		0
c) Utilisation/Expenditure towards objectives of funds		
i. <u>Capital Expenditure</u>		
- Fixed Assets		
- Others		
ii. <u>Revenue Expenditure</u>		
- Salaries, Wages and allowances etc.		
- Rent		
- Other Administrative expenses		
Total		
TOTAL (c)		0
NET BALANCE AS AT THE YEAR-END (a+b-c)		0

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount-Rs.)

SCHEDULE 4-SECURED LOANS AND BORROWINGS:	2018-19		2017-18	
1. Central Government				
2. State Government				
3. Financial Institutions				
a) Term Loans				
b) Interest accrued and due				
4. Banks:				
a) Term Loans				
- Interest accrued and due				
b) Other Loans (specify)				
- Interest accrued and due				
5. Other Institutions and Agencies				
6. Debentures and Bonds				
7. Others (Specify)				
TOTAL	0	0	0	0
Note : Amounts due within one year				

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount-Rs.)

SCHEDULE 5 - UNSECURED LOANS AND BORROWING	2018-19	2017-18
1. Central Government		
2. State Government		
3. Financial Institutions		
4. Banks:		
a) Term Loans		
b) Other Loans (specify)		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Fixed Deposits		
8. Others (Specify)		
TOTAL	0	0
Note: Amounts due within one year		

SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:	2018-19	2017-18
a) Acceptances secured by hypothecation of capital equipment and other assets		
b) Others		
TOTAL	0	0
Note: Amount due within one year		

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount -Rs.)

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS	2018-19		2017-18	
A. CURRENT LIABILITIES AND PROVISIONS				
1. Acceptances				
2. Sundry Creditors:				
a) For Good:				
b) Others (Outside recoveries to be paid to AIIMS	13,155.00	13,155.00		
i) AIIMS Employes (OB)				
ii) Outside recoveries(OB)				
Opening Balance				49,055.00
Less adjust during the year				49,055.00
3. Advances Received for patients from Govt Agencies				
i) NIAF				
4. Projects Grants				
ii) NPCB				
5. Interest accrued but not due on:				
a) Secured Loans/borrowings				
a) Unsecured Loans/borrowings				
6. Statutory Liabilities:				
a) Overdue				
a) Others				
7. Security Deposits (EMD)				
Opening Balance	335,000.00		335,000.00	
Received during the year	-		-	
Refund during the year	50,000.00	285,000.00	-	335,000.00
6. Other current Liabilities	113,215.00	113,215.00		113,215.00
Refund to UNDCP a/c				
9. Excess grant to be refunded to Ministry (OB)	-			
Less : Adjusted during the year	-	-		-
10. Loan from AIIMS (Main) (OB)	70,000,000.00			
Loan from AIIMS (Main)	30,000,000.00			70,000,000.00
Loan refund to AIIMS (Main)	85,000,000.00	15,000,000.00		
TOTAL (A)		15,411,370.00		70,546,325.00
B. PROVISIONS				
1. For Taxation				
2. Gratuity				
3. Superannuation/Pension				
6. Accumulated Leave Encashment				
6. Trade Warranties/Claims				
6. Others (specify)				
TOTAL (B)				
TOTAL (A+B)		15,411,370.00		70,546,325.00

National Drug Dependence Treatment Centre

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount in Rs.)

DESCRIPTION	GROSS BLOCK			DEPRECIATION			NET BLOCK			
	Cost/ valuation as at beginning of the year	Additions during the year	Deductions during the year	Cost/ valuation at the year-end	As at the beginning of the year	On Additions during the year	On Deductions during the year	Total up to the year-end	As at the Current year-end 18-19	As at the previous year-end 17-18
A. FIXED ASSETS:										
1. LAND:										
a) Freehold										
b) Leasehold										
2. BUILDINGS:										
a) On Freehold Land (construction)	118,120,165.00	3,153,089.00		121,273,254.00					121,273,254.00	118,120,165.00
b) On Leasehold Land										
c) Ownership Flats/Premises										
d) Superstructures on Land										
Not belonging to the entity										
3. PLANT MACHINERY & EQUIPMENT	66,833,007.00	11,977,204.00		78,810,211.00					78,810,211.00	66,833,007.00
4. VEHICLES	12,241,608.00	1,089,741.00		13,331,349.00					13,331,349.00	12,241,608.00
5. FURNITURE, DIXTURES	11,850,520.00	1,890,203.00		13,740,723.00					13,740,723.00	11,850,520.00
6. OFFICE EQUIPMENT										
7. COMPUTER/PERIPHERALS										
8. ELECTRIC INSTALLATIONS										
9. LIBRARY BOOKS	46,189,775.00	281,454.00		46,471,229.00					46,471,229.00	46,189,775.00
10. TUBEWELLS & W.SUPPLY										
11. OTHER FIXED ASSETS (SAP)	2,133,560.00			2,133,560.00					2,133,560.00	2,133,560.00
TOTAL OF CAURENT YEAR	257,368,635.00	18,391,691.00		275,760,326.00					275,760,326.00	257,368,635.00
PREVIOUS YEAR										
B. CAPITAL WORK-IN-PROGRESS										
TOTAL	257,368,635.00	18,391,691.00		275,760,326.00					275,760,326.00	257,368,635.00

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

(Amount - Rs.)

<u>SCHEMULE 9 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS</u>	<u>2018-19</u>	<u>2017-18</u>
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debenutres and Bonds		
5. Subsidiaries and Joint Venutres		
6. Others (to be specified)		0
<u>TOTAL</u>	0	0

<u>SCHEMULE 10 - INVESTMENTS - OTHERS</u>	<u>2018-19</u>	<u>2017-18</u>
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debenutres and Bonds		
5. Subsidiaries and Joint Venutres		
6. Others (to be specified)		
<u>TOTAL</u>	0	0

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

		(Amount - Rs.)	
		2018-19	2017-18
SCHEDULE 11A - CURRENT ASSETS, LOANS, ADVANCES ETC.			
A			
CURRENT ASSETS:			
1. <u>Advances for Procurement</u>			
a) <u>Material and Supply</u>	Opening Balance	255,000.00	335,808.00
	Addition during the year	132,635.00	170,673.00
	Adjusted during the year	132,635.00	251,481.00
		255,000.00	255,000.00
b) <u>Machinery and Equipment</u>	Opening Balance	-	-
	Addition during the year	-	-
	Adjusted during the year	-	-
2. <u>Advance for training Programme</u>	Opening Balance	23,418,377.00	15,423,481.00
	Addition during the year	27,901,917.00	19,257,228.00
	Adjusted during the year	35,496,412.00	11,262,332.00
		15,823,882.00	23,418,377.00
3. <u>Sundry Debtors:</u>			
a) Debts Outstanding for a period exceeding six months			
b) Others Over payment under salaries head (Income tax)			
Imprest	Opening balance	213,031.00	213,031.00
	Adjusted during the year	213,031.00	-
		-	-
4. <u>Cash balances in hand (including cheques/ drafts and imprest)</u>			
5. <u>Bank Balances:</u>			
a) <u>With Scheduled Banks:</u>			
On Current Accounts			
On Deposit Accounts (includes margin money)			
On Savings Accounts		36,293,687.00	60,305,453.00
b) <u>With non-Scheduled Banks:</u>			
On Current Accounts			
On Deposit Accounts			
On Savings Accounts			
6. <u>Customs Duty Advance</u>		400,000.00	400,000.00
7. <u>Outside Recovery</u>		40,708.00	40,708.00
TOTAL (A)		52,813,277.00	84,632,569.00

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2019

	2018-19	2017-18
(Amount - Rs.)		
SCHEDULE 11B - CURRENT ASSETS, LOANS, ADVANCES ETC. (Contd.)		
B		
LOANS, ADVANCES AND OTHER ASSETS		
1. <u>Loans:</u>		
a) Staff		
i) Motor car		
ii) House Building Advance		
iii) Computer Advance		
iv) Festival Advance		
2. <u>Advances and other amounts recoverable in cash or in kind or for value to be received:</u>		
a) On Capital Account		
b) Prepayments		
c) Others		
3. <u>Income Accrued:</u>		
a) On Investments from Earmarked / Endowment Funds		
b) On Investments - Others		
c) On Loans and Advances		
d) Others		
(includes income due unrealised - Rs.....)		
4. <u>Claims Receivable:</u>		
TOTAL (B)	0	0
TOTAL (A + B)	52,813,277.00	84,632,569.00

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31-03-2019

	<u>2018-19</u>	<u>2017-18</u>
SCHECULE 12 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS		
1) Income from Sales		
1. Hospital receipts		622,365.00
2. Administrative charges (Projects)	689,040.00	
3. Sale of Scraps		
2) Income from Services		
a) Labour and Processing Charges		
b) Professional / Consultancy Services		
c) Agency Commission and Brokerage		
d) Maintenance Services (Equipment/Property)		
e) Others (Specify) Hospital Receipt		
TOTAL	689,040.00	622,365.00

	<u>2018-19</u>	<u>2017-18</u>
SCHECULE 13 - GRANTS /SUBSIDIES		
1) Income from Sales		
<i>(Irrevocable Grants & Subsidies Received)</i>		
1. Central Government		194,000,000.00
2. State Government(s)	307,500,000.00	
3. Government Agencies		
4. Institutions/ Welfare Bodies (SAP)		50,000,000.00
5. International Organisations		
6. Others (Specify) LOAN FROM AIIMS		
TOTAL	307,500,000.00	244,000,000.00

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

SCHEDULE 14 - FEES/SUBSCRIPTIONS	(Amount-Rs.)	
	2018-19	2017-18
1. Tuition & Examination Fee		
2. Licence Fee		
3. Seminar/Program Fees		
4. Consultancy Fees		
5. Others (Specify) EHS		
TOTAL	0	0
Note- Accounting Policies towards each item are to be disclosed		

	Investment from Earmarked Fund		Investment-Others	
	2018-19	2017-18	2018-19	2017-18
SCHEDULE 15 - INCOME FROM INVESTMENTS				
(Income on Invest. From Earmarked/Endowment Funds transferred to Funds)				
1. Interest				
a) On Govt. Securities				
a) Other Bonds/Debentures				
2. Dividends:				
a) On Shares				
a) On Mutual Fund Securities				
3. Rents				
4. Others (Specify)				
TOTAL				
TRANSFERRED TO EARMARKED/EDNOWNMENT FUNDS				

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

(Amount-Rs.)

SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC.	2018-19	2017-18
1. Income from Royalty		
2. Income from Publications		
3. Others (specify)		
TOTAL	0	0

SCHEDULE 17 - INTEREST EARNED	2018-19	2017-18
1. On Term Deposits:		
a) With Scheduled Banks		
b) With Non-Scheduled Banks		
c) With Institutions		
d) Others		
2. On Savings Accounts:		
a) With Scheduled Banks		
b) With Non-Scheduled Banks		
c) Post Office Savings Accounts		
d) Others		
3. On Loans:		
a) Employees/Staff		
b) Others		
4. Interest on Debtors and other Receivables		
TOTAL	0	0

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

SCHEDULE 18 - OTHERS INCOME	2018-19	2017-18
1. Misc. Receipt		
2. Estb. Receipt (Scheme)	31,679.00	69,295.00
3. Others (specify)		
TOTAL	31,679.00	69,295.00

(Amount-Rs.)

SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS	2018-19	2017-18
a) Closing stock		
- Finished Goods		
- Work-in-progress		
b) Less: Opening Stock		
- Finished Goods		
- Work-in-progress		
NET INCREASE/(DECREASE) [a+b]	-	-

SCHEDULE 20 - ESTABLISHMENT EXPENSES	2018-19	2017-18
Salaries		
Allowances and Bonus	134,025,070.00	126,538,191.00
Contribution to NPS		
Contribution to Other Fund (Scheme Cell)	4,606,307.00	4,731,165.00
Staff Welfare Expenses		
Expenses on Employees "":Retirement and Terminal Benefits"		
Others (NPS & LSPC)		
TOTAL	138,631,377.00	131,269,356.00

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

(Amount-Rs.)

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.	2018-19	2017-18
a) Purchases (Material and Supply)	53,073,788.00	52,171,350.00
b) Housekeeping services	18,204,715.00	35,515,531.00
c) Misc expenditure (Adj. of advances)	132,635.00	251,481.00
d) Wages for security and contractual staff	21,353,767.00	
e) Misc Exp from Impres	99,586.00	107,887.00
f) Imrest adjusted (18-19) Misc expenditure		
g) Repairs and maintenance (M&E)		
h) Excise Duty		
i) Rent, Rates and Taxes		
j) Vehicles, Running and Maintenance		
k) Postage, Telephone and Communication Charge:		
l) Printing and Stationary		
m) Travelling and Conveyance Expense:		
n) Expenses on Seminar/Workshops		
o) Expenses under DTCs Scheme	11,035,948.00	
p) Expenses on Sanitation (SAP)	3,583,247.00	238,587.00
q) Maintaince of Buildings (Minor Work RG)		
r) Maintaince of M&E (CAMC/AMC)		
s) Maintaince of Building (Non-plan)		
t) Provision for Bad and Doubtful Debts/Advance:		
u) Irrecoverable Balances Written-off		
v) Swap Charges (IDBI Debit/Credit Card Commission)		
w) Freight and Forwarding Expenses:		
x) Distribution Expense:		
y) Advertisement and Publicity		
z) Others (specify) Training programme	35,496,412.00	11,262,332.00
TOTAL	142,980,098.00	99,547,168.00

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF RECEIPTS & PAYMENT FOR THE YEAR ENDED 31-03-2019

(Amount-Rs.)

SCHEDULE 21A - OTHER ADMINISTRATIVE EXPENSES ETC.	2018-19	2017-18
a) Purchases (Material and Supply)	53,073,788.00	52,171,350.00
b) HOUSEKEPPING SERVICES (SAP)	18,204,715.00	35,515,531.00
c) Misc expenditure (Adj. of advances)		
d) Wages for security and contractual staff	21,353,767.00	
e) Water charges		
f) Imrest adjusted (18-19)	99,586.00	107,887.00
g) Repairs and maintenance (M&E)		
h) Excise Duty		
i) Rent, Rates and Taxes		
j) Vehicles, Running and Maintenance		
k) Postage, Telephone and Communication Charges		
l) Printing and Stationary		
m) Travelling and Conveyance Expenses		
n) Expenses on Seminar/Workshops		
o) Expenses under DTCs Scheme	11,035,948.00	
p) Expenses on Sanitation (SAP)	3,583,247.00	238,587.00
q) Maintaince of Buildings (Minor Work RG)		
r) Maintaince of M&E (CAMC/AMC)		
s) Maintaince of Building (Non-plan)		
t) Provision for Bad and Doubtful Debts/Advances		
u) Irrecoverable Balances Written-off		
v) Swap Charges (IDBI Debit/Credit Card Commission)		
w) Freight and Forwarding Expenses		
x) Distribution Expenses		
y) Advertisement and Publicity		
z) Others (specify) (Contingency charge) (Adj. of advances)		
TOTAL	107,351,051.00	88,033,355.00

National Drug Dependence Treatment Centre
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2019

<u>SCHEDULE 22- EXPENDITURE ON GRANTS, SUBSIDIES ETC.</u>	<u>2018-19</u>	<u>2017-18</u>
a). Grants given to Institutions/Organizations		
b). Subsidies given to Institutions/organisations		
Total	0	0

Note - name of the Entities, their activities along with the amount of grants/subsidies are to be disclosed.

<u>SCHEDULE 23- INTEREST</u>	<u>2018-19</u>	<u>2017-18</u>
a) On fixed Loans		
b) On other Loans (including Bank charges)		
c) Others(Specify)		
Total	0	0

FORM OF FINANCIAL STATEMENTS
UNDCP A/C
ALL INDIA INSTITUTE OF MEDICAL SCIENCE
RECEIPTS AND PAYMENT ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH, 2018

RECEIPTS	2018-19	2017-18	PAYMENTS	2018-19	2017-18
I. Opening Balance			I. Expenses		
a) Cash in hand			a) Establishment Expenses (Schedule No.5)	1,924,206	687,760
b) Bank Balances			b) Administrative Expenses (Schedule No.6)	4,390,985	649
(i) In current accounts	73,732,674	2,218,851	c) Bank charges (Schedule No.7)	649	
(ii) In deposit accounts			V. Refund of Surplus Money/Loans		
(iii) Savings accounts			a) To the Government of India		
			b) Grant refund to WHO		
			c) To other providers of Funds		
II. Grants Received					
a) From WHO	85,850	321,600			
b) From State Government		71,900,000	VI. Expenditure on fixed assets (Schedule No.2)	7,499,950	
c) From CSIR	119,513				
V. Other income			VII. Other Payments		
a) Hospital Receipts			a) Engg. Maintenances		
b) Misc. Receipts			b) Minor Works.		
			c) Misc Expenditure		20,000
			d) Festival Advance Paid		
VII. Any other receipts			e) Patient Treatment		
a) Imprest			f) Advances paid as Custom Duty		
b) AITSC					
c) INCPT			VIII. Closing Balances		
d) Other Misc.			a) Cash in hand		
			b) Bank Balances		
			i) In Current accounts	60,122,247	73,732,674
			ii) In Deposit accounts		
			iii) Savings accounts		
	73,938,037	74,441,083		73,938,037	74,441,083

**ALL INDIA INSTITUTE OF MEDICAL SCIENCE
UNDCP A/c
INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH,2018**

INCOME	SCHEDULE	2018-19	2017-18
Income from Services			
Grants/Subsidies	4	205,363.00	72,221,600
Fees/Subscriptions			
Income from Investments (Income on Investment from earmarked/endow. Funds)			
Income from Royalty, Publication			
Intrest Earned			
Other Income			
Total (A)		205,363.00	72,221,600
EXPENDITURE			
Establishment Expenses	5	1,924,206.00	687,760
Other Administrative Expenses	6	4,390,985.00	1,925,000
Expenditure on Grants, Subsidies			
Bank Charges	7	649.00	649
Depreciation			
Others			0
Total (B)		6,315,840	2,613,409
Balance being excess of Expenditure over Income (A-B)			
Transfer to Special Reserve (Specify Each)		-6,110,477	69,608,191
Transfer to General Reserve			
Balance Being Surplus/ Deficit carried to General Reserve		-6,110,477	69,608,191
		205,363	72,221,600

FORM OF FINANCIAL STATEMENTS
UNDCP A/c
ALL INDIA INSTITUTE OF MEDICAL SCIENCE
BALANCE SHEET as at 31st March, 2018

CORPUS / CAPITAL FUND AND LIABILITIES	Schedule	2018-19	2017-18
CORPUS / CAPITAL FUND			
RESERVE AND SURPLUS	1	67,667,197.00	73,777,674.00
EARMARKED / ENDOWMENT FUNDS			
SECURED LOANS AND BORROWINGS			
UNSECURED LOANS AND BORROWINGS			
DEFERRED CREDIT LIABILITIES			
CURRENT LIABILITIES AND PROVISIONS			
Total Capital Fund and Liabilities		67,667,197.00	73,777,674.00
ASSETS			
FIXED ASSETS			
INVESTMENTS - FROM EARMARKED / ENDOWMENT FUNDS	2	7,499,950.00	
INVESTMENTS - OTHERS			
CURRENT ASSETS, LOANS, ADVANCES ETC.	3	60,167,247.00	73,777,674.00
MISCELLANEOUS EXPENDITURE			
(to the extent not written off or adjusted)			
Total Assets		67,667,197.00	73,777,674.00

**ALL INDIA INSTITUTE OF MEDICAL SCIENCE
UNDCP**

Schedule 1 - Reserve and Surplus	2018-19	2017-18
1. Capital Reserve :		
As per last Account		
Addition during the year		
Less : Deduction During the year		
2. Revaluation Reserve :		
As per last Account		
Addition during the year		
Less : Deduction During the year		
3. Special Reserves :		
As per last Account		
Addition during the year		
Less : Deduction During the year		
4. General Reserve :		
As per last Account	73,777,674.00	4,169,483.00
Less:- Excess of Expenditure over Income	-6,110,477.00	
Add :- Excess of Income over Expenditure		69,608,191.00
Less : Grant refund to ministry	67,667,197.00	73,777,674.00
Closing Balance	67,667,197.00	73,777,674.00

**FORM OF FINANCIAL STATEMENTS
ALL INDIA INSTITUTE OF MEDICAL SCIENCE**

(Amount in Rs.)

DESCRIPTION	GROSS BLOCK			DEPRECIATION			NET BLOCK			
	Cost/ valuation as at beginning of the year	Additions during the year	Deductions during the year	Cost/ valuation at the year-end	As at the beginning of the year	On Additions during the year	On Deductions during the year	Total up to the year-end	As at the Current year-end 18-19	As at the previous year-end 17-18
A. FIXED ASSETS:										
1. LAND:										
a) Freehold										
b) Leasehold										
2. BUILDINGS:										
a) On Freehold Land (construction)										
b) On Leasehold Land										
c) Ownership Flats/Premises										
d) Superstructures on Land										
Not belonging to the entity										
3. PLANT MACHINERY & EQUIPMENT		7,499,950.00		7,499,950.00					7,499,950.00	
4. VEHICLES										
5. FURNITURE, DIXTURES										
6. OFFICE EQUIPMENT										
7. COMPUTER/PERIPHERALS										
8. ELECTRIC INSTALLATIONS										
9. LIBRARY BOOKS										
10. TUBEWELLS & W.SUPPLY										
11. OTHER FIXED ASSETS (SAP)										
TOTAL OF CAURRENT YEAR	-	7,499,950.00	-	7,499,950.00	-	-	-	-	7,499,950.00	-
PREVIOUS YEAR										
B. CAPITAL WORK-IN-PROGRESS										
TOTAL		7,499,950.00	-	7,499,950.00	-	-	-	-	7,499,950.00	-

FORM OF FINANCIAL STATEMENTS

ALL INDIA INSTITUTE OF MEDICAL SCIENCE

Schedule 3 Current Assets, Loans, Advances	2018-19	2017-18
1. Cash in hand (including cheques/drafts and imprest)		
2. Bank Balances:		
a) Current Account	60,122,247.00	73,732,674.00
b) Deposit Account (Fixed Deposit)		
3. Loans:		
a) To Employees of Entity		
5. Advances and Other amounts recoverable:		
a) From Employees of Entity		
b) From Others (NDDTC)	632.00	
Less:- Adjustment during the year	0.00	-
6. Others		
Advances	45,000.00	1,950,000.00
Less:- Advance adjust during the year	45,000.00	1,905,000.00
Balance as at the Year End	60,167,247.00	73,777,674.00

FORM OF FINANCIAL STATEMENTS
ALL INDIA INSTITUTE OF MEDICAL SCIENCE

Schedule 4 - Grants and Subsidies	2018-19	2017-18
a) From WHO	85,850.00	321,600.00
Recived from NDDTC A/C		
b) Grant from CSIR	119,513.00	71,900,000.00
	205,363.00	
Total	205,363.00	72,221,600.00

**FORM OF FINANCIAL STATEMENTS
ALL INDIA INSTITUTE OF MEDICAL SCIENCE**

Schedule 5- Establishment Expenditure	2018-19	2017-18
Establishment Charges (Salaries)	1,924,206.00	687,760.00
Total	1,924,206.00	687,760.00

Schedule 6- Other Administrative Expenses Etc.	2018-19	2017-18
Purchase (Material & Supply)	4,182,693.00	
Add:- Adjustment of Advance during the year 2017-18		1,905,000.00
Transport Expenses		
Travelling Expenditure	119,513.00	
Bank charges		
Miscellaneous Expenditure (1,00,000-11221)	88,779.00	20,000.00
Total	4,390,985.00	1,925,000.00

**FORM OF FINANCIAL STATEMENTS
ALL INDIA INSTITUTE OF MEDICAL SCIENCE**

Schedule 7- Bank Charges	2018-19	2017-18
Bank Charges	649	649
Total	649	649

**Centre For Intergrative Medicine & Research (AIIMS)
Receipts and Payments for the year ended 31.03.2019**

Receipts	2018-19	2017-18	Payments	2018-19	2017-18
I. Opening balances			I. Expenses		
a) cash in Hand	-		a) Establishment Expenses (corresponding to schedule 21)	-	3,698
b) Bank Balances			b) Administrative Expenses (corresponding to Schedule 22)	293,861	256,983
(i) In current Account	110,953		c) Material & Supply	405,359	569,904
(ii) In Deposit Account	-				
(iii) In Savings Account	-		II. Payments made against funds for various Projects		
c) Fixed Deposits					
II. Grant Received					
a) From Government of India--Through Aiims Main Capital (Assets New)			III. Investments and deposits made		
(i) Grant in Aid (Plan)	2464000		a) Out of Earmarked/Endowment funds	-	-
Refund to Aiims Main	973642	14,684,557.00	b) Revolving Fund	-	-
Revenue General (Plan)			IV. Expenditure on Fixed Assets & Capital		
(ii) Grant in Aid- (General)	959000		Work-in-Progress		
Refund to Aiims Main	259,755	830,585.00	a) Purchase of Fixed Assets	1,483,312	6,694,143
			b) Expenditure on Capital Work-in-progress	-	-
b) From State Government	-		c) Letter of Credit (M&E)	-	7,990,409
c) From Other Sources (details)	-		V. Refund of surplus money/Loans		
(Grant for capital and Revenue expenditure to shown			a) To the Government of India	-	-
III. Income on Investments From			b) To the State Government	-	-
a) Earmarked Funds/ Endowments funds	-		c) To other providers of funds	-	-
b) Revolving Fund			VI. Finance Charges (Interest)		
			Bank Charges	-	1,553
IV. Interest Received					
a) On Bank Deposits			VII. Other Payments (Specify)		
b) loans And Advances etc.			Donation/Grant	-	-
			Earnest Money Deposits	13,000	-
V. Other Income			Loan,Advances & Other Assets/Recovery		
Tender Fee	-	4,500.00	Advance to Employee	-	-

Centre For Intergrative Medicine & Research (AIIMS)
Balance Sheet as at 31.03.2019

		(Amount in Rs.)	
CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	Current Year	Previous Year
Corpus/Capital Fund	1	16,174,915	14,684,557
Reserves and Surplus	2	6,671	2,948
Earmarked/ Endowment Funds	3	-	-
Revolving Funds	4	-	-
Secured Loans and Borrowings	5	-	-
Unsecured Loans and Borrowings	6	-	-
Deferred Credit Liabilities	7	-	-
Current Liabilities and Provisions	8	95,000	108,000
TOTAL		16,276,586	14,795,505
ASSETS			
Fixed Assets	9	16,167,864	6,694,143
Investments-From Earmarked/Endowment Funds	10	-	-
Investment-Others	11	-	-
Current Assets, Loans, Advances Etc.	12	108,722	8,101,362
Miscellaneous Expenditure (To the extent not written off or adjusted)		-	-
Balance of excess of expenditure over income			
TOTAL		16,276,586	14,795,505
Significant Accounting Policies	25		
Contingent Liabilities and Notes on Accounts	26		

PROFESSOR I/C, CIMR

F & CAO, CIMR

Centre For Intergrative Medicine & Research (AIIMS)
Income and Expenditure Account for the year ending on 31.03.2019

	Schedule	Current Year	Pervious Year
(Amount Rs.)			
INCOME			
Income from Sales/services	13	3,698	-
Grants/Subsidies	14	699,245	830,585
Fees/Subscriptions	15	-	-
Income from Investments (Income on Invest. From earmarked/endow. Funds Transferred to Funds)	16	-	-
Income from Royalty, publications etc.	17	-	-
Interest Earned	18	-	-
Other Income	19	-	-
Increase/(decrease) of Finished goods and works-in-progress	20	-	-
TOTAL(A)		702,943	830,585
EXPENDITURE			
Establishment Expenses	21	-	3,698
Other Administrative Expenses etc.	22	293,861	256,983
Payment made against fund for various projects	22 (A)	-	-
Material & Supply	23	405,359	-
Expenditure on Grants, Subsidies Etc.	24	-	-
Interest & Finance Expenses	25	-	1,553
Depreciation (Net Total at the year-end-corresponding to Schedule 11)			
TOTAL (B)		699,220	262,234
Balance being excess of Income over Expenditure (A-B)			
Transfer to Special Reserve (Specify each)		3,723	568,352
Transfer to/from General Reserve		-	-
Balance being surplus/(deficit) carried to corpus/capital fund		3,723	568,352
Significant Accounting Policies	25		
Contingent Liabilities and Notes on Accounts	26		

PROFESSOR I/C, CIMR

F & CAO, CIMR

Centre For Intergrative Medicine & Research (AIIMS)

Schedules forming part of the Balance Sheet as at 31.03.2019

	(Amount in Rs.)	
	Current Year	Pervious Year
Schedule 1 - Corpus/ Capital Funds		
Balance as at the beginning of the year	14,684,557	14,684,557
<u>Add:</u> Contributions towards Corpus/Capital Fund (Through Aiims Main)	1,490,358	
Add: Corpus/Capital Created out of Donation		
Add/Deduct: Balance of net income / (expenditure) transferred from the Income and Expenditure Account	-	-
Balance as at the end of the year	16,174,915	14,684,557

	(Amount Rs.)	
	Current Year	Pervious Year
Schedule 2 - Reserves and Surplus		
1. Capital Reserve		
Balance as at the beginning of the year	2,948	2,948
CIMR A/c	3,723	
<u>Add:</u> Additions during the year		-
CIMR A/c		
2. Revaluation Reserves		
Balance as at the beginning of the year	-	-
<u>Add:</u> Additions during the year		-
<u>Less:</u> Deductions during the year		-
3. Special Reserve		
Balance as at the beginning of the year	-	-
<u>Add:</u> Additions during the year		-
<u>Less:</u> Deductions during the year		-
4. General Reserve		
Balance as at the beginning of the year	-	-
<u>Add:</u> Additions during the year		-
<u>Less:</u> Deductions during the year		-
5. Excess of income over expenditure		
TOTAL	6,671	2,948

(Amount in Rs.)

Schedule -3 F earmarked/ Endowment Funds	XXX	YYY	Current Year		Previous Year	
			Total	Total	Total	Total
a) Opening balance of the funds	-	-	-	-	-	-
b) Additions to the Funds	-	-	-	-	-	-
i. Donations/grants	-	-	-	-	-	-
ii. Income from Investments made on account of funds	-	-	-	-	-	-
iii. Received from patients	-	-	-	-	-	-
iv. Other additions (specify nature)	-	-	-	-	-	-
TOTAL (a+b)	-	-	-	-	-	-
c) Utilisation/Expenditure towards objectives of funds						
i. Capital Expenditure	-	-	-	-	-	-
Fixed Assets	-	-	-	-	-	-
Others	-	-	-	-	-	-
TOTAL (c.i)	-	-	-	-	-	-
ii. Revenue Expenditure						
Salaries, Wages and allowances etc.	-	-	-	-	-	-
Rent	-	-	-	-	-	-
Bank Charges	-	-	-	-	-	-
Other Administrative expenses	-	-	-	-	-	-
TOTAL c (ii)	-	-	-	-	-	-
TOTAL (c)	-	-	-	-	-	-
d) Refunds to Patients	-	-	-	-	-	-
NET BALANCE AS AT THE YEAR-END (a+b-c-d)	-	-	-	-	-	-

(Amount in Rs.)

Schedule -4 Revolving Fund	Current Year			Previous Year
	XX	YY	Total	Total
a) <u>Opening balance of the funds</u>	-	-	-	-
b) Additions to the Funds				
i. Received From Patients	-	-	-	-
ii. Grant Receive (17-18)	-	-	-	-
TOTAL (a+b)	-	-	-	-
c) <u>Utilisation/Expenditure towards objectives of funds</u>				
i. <u>Capital Expenditure</u>				
Fixed Assets	-	-	-	-
Others (Specify)	-	-	-	-
TOTAL (c.i)	-	-	-	-
ii <u>Revenue Expenditure</u>				
Material & Supply	-	-	-	-
Others (Specify)	-	-	-	-
Transfer to various pts. A/c		-	-	
TOTAL (c.ii)	-	-	-	-
TOTAL (c)	-	-	-	-
Balance as at the end of the year (a+b-c)	-	-	-	-

(Amount in Rs.)

Schedule 5 - Secured Loans And Borrowings	Current Year	Previous Year
1. Capital Government	-	-
2. State Government (Specify)	-	-
3. Financial Institutions		
a) Term Loans	-	-
b) Interest accrued and due	-	-
4. Banks		
a) Term Loans		
- Interest accrued and due	-	-
b) Other Loans (specify)		
- Interest accrued and due	-	-
5. Other Institutions and Agencies	-	-
6. Debentures and Bonds	-	-
7. Others (specify)	-	-
TOTAL	-	-
Note: Amounts due within one year		

<u>Schedule 6- Unsecured Loans And Borrowings</u>		(Amount in Rs.)	
	Current Year	Previous Year	
1. Capital Government	-	-	
2. State Government (Specify)	-	-	
3. Financial Institutions			
a) Term Loans	-	-	
b) Interest accrued and due	-	-	
4. Banks			
a) Term Loans			
- Interest accrued and due	-	-	
b) Other Loans (specify)			
- Interest accrued and due	-	-	
5. Other Institutions and Agencies	-	-	
6. Debentures and Bonds	-	-	
7. Others (specify)	-	-	
TOTAL	-	-	
Note: Amounts due within one year			

<u>Schedule 7- Deferred Credit Liabilities</u>		(Amount in Rs.)	
	Current Year	Previous Year	
a) Acceptance secured by hypothecation of capital equipment and other assets	-	-	
b) Others	-	-	
TOTAL	-	-	
Note: Amount due within one year			

(Amount in Rs.)

Schedule 8-Current Liabilities	Current Year	Pervious Year
A. Current Liabilities		
1. <i>Acceptances</i>	-	-
2. <i>Sundry Creditors</i>		
a) For Goods	-	-
b) Others		
3. <i>Advances Received</i>	-	-
4. <i>Interest accrued but not due on</i>		
a) Secured Loans/borroings	-	-
b) Unsecured Loans/borrowings	-	-
5. <i>Statutory Liabilities</i>		
a) Overdue	-	-
b) Others	-	-
6. <i>Other Current Liabilities</i>	-	-
7. <i>Security Deposit</i>	95,000	108,000
8. <i>Imprest</i>	-	-
9. <i>Aiims Neuro Sciences Poor Pts. A/c</i>	-	-
TOTAL (A)	95,000	108,000
B. Provisions		
1. For Taxation	-	-
2. Gratuity	-	-
3. Superannuation/ Pension	-	-
4. Accumulated Leave Encashment	-	-
5. Trade Warranties/ Claims	-	-
6. Accumulated Depreication		
7. Others	-	-
TOTAL (B)	-	-
TOTAL (A)+(B)	95,000	108,000

Particulars	GROSS BLOCK						DEPRECIATION			NET BLOCK		
	Cost/Valuation as at beginning of the year	Additions during the year	Deductions during the year	Additions during the year (Letter of Credit)	Additions during the year (PDA)	Cost/Valuation at the year-end	As at the begini. of the year	For the year	On ded. during the year	Total up to the year-end	As at the current year-end	As at the previous year-end
FIXED ASSETS												
LAND												
a) Freehold	-	-	-	-	-	-	-	-	-	-	-	-
b) Leasehold	-	-	-	-	-	-	-	-	-	-	-	-
BUILDINGS												
a) On Freehold Land	-	-	-	-	-	-	-	-	-	-	-	-
b) On Leasehold Land	-	-	-	-	-	-	-	-	-	-	-	-
c) Ownership Flats/Premises	-	-	-	-	-	-	-	-	-	-	-	-
d) Superstructures on Land not belonging to the entity	-	-	-	-	-	-	-	-	-	-	-	-
INTANGIBLE FIXED ASSETS												
a) Software	5,500,909	1,183,951	-	7,990,409	-	14,675,269	-	-	-	-	14,675,269	5,500,909
PLANT, MACHINERY & EQUIPMENT*												
VEHICLES	684,629	221,926	-	-	-	906,555	-	-	-	-	906,555	684,629
FURNITURE, FIXTURES	508,605	77,435	-	-	-	586,040	-	-	-	-	586,040	508,605
COMPUTER/ PERIPHERALS	-	-	-	-	-	-	-	-	-	-	-	-
ELECTRIC INSTALLATIONS	-	-	-	-	-	-	-	-	-	-	-	-
LIBRARY BOOKS	-	-	-	-	-	-	-	-	-	-	-	-
Tube well & Water-supply	-	-	-	-	-	-	-	-	-	-	-	-
OFFICE EQUIPMENT	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL OF CURRENT YEAR	6,694,143	1,483,312	-	7,990,409	-	16,167,864	-	-	-	-	16,167,864	6,694,143
PREVIOUS YEAR	-	-	-	-	-	-	-	-	-	-	-	-
CAPITAL WORK-IN-PROGRESS	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	6,694,143	1,483,312	-	7,990,409	-	16,167,864	-	-	-	-	16,167,864	6,694,143

(Amount in Rs.)

SCHEDULE 9 - FIXED ASSETS

		(Amount in Rs.)	
Schedule 10 - Investments from Earmarked/Endowment Funds		Current Year	Previous Year
1. In Government Securities		-	-
2. Other approved Securities		-	-
3. Shares		-	-
4. Debentures and Bonds		-	-
5. Subsidiaries and Joint Ventures		-	-
6. Others (to be specified)		-	-
TOTAL		-	-

		(Amount in Rs.)	
Schedule 11 - Investments Others		Current Year	Previous Year
1. In Government Securities		-	-
2. Other approved Securities		-	-
3. Shares		-	-
4. Debentures and Bonds		-	-
5. Subsidiaries and Joint Ventures		-	-
6. Others (to be specified)		-	-
i. Fixed Deposit (Gamma Knife)			
ii. Fixed Deposit (Angio Pts. A/c)			
iii. Fixed Deposit (Neuro Surgery Pts. A/c)			
TOTAL		-	-

(Amount in Rs.)

Schedule 12-Current Assets, Loans, Advances Etc.	Current Year	Previous Year
A. Current Assets		
1. Inventories		
a) Stores and Spares	-	-
b) Loose Tools	-	-
c) Stock in trade		
Finished Goods	-	-
Work-in-progress	-	-
Raw Materials	-	-
2. Sundry Debtors		
a) Debts outstanding for a period exceeding six months		
b) Others		
3. Cash balances in hand (Including cheques/drafts and imprest)		
a) Imprest		
4. Bank Balances		
a) With Scheduled Banks:		
-On Current Accounts	108,722	110,953
-On Deposit Accounts (Includes margin money)		-
-On Savings Accounts	-	-
b) With Non-Scheduled Banks:		
-On Current Accounts	-	-
-On Deposit Accounts	-	-
-On Savings Accounts	-	-
5. Post Office - Savings Accounts	-	-
TOTAL (A)	108,722	110,953

(Amount in Rs.)			
		Current Year	Pervious Year
SCHEDULE 12-CURRENT ASSETS LOANS, ADVANCES ETC. (CONTD.)			
<u>B. LOANS, ADVANCES AND OTHER ASSETS</u>			
<i>1. Loans</i>			
a) Staff			
b) Other Entities engaged in activities/objectives similar to that of the Entity			
c) Other (Patient Treatment- CGHS)			
<i>2. Advances and other amounts recoverable in cash or in kind or for value to be received</i>			
a) On Capital Accounts			
b) Prepayments			
c) Temporary Contingent Advances			
d) Others			
<i>3. Income Accrued</i>			
a) On Investments fro Earmarked / Endowment Funds			
b) On Investments-Others			
c) On Loans and Advances			
d) Others			
<i>4. Claims Receivable</i> <i>(Includes income due unrealized-Rs.....)</i>			
<i>5. Letter of Credit</i>			
<i>6. Custom Duty</i>			
<i>7. Pre-Deposits Advance</i>			
		-	7,990,409
TOTAL (B)		-	7,990,409
TOTAL (A)+(B)		108,722	8,101,362

(Amount in Rs.)

SCHEDULE 13-INCOME FROM SALES/SERVICE	Current Year	Previous Year
1) <u>Income from sales</u>		
a) Sales of Finished Goods	-	-
b) Sales of Raw Material	-	-
c) Sales of Scraps	-	-
2) <u>Income from Services</u>		
a) Labour and Processing Charges		
b) Professional/Consultancy Service	-	-
c) Agency Commission and Brokerage	-	-
d) Maintenance Services (Equipment/Property)	-	-
e) Hospital Receipts		
f) Others (Specify) Suspence Receipt	3,698	-
TOTAL	3,698	-

SCHEDULE 14-GRANTS/SUBSIDIES	Current Year	Current Year
(Irrevocable Grant & Subsidies Received)-Through Aiims Main		
1) Central Government	-	-
Revenue General (Plan)		
(ii) Grant in Aid- (Salary)	-	-
(iii) Grant in Aid- (General)	-	-
Non Plan		
(iii) Grant in Aid- (General)	699,245	830,585
(ii) Grant in Aid- (Salary)	-	-
2) State Government(s)		-
3) Governments Agencies	-	-
4) Institutions/Welfare Bodies	-	-
5) International Organisations	-	-
6) Others (Specify)	-	-
TOTAL	699,245	830,585

SCHEDULE 15- FEES/SUBSCRIPTIONS			(Amount in Rs.)	
	Current Year	Previous Year		
1) Entrance Fees	-	-		
2) Annual Fees/Subscriptions	-	-		
3) Seminar/Program Fees	-	-		
4) Consultancy Fees	-	-		
5) Tender Fees	-	4,500.00		
6) Other Income	-	-		
TOTAL	-	4,500.00		

Note- Accounting Policies towards each item are to be disclosed

SCHEDULE 16- INCOME FROM INVESTMENTS					(Amount in Rs.)	
	Investment from Earmark Fund		Investment Other			
	Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
(Income on Invest. Earmarked/Endowment Funds transferred to Funds)						
1) Interest						
a) On Govt. Securities	-	-	-	-	-	-
b) Other Bonds/Debentures	-	-	-	-	-	-
2) Dividends						
a) On Shares	-	-	-	-	-	-
b) On Mutual Fund Securities	-	-	-	-	-	-
3) Rents	-	-	-	-	-	-
4) Other (Specify)	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-

Note- Transferred to earmarked/endowment funds

(Amount in Rs.)	
SCHEDULE 17- INCOME FROM ROYALTY, PUBLICATION ETC.	Previous Year
1) Income from Royalty	-
2) Income from Publications	-
3) Others (Specify)	-
TOTAL	-

(Amount in Rs.)	
SCHEDULE 18- INTEREST EARNED	Previous Year
1) On Term Deposits	
a) With Schedule Banks (CNC Main)	
With Schedule Banks (Gamma Knife)	
With Schedule Banks (Angio Pts. A/c)	
With Schedule Banks (C.T. Pts. A/c)	
With Schedule Banks (Neuro Surgery Pts. A/c)	-
b) With Non-Scheduled Banks	-
c) With Institutions	-
d) Others	-
2) On Savings Accounts	
a) With Schedule Banks	-
b) With Non-Scheduled Banks	-
c) With Institutions	-
d) Others	-
3) On Loans	
a) Employee/Staff	
b) Others	-
4) Interest on Debtors and Other Receivables	-
TOTAL	-
Note- Tax deducted at source to be indicated	

(Amount in Rs.)

SCHEDULE 19- OTHER INCOME	Current Year	Previous Year
1) Profit on Sale/disposal of Assets		
a) Owned assets	-	-
b) Assets acquired out of grants, or received free of cost	-	-
2) Export Incentives realized		
a) Liquid Damage	-	-
3) Fees for Miscellaneous Services	-	-
4) Miscellaneous Receipt		
5) Lice. Fee Recovery		-
TOTAL	-	-

(Amount in Rs.)

SCHEDULE 20- INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS	Current Year	Previous Year
a) Closing stock		
Finished Goods	-	-
Work-In-Progress	-	-
b) Less: Opening Stock		
Finished Goods	-	-
Work-In-Progress	-	-
NET INCREASE/(DECREASE) [a-b]	-	-

(Amount in Rs.)

SCHEDULE 21- ESTABLISHMENT EXPENSES	Current Year	Previous Year
a) Salaries and Wages (Plan)		
b) Salaries and Wages (Non-Plan)		
c) Contribution to Provident Fund		
d) Contribution to Other Fund - (NPS)		
e) Staff Welfare Expenses		
f) Expenses on Employees Retirement and Terminal Benefits		
g) Travelling and Conveyance Expenses	-	3,698
h) Others (specify)	-	-
TOTAL	-	3,698

(Amount in Rs.)

<u>SCHEDULE 22- OTHER ADMINISTRATIVE EXPENSES ETC.</u>	Current Year	Previous Year
Imprest	-	42,535
Manpower (Outsources)	293,861	118,554
Refreshments	-	95,894
Others (specify)		
TOTAL	293,861	256983

(Amount in Rs.)

<u>SCHEDULE 22 (A) PAYMENTS MADE AGAINST FUNDS FOR VARIOUS PROJECTS</u>	Current Year	Previous Year
NSC Poor Patients	-	-
Others (specify)		
TOTAL	-	0

(Amount in Rs.)

SCHEDULE 23- Material & Supply	Current Year	Previous Year
Material & Supply	405,359	569,904
Others (Specify)		
TOTAL	405,359	569,904

(Amount in Rs.)

SCHEDULE 24- EXPENDITURE ON GRANTS SUBSIDIES ETC.	Current Year	Previous Year
a) Grants given to Institutions/Organisations	-	-
b) Subsidies given to Institutions/Organisations	-	-
TOTAL	-	-

Note- Name of the Entities, their Activities along with the amount of Grants/Subsidies are to be disclosed.

(Amount in Rs.)

SCHEDULE 25- INTEREST & FINANCE EXPENSES	Current Year	Previous Year
a) On Fixed Loans	-	-
b) On Other Loans (including Bank Charges)	-	-
c) Bank Charges	-	1,553
d) Others (specify)	-	-
TOTAL	-	1,553

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
RESEARCH SECTION
STATEMENT SHOWING THE EXPENDITURE OF THE GRANT RECEIVED FOR THE VARIOUS RESEARCH PROJECTS FOR THE YEAR 2018-19

FUNDING AGENCY	RECEIPT	AMOUNT	Funding Agency	Expenditure (A)	Estd. Expenditure (B)	Expenditure (A+B-C)	Undisbursed Expenditure (D)	Total Expenditure (C+D)
Opening Balance								
Cash In Hand		30,000.00						
Bank Accounts :-								
HEME CELL								
AIMS DBT RESEARCH ACCOUNT	315,341,541.12							
AIMS DST RESEARCH ACCOUNT	145,694,567.13							
AIMS ICMR RESEARCH ACCOUNT	97,898,247.00	718,559,997.25						
AIMS ICMR RESEARCH ACCOUNT	159,625,642.00							
Grant Received from A.I.I.M.S. Institute Research Grant		50,000,000.00	Intramural Research	45,825,786.00		45,825,786.00		45,825,786.00
Received through A.I.I.M.S.								
Abbot Laboratories GmbH			Abbot Laboratories GmbH	431,098.00		431,098.00		431,098.00
Alimil Pharmaceutical India Ltd.	8,667.00		Alimil Pharmaceutical India Ltd.	458,667.00	50,000.00	508,667.00		508,667.00
ALKEM Laboratories Ltd	253,117.00		ALKEM Laboratories Ltd	320,702.00	31,576.00	352,278.00		352,278.00
Antitense Pharma GmbH, GERMANY	347.00							
AnaZeal Analyticals & Research Pvt. Ltd.	31,000.00		AnaZeal Analyticals & Research Pvt. Ltd.	24,900.00	3,100.00	28,000.00		28,000.00
AOTRAJUMA ASIA PACIFIC RESEARCH GRANT	192,236.00		AOTRAJUMA ASIA PACIFIC RESEARCH GRANT	131,040.00		131,040.00		131,040.00
Appasanny Associates Chennai.	5,000.00		Appasanny Associates Chennai.	106,807.00		106,807.00		106,807.00
Astrazenecca Singapore Pvt.Ltd. Singapore			Astrazenecca Singapore Pvt.Ltd. Singapore	62,645.00		62,645.00		62,645.00
Bharat Serum & Vaccine Ltd.	1,488,036.00		Bharat Serum & Vaccine Ltd.	401,977.00	114,297.00	516,274.00		516,274.00
Bigtec Private Limited	330,000.00		Bigtec Private Limited	239,727.00	33,000.00	272,727.00		272,727.00
Boehringer Ingelheim India Private Ltd	582,717.00		Boehringer Ingelheim India Private Ltd	384,319.00	53,035.00	437,354.00		437,354.00
BRISTOL MYER SQUIBB(BMS), USA	1,832,774.00		BRISTOL MYER SQUIBB(BMS), USA	474,826.00	181,990.00	656,816.00		656,816.00
Bristol Myer Squibb India Private Ltd.	1,493,991.00		Bristol Myer Squibb India Private Ltd.	1,525,790.00	148,658.00	1,674,448.00		1,674,448.00
British Heart Foundation, UK	1,109,307.00		British Heart Foundation, UK	1,604,793.00	110,931.00	1,715,724.00		1,715,724.00
BRNS Mumbai	1,050,600.00		BRNS Mumbai	333,543.00	52,530.00	386,073.00		386,073.00
Cadila Health Care Ltd.	864,000.00		Cadila Health Care Ltd.	837,771.00	32,400.00	870,171.00		870,171.00
Cadila Pharmaceutical Ltd.	606,985.00		Cadila Pharmaceutical Ltd.	668,307.00	60,700.00	729,007.00		729,007.00
Canneclin, Canada			Canneclin, Canada	15,750.00		15,750.00		15,750.00
CCDC	784,361.00		CCDC	2,059,134.00	45,553.00	2,104,687.00		2,104,687.00
C.D.A.C.			C.D.A.C.	1,911,604.00		1,911,604.00		1,911,604.00
CEPIIPA, French			CEPIIPA, French	72,000.00		72,000.00		72,000.00
Centers for Disease Control and Prevention (CDC), USA			Centers for Disease Control and Prevention (CDC), USA	286,529.00		286,529.00		286,529.00
Centers for Disease Control, New Delhi	70,084,080.00		Centers for Disease Control, New Delhi	66,535,603.00	7,437,599.00	73,973,202.00		73,973,202.00
Central Council for Research in Ayurveda & Siroha	41,706,341.00		Central Council for Research in Ayurveda & Siroha	55,184,912.00		55,184,912.00		55,184,912.00
Central Council for Research in Ayurvedic Science(CCRAS)	3,223,600.00		Central Council for Research in Ayurvedic Science(CCRAS)	573,652.00	322,360.00	896,012.00		896,012.00
Central Council for Research in Homoeopathy (CCRH), Janak Puri, New Delhi	1,299,200.00		Central Council for Research in Homoeopathy (CCRH), Janak Puri, New Delhi	1,320,860.00	64,960.00	1,385,820.00		1,385,820.00

Indian Council of Agriculture Research Indian Institute of Public Health Hyderabad	1,007,500.00			254,669.00	82,000.00	346,669.00	346,669.00	
Indo-French Centre for the Promotion of Advanced Research	2,640,261.00			668,304.00		668,304.00	668,304.00	
Indo German Science and Technology Centre, Govt of India	736,066.00			571,813.00	73,607.00	645,420.00	645,420.00	
Indo-US Science & Technology Forum	1,813,325.00			1,248,514.78	181,000.00	1,429,514.78	1,429,514.78	
Inmaceal Tech Pvt Ltd.	150,000.00				15,000.00	15,000.00	15,000.00	
INSA	253,334.00			361,932.00	23,000.00	384,932.00	384,932.00	
INTAS Pharmaceuticals Ltd.	126,523.00				30,652.00	30,652.00	30,652.00	
International Atomic Energy Agency	1,108,973.00			2,310,186.00	93,572.00	2,403,758.00	2,403,758.00	
International Union Against Tuberculosis and Lung Disease	429,352.00			429,368.00		429,368.00	429,368.00	
Invidius Oncology				792,491.00		792,491.00	792,491.00	
Ipsa Laboratoris	354,068.00			153,448.00	34,907.00	188,355.00	188,355.00	
I.S.H.T.M.	2,118,294.00			4,020,750.00	369,978.00	4,390,728.00	4,390,728.00	
Janssen	298,000.00			127,576.00	29,800.00	157,376.00	157,376.00	
JIV Daya Foundation	3,618,797.00			1,899,527.00	261,840.00	2,161,367.00	2,161,367.00	
Johnson & Johnson				90,186.00		90,186.00	90,186.00	
JSS Medical Research India Pvt Ltd.	224,011.00			174,047.00	22,400.00	196,447.00	196,447.00	
Kempegowda Institute of Medical Sciences	145,800.00				14,580.00	14,580.00	14,580.00	
KHANDELWAL LABORATORIES LTD.	928,211.00			780,736.00	92,672.00	873,408.00	873,408.00	
KINERA	2,151,646.00			205,376.00	142,400.00	347,776.00	347,776.00	
Lab India Healthcare				128,531.00		128,531.00	128,531.00	
Lady Tata Memorial Trust	1,000,000.00			282,539.00	100,000.00	382,539.00	382,539.00	
Lambda Therapeutic Research Ltd.	340,713.00			392,713.00	32,058.00	424,771.00	424,771.00	
Lebara Foundation	1,299,393.00			1,270,496.00	130,423.00	1,400,919.00	1,400,919.00	
LG Life Sciences India Pvt. Ltd.				344,677.00		344,677.00	344,677.00	
LUPIN LIMITED	1,439,163.00			1,276,200.00		1,276,200.00	1,276,200.00	
Mc Master University Canada	11,301.00			1,436,464.00	103,844.00	1,540,308.00	1,540,308.00	
Media Lab Asia	23,143.00							
Medpace								
Meril Life Sciences Pvt Ltd.	434,267.00			12,600.00	11,880.00	24,480.00	24,480.00	
Microhm India Ltd	13,375,936.00			298,795.00	43,425.00	342,220.00	342,220.00	
Ministry of Health And Family Welfare (N.A.C.O)	28,137,425.00			10,050,423.00	7,368.00	10,057,791.00	10,057,791.00	
Ministry of Health & Family Welfare	6,835,298.00			24,661,458.97	175,120.00	24,836,578.97	24,836,578.97	
Ministry of Health & Family Welfare (Ayush)				7,694,449.00	348,724.00	8,043,173.00	8,043,173.00	
Ministry of Health & Family Welfare (Ayush) Others Upto July-31	24,315,565.00			12,244,110.00		12,244,110.00	12,244,110.00	
Ministry of Health & Family Welfare-DHR	6,189,045.00			24,315,565.00		24,315,565.00	24,315,565.00	
Ministry of Home Affairs	3,946,669.00			5,859,309.00	60,187.00	5,919,496.00	5,919,496.00	
Ministry of Social Justice and Empowerment	38,318,646.00			8,225,348.00	197,033.00	8,422,381.00	8,422,381.00	
M/S Beckman Coulter Pvt. Ltd.	928,849.00			35,195,847.00	945,000.00	36,140,847.00	36,140,847.00	
M/S Gilead Sciences Inc. USA	7,590,393.00			286,592.00	92,885.00	379,477.00	379,477.00	
M/S Markansas Research Division	4,745.00			2,428,829.00	597,756.00	3,026,585.00	3,026,585.00	
NIE	60,199,321.56			17,351,441.24		17,351,441.24	17,351,441.24	
National Cancer Grid Research	2,460,828.00			1,432,913.00		1,432,913.00	1,432,913.00	
National Innovation Foundation	5,411,158.00			632,697.00	182,733.00	815,430.00	815,430.00	
National Institute for Health Research	70,053,676.00			1,112,913.00	89,153.00	1,202,066.00	1,202,066.00	
National Institute of Health, USA	1,400,000.00			63,184,360.82	6,127,717.82	69,312,077.82	69,312,077.82	
National Institute of Mental Health, NH USA				1,458,299.00	70,000.00	1,528,299.00	1,528,299.00	
National Perinatal Epidemiology Unit, University O	837,900.00			113,756.00	83,790.00	113,756.00	113,756.00	
Newron Pharmaceuticals S.P.A.				847,187.00		847,187.00	847,187.00	

Next Gen Invitro Diagnostics Pvt Ltd.	Next Gen Invitro Diagnostics Pvt Ltd.	365,000.00	809,678.00	36,500.00	846,178.00	846,178.00
Next Gen Pharma India Private Limited	Next Gen Pharma India Private Limited		65,954.00		65,954.00	65,954.00
NIPER,NEW Delhi-T10001.	NIPER,NEW Delhi-T10001.		625,349.00		625,349.00	625,349.00
NOVARTIS	Nova Nordisk India Pvt. Ltd.	3,580,944.00	1,870,497.00	555,991.00	2,426,488.00	2,426,488.00
NOVARTIS	NOVARTIS	2,122,576.00	2,228,362.00	211,588.00	2,439,950.00	2,439,950.00
Novartis India Ltd.	Novartis Healthcare Pvt Ltd.	909,623.00	248,839.00	76,680.00	325,519.00	325,519.00
Novartis India Ltd.	Novartis India Ltd.	51,787.00	248,440.00	7,787.00	256,227.00	256,227.00
NSRC, Ministry of Health & Family Welfare	NSRC, Ministry of Health & Family Welfare	1,285,578.00	201,675.00	128,558.00	330,233.00	330,233.00
Office of Science and Technology, Officer of Naval Research Global, US	Office of Science and Technology, Officer of Naval Research Global, US		788,299.00		788,299.00	788,299.00
Office of the Principal Scientific Adviser, GOI	Office of the Principal Scientific Adviser, GOI	21,198,352.00	156,694.00	822,051.00	978,745.00	978,745.00
Oncology Forum	Oncology Forum	150,000.00		15,000.00	15,000.00	15,000.00
Oxford University, UK	Oxford University, UK	297,955.00	371,262.00	29,795.00	401,057.00	401,057.00
PAREXEL INTERNATIONAL Clinical Research Pvt Ltd	PAREXEL INTERNATIONAL Clinical Research Pvt Ltd					
		2,104,983.00	452,920.00	173,175.00	626,095.00	626,095.00
Parexel International Ltd. (U.K.)	Parexel International Ltd. (U.K.)	1,806,868.00	450,021.00	15,774.00	465,795.00	465,795.00
Path/One World Health	Path/One World Health	13,448.00	37,840.00	1,344.00	39,184.00	39,184.00
Pfizer Ltd.	Pfizer Ltd.	1,346,439.00	1,842,507.00	120,000.00	1,962,507.00	1,962,507.00
Pharmaz India Pvt. Ltd.	Pharmaz India Pvt. Ltd.	358,068.00		35,807.00	35,807.00	35,807.00
PHFI	PHFI	3,902,360.00	1,824,133.00	390,236.00	2,214,369.00	2,214,369.00
PHRI, ONTARIO CANADA	PHRI, ONTARIO CANADA	4,794,212.00	1,771,567.00	479,420.00	2,250,987.00	2,250,987.00
PPD Pharmaceutical Development India Pvt. Ltd.	PPD Pharmaceutical Development India Pvt. Ltd.	65,434.00	78,280.00	6,643.00	84,923.00	84,923.00
Quintile Spectral India	Quintile Spectral India	220,807.00	52,499.00	18,937.00	71,436.00	71,436.00
	Raj Gardhya Liver Unit		66,157.00		66,157.00	66,157.00
	Rajiv Gandhi Cancer Institute and Research Centre					
			13,122.00		13,122.00	13,122.00
Ranbaxy/Ellily & Company Pvt. Ltd.	Ranbaxy/Ellily & Company Pvt. Ltd.		17,079.00		17,079.00	17,079.00
Rapim Research Ltd	Rapim Research Ltd		44,188.00		44,188.00	44,188.00
REC Power Distribution Company Ltd.	REC Power Distribution Company Ltd.	1,248,310.00	874,618.00	124,831.00	999,449.00	999,449.00
Saisin Lifesciences Pvt. Ltd.	Saisin Lifesciences Pvt. Ltd.	405,000.00	444,964.00	40,500.00	485,464.00	485,464.00
Sanoofi Synthelabo (India) Private Limited	Sanoofi Synthelabo (India) Private Limited	121,500.00	8,602.00	12,150.00	20,752.00	20,752.00
SCA Global Hygiene Products India Pvt Ltd.	SCA Global Hygiene Products India Pvt Ltd.		79,438.00		79,438.00	79,438.00
SeqIndia Labs Pvt. Ltd.	SeqIndia Labs Pvt. Ltd.	607,200.00	262,431.00	60,720.00	323,151.00	323,151.00
Shastri Indo Canadian Institute	Shastri Indo Canadian Institute		3,287.00		3,287.00	3,287.00
Sight Savers	Sight Savers	3,949,770.00	4,075,284.00	247,235.00	4,322,519.00	4,322,519.00
Singapore Clinical Research Institute, Singapore	Singapore Clinical Research Institute, Singapore		694,078.00		694,078.00	694,078.00
Sinopharm India Pvt Ltd	Sinopharm India Pvt Ltd	1,440,190.00	1,318,162.00	167,233.00	1,485,395.00	1,485,395.00
SMB Corporation of India	SMB Corporation of India		120,000.00		120,000.00	120,000.00
SRB-Clinical Pharmacology	SRB-Clinical Pharmacology	3,154,100.00				
ST. Jude Medical India Pvt Ltd	ST. Jude Medical India Pvt Ltd		30,240.00		30,240.00	30,240.00
Stryker Global Technology Center Pvt Ltd.	Stryker Global Technology Center Pvt Ltd.		6,816.00		6,816.00	6,816.00
Swami Sivananda Memorial Institute	Swami Sivananda Memorial Institute		778,667.00		778,667.00	778,667.00
SWAYAM (Ministry of HRD)	SWAYAM (Ministry of HRD)	2,000,000.00	1,309,491.00	100,000.00	1,409,491.00	1,409,491.00
Synergy, Environments Ltd.	Synergy, Environments Ltd.		118,329.00		118,329.00	118,329.00
Tech Observer India Pvt. Ltd	Tech Observer India Pvt. Ltd	126,000.00	111,902.00	12,600.00	124,502.00	124,502.00
The Cancer Foundation	The Cancer Foundation	1,000,000.00	650,132.00	100,000.00	750,132.00	750,132.00
The Indian Asthima Care Society	The Indian Asthima Care Society	220,000.00	202,588.00	22,000.00	224,588.00	224,588.00
The Media Lab Asia	The Media Lab Asia		20,942.00		20,942.00	20,942.00
The Medical Research Council, United Kingdom	The Medical Research Council, United Kingdom	999,044.00	177,642.00	99,904.00	277,546.00	277,546.00
THSTI	THSTI	592,640.00	1,114,671.00	59,264.00	1,173,935.00	1,173,935.00
Torrent Pharmaceutical Ltd.	Torrent Pharmaceutical Ltd.	1,196,999.00	56,186.00	119,700.00	175,886.00	175,886.00
Troika Pharmaceutical Ltd	Troika Pharmaceutical Ltd	26,565.00		2,657.00	2,657.00	2,657.00
UCLAN, UK	UCLAN, UK	2,230,954.00	627,333.00	223,341.00	850,674.00	850,674.00
UNICEF	UNICEF	15,113,599.00	14,617,384.00	520,054.00	15,137,438.00	15,137,438.00
Unique Biotech Ltd	Unique Biotech Ltd	308,250.00	1,085,951.00	107,225.00	1,193,176.00	1,193,176.00
Universitair Ziekenhuis Antwerpen (UZ), Belgium	Universitair Ziekenhuis Antwerpen (UZ), Belgium		69,000.00		69,000.00	69,000.00
University of Bergen Norway	University of Bergen Norway	380.00				
University of Pittsburgh	University of Pittsburgh	17,874,423.00	3,591,355.00		3,591,355.00	3,591,355.00

UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC	UNIM HSC
Unnique Biotech Ltd.	800,000.00	Unnique Biotech Ltd.	862.00	862.00								
USV Private Limited	1,153,880.00	USV Private Limited	1,038,492.00	1,085,539.00								
Veeda Clinical Research Pvt Ltd	900,403.00	Veeda Clinical Research Pvt Ltd	211,379.00	1,153,880.00								
Walter Bushnell	868,824.00	Walter Bushnell	2,298,456.00	299,767.00								
Warwick University, UK	2,798,166.00	Warwick University, UK	2,335,836.00	86,882.00								
Wellcome Trust, London, U.K.	152,000.00	Wellcome Trust, London, U.K.	18,050.00	2,522,493.00								
WFPICCS	10,658,372.00	WFPICCS	10,782,178.00	2,343,436.00								
WHO	2,518,897.00	WHO	2,518,897.00	WHO	2,518,897.00	WHO	2,518,897.00	WHO	2,518,897.00	WHO	2,518,897.00	121,625.00
Credit In Scheme Fund Account instead of AYUSH Account		Earnest Money Deposit	1,361,195.00	1,361,195.00								
		Oouside Recovery	706,346.00	706,346.00								
DIRECT RECEIPTS												
Establishment Charges	72,813,003.00											
Earnest Money Deposit	2,889,964.90											
TOTAL	2,411,554,850.31	TOTAL	1,174,479,171.27	1,247,292,174.27								

Particular	Amount (Rs.)
Expenditure disbursed	1,247,292,174.27
Aiims DBT Account	281,073,286.27
Aiims DST Account	115,339,416.00
Aiims ICMR Account	297,410,916.00
Aiims Research Scheme Account	433,233,976.18
Aiims Ayush Research Account	23,456,414.00
Aiims Deity Fund Account	46,169.00
DRDO Director Account	13,702,498.60
Closing Balance	1,164,262,676.05
Less: - FDR at Bank	100,000,000.00
Balance After FDR	1,064,262,676.05
Undisbursed Amount	-
Grant Total	2,411,554,850.32

Jr. Accounts Officer
Research Section

ACCOUNTS OFFICER
Research Section

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
RESEARCH SECTION

STATEMENT SHOWING THE EXPENDITURE OF THE GRANT RECEIVED FOR THE VARIOUS RESEARCH PROJECTS FOR THE YEAR 2018-19

S.No.	Funding Agency	Opening Balance		Receipt	Total Receipt	Expend	Estd	Expenditure	Adjustments		Total (Adjustment)	Credit	Debit
		Credit	Debit						Credit	Debit			
1	Institute Research Grant	37,819,274.00		50,000,000.00	87,819,274.00	45,825,786.00		45,825,786.00				41,993,485.00	
2	Abbot health care Pvt Ltd	664,416.00			664,416.00							664,416.00	
3	Abbot vascular USA										482,902.00	482,902.00	
4	Abbot Laboratories GmbH	24,382.00			24,382.00	431,098.00		431,098.00					
5	Access Health International AP		(475,080.00)		(475,080.00)				475,080.00		475,080.00		
6	Ace Pharmaceuticals BV NETHERLAND	15,116.00			15,116.00						(8,677.00)	6,439.00	
7	Aimil Pharmaceutical India Ltd		(331.00)	8,667.00	8,336.00	458,667.00	50,000.00	508,667.00	331.00		331.00		
8	Ajinomoto Co JAPAN	67,328.00			67,328.00							67,328.00	
9	Albert David Ltd												
10	American Academy of Paediatrics	519,226.00			519,226.00							519,226.00	
11	Amgen Technology Private Limited	1,486,697.00			1,486,697.00						59,473.00	1,427,224.00	
12	Alkem Laboratories Ltd.		(75,450.00)	253,117.00	177,667.00	320,702.00	31,576.00	352,278.00					
13	AnaZeal Analyticals & Research Pvt. Ltd.			31,000.00	31,000.00	24,900.00	3,100.00	28,000.00				3,000.00	
14	Antisense Pharma GmbH, GERMANY		(347.00)		347.00								
15	AO Spine India		(84,986.00)		(84,986.00)					115,600.00	115,600.00		30,614.00
16	AO spine international, hongkong		(717,898.00)		(717,898.00)					718,014.00	718,014.00		116.00
17	AO Spine International, USA	266,994.00			266,994.00								
18	AO Trauma Asia Pacific	478,621.00		192,236.00	670,857.00	131,040.00		131,040.00					
19	Appasamy Associates, Chennai	1,23,241.00		5,000.00	128,241.00	106,807.00		106,807.00				539,817.00	
20	Apothecaries Pvt Ltd	642,895.00			642,895.00							21,434.00	
21	Astra Seneca Singapore Pvt Ltd, Singapore	162,647.00			162,647.00	62,645.00		62,645.00			642,895.00		100,002.00
22	Atomic Energy Regulatory Board	335,185.00			335,185.00							335,185.00	
23	Auxilium Technical & Management Services Pvt Ltd	400.00			400.00							400.00	
24	Aventis Pharmaceuticals, USA	14,135.00			14,135.00							14,135.00	
25	Ayush Govt of India								170,063.00		170,063.00		170,063.00
26	BARC	477,447.00			477,447.00						(477,447.00)		
27	Beijing Toshiba Pharmaceuticals Co. Ltd	180,235.00			180,235.00						477,447.00		180,235.00
28	Bharat Biotech International Ltd	12,241.00			12,241.00							12,241.00	
29	Bharat Serum & Vaccines Ltd.		(44,607.00)	1,488,036.00	1,443,429.00	401,977.00	114,297.00	516,274.00	60,000.00		60,000.00	987,155.00	
30	Bigtec private limited	100,310.00		330,000.00	430,310.00	239,727.00	33,000.00	272,727.00				157,583.00	
31	Bill & Melinda Gates Foundation, USA	1,304,624.00			1,304,624.00						1,291,981.00	12,643.00	
32	Bill & Melinda Gates Foundation, USA	1,293,805.00			1,293,805.00							1,293,805.00	
33	Biogen Idec Limited, UK	547,408.80			547,408.80						380,210.80	167,198.00	
34	Biomerieux India (P) Ltd	12,011.00			12,011.00							12,011.00	

35	Boehringer Ingelheim India Pvt Ltd		(585,332.00)	582,717.00	(2,615.00)	384,319.00	53,035.00	437,354.00	1,119,132.00	1,119,132.00	679,168.00
36	BONE & JOINT DECADE INDIA	130.00			130.00						130.00
37	Brains Gate Ltd ISRAEL	132.00			132.00						132.00
38	BRIDGES, USA	83,429.00			83,429.00					83,429.00	-
39	Bristol Meyer Squibb India Pvt Ltd	367,453.60		1,493,991.00	1,861,444.60	1,525,790.00	148,658.00	1,674,448.00		(83,429.00)	186,996.60
40	Bristol Meyer Squibb (BMS), USA		(15,191.00)	1,832,774.00	1,817,583.00	474,826.00	181,990.00	656,816.00			1,160,767.00
41	BRITISH COUNCIL, UK	1,265,831.00			1,265,831.00						3,277.00
42	British Heart Foundation, UK	858,592.00		1,109,307.00	1,967,899.00	1,604,793.00	110,931.00	1,715,724.00	1,262,554.00	(1,262,554.00)	252,175.00
43	BURNS,Mumbai	34,187,380.00		1,050,600.00	35,237,980.00	333,543.00	52,530.00	386,073.00			34,851,907.00
44	Cadila Health care Ltd	33,233.00		864,000.00	897,233.00	837,771.00	32,400.00	870,171.00			27,062.00
45	Cadila Pharmaceutical Ltd	191,578.00		606,985.00	798,563.00	668,307.00	60,700.00	729,007.00			69,556.00
46	Canadian Institutes of Health Research, Canada		(40,613.00)		(40,613.00)				40,613.00		-
47	CANNECTIN, Canada	80,186.00			80,186.00	15,750.00		15,750.00			64,436.00
48	CCDC	5,831,713.00		784,361.00	6,616,074.00	2,059,134.00	45,553.00	2,104,687.00			4,511,387.00
49	CD Pharma India Pvt Ltd	1,505,515.00			1,505,515.00	72,000.00		72,000.00			1,433,515.00
50	CDAC	1,540,014.00			1,540,014.00	1,911,604.00		1,911,604.00		371,590.00	-
51	Cefira, French	1,400,575.00			1,400,575.00	286,529.00		286,529.00			1,114,046.00
52	Centocor Research & Development, USA	4,797.00			4,797.00						4,797.00
53	Central Council for Research in Ayurveda & Sidha		(345,776.00)		(345,776.00)	415,703.00		415,703.00	1,538,189.00	1,538,189.00	776,710.00
54	Central Council for Research in Homoeopathy (CCRH), Janak Puri, New Delhi	583,398.00		1,299,200.00	1,882,598.00	1,320,860.00	64,960.00	1,385,820.00			496,778.00
55	Central Council for Research in Unani Medicine	1,058,028.00			1,058,028.00	382,226.00		382,226.00			675,802.00
56	Central Council for Research in Yoga And Naturopathy		(701,563.00)		(701,563.00)	335,176.00		335,176.00	1,054,391.00	1,054,391.00	17,652.00
57	Central Scientific Instruments Organisation	135,557.00			135,557.00						135,557.00
58	Central Council for Research in Ayurvedic Science(CCRAS)		-	3,223,600.00	3,223,600.00	573,652.00	322,360.00	896,012.00			2,327,588.00
59	Centre For Chronic Disease Control New Delhi	1,466,054.00			1,466,054.00						1,466,054.00
60	Centre for Health Research and Innovation (CHRI)		-	396,204.00	396,204.00	307,627.00	39,620.00	347,247.00			48,957.00
61	Centers for Disease Control and Prevention(CDC), USA	11,270,471.00		70,084,080.00	81,354,551.00	66,535,603.00	7,437,599.00	73,973,202.00			7,381,349.00
62	Centre For Disease Control, New Delhi	17,481,944.00		41,706,341.00	59,188,285.00	55,184,912.00		55,184,912.00			4,003,373.00
63	Centre Franco-Indian Pour La Promotion De La Recherche Advance(GEIPRA), France		(753,741.00)		(753,741.00)				836,627.00	836,627.00	82,886.00
64	GEO,Azure Software Pvt Ltd.		-	822,382.00	822,382.00	1,015,362.00	82,238.00	1,097,600.00	282,967.00	282,967.00	7,749.00
65	Charak Pharma (P) Ltd	1,144.00			1,144.00						1,144.00
66	Christian Medical collage vellore	1,232,333.00		2,305,380.00	3,537,713.00	2,431,609.00	230,538.00	2,662,147.00			875,566.00
67	Christoffel Bindeemission (CBM) India		(1,001,264.00)	3,652,915.00	2,651,651.00	3,785,126.00	230,153.00	4,015,279.00	2,282,332.00	2,282,332.00	918,704.00
68	CLINCYTE, USA	665.00			665.00						665.00
69	Clinical Marketing Pvt Ltd		(243,792.00)		(243,792.00)				252,164.00	252,164.00	8,372.00
70	Clingene International Pvt Ltd	1,144,531.00			1,144,531.00				1,144,531.00	(1,144,531.00)	-

152	ICON Clinical Research India Pvt. Ltd.	-	1,284,315.00	1,284,315.00	684,183.00	128,432.00	812,615.00	-	-	471,700.00	-
153	IADR, U.S.A.	2,546,256.00	-	2,546,256.00	786,174.00	-	786,174.00	365,205.00	(365,205.00)	1,394,877.00	-
154	ICSSR	-	(79,411.00)	(79,411.00)	-	-	-	-	-	-	(79,411.00)
155	Imperial Life Sciences(P) Ltd	66,552.00	-	66,552.00	-	-	-	50,202.00	(50,202.00)	16,350.00	-
156	INCLEN	8,382,490.00	44,637.00	8,427,127.00	5,110,760.00	4,464.00	5,115,224.00	3,809,252.00	(3,809,252.00)	-	(497,349.00)
157	INCLEN & USAID	24.00	-	24.00	-	-	-	-	-	24.00	-
158	INCTR USA	-	(99,699.00)	(99,699.00)	-	-	-	-	-	-	-
159	India Melectronic Pvt Ltd	1,384,322.00	1,637,364.00	3,021,686.00	1,436,323.00	70,251.00	1,506,574.00	88,416.00	(88,416.00)	1,426,696.00	-
160	IFCL	-	25,000,000.00	25,000,000.00	7,677,445.00	2,500,000.00	10,177,445.00	-	-	14,822,555.00	-
161	Indian Council of Agriculture Research.	589,148.00	1,007,500.00	1,596,648.00	2,64,669.00	82,000.00	346,669.00	40,702.00	40,702.00	1,290,681.00	-
162	Indian council of Philosophical Research.	-	(176,320.00)	(176,320.00)	-	-	-	-	-	-	(176,320.00)
163	Indian Heart Rhythm Society	2,560.00	-	2,560.00	-	-	-	-	-	2,560.00	-
164	Indian Institute of public health, Hyderabad	415,016.00	-	415,016.00	668,304.00	-	668,304.00	-	282,164.00	28,876.00	-
165	Indian Institute of Technology	-	(257,018.00)	(257,018.00)	-	-	-	-	-	-	(257,018.00)
166	Indian Society for bone & Mineral Research	-	(60,000.00)	(60,000.00)	-	-	-	-	-	-	(60,000.00)
167	Indo-French Centre for the Promotion of Advanced Research	443,039.00	2,640,261.00	3,083,300.00	-	-	-	419,717.00	(419,717.00)	2,663,583.00	-
168	Indo German Science & Technology centre	4,497,582.00	736,066.00	5,233,648.00	571,813.00	73,607.00	645,420.00	4,484,821.00	(4,484,821.00)	103,407.00	-
169	INDO-US	749,033.00	-	749,033.00	-	-	-	749,033.00	(749,033.00)	-	-
170	Indo-US Science & Technology Forum	141,666.00	1,813,325.00	1,954,991.00	1,248,514.78	181,000.00	1,429,514.78	230,321.00	(230,321.00)	295,155.22	-
171	INMAS (DRDO)	-	(870,046.00)	(870,046.00)	-	-	-	-	-	-	(870,046.00)
172	INSA	342,233.00	253,334.00	595,567.00	361,932.00	23,000.00	384,932.00	175,331.00	(175,331.00)	35,304.00	-
173	Institute De Recherches Internationales Servier (IRIS), France	-	(2,034.00)	(2,034.00)	-	-	-	2,034.00	-	-	-
174	Institute of Cancer Research UK co-ordination Committee	-	(7,209.00)	(7,209.00)	-	-	-	-	-	-	-
175	Institute of Genomics & Integrative Biology.	1,882,584.00	-	1,882,584.00	-	-	-	1,116,358.00	(1,116,358.00)	766,226.00	-
176	Inias Biopharmaceuticals Ltd.	-	(50,063.00)	(50,063.00)	-	-	-	-	-	-	(50,063.00)
177	Inias pharmaceuticals Ltd.	-	126,523.00	126,523.00	-	30,652.00	30,652.00	-	-	95,871.00	-
178	Innaccel Tech Pvt Ltd.	-	150,000.00	150,000.00	-	15,000.00	15,000.00	-	-	135,000.00	-
179	International Union Against Tuberculosis and Lung Diseases	17,975.00	-	17,975.00	-	-	-	-	-	17,975.00	-
180	International Atomic Energy Agency	-	(406,873.00)	(406,873.00)	1,108,973.00	93,572.00	2,403,758.00	840,530.00	840,530.00	-	(861,128.00)
181	International Union Against Tuberculosis and Lung Disease	-	-	-	429,368.00	-	429,368.00	-	-	-	(16.00)
182	International Paediatrics Nephrology Association	462,959.00	-	462,959.00	-	-	-	-	-	43,061.00	-
183	International Union Against Cancer (IUGC)	95,273.00	-	95,273.00	-	-	-	-	-	95,273.00	-
184	Invictus Oncology	87,978.00	-	87,978.00	792,491.00	-	792,491.00	6,203.00	(6,203.00)	-	(710,716.00)
185	Ircalaboris	635,668.00	354,068.00	989,736.00	153,448.00	34,907.00	188,355.00	-	-	-	(751,341.00)
186	IISHTM	-	2,118,294.00	2,118,294.00	4,020,750.00	369,978.00	4,390,728.00	-	-	401,854.00	-
187	JIV DAYA FOUNDATION	-	3,618,797.00	3,618,797.00	1,899,527.00	261,840.00	2,161,267.00	-	-	-	(366,435.50)

380	Universitair Ziekenhuis Antwerpen (UZ), Belgium	206,577.00	-	-	206,577.00	69,000.00	69,000.00	1,512.00	69,000.00	-	137,577.00	-
381	University of Bergen, Norway	369,203.00	380.00	-	369,583.00	-	-	-	-	-	369,583.00	-
382	UNIVERSITY OF CALGARY, CANADA	57,187.00	-	-	57,187.00	-	-	-	-	-	57,187.00	-
383	University of California San Francisco	(1,512.00)	(1,512.00)	-	(1,512.00)	-	-	1,512.00	-	1,512.00	-	-
384	University of Maryland	90,282.00	-	-	90,282.00	-	-	-	-	-	90,282.00	-
385	University of Nottingham, UK	1,974.00	-	-	1,974.00	-	-	-	-	-	1,974.00	-
386	University of Warwick UK	2,798,166.00	2,798,166.00	-	2,798,166.00	2,298,456.00	2,298,456.00	224,037.00	2,522,493.00	-	275,673.00	-
387	University of Pittsburgh	17,874,423.00	17,874,423.00	-	17,874,423.00	3,591,355.00	3,591,355.00	-	3,591,355.00	-	14,283,068.00	-
388	UNM HSC	5,549.00	-	-	5,549.00	862.00	862.00	-	862.00	-	4,687.00	-
389	Umique Biotech Ltd.	1,311,244.00	800,000.00	-	2,111,244.00	1,085,539.00	1,085,539.00	-	1,085,539.00	-	1,025,705.00	-
390	US Science & Technology Forum, USA	399,323.00	-	-	399,323.00	-	-	-	-	-	399,323.00	-
391	USV Private Limited	-	1,153,880.00	-	1,153,880.00	1,038,492.00	1,038,492.00	115,388.00	1,153,880.00	-	-	-
392	Veeda Clinical Research Pvt Ltd	-	900,408.00	-	900,408.00	211,379.00	211,379.00	88,388.00	299,767.00	-	600,641.00	-
393	Venus Remedies Ltd	14,330.00	-	-	14,330.00	-	-	-	-	-	14,330.00	-
394	Veeco Biopharma LLC	143,028.00	-	-	143,028.00	-	-	-	-	-	143,028.00	-
395	Vulimiri Ramalingaswami Foundation	162,000.00	-	-	162,000.00	-	-	-	-	-	162,000.00	-
396	Vulimiri Ramalingaswami Foundation	(6,508.00)	(6,508.00)	-	(6,508.00)	-	-	6,508.00	-	6,508.00	-	-
397	Vyome Bioscience Pvt Ltd	10,548.00	-	-	10,548.00	-	-	-	-	-	10,548.00	-
398	Walter Bushnell	63,344.00	868,824.00	-	932,168.00	-	-	86,882.00	86,882.00	-	845,286.00	-
399	Wellcome Trust London, UK	2,337,305.25	152,000.00	-	2,489,305.25	2,335,836.00	2,335,836.00	7,600.00	2,343,436.00	-	145,869.25	-
400	WHO	20,142,363.12	10,658,372.00	-	30,800,735.12	10,782,178.00	10,782,178.00	36,212.00	10,818,390.00	-	19,982,345.12	-
401	Wockhardt, Mumbai	1,176,899.00	-	-	1,176,899.00	-	-	-	-	-	1,176,899.00	-
402	Wyeth Pharmaceuticals Inc	121,624.33	(538,244.00)	-	(416,619.67)	121,625.00	121,625.00	-	121,625.00	-	225,950.00	-
403	WFPICCS	121,624.33	18,050.00	-	139,674.33	-	-	-	-	-	18,049.33	-
404	Zenotech	32,037.00	-	-	32,037.00	-	-	-	-	-	32,037.00	-
405	Zimmer India Pvt Ltd	81,593.00	-	-	81,593.00	-	-	-	-	-	81,593.00	-
406	Zuventus	146,250.00	-	-	146,250.00	-	-	-	-	-	146,250.00	-
407	Zydus Healthcare Ltd	(398.00)	(398.00)	-	(398.00)	-	-	398.00	-	398.00	-	-
408	Earnest Money Deposit	-	2,889,964.90	-	2,889,964.90	1,361,195.00	1,361,195.00	-	1,361,195.00	-	-	-
409	Ouside Recovery	-	-	-	-	706,346.00	706,346.00	-	706,346.00	-	-	-
410	Grant transferd from Scheme Fund to Ayush	-	-	-	-	24,315,565.00	24,315,565.00	24,315,565.00	24,315,565.00	24,315,565.00	-	-
411	Grant transferd from Scheme Fund to DIETY	-	-	-	-	702,259.00	702,259.00	702,259.00	702,259.00	702,259.00	-	-
412	Grant transferd from Scheme Fund to DRDO	-	-	-	-	17,530,265.60	17,530,265.60	17,530,265.60	17,530,265.60	17,530,265.60	-	-
413	Credit In Scheme Fund Account instead of AYUSH Account	-	2,518,897.00	-	2,518,897.00	-	-	-	-	-	2,518,897.00	-
414	INSA	-	230,000.00	-	230,000.00	-	-	-	-	-	230,000.00	-
415	Ministry of Health And Family Welfare(N.A.C.O)	-	15078	-	15,078.00	-	-	-	-	-	15,078.00	-
416	NOVARTIS	-	76465.77	-	76,465.77	-	-	-	-	-	76,465.77	-
417	NOVARTIS	-	83824.88	-	83,824.88	-	-	-	-	-	83,824.88	-
418	Veeda Clinical reserach Pvt. Ltd.	-	201947	-	201,947.00	-	-	-	-	-	201,947.00	-
419	Micro Labs Limited	-	109890	-	109,890.00	-	-	-	-	-	109,890.00	-
420	Micro Labs Limited	-	241092	-	241,092.00	-	-	-	-	-	241,092.00	-
												(706,346.00)

13.2. Audit Report

Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of All India Institute of Medical Sciences (AIIMS), New Delhi for the year ended 31 March 2019

1. We have audited the attached Balance Sheet of All India Institute of Medical Sciences (AIIMS), New Delhi, as at 31 March 2019, the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 19 (2) of the Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with section 18 (2) of the AIIMS Act, 1956. These financial statements are the responsibility of the AIIMS management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. This Separate Audit Report contains the comments of the Comptroller and Auditor General (CAG) of India on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/CAG's Audit Reports separately.
3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.
4. Based on our audit, we report that:
 - i. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit;
 - ii. The Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report have been drawn up in the uniform format of accounts approved by the Ministry of Finance, Government of India.
 - iii. In our opinion, proper books of accounts on double entry system of accounting and other relevant records have been maintained by the AIIMS in so far as it appears from our examination of such books.
 - iv. We further report that:

A. Balance Sheet

A.1 Liabilities

A.1.1 Secured Loans & Borrowings - AIIMS (Main) (Schedule – 7)

A.1.1.1 A loan of ₹525.00 crore was sanctioned by Higher Education Financing Agency (HEFA) for capital expenditure for National Cancer Institute (NCI), Jhajjar Centre of AIIMS. Out of this sanctioned amount, ₹282.00 crore has been released during the year 2018-19. On behalf of the AIIMS, this amount was paid directly to the executing agencies *i.e.* M/s HSCC and M/s HITES by HEFA. It was noticed that the AIIMS has not included this amount in the accounts for the year 2018-19. This resulted in the understatement of Liabilities as well as Current Assets (Advances) by ₹282.00 crore.

A.1.2 Current Liabilities and Provisions-AIIMS (Main) (Schedule – 7) - ₹253.40 crore

A.1.2.1 An amount of ₹6.41 crore has been depicted as liability on account of Custom duty in the total current liabilities of ₹249.98 crore. However, during the year 2018-19, an advance of ₹4.90 crore paid by Cardio Thoracic & Neuro Sciences Centre (CNC) has not been accounted for in annual accounts of AIIMS (Main). This resulted in understatement of Current Liabilities and Current Assets by ₹4.90 crore each.

A.1.2.2 The above head is overstated by ₹2.00 crore due to wrong entry in the subhead of NPS. This amount was balanced by adding the equal amount in the FDR by depicting it ₹24.00 crore instead of ₹22.00 crore. Consequently, Current Assets were also overstated by the same amount.

A.1.3 Current Liabilities and Provisions-Centre for Dental Education & Research (CDER) (Schedule – 7) - ₹0.78 crore

A.1.3.1 An amount of ₹0.19 crore has been incurred by the AIIMS (Main) on account of custom duty payment for the equipments purchased by the CDER. The said amount was not included in the balance sheet of the CDER, which resulted in to the understatement of Current Liabilities and Fixed Assets by ₹0.19 crore each.

A.1.3.2 As per MoU signed between AIIMS and Ministry of Health and Family Welfare, a National Level Referral and Research Institute of Dental Sciences (NRRIDS) was to be setup within the premises of AIIMS. In this connection, an

amount of ₹9.00 crore was received by the CDER for this purpose from the Ministry, however, the amount and interest earned on this amount was not accounted for in the CDER accounts. This has resulted in understatement of Liabilities and Current Assets (Bank Balances) by the like amount.

A.1.4 Current Liabilities and Provisions-Cardio Thoracic & Neuro Sciences Centre (CNC) (Schedule – 8) - ₹6.17 crore

A.1.4.1 AIIMS has a current account (35984705875) for the purpose of receiving hospital receipts through Credit/Debit cards. In this account, receipts related to the AIIMS (Mains) and all other centres are credited through the POS machines at 10 terminals and receipts in respect of each account is transferred to the account of respective centres after the closure of the month. It was noticed that an amount of ₹2.63 crore pertaining to the CNC A/c, Angio Pt A/c, CT Patient A/c, Gamma Knife Pt A/c and NS Pt A/c for the month of March 2019 was not accounted for in the receipts of the CNC. This resulted into the understatement of Current Assets amounting to ₹2.63 crore, understatement of Liability of ₹2.01 crore and understatement of Income ₹0.62 crore.

A.2 Assets

A.2.1 Current Assets, Loans & Advances AIIMS (Main) (Schedule-11) - ₹1610.07 crore

A.2.1.1 During 2018-19, an escrow account was opened by AIIMS for the purpose of repayment of loan and interest thereof to HEFA in respect a loan of ₹525.00 crore which was sanctioned by HEFA to AIIMS for National Cancer Institute (NCI), Jhajjhar. AIIMS deposited ₹26.25 crore in this account and depicted the same as repayments made to HEFA. However, the repayment was to be started in the year 2019-20. Therefore, as on 31.03.2019, amount of ₹26.25 crore was available in the escrow account of AIIMS. AIIMS did not include this bank account in the balance sheet resulting in the understatement of Current Assets (Bank Balances) and overstatement of payments by the like amount.

A.2.1.2 Exam Section of AIIMS maintained a bank account for the purpose of making payments to external examiners. Advance payments received from AIIMS (Main) are deposited in this account for making of payments to external examiners. Scrutiny of records revealed that this bank account was not included in the annual accounts and the advance payments deposited in this accounts are treated as expenditure. As on 31.03.2019 an amount of ₹12.08 lakh was available in this account, therefore non-inclusion of this bank account in the balance sheet resulted in the overstatement of expenditure and understatement of Current Assets by ₹12.08 lakh.

B General

B.1 Schedule 8 – ‘Fixed Assets’, of the annual accounts of the AIIMS (Main) and other centres of the AIIMS disclosed assets valued at ₹5031.93 crore as on 31 March 2019. However, an Assets Register required to be maintained in Form GFR-22 under General Financial Rules 2017 was not maintained by the AIIMS. In the absence of Assets Register, the value of assets could not be verified in audit.

B.2 As on 31.03.2019, there were huge un-reconciled balances in the bank pertaining to AIIMS (Main) and other Centres as detailed below:

(Amount in ₹)			
S. No.	Name of unit	Particulars	Amount
1	AIIMS (Main)	Cheques deposited but not credited by Bank	27,72,28,225
		Excess debited by Bank	39,89,938
		Excess credit given by Bank	67,96,825
2	CNC	Excess debited by Bank	7,08,09,511
		Cheques deposited but not credited by Bank	4,85,716
		RTGS returned back to A/c	2,89,64,185
		Excess Credit given by Bank	11,38,30,941
3	RPC	Cheques deposited but not credited by Bank	2,04,55,302
		Unknown credits raised by bank (+ figures)	28,20,777
		Unknown debits raised by bank (- figures)	10,71,234

The matter should be taken - up with bank to reconcile the differences promptly.

B.3 As required under Rule 47 of Receipt & Payment Rules, a cheque remaining unpaid for more than six month from the date of issue and not surrendered for renewal should be cancelled and its amount should also be written back in the accounts. Scrutiny revealed that 2805 number of outstanding cheques/RTGS amounting to ₹1894.81 lakh, remained unpaid for six months after the date of its issue and not surrendered for renewal as on 31.03.2019, were neither cancelled nor were their amounts written back in the accounts. Details are given below:

S. No.	Name of unit	No of cheques/RTGS outstanding	Amount (₹ in lakh)
1	AIIMS (Main)	2728	1728.82
2	CNC	9	144.26
3	RPC	68	21.73
Total		2805	1894.81

This has resulted in understatement of Bank balances and Current Liabilities by ₹18.95 crore each.

B.4 No depreciation has been charged by the AIIMS on fixed assets of ₹5031.93 crore i.e. machinery and equipments, vehicles, buildings, Computers/Peripherals and library books etc. as required under AS - 6 of ICAI. In the absence of which audit is unable to certify the actual value of fixed assets and its impact on accounts.

B.5 There are ten Centres including AIIMS (Main) which are maintaining separate accounts. However, AIIMS has not prepared consolidated accounts by consolidating accounts of all the Centres.

B.6 The provision of retirement benefits has not been made in the accounts on actuarial basis as required under Accounting Standard (AS-15) of ICAI.

B.7 In Schedule-11 (Current Assets, Loans & Advances etc.) of annual accounts of AIIMS (Main), ₹23.41 lakh has been shown as Advances for purchase of iron and steel under the head - "Loans". This amount is being carried forwarded over the years. This needs to be reviewed and reconciled.

B.8 In Schedule- 11B of annual accounts of CDER, the Centre has shown several advances which included advances paid to NDMC of ₹23.65 lakh, Security deposit to NDMC of ₹30 lakh and advance paid to DGS&D of ₹4.69 lakh. These advances were more than six years old. Neither review of overdue advances nor provision for the same has been made in the accounts.

B.9 In Schedule-12A (Current Assets) of annual accounts of CNC, ₹32.45 lakh has been shown as 'Sundry Debtors'. This amount is being carried forwarded over the years. Year-wise and party-wise details of the said debtors were not available with the Centre. Review of these debtors had also not been carried out by the Centre.

B.10 As per Schedule-12B (Loans Advances and Other Assets) of annual accounts of CNC, ₹17.46 crore and ₹4.91 crore have been shown as 'Advance against Work' and 'Machinery & Equipments, respectively, which were transferred from CT Patients A/c'. These amounts are being carried forwarded over the years. These advances have neither been adjusted nor has any review been carried out for adjustment thereof.

B.11 In contravention of Uniform Format of Accounts, the AIIMS has maintained its annual accounts on cash basis instead of on accrual basis.

C. Grant-in-aid

During the year 2018-19, AIIMS received total grants of ₹3234.75 crore from Ministry of Health & Family Welfare. The Institute had an internal receipt of ₹217.96 crore and also had an unspent balance of ₹106.45 crore for previous year 2017-18. Out of total fund of ₹3559.16 crore the AIIMS utilised ₹3124.95 crore leaving unspent balance of ₹434.21 crore as on 31 March 2019. Besides, AIIMS received grants for various schemes amounting to ₹162.14 crore and incurred expenditure amounting to ₹124.73 crore.

D. Management Letter

Deficiencies which have not been included in the Audit Report have been brought to the notice of management of Institute through a management letter issued separately for remedial/corrective action.

- v. Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income & Expenditure Account and Receipt & Payment Account dealt with by this report are in agreement with the books of accounts.
- vi. In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts and subject to the significant matters stated above and other matters mentioned in Annexure-I to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India.
 - a. In so far as it relates to the Balance Sheet of the state of affairs of All India Institute of Medical Sciences as at 31 March 2019; and
 - b. In so far as it relates to Income & Expenditure Account of the surplus for the year ended on that date.

For and on behalf of C&AG of India

-Sd-

Director General of Audit
(Central Expenditure)

Place: New Delhi
Date:

Annexure

1. Adequacy of internal audit system

During 2018-19, out of 144 units, only 33 units were planned and audited by the internal wing of the AIIMS. There was no internal audit manual.

2. Adequacy of Internal Control System

- i. 103 parasof external audit for the period from 1996-98 to 2017-18 were outstanding as on 31 March 2019.
- ii. The AIIMS was not maintaining fixed assets register as per the prescribed format.
- iii. Huge bank balances were pendingthat were not reconciled.
- iv. AIIMS (Main) maintained two bank accounts for the payment of Custom duty and demurrage charges. However, there is no cash book and reconciliation statement is being prepared for these accounts and the figures in annual accounts are being taken as bank transactions instead of cash book. Therefore, expenditure incurred on the last days of the financial year is not been accounted for in the respective year.
- v. Institute as per its accounting policy are not accounting for closing stock of stores and supplies in the accounts and treated it as final expenditure at the time of payment. This has the impact of substantial value of store and supplies remained out of accounts.

3. System of physical verification of Assets

The physical verification of fixed assets has been conducted upto 2018-19.

4. System of physical verification of inventory

The physical verification of inventory like books and publications, stationery and other consumable has been conducted upto 2018-19.

5. Regularity in payment of dues

As per accounts, no payments for over six months in respect of statutory dues were outstanding as on 31.03.2019.

The point wise replies to Separate Audit Report of All India Institute of Medical Sciences, New Delhi for the year ending 31.03.2019.

A. Balance Sheet

A.1 Liabilities

A.1.1 Secured Loans & Borrowings - AIIMS (Main) (Schedule – 7)

A.1.1.1 Necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

A.1.2 Current Liabilities and Provisions - AIIMS (Main) (Schedule – 7) - ₹253.40 crore

A.1.2.1 Necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

A.1.2.2 Necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

A.1.3 Current Liabilities and Provisions-Centre for Dental Education & Research (CDER) (Schedule – 7) - ₹0.78 crore

A.1.3.1 Necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

A.1.3.2 Necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

A.1.4 Current Liabilities and Provisions-Cardio Thoracic & Neuro Sciences Centre (CNC) (Schedule – 8) - ₹6.17 crore

A.1.4.1 The amount has been accounted for in current FY 2019-20 and necessary entries will be made in the accounts of 2019-20. However, the same has been noted for future compliance.

A.2 Assets

A.2.1 Current Assets, Loans & Advances AIIMS (Main) (Schedule-11) - ₹1610.07 crore

A.2.1.1 The repayments have been made as per sanction and loan agreement signed with HEFA. However necessary rectification entries will be made in the Annual Accounts of FY 2019-20.

A.2.1.2 Noted for future compliance.

B General

B.1 Noted for future compliance.

B.2 Major amount of outstanding cheques has been reconciled. The efforts are being made for settlement of remaining outstanding un-reconciled bank balances. The special efforts are being made in this regard and matter has been taken up at the zonal level for providing complete detail of debit by the bank so that the same could be reconciled.

B.3 The action is being taken on outstanding cheques more than six month old as per rule 47 of Receipt and Payment Rules.

B.4 The depreciation policy has been framed and approved by competent authority. This would be adopted simultaneously with adoption of accrual system of accounting.

B.5 As directed by Audit the necessary note will be inserted in next accounts. Noted for compliance.

B.6 The observation of the Audit has been noted for future compliance. Provisions will be made once the accounts of the Institute are prepared on accrual basis.

B.7 The efforts are being for liquidation of outstanding advance of Rs 23.41 lakh.

B.8 Noted for future compliance.

B.9 The efforts are being made to find out the party wise details of sundry debtors for their early liquidation.

B.10 The efforts for adjustment are being initiated to clear these advances.

B.11 Noted for compliance.

C. Grant-in-aid

No comments.

D. Management Letter

Noted for future compliance.

Annexure

1. Adequacy of internal audit system

The target of Internal Audit of 33 auditee units has been achieved by Internal Audit Wing of the Institute despite shortage of manpower. Simultaneously efforts are being made to strengthen internal audit system by putting in more internal control system and enhancing Internal Audit Manpower.

2. Adequacy of Internal Control System

The vigorous efforts are being made to settle the old outstanding paras by obtaining tenable and suitable replies from the concerned departments/centres.

The asset register are being maintained by the concerned department and the store section. The same could be verified during next audit.

The vigorous efforts are being carried out to reconcile the bank balances.

The point is noted for future compliance.

3. System of physical verification of Assets

Physical Verification of fixed assets for the period (2018-19) have been carried out. Physical verification report of all the centres and most of the department have been received. These physical verification report also does not have any major deviation/shortages. The Physical Verification Reports have been shown to the Audit Party.

4. System of physical verification of inventory

The physical verification of library, stationery store and consumable have been carried out. Physical verification report of all the centres and most of the department have been received. These physical verification report also does not have any major deviation/shortages. The Physical Verification Reports have been shown to the Audit Party.

5. Regularity in payment of dues

Factual information, no comments.



शरीरमाद्यं खलुधर्मसाधनम्