आखिल भारतीय आयुर्विज्ञान संस्थान
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
शरीरमाद्यं खलुधर्मसाधनम्

68th Annual Report 2023-2024



All India Institute of Medical Sciences
New Delhi

68th
AIIMS
ANNUAL REPORT
2023–2024

शरीरमाद्यं खलु धर्मसाधनम्

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

NEW DELHI - 110029

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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 programs 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 193 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.



Shri Jagat Prakash Nadda

Hon'ble Union Minister
Ministry of Health and Family Welfare
Ministry of Chemicals and Fertilisers
Government of India
and
President, AIIMS, New Delhi



Shri Jadhav Prataprao Ganpatrao
Hon'ble Minister of State
Ministry of Health & Family Welfare
Ministry of Ayush (Independant Charge)
Government of India



Smt. Anupriya Patel
Hon'ble Minister of State
Ministry of Health & Family Welfare
Ministry of Chemicals and Fertilisers
Government of India

AIIMS AT A GLANCE

2023–2024

Year of establishment 1956

Teaching Departments and Centres	43 + 7	Medical graduates	**3710**
Faculty members (Sanctioned 1220)	825	Postgraduates	**13242**
Non-faculty staff (Sanctioned 12, 875)	11128	Nursing/paramedical graduates	**4020**
Undergraduate students	1192	Publications in journals/abstracts	**4526**
Postgraduate students	2166	Chapters in books/books	**581**

Hospital Services

Hospital/Centre	Outpatients (including casualty)	Admission	Surgery (Operations/ procedures)	Beds		
				General	Private	Total
Main Hospital	21, 72, 531	1, 39, 290	1, 39, 383	1472	195	1667
Dr RP Centre	6, 00, 479	52, 216	54, 074	288	22	310
Dr BRAIRCH	1, 92, 088	49, 993	9, 708	174	15	189
Cardiothoracic Centre	1, 48, 176	10, 062	3, 077	226	33	464
Neurosciences Centre	1, 57, 307	10, 414	3, 304	174	31	
NDDTC*	3, 50, 318	1, 380	---	50	--	50
CCM†	6, 01, 569	8, 312	1, 110	50	--	50
JPNATC	1, 05, 709	8,025	8, 242	232	22	254
CDER	2,45,795	1, 099	28, 020	20	–	20
NCI, Jhajjar	98, 068	40, 756	31, 036	387	–	387
Outreach outpatients, Badsa, Jhajjar	1, 22, 457	----	1, 342	–	–	–
Total	**47, 94, 497**	**3, 21, 847**	**2, 79, 296**	**3073**	**318**	**3391**

*inclusive of Trilokpuri, Sunder Nagri & Kotla Mubarakpur †inclusive of PHC Dayal Pur, Chhainsa
** Including 30 Triage beds

Hospital Performance Indices

Parameters	Main Hospital		Cardiothoracic and NeurosciencesCentre		Jai PrakashNarain Apex Trauma Centre	
	2023–24	2022–23	2023–24	2022–23	2023-24	2022-23
Average length of stay (days)	9.5	9.9	10.8	11. 5	9.43	8.91
Average bed occupancy rate (%)	85.3	81.1	78.3	79.5	75.90	78.04
Net death rate (%)	1.4	1.6	2.4	4.1	5.90	5.31
Combined crude infection rate (%)	7.4	7.1	–	–	–	–

CCM: Centre for Community Medicine
CDER: Centre for Dental Education and Research
Dr BRAIRCH: Dr B.R. Ambedkar Institute Rotary Cancer Hospital
Dr RP Centre: Dr Rajendra Prasad Centre for Ophthalmic Sciences
JPNATC: Jai PrakashNarain Apex Trauma Centre
NCI: National Cancer Institute
NDDTC: National Drug Dependence Treatment Centre

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Centres

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10.2. Centre for Dental Education and Research 731
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1. Director's Review

I feel privileged to present the Sixty-eighth Annual Report and audited statement of accounts for the year 2023–2024.

All India Institute of Medical Sciences, New Delhi (AIIMS-Delhi) was established in 1956 by an Act of the Indian Parliament to serve as the nucleus for nurturing excellence in medical education and all aspects of health care. AIIMS-Delhi is recognized as India's best medical institution for its trinity of purposes – value-based medical education, cutting-edge biomedical research, and quality and equitable healthcare. Our growth story is the outcome of years of collective pursuit of excellence by our workforce. Our faculty and scholars lead with relentless commitment to innovative research and learning, collaborations that extend the impact of basic science insights into the clinic, and education initiatives that embed health equity into the curriculum. Our staff and administration play a critical role in developing talent, fostering an environment of inclusion and belonging, and encouraging productivity.

I am privileged to lead and serve this exceptional institution and wish to highlight some of its extraordinary achievements in this report.

Services

AIIMS-Delhi is focused on providing healthcare to ensure patient satisfaction, and to make available an ecosystem that is affordable, accessible, and assuredly world-class in quality.The main hospital and ourcentres—Cardiothoracic and Neurosciences Centre (CN Centre), Jai Prakash Narain Apex Trauma Centre (JPNATC), Dr BR Ambedkar Institute Rotary Cancer Hospital (BRAIRCH) and National Cancer Institute, Jhajjar, Dr Rajendra Prasad Centre for Ophthalmic Sciences (RPCOS), Centre for Dental Education and Research (CDER), and National Drug Dependence Treatment Centre (NDDTC), Ghaziabad—have a total bed strength of 3391. During the year 2023–2024, AIIMS-Delhi attended to about 47.94 lakh outpatients and 3.22 lakh inpatients and performed over 2.8 lakh surgical procedures at optimal patient care service parameters with bed occupancy of about 85%, hospital stay of 9.5 days;and a lownet death rate of about 1.4%. AIIMS-Delhi continues to advance the delivery of healthcare within and outside India, particularly in South/ Southeast Asian region.

Expansion of infrastructure

Dr. Mansukh Mandaviya, the then Hon'ble Minister of Health & Family Welfare,dedicated the Mother and Child Block, Surgical Block, National Centre for Aging (NCA), New Private Ward in Main hospital and Private Ward Wing at National Cancer Institute (NCI), Jhajjar to the nation. These facilities are equipped with cutting-edge technology and modern amenities, underscoring the institute'scommitment to maintaining the highest standards of healthcare delivery to the largest numbers. These new facilities mark a transformative leap in healthcare infrastructure and services. The Department of Surgical Disciplines has added numerous specialty clinics including Benign Breast Disease Clinic, Endocrine Surgery Clinic, Cancer Genetic Clinic, Male Sexual Health Clinic, Vascular Clinic, Renal Transplant Clinic, among others. The Department of Obstetrics and Gynaecology has made more facilities available for Reproductive Medicine, Maternal-Fetal Medicine, Minimally Invasive Surgeries, Gynae-Oncology and Urogynaecology. The department has also expanded its Yoga, Birth Planning and Respectful Maternity care initiatives.The Department of Paediatrics has expanded its services, e.g., itsDivision of Genetics, in collaboration with Divisions of Neonatology andPediatric Endocrinology, and Departments of Pediatric Cardiology, Otolaryngology, Ophthalmology, Paediatric Surgery, and Obstetrics and Gynaecology has initiated an expanded newborn screening program for more than 50 conditions. Newer therapies (e.g., gene therapy) are being provided to patients as part of global compassionate access programs. The NCA has initiated multi-specialty healthcare for the elderly at inpatient (10-bed ICU and 36-bed ward)and outpatient locations. Geriatric Medicine, Surgery, Psychiatry, Physical Medicine and Rehabilitation, Gynaecology, Clinical Psychology and Orthopaedics outpatientservices have been made operational. All laboratory and radiological investigations for older people are done with ease in a single centre.

The Central Armed Police Forces Institute of Medical Sciences (CAPFIMS) signed a Memorandum of Understanding (MoU) with AIIMS-Delhi to start its teaching hospital, named'All India Institute of Medical Sciences- Central Armed Police Forces Institute of Medical Sciences (AIIMS CAPFIMS)' at Maidangarhi. The institutionhasbeen established at a cost of around Rs 2,091 crore, with facilities including 500 general beds, 300 super-specialty beds and 170 ICU/critical care beds. The hospital will house a Trauma Centre, Artificial Limb Centre, Mental Health Counselling Centre and Physical Rehabilitation Centre. The institute will provide healthcare facilities to all CAPF employees, their dependents, pensioners, Central Government Health Scheme beneficiaries,Ayushman BharatPradhan Mantri Jan Arogya Yojana (AB PM-JAY)beneficiaries and the general public. The institute will develop a medical college with 100 seats, a college of

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nursing with 60 seats, and a school for paramedics with 300 seats and will provide post graduate/PG diploma courses (60 Seats) and post-doctoral courses (DM & MCH - 10 Seats).

Introduction of novel services

AIIMS-Delhi has launched the country's first Smart Lab in the public sector, an automated platform designed to streamline patient care. The AI-assisted laboratory allows patients to receive their test reports the same day, eliminating long wait times, without compromising on accuracy. The lab's capacity for testing up to 90,000 samples daily, has resulted in a 50% increase in sampling this year - 2.7 Crore (27 million) tests overall. TheDepartmentofMicrobiologyadded 91 new investigations to its NABL accreditation for 2023-25. The Department of Microbiology was also designated as a Department of Health Research (DHR) Integrated Disease Research and Diagnosis Laboratory (IDRDL), under a new Government of India scheme, this year.

As a part of G20 preparations, the emergency wing of the JPNATC was designated as the centre for managing CBRNE disasters (chemical, biological, radiological, nuclear and explosive). Many structural changes were made, and new facilities were built for triaging, decontaminating and managing the patients involved in CBRNE disasters. The Department of Plastic, Reconstructive & Burns Surgery has set up the first Skin Bank in public sector India. This bank with technologically advanced machines will be of great help in saving lives of patients with severe burns.

Patient centric endeavours

AIIMS-Delhi is implementing the ABPMJAY scheme earnestly. It has a centralised Ayushman Bharat Kendra which operates round-the clock(24X7) for the smooth implementation of the scheme. The hospital is in the process of establishing more Kendras in various centres and blocks to facilitate easy access to healthcare by beneficiaries.An Affordable Medicines and Reliable Implants for Treatment (AMRIT) pharmacy was initiated at the Institute to provide medicines at affordable rates. It will operate 24X7. Currently, the pharmacy offers approximately 1,500 drug formulations, covering a wide spectrum of medical conditions.The institute has also added 63 more drugs to the list of medicines being provided free of cost to patients. Theseefforts have been made to align with the government's mission to make quality healthcare accessible and affordable.

AIIMS-Delhi has signed a MoU with the Guru Gobind Singh Indraprastha University (School of Automation and Robotics and School of Design and Innovation) to develop a 'patient grievance redressal system' that will enhance transparency, accountability, and patient satisfaction within the healthcare domain. The redressal system will cover an array of services, including clinical practice, nursing care, welfare schemes, sanitation, security, infrastructure, and facilities management. The institute has also introduced steps to make its hospital services'tout and bribe-free' through establishment of a dedicated WhatsApp complaint line (+91-9355023969) and the mobilization of collective responsibility on the part of staff members. The aim of these measures is to ensure a safe and transparent environment where patients receive the highest standards of care without fear of exploitation.

AIIMS-Delhi has successfully implemented theAyushman Bharat Health Account (ABHA) based app to cut down on waiting times for outpatients. The introduction of ABHA-based scan and share facility is part of AIIMS-Delhi's ongoing commitment to innovation and excellence in health care delivery. The National Health Authority recognized the Institute as the 'Top Facility' in the generation of ABHA ID tokens for queue management at Arogya Manthan-2023. The institute has also introduced 'Sandes', a messaging app developed by the National Informatics Centre (NIC) for internal communication. The utilization of 'Sandes' will improve connectivity, quicker information sharing, and seamless coordination among all departments and staff members at AIIMS in a digitally secure environment.The institute has also launched an AIIMS-Delhi-SBI Smart Payment Card, which is aimed at providing hassle-free payments for treatment at AIIIMS.

Environment friendly initiatives

AIIMS-Delhi has signed an agreement with the Indian Renewable Energy Development Agency Limited (IREDA) to initiate the technical assessment of the hospital campus for converting it into one which is powered by solar energy. By implementing solar power projects, the premier medical institute aims to significantly reduce its electricity expenditure while concurrently minimising its carbon footprint.

Research and Innovation

The faculty and researchers of this Institute have a mandate for conducting research to address the health challenges of the nation as well as advancing global knowledge. With the objective of creating a more vibrant research milieu, the

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Research Section of AIIMS-Delhi has initiated several calls for funding research proposals, held workshops, and has created a supportive research infrastructure.

The Research Section managed 906 extramural funded research projects from leading national and international agencies as well as 269 intramural research grants amounting to over Rs. 208 crores in the year 2023-2024. The funding agencies included Indian Council for Medical Research (ICMR), Department of Health Research (DHR), Department of Biotechnology (DBT), Department of Science and Technology (DST), Indian National Science Academy (INSA), Council for Scientific and Industrial Research (CSIR), Defence Research and Development Organization (DRDO), Ministry of Health and Family Welfare (MoH&FW), World Health Organization (WHO), United Nations Children's Fund (UNICEF), Wellcome Trust, etc. The research community at AIIMS-Delhi contributed significantly to scholarship through its leadership in innovations and publications. During the year the faculty and scientists of the Institute published over 2200 research papers in national and international journals and over 300 monographs, books, and chapters in books.

Support for research and faculty development is of paramount importance. AIIMS-Delhi has increased investment in its core research facilities,Centralized Core Research Facilities (CCRF), Clinical Research Unit (CRU) and Centre for Medical Innovation & Entrepreneurship (CMIE)/BioNEST, which serve the multiple laboratories and departments and raise productivity of every scientist across our community. The institute has also prioritized internally managed funding programmes that raise philanthropic money (e.g., through Corporate Social Responsibility)centrally but distribute resources across our community.Such endowments are used to promote participation of younger faculty members and students in research through various competitive grants. This year saw the initiation of new intramural funding schemes for Nursing Faculty, undergraduate mentorship, and medical/dental post-graduates. A scheme toprovide financial support to MD/MS/MDS/DM/MCh residents to accomplish the research objectives in their thesis was also started.

Three Divisions of the Department of Paediatrics, namely Paediatric Nephrology, Paediatric Pulmonology, and Childhood Neurodevelopmental Disorders continue to contribute to the Centre for Advanced Research (CAR) projects of the ICMR. AIIMS-Delhi also supports other CAR projects, viz., Virtual Autopsy (Department of Forensic Medicine), Pancreatic Disease and Intestinal diseases (Department of Gastroenterology and Human Nutrition), Neuromodulation (Department of Psychiatry), Disability and Assistive Technology (Department of Biomedical Engineering), Nephrology (Department of Nephrology), and Pulmonology (Department of Pulmonary, Critical Care and Sleep Medicine).The CAR project in Neuromodulation at the Department of Psychiatry has launched a training programme for mental health specialists from various states. The ICMR selected Department of Cardiology, Division of Paediatric Pulmonology & Intensive Care of the Department of Paediatrics, and Department of Burns & Plastic Surgery as ICMR Collaborating Centre of Excellence (ICMR-CCoE) in 2023.

Collaborative research

The Research Section has laid down lines for future long-term collaborations.AIIMS-Delhi is collaborating with Liverpool University for research on head and neck cancer through joint research and education programmes. The collaboration aims to develop common standard operating procedures to access high quality clinical datasets and tissue repositories of two ethnically diverse populations whose cancer-causing aetiologies differ significantly. The collaboration will also help in the delivery of cutting-edge medical innovation and personalised cancer treatments. AIIMS-Delhi and ICMR have started a multi-centre study to evaluate three indigenous human papillomavirus tests for detecting cervical cancer. The trial aims to develop an accurate and affordable test which can be integrated into the National Cancer Screening Programme. These tests are being validated through a collaboration with the Biotechnology Industry Research Assistance Council (BIRAC) and WHO's International Agency for Research on Cancer (IARC).

AIIMS-Delhi and Klinikum der Universität München (LMU Klinikum) at Munich, Germany have signed a MoU to explore potential cooperative activities aimed at advancing research, education and innovation in medical and healthcare domains, and specifically focused on multi-centre clinical trials, digital medicine, and artificial intelligence. The institute has also forged a collaboration with Armed Forces Medical Services to advance expertise in the critical fields of high altitude and space medicine.

Integrative research

The Ministry of AYUSH, the Central Council for Research in Ayurvedic Sciences, and the ICMR have called for proposals to establish integrative health research centres at various AIIMS under its extramural programme to research integrative therapies for priority diseases and generate evidence using modern scientific methods.The Advanced Centre for Integrative Health Research in Gastro-intestinal Disorders and Advanced Centre for Integrative Health Research in Women and Child Health are being set up at AIIMS-Delhi.

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A study conducted at AIIMS showed that yoga is an effective adjunctive therapy for rheumatoid arthritis. Yoga significantly improved pain perception, disability quotient, joint flexibility, range of motion, posture, muscle tone and strength, coordination, and psycho-somatic symptoms. Importantly, yoga also reduced disease activity (e.g., inflammation, oxidative stress), normalized biomarkers associated with inflammation, and re-established immunological tolerance (e.g., increased expression of anti-inflammatory genes). Another study showed that yoga therapy that included stretching exercises ('sukshmavyayama'), breathing exercises ('pranayama'), meditation, and positive affirmations, practiced over 6 months, reduces seizure frequency by more than 50%, in addition to mitigating feelings of anxiety and self-stigma.

Artificial intelligence

A recent study published in the *Lancet* predicts that by 2040, cancer cases in India would increase to over 2 million - a rise of 58% from current figures. Early diagnosis is the key to reducing fatalities due to cancer. AIIMS-Delhi, in collaboration with the Centre for Development of Advanced Computing, Pune, has launched an Artificial Intelligence (AI) platform - iOncology.ai. - designed for the early detection of cancers. This indigenously developed technology has been deployed in five district hospitals for validation of its ability to detect breast and ovarian cancer, the most common cause of cancer amongst women in India.

Clinical innovation

AIIMS Delhi has established itself as a centre for advanced cancer care. The Department of Dermatology has introduced the Mohs micrographic surgery for skin cancers. It offers precise tumour removal with minimal damage to healthy tissue. This techniquepromises improved healing and lower recurrence rates. The Department of Otolaryngology (ENT) and Indian Institute of Technology, New Delhi (IIT-Delhi) have collaborated to develop a valve, commonly referred to as a tracheoesophageal prosthesis. This cutting-edge device is designed to enhance speech restoration for individuals who have undergone voice box removal following throat cancer. The valve is available free of charge at AIIMS.

Surgeons at the institute have performed a dual kidney transplant on a patient under dialysis for the first time in India. The successful operation was done by doctors of the Department of Surgical Disciplines and Department of Nephrology in collaboration with the Organ Retrieval Banking Organisation (ORBO). The Department of Gastrointestinal Surgeryand Liver Transplantation performed its first live liver donation surgery this year.Plastic Surgeons performed the first complete functional forearm reconstruction in the world and received international accolades.

The Department of Orthopaedics and IIT-Delhi have collaborated to develop cutting-edge elbow replacement implants that are both precise in fit, and of superior quality.The Department is also collaborating withthe DRDO on a project to develop special exoskeleton, which is a wearable robotic extension, to help paralysed patients' walk.

Education

The continued emphasis on a unique organizational culture, intense academic training and exposure to world class research has helped AIIMS-Delhi in becoming a premier teaching institution. With its 9 centres and 43 stand-alone Departments, and a manpower of over 15,000, including over 800 faculty members, AIIMS-Delhi 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 more than 1200 scholars in various graduate/postgraduate courses. The Institute also provided postgraduate exposure to 450 short-term trainees.

AIIMS-Delhi continues to introduce new courses in the face of the rapidly changing landscape of medicine. Super-specialty seats have almost doubled over the last decade. A new DM Program in Psychosomatic Medicine has been approved under the Department of Psychiatry.

Our educational activities continue to grow with a wide range of learning opportunities for audiences around the country/region including health care professionals, patients and their families. We offered Continuing Professional Development education to thousands of clinician and science leaders working in healthcare fields to acquaint them with new trends in science and health care delivery. We organized/hosted over 260 workshops, symposia, conferences and training programmes in collaboration with various national and international agencies. The KL Wig Centre for Medical Education and Technology (CMET) organized multiple in-house training programmes for various categories of staff members.

Rapid advances in health technology and precision medicine techniques require physicians of the future to engage with new models of care.AIIMS-Delhi has launched a state-of-the-art surgical robotics training facility for its resident doctors and faculty in the SET facility (Skills, e-learning, telemedicine). The facility, MeHNAT (Medtronic Hugo and AIIMS training) in robotic surgery, is being provided in partnership with India Medtronic Private Limited.

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AIIMS-Delhi has signed an agreement with Indian Resuscitation Council Federation to impart training to all its staff, including doctors, paramedics, security guards and sanitation workers, in the emergency life-saving procedure, Cardiopulmonary Resuscitation (CPR) to counter the rising number of heart attacks. Immediate CPR can double or triple the chances of survival after cardiac arrests.The institute has also signed a MoU withthe Healthcare Sector Skill Council (HSSC) under the Ministry of Skill Development and Entrepreneurship (MSDE) for the skilling, reskilling, and upskilling of various cadres of hospital staff.

The path of learning Medicine can be arduous. It is important that students get the support needed to handle academic and professional pressures. AIIMS-Delhi places a strong focus on student wellness. The psychiatry department is closely involved in running an on-campus wellness centre where students can go for support and advice. New students are mandated to take up orientation programmes that helps them become familiar with their peers as well as the campus. Faculty members, resident doctors, research scholars and students have also been attending the institute's 'Science and Spirituality' lecture series. Invited speakers include doctors, gurus and spiritual leaders.

Our state-of-the-art infrastructure (including simulation labs), robust academic calendar, high load of patients, and scientific pedagogygive our students unparalleled opportunities to learn.These are just some of the reasons why even after nearly seven decades, the Institute remains the nation's leader in medical education. The Minister of State for Health, Shri S P Singh Baghel congratulated the institute for retaining its top position in the medical category inthe National Institutional Ranking Framework (NIRF)of the Ministry of Educationfor the year 2023. This is the sixth consecutive year that the institute has been ranked number one among medical institutions in the NIRF.

Public health

The Centre for Community Medicine (CCM) contributes to several national health priority implementation research projects commissioned by ICMR on comprehensive primary health care, and communicable and non-communicable diseases. CCM is ensuring evidence based decision making for HIV programme of the National AIDS Control Organization (NACO)via National Institute for HIV Surveillance;framing up the comprehensive health sector priorities for Non-Communicable Diseases through the WHO Collaborating Centre (WHO-CC) for Research and Capacity Building on Community-based Non Communicable Diseases (NCD) Prevention and Control, and helping steer the anaemia control in country through the National Centre of Excellence and Advanced Research on Anaemia Control (NCEAR-A). In addition, through its presence in technical resource groups of Government of India, the Department is actively contributing for strategy framework, and strategic information management of National Viral Hepatitis Control Programme, pollution and its effect on health, National Tuberculosis Elimination Program, Adolescent Health, and Health Sector Strategy frameworks. The Department also houses the Technical Support unit for SRS-based Verbal Autopsy System of the Office of Registrar General of India and WHO supported SEAR NCD service delivery network.

The Department of Obstetrics and Gynaecology houses the WHO-CC for Research in Human Reproduction, and Cervical Cancer Prevention and Research.In the Department of Paediatrics, the Division of Neonatology is a WHO-CC for Training and Research,and the Division of Genetics is a WHO-CC for Training in Clinical and Laboratory Genetics for developing countries. AIIMS-Delhi also houses the WHO-CC for Training and Research in Tuberculosis (Department of Medicine), Substance Abuse (NDDTC), Prevention of Blindness (RPCOS), Oral Health Promotion (CDER) and Emergency and Trauma Care (Department of Emergency Medicine).The Department of Medicine is leading a national training program for managing extrapulmonary TB, aimed at the elimination of TB by 2025. The Department of Emergency Medicinecontributed to the development of the WHO Drowning Prevention Framework for the South East Asia Region.

The National Drug Dependence Treatment Centre (NDDTC) coordinates the activity of 27 "Drug Treatment Clinics (DTCs)" under the *Drug De Addiction Programme (DDAP)* of the Ministry of Health & Family Welfare at the national level. Under the *Addiction Treatment Facility (ATF)*scheme supported by the Ministry of Social Justice & Empowerment (MoSJ&E), the NDDTC has approved 103 addiction Treatment Facilities across the country of which, 66 have alreadybecome functional.

The Department of Physical Medicine and Rehabilitation contribution to the development of Recommendations for Medical Rehabilitation of Persons Injured After an Earthquake (under Director General Health Services [DGHS]), the National List of Essential Assistive Products (under the ICMR), andthe National Revised Guidelines for Assessment of Persons with Locomotor Disabilities (under DGHS).

Transparency and diversity

AIIMS-Delhiaims to be as an inclusive community for tomorrow's leaders in science and health care.To enhance transparency and to ensure proactive disclosure of information, as mandated under Section 4 of the RTI Act, AIIMS-

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Delhi has decided to publish all information regarding the reservation roster and department promotion committee and selection panel meetings on its website.

The Department of Gastrointestinal Surgery and Liver Transplantation held a meeting with women surgeons in Surgical Gastroenterology to discuss issues related to the women workforce in the super specialty and to suggest steps to increase their participation and professional engagement.AIIMS-Delhi isfirmly committed to its community values.

In conclusion

AIIMS-Delhi has sincerely endeavoured to meet its mandate of assisting the Government of India in its efforts to provide quality and equitable healthcare to the Indian people through public-spirited scientific education, evidence-based, accessible and affordable service provision, and state-of the-art biomedical research.

It is a privilege to serve this pristine Institution and to work with so many dedicated and enterprisingcolleagues. I, hereby put onrecord, my heartfelt appreciationof the entire workforce of AIIMS-Delhi for itsdevotion to its chosen path!

M. Srinivas
Director

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2. Institute Body

INSTITUTE BODY (w.e.f. 1.04.2023 to 31.3.2024)

1.	**Dr. Mansukh Mandaviya** Minister of Health & Family Welfare Nirman Bhawan, New Delhi-110011	President
2.	**Dr. Anil Jain , MP (Rajya Sabha)** D-244, Anupam Garden, Saiyad Ul Ajaib, New Delhi-110068	Member
3.	**Shri Ramesh Bidhuri, M.P (Lok Sabha)** H.No.179, Sunpath House, Village Tughlakabad, New Delhi-110044	Member
4.	**Shri Manoj Kumar Tiwari, MP (Lok Sabha)** 24, Mother Teresa Crescent, Marg New Delhi	Member
5.	**Dr. K. Vijay Raghvan** Former Principal Scientific Advisor	Member
6.	**Shri K. Sanjay Murthy** Department of Secretary to the Govt. of India M/o HRD Shastri Bhawan, New Delhi-110001	Member
7.	**Dr. Pranjal Modi** Vice Chancellor Gujarat University of Transplantation Sciences, Opp. Trauma Centre, Civil Hospital Campus, Asarwa, Ahmedabad-380016, Gujarat	Member
8.	**Shri Apurva Chandra** Secretary (H&FW) Govt. of India M/o Health & FW, Niman Bhawan, New Delhi-110011	Member w.e.f. 01.01.2024 to till date **Vice Shri Rajesh Bhushan** w.e.f. 6.12.2021 to 31.7.2023 **Vice Shri Sudhansh Pant** w.e.f. 1.08.2023 to 31.12.2023
9.	**Prof. Yogesh Singh** Vice Chancellor University of Delhi, Delhi-110007	Member (Ex-Officio)
10.	**Dr. Atul Goel** Director General of Health Services Govt. of India Nirman Bhawan, New Delhi-110011	Member (Ex-Officio)
11.	**Prof. Vijay Kumar Shukla** Rector & Voice Chancellor Banaras Hindu University, Varanasi – 221005, U.P	Member

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12.	**Dr. (Smt.) Vijay Laxmi Saxena** Former General Secretary, Indian Sciences Congress Association, (ISCA), Kolkata, West Bengal, **Dr. (Smt.) Vijay Laxmi Saxena** Coordinator Bioinformatics Infrastructure Facility Centre of DBT, (Govt. of India), Head of Department of Zoology, Dayanand Girls P.G. College, Kanpur, 7/182, Swarup Nagar, Kanpur-208002, U.P.	Member
13.	**Dr. Kameshwar Prasad,** Director Rajendra Institute of Medical Sciences, Bariatu, Ranchi-834009, Jharkhand	Member
14.	**Dr. Prem Nair** Medical Director, Amrita Institute of Medical Sciences, Elamakkara P.O., Kochi-682041, Kerala Nashik-422 004	Member
15.	**Dr. S. Venkatesh** Consultant R.No.501, New Epidemiology Block, National Centre for Disease Control, 22, Sham Nath Marg, Delhi-110054	Member
16.	**Shri Jaideep Kumar Mishra** Addl. Secretary and Financial Adviser Govt. of India Ministry of Health & Family Welfare, Nirman Bhawan, New Delhi-110011	Member
17.	**Prof. M. Srinivas** Director, AIIMS	Member Secretary

GOVERNING BODY (<u>w.e.f. 1.04.2023 to 31.3.2024</u>)

1.	**Shri Mansukh Mandaviya**	President
2.	**Dr. Anil Jain , MP (Rajya Sabha)**	Member
3.	**Shri Apurva Chandra**	Member w.e.f. 01.01.2024 to till date **Vice Shri Rajesh Bhushan** w.e.f. 6.12.2021 to 31.7.2023 **Vice Shri Sudhansh Pant** w.e.f. 1.08.2023 to 31.12.2023
4.	**Shri K. Sanjay Murthy**	Member
5.	**Shri Jaideep Kumar Mishra**	Member Vice Shri Ashish Srivastava
6.	**Dr. Atul Goel**	Member
7.	**Dr. Kameshwar Prasad**	Member
8.	**Dr. Pranjal Modi**	Member
9.	**Prof. Yogesh Singh**	Member

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10.	**Prof. Vijay Kumar Shukla**	Member
11.	**Prof. M. Srinivas** Director, AIIMS	Member Secretary

FINANCE COMMITTEE (w.e.f. 1.04.2023 to 31.3.2024)

1.	**Shri Apurva Chandra**	Member (w.e.f. 01.01.2024 to till date) **Vice Shri Rajesh Bhushan** w.e.f. 6.12.2021 to 31.7.2023 **Vice Shri Sudhansh Pant** w.e.f. 1.08.2023 to 31.12.2023
2.	**Shri Ramesh Bidhuri, M.P (LS)**	Member
3.	**Dr. Atul Goel**	Member
4.	**Shri K. Sanjay Murthy**	Member
5.	**Dr. K. Vijay Raghvan**	Member
6.	**Shri Jaideep Kumar Mishra**	Member
7.	**Dr. Pranjal Modi**	Member
8.	**Prof. M. Srinivas** Director, AIIMS	Member Secretary

STANDING ACADEMIC COMMITTEE (w.e.f. 1.04.2023 to 31.3.2024)

1.	**Dr. Pranjal Modi**	Chairman
2.	**Dr. Atul Goel**	Member
3.	**Prf. Yogesh Singh**	Member
4.	**Shri Jaideep Kumar Mishra**	Member
5.	**Prof. Vijay Kumar Shukla**	Member
6.	**Dr. Prem Nair**	Member
7.	**Dr. (Smt.) Vijay Laxmi Saxena**	Member
8.	**Prof. M. Srinivas** Director, AIIMS	Member Secretary

STANDING ESTATE COMMITTEE (w.e.f. 1.04.2023 to 31.3.2024)

1.	**Shri Ramesh Bidhuri, MP (Lok Sabha)**	Chairman
2.	**Shri Manoj Kumar Tiwari. M.P (Lok Sabha)**	Member
3.	**Dr. (Smt.) Vijay Laxmi Saxena,**	Member
4.	**Dr. Atul Goel**	Member
5.	**Prof. Yogesh Singh**	Member
6.	**Shri Jaideep Kumar Mishra**	Member
7.	**Prof. Vijay Kumar Shukla**	Member
8.	**Prof. M. Srinivas** Director, AIIMS	Member Secretary

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STANDING HOSPITAL AFFAIRS (w.e.f. 1.04.2023 to 31.3.2024)

1.	**Shri Manoj Kumar Tiwari, MP (Lok Sabha)**	Chairman
2.	**Dr. Anil Jain, M.P (Rajya Sabha)**	Member
3.	**Dr. K. Vijay Raghvan**	Member
4.	**Dr. Atul Goel**	Member
5.	**Dr. S. Venkatesh**	Member
6.	**Dr. Kameshwar Prasad**	Member
7.	**Prof. Yogesh Singh**	Member
8.	**Prof. M. Srinivas** Director, AIIMS	Member Secretary

SELECTION COMMITTEE (w.e.f. 1.04.2023 to 31.3.2024)

1.	**Dr. Kameshwar Prasad**	Chairman
2.	**Dr. Atul Goel**	Member
3.	**Prof. Vijay Kumar Shukla**	Member
4.	**Dr. S. Venkatesh**	Member
5.	**Prof. Yogesh Singh**	Member
6.	**Dr. K. Vijay Raghvan**	Member
7.	**Dr. Prem Nair**	Member
8.	**Prof. M. Srinivas** Director, AIIMS	Member Secretary

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3. Academic Section

Dean (Acad.)

Minu Bajpai (upto 31 October 2023)
K. K. Verma (from 01. November 2023 to till date)

Associate Dean
Rajeev Kumar

Registrar
Sanjeev Lalwani (upto 19 June 2023)
Girija Prasad Rath (from 20 June 2023 to till date)

The Academic Section develops policy, and plans and executes academic activities at AIIMS, New Delhi. 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.

Admissions in various courses over the past three years

S. No.	Name of course	2023-24	2022-23	2021-22
1.	MSc/MBiotech/MSc Nursing (August)*	105	106	101
2.	MD/MS/MDS/MCh/DM (Direct 6 years)	440	295	467
3.	DM/MCh	238	189	188
4.	PhD	57	57	59
5.	Fellowship	48	37	36
6.	MBBS*	132	132	132
7.	BSc Nursing (Post-Basic)*	36	31	43
8.	BSc (Hons.) Nursing*	95	94	96
9.	Para-medical courses*	53	34	45
	Total	**1204**	**975**	**1167**

*Admissions are done once in a year.

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, Operation Theatre Technology, BSc Dental Hygiene, BSc Dental Operating Room Assistant (DORA), BSc Nursing (Post-Basic) and BSc (Hons.) Nursing courses, and Bachelor of Optometry.

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 3 phases and internship. The details are as follows:-

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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

At present, 132 students are admitted every year to the MBBS course (51 General Category, 34 Other Backward Classes, 12 EWS Category, 19 Scheduled Caste, 9 Scheduled Tribe and 7 Foreign National). For persons with disabilities (PWD), 5% reservation was provided on a horizontal basis. No reservation shall be applicable for Foreign National students. From 2021, these admissions are made based on merit through the National Eligibility Entrance Test (NEET) conducted by the National Testing Agency.

As on 31 March 2024, 640 MBBS students including 99 interns were on rolls. Nine 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 2023-24, 95 students (39 General Category, 9 EWS Category, 14 Scheduled Caste, 7 Scheduled Tribe and 26 Other Backward Classes) were admitted in BSc (Hons) Nursing course. For BSc Nursing (Post-Basic) course, 36 students (15 General Category, 5 Scheduled Caste, 3 Scheduled Tribe, 10 Other Backward Classes, 3 EWS) were admitted.

Students admitted to various BSc courses were as follows:

BSc	General	SC	ST	OBC	EWS	Foreign	TOTAL
Bachelor of Optometry	11	3	-	7	1		22
Medical Technology in Radiography	4	1	1	4	1	–	11
Operation Theatre Technology	9	4	–	6	1	–	20
Dental Hygiene	–	–	–	–	–	–	Nil
Dental Operating Room Assistant	–	–	–	–	–	–	Nil

The number of students on rolls in these courses as on 31 March 2024 were as follows:

Course	Number of students
Nursing	
BSc Nursing (Post-basic)	63
BSc (Hons) Nursing	343
Paramedical	
Bachelor of Optometry	79
BSc (Hons) Medical Technology in Radiography	31
BSc Operation Theatre Technology	33

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BSc Dental Hygiene	02
BSc Dental Operating Room Assistant	01

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, MHA, MCh/ DM (Direct 6 years Course), M Biotechnology (M Biotech) 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, MSc Nursing and M. Biotechnology courses, for which the examination is held once a year. Foreign nationals are admitted under the sponsored category through the same entrance examination. In 2023–24, 1215 students were admitted in various courses. The number of postgraduate and doctoral students on roll as on 31 March 2024.

Admissions in various courses

S.No.	Nameofcourse	**2023-2024**
1.	MSc/MBiotech/MScNursing(August)*	105
2.	MD/MS/MDS/M.Ch/DM(Direct 6 years)	440
3.	DM/MCh	238
4.	PhD	68
5.	Fellowship	48
6.	MBBS*	132
7.	BScNursing(Post-Basic)*	36
8.	BSc(Hons.)Nursing*	95
9.	Para-medicalcourses*	53
	Total	**1215**

*Admissions are done once in a year.

Postgraduate students on rolls

S.No.	**Name of course**	**Number of students on roll**
1.	PhD	335
2.	DM	406
3.	MCh	200
4.	Fellowship programme	52
5.	MD	818
5.	MS	112
6.	MDS	54
7.	MSc/MBiotech/MSc Nursing	189
	Total	**2166**

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Subject-wise distribution of PhD students on rolls

S. No.	Subject	Open	Sponsored
1.	Anatomy	12	–
2.	Biochemistry	41	–
3.	Biophysics	38	–
4.	Biotechnology	25	–
5.	Cardiac Biochemistry (CNC)	4	–
6.	Cardiology	1	–
7.	Centre for Community Medicine	8	2
8.	CIMR	1	–
9.	Community Ophthalmology (Dr RP Centre)	2	–
10.	Dermatology & Venereology	3	1
11.	Forensic Medicine & Toxicology	2	–
12.	Gastroenterology and Human Nutrition Unit	6	–
13.	Laboratory Medicine	3	1
14.	Laboratory Medicine (TC)	1	–
15.	Laboratory Oncology	11	–
16.	Medical Oncology (Dr BRA IRCH)	16	–
17.	Medical Physics (Dr BRA IRCH)	1	1
18.	Microbiology	5	–
19.	Medicine	–	1
20.	National Drug Dependence Treatment Centre (NDDTC)	2	–
21.	Neuro-pathology (NSC)	6	–
22.	Neurology	10	–
23.	Neuro-Anaesthesiology& Critical Care	0	1
24.	Neuro-psychology	1	–
25.	Neurosurgery	1	–
26.	Nuclear Magnetic Resonance	9	–
27.	Nuclear Medicine	2	–
28.	Oral Medicine & Radiology (CDER)	2	–
29.	Oral Pathology & Microbiology (CDER)	1	–
30.	Obst. &Gynaecology	1	–
31.	Ophthalmology (RPC)	4	–
32.	Ocular Biochemistry (Dr RP Centre)	3	–
33.	Ocular Pathology (Dr RP Centre)	2	–
34.	Ocular Pharmacology (Dr RP Centre)	3	–
35.	Paediatric Surgery	0	1

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36.	Paediatrics	5	1
37.	Pathology	13	–
38.	Pharmacology	14	–
39.	Physiology	25	–
40.	Plastic Reconstructive & Burns Surgery	1	–
41.	Preventive Oncology (IRCH)	1	–
	Preventive Oncology (NCI, Jhajjar)	1	–
42.	Psychiatry	6	–
43.	Psychiatry (Clinical Psychology)	1	–
44.	Psychiatry (NDDTC)	2	–
45.	Radiation Oncology	–	1
46.	Pulmonary Medicine and Sleep Disorders	4	–
47.	Reproductive Biology	16	–
48.	Stem Cell	4	–
49.	Surgery (JPNATC)	1	–
50.	TII	2	2
	TOTAL	**323**	**12**

Subject-wise distribution of DM students on rolls

S.N	DM	Open	Sponsored
1.	Addiction Psychiatry (NDDTC)	12	1
2.	Cardiac Surgical Intensive Care (CTVS)	8	0
3.	Cardiac Anaesthesiology	14	2
4.	Cardiology	22	1
5.	Clinical Haematology	11	3
6.	Clinical Pharmacology	3	0
7.	Anaesthesiology & Critical Care	24	2
8.	Endocrinology	8	3
9.	Gastroenterology	22	2
10.	Haemato-Pathology	7	2
11.	Medicine & Microbiology	8	0
12.	Medical Genetics	8	0
13.	Medical Oncology	28	3
14.	Neonatology	9	3
15.	Nephrology	8	0
16.	Neuro-Anaesthesiology and Critical Care	19	3
17.	Neurology	36	3
18.	Neuroimaging and Interventional Neuroradiology	6	0

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19.	Onco-Anaesthesia, DrBRAIRCH	22	0
20.	Paediatric Cardiology	6	0
21.	Paediatric Endocrinology	4	1
22.	Paediatric Nephrology	3	0
23.	Paediatric Neurology	9	3
24.	Paediatric Pulmonology and Intensive Care	3	3
25.	Paediatric Oncology	14	1
26	Pulmonary, Critical Care and Sleep Medicine	12	0
27.	Reproductive Medicine	6	3
28.	Therapeutic Medicine	7	0
29.	Cardiovascular Radiology& Endovascular Interventions	11	1
	Total	**350**	**40**

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

S. No.	DM	Open	Sponsored
1.	Infectious Diseases (DM)	18	0
	Total	18	0

Subject-wise distribution of MCh on rolls as on 31 March 2024

S. No.	Subject	Open	Sponsored
1.	Breast, Endocrine and General Surgery	11	1
2.	Cardiothoracic and Vascular Surgery	24	1
3.	Gastrointestinal Surgery	12	3
4.	Gynaecologic Oncology	12	1
5.	Head-Neck Surgery and Oncology	8	1
6.	Minimal Access Surgery and General Surgery	18	1
7.	Neurosurgery	17	2
8.	Paediatric Surgery	6	0
9.	Plastic and Reconstructive Surgery	18	1
10.	Surgical Oncology	15	3
11.	Trauma Surgery and Critical Care	14	2
12.	Urology	12	3
	Total	**167**	**19**

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

S. No.	MCh	Open	Sponsored
1.	Neurosurgery	9	0
2.	Paediatric Surgery	7	0
	Total	**16**	**0**

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Subject-wise distribution of Fellowship Students on rolls

S.No.	Fellowship	Open	Sponsored
1.	Bariatric and Metabolic Surgery	1	0
2.	Clinical Research Methodology and Evidence Based Medicine	3	–
3.	Paediatric Cardiac Anaesthesia	1	–
4.	Anaesthesiology –Pain Medicine and Critical Care	8	–
5.	Epilepsy Surgery and Functional Neurosurgery	2	–
6.	Spine Surgery (NS)	2	–
7.	Epilepsy Surgery and Functional Neurosurgery (NS)	1	–
8.	Paediatric Surgery (NS)	1	-
9.	Advanced Gastrointestinal Endoscopy	1	–
10.	Uro-Oncology	2	–
11.	Minimal Invasive Urology (Laparoscopic and Robotics)	2	–
12.	Medical Oncology	1	–
13.	Diagnostic and Interventional Radiology	2	1
14.	Thoracic Radiology	2	–
15.	Minimally Invasive Gynaecological Surgery	2	–
16.	Uro-Gynaecology	4	–
17.	Gastroenterology-Pancreatology	2	–
18.	Gastroenterology-Inflammatory Bowel Diseases	2	–
19.	Neuro-Critical Care	4	–
20.	Maternal Foetal Medicine (MFM)	1	–
21.	Arthroscopy	2	–
22.	Joint Replacement	2	–
23.	Pelvic-Acetabular Trauma	2	–
24.	Neurology-Stroke	1	–
	Total	**51**	**1**

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

S. No.	MD	Open	Sponsored
1.	Anaesthesiology	94	3
2.	Anatomy	12	–
3.	Biochemistry	14	–
4.	Biophysics	17	–

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5.	Community Medicine	28	1
6.	Conservative Dentistry and Endodontics	11	–
7.	Dermatology and Venereology	23	3
8.	Emergency Medicine	30	3
9.	Forensic Medicine	11	–
10.	Geriatric Medicine	15	2
11.	Hospital Administration	12	–
12.	Infectious Disease- DM (direct 6 year course)	14	–
13.	Laboratory Medicine	11	–
14.	Medicine	68	3
15.	Microbiology	17	–
16.	Neuro Surgery – MCh (Direct 6 years course)	12	–
17.	Nuclear Medicine	19	3
18.	Obstetrics and Gynaecology	53	3
19.	Ophthalmology	82	2
20.	Oral and Maxillofacial Surgery	12	0
21.	Orthodontics	11	1
22.	Orthopaedics	23	3
23.	Otorhinolaryngology (ENT)	24	3
24.	Paed. Surgery – MCh (Direct 6 years course)	5	–
25.	Paediatrics	42	3
26.	Palliative Medicine	17	0
27.	Pathology	35	3
28.	Pedontics and Preventive Dentistry	12	–
29.	Pharmacology	17	–
30.	Physical Medicine and Rehabilitation	11	3
31.	Physiology	21	–
32.	Prosthodontics	8	–
33.	Psychiatry	38	3
34.	Radiodiagnosis	36	3
35.	Radiotherapy	15	2
36.	Surgery	56	3
37.	Transfusion Medicine	8	–
38.	**Total**	**934**	**50**

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Subject-wise distribution of MSc students on rolls

S. No.	MSc	Open	Sponsored
1.	Anatomy	10	–
2.	Biochemistry	13	–
3.	Biophysics	9	–
4.	Pharmacology	8	–
5.	Physiology	12	–
6.	Biotechnology	35	–
7.	Nuclear Medicine Technology	25	–
8.	Reproductive Biology	12	–-
9.	Cardio Vascular Imaging and Endovascular Technology	6	–-
	Total	**130**	**00**

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

S. No.	MSc (Nursing)	Open	In-service candidate/F.N
1.	Cardiological/CTVS Nursing	8	2
2.	Neurosciences Nursing	8	2
3.	Paediatric Nursing	5	2
4.	Psychiatric Nursing	5	2
5.	Oncological Nursing	7	2
6.	Nephrological Nursing	7	2
7.	Critical Care Nursing	5	2
	Total	**45**	**14**

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 2023-24, 166 persons underwent training from 14 February 2022 to 31 March 2022. Various training programmes were suspended from 1 April 2021 to 13 February 2022 due to the COVID pandemic and therefore the number of candidates is much lower than in the previous years.

S. No.	Training	Number of trainees
1.	Short Term training: Indian nationals	365
2.	Short Term training: Foreign nationals	23
3.	Long Term training: Indian nationals	06
4.	Elective Training: Foreign nationals (UG students)	55
5.	WHO Fellows: Indian nationals	0
6.	WHO Fellows: Foreign nationals	0
7.	Permission for organizing Conferences/Workshops	261

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COMMITTEE MEETINGS

During the year 2023-24, 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	01
2.	Staff Council	02
3.	Dean's Committee	01
4.	Faculty (General Discussions)	08
5.	Oration	10
6.	Research Presentations	01

SET (Skills, E-learning & Telemedicine) Facility

Professor Ambuj Roy, Head, SET Facility

Professor Kalpana Luthra, Prof-In-Charge - E-Learning

Professor Rashmi Ramachandran, Prof-In-Charge- Skill & Simulation

Professor Vijay Prakash Mathur, Prof-In-Charge- Telemedicine Facility

Mr. Gyan Chand, Administrative Officer

Mr. Adarsh Kumar Sharma, Chief Technical Officer

Mr. Ram Pal Singh, Store Officer



Objectives-

- Establish a simulation-based skill-learning facility.
- Establish an e-platform for online learning.
- Telemedicine facility for tele-education & tele-consultation to collaborate between Institutes all over India.

Establishment of AIIMS Robotic Training Facility

The first robotic training center in a public academic institute in South Asia was inaugurated on 02 May 2023 as a public-private partnership between AIIMS, New Delhi & India Medtronic Private Limited [a wholly owned subsidiary of Medtronic

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plc]. The training facility stationed at the WET lab offers simulation as well as hands-on training on wet animal tissues and human cadavers.





Advanced Airway Training Laboratory

1. Endotracheal Intubation and Bronchoscopy in Patients-

- Total number conducted - 04
- Total residents enrolled - 25

2. Airway Training for UG Students

- Total number conducted - 01
- Total residents enrolled - 25









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Ultrasound Simulation Laboratory

1. USG Simulation Training for UG Students

- Total number conducted - 01
- Total residents enrolled - 25

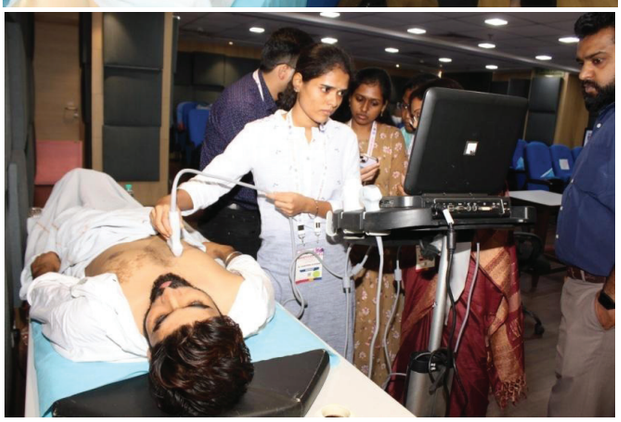
2. Point of Care Ultrasound (POCUS) Workshop - INSIGHT

- Total number conducted - 02
- Total candidates enrolled - 51

3. TEE Hands-on Workshop

- Total number conducted - 01
- Total residents enrolled - 25



Skill Lab

1. Undergraduate students

a. The Skill-based learning for undergraduate students which is integrated into the curriculum

b. The program starts in the 4th semester using blended online and hands-on teaching methodology

- Number of skill training sessions - 41
- Number of students attended the various sessions - 848

2. Nursing students

- Skill training program for college of nursing students - 30
- Number of students attended - 1127

3. Nursing Staff

a. Cardiac Resuscitation Training Program (CRTP) Course

- Total number conducted - 24
- Total candidates enrolled - 543

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b. Hospital Infection Control Committee (HICC) hands-on training on IPC Practices

- Total number conducted - 28
- Total candidates enrolled - 741

c. Emergency Nursing Update

- Total number conducted - 08
- Total candidates enrolled - 209

d. CODE BLUE Training for CNC

- Total number conducted - 15
- Total candidates enrolled - 294

e. Nursing Induction Program - Basic Life Support

- Total number conducted - 14
- Total candidates enrolled - 441

f. Nursing Induction Program - Basic Skills Training

- Total number conducted - 11
- Total candidates enrolled - 358

g. Cytotoxic drug safety awareness Month September

- Total number conducted - 01
- Total candidates enrolled - 100

h. Workshop on Breast cancer awareness

- Total number conducted - 01
- Total candidates enrolled - 100

i. Simulation in Nursing service and education

- Total number conducted - 01
- Total candidates enrolled - 30

j. Workshop on respectful maternity care

- Total number conducted - 04
- Total candidates enrolled - 86

4. Postgraduate students-

a. National Airway Workshop

- Total number conducted - 01
- Total residents enrolled - 37

b. Revision TKR (Total Knee Replacement)

- Total number conducted - 01
- Total residents enrolled - 16

c. Training on Intrapartum and Respectful Maternity Care

- Total number conducted - 01
- Total residents enrolled - 21

d. Acute Critical Care Course

- Total number conducted - 02
- Total residents enrolled - 60

e. BLS & ACLS Provider Course (AHA Accredited)

- Total number conducted - 03
- Total candidates enrolled - 73

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f. BLS & ACLS Instructor Course (AHA Accredited)

- Total number conducted - 01
- Total candidates enrolled - 07

g. IAP ALS Workshop

- Total number conducted - 02
- Total candidates enrolled - 67

h. ACLS Program for Medical Officers (DGHS)

- Total number conducted - 04
- Total candidates enrolled - 181

i. Emergency Orthopedics Skill Training

- Total number conducted - 01
- Total candidates enrolled - 30

j. Forceps & Vacuum delivery simulation

- Total number conducted - 01
- Total candidates enrolled - 04

k. Episiotomy and CuT insertion Training

- Total number conducted - 01
- Total candidates enrolled - 08

l. CODE BLUE Training for CNC Residents

- Total number conducted - 03
- Total candidates enrolled - 45

m. Neonatal Resuscitation Program (NRP)

- Total number conducted - 06
- Total candidates enrolled - 228

n. POCUS for Hematology Patients

- Total number conducted - 01
- Total candidates enrolled - 15

o. PG Theory Exam

- Total number conducted - 03
- Total candidates enrolled - 19

5. MCh/MD/DM/Super specialty training courses

a. SIM MEET Delegates of MASTER (Medical Association for Simulation, Training, Education & Research)

- Total number conducted - 01
- Total delegates enrolled - 44

b. SOAPCON Workshop

- Total number conducted - 01
- Total delegates enrolled - 100

c. GERICON Workshop

- Total number conducted - 01
- Total delegates enrolled - 81

d. MD Exam conducted

- Total number conducted - 02
- Total delegates enrolled - 15

e. Young Endoscopist Up Skilling (YES) Program

- Total number conducted - 02
- Total delegates enrolled - 160

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f. ToT Skill and Simulation-Based Teaching

- Total number conducted - 02
- Total delegates enrolled - 29

g. USAID (United States Agency for International Developments) Hospital Infection Control Committee Workshop

- Total number conducted - 01
- Total delegates enrolled - 40

6. OTHERS

Assessment of Basic Skills as required for Medical Board (NEET Candidate)

- Total number conducted - 03
- Total students enrolled – 03

Compression only Life Support-CPR Training for Laypersons (AIIMS employees) 2024

- Total number conducted - 07
- Total students enrolled - 139

Basic Cardiopulmonary Life Support (BCLS)-CPR training of Technicians/Paramedics working at AIIMS 2024

- Total number conducted - 02
- Total students enrolled - 23

Evening Skill Training for Undergraduate Students at SET Facility

- Total number conducted - 18
- Total students enrolled - 88

SET Facility Teaching Program for UG Peers (STeP-UP)

- Total number conducted - 02
- Total students enrolled - 06

TOT for BLS & ACLS, Suturing and Broad Skill Training INSIGHT Workshop

- Total number conducted - 01
- Total students enrolled - 105

TOT for Obstetrics Skill Training INSIGHT Workshop

- Total number conducted - 01
- Total students enrolled - 60

BLS & ACLS Training INSIGHT Workshop

- Total number conducted - 02
- Total students enrolled - 165

Precision in Surgery INSIGHT Workshop

- Total number conducted - 01
- Total students enrolled - 25

Obstetrics Skill Training INSIGHT Workshop

- Total number conducted - 01
- Total students enrolled - 55

Broad Medical Skill Training INSIGHT Workshop

- Total number conducted - 02
- Total students enrolled - 103

PULSE Program TOT for BLS Training

- Total number conducted - 01
- Total students enrolled - 14

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PULSE Program (BLS Training)

- Total number conducted - 03
- Total students enrolled - 225

BLS Training NCI Jhajjar

- Total number conducted - 07
- Total students enrolled - 241

Basic Life Support/Compression only Life Support Training (On Institute day)

- Total number conducted - 01
- Total students enrolled - 588

Basic Life Support/Compression only Life Support Training (On Heart Transplant Day)

- Total number conducted - 01
- Total students enrolled - 49

Patient's IV Cannulation Training

- Total number conducted - 01
- Total candidates enrolled - 29

Skill Training at Skill Lab



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WET Lab

1. Undergraduate students

- Number of skill training sessions- 08
- Number of students attending the various sessions-131

2. Nursing and other Paramedical Staff

HICCOM (Hospital Infection Control Committee) Induction Program

- No of Skill Training session - 21
- No of Nursing staff attended - 789

3. Postgraduate students-

a. Workshop on Investigation in Immuno-Hematology.

- Total number conducted - 01
- Total residents enrolled - 30

b. Third Space Endoscope Workshop

- Total number conducted - 01
- Total residents enrolled - 30

c. Workshop on Vascular Anastomosis

- Total number conducted - 01
- Total residents enrolled - 30

d. Bilio-enteric Anastomosis Workshop

- Total number conducted - 02
- Total residents enrolled - 08

e. Workshop on Blended Learning Teaching

- Total number conducted - 01
- Total residents enrolled - 30

f. GI Surgery Workshop

- Total number conducted - 01
- Total residents enrolled - 04

g. Hands on Training Gastro Surgery

- Total number conducted - 01
- Total residents enrolled - 15

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h. OTSC Hands on Workshop

- Total number conducted - 01
- Total residents enrolled - 15

i. IAP ALS (Indian Association of Pediatrics Advanced Life Support) Workshop

- Total number conducted - 02
- Total residents enrolled - 85

j. Surgical Oncology Workshop

- Total number conducted - 01
- Total residents enrolled - 20

k. Intrapartum and Respectful Maternity Care Training

- Total number conducted - 01
- Total residents enrolled - 33

l. Endotrainer

- Continuous training program
- Total residents attended - 113

m. Thesis in Surgical simulation

- Total number conducted - 2
- Total delegates enrolled - 70

4. MCh/MD/DM/Super specialty training courses-

a. HUGO RAS Simulation

- Total number conducted - 90
- Total delegates enrolled - 122

b. HUGO RAS Cadaveric Workshop

- Total number conducted - 15
- Total delegates enrolled - 121

c. HUGO RAS Tissue Workshop

- Total number conducted - 07
- Total delegates enrolled - 43

d. RCOG workshop on Oasis (Obs & Gyne)

- Total number conducted - 01
- Total delegates enrolled - 75

e. SOAPCON

- Total number conducted - 01
- Total delegates enrolled - 100

f. PG Assembly- IAMM Microbiology Transplant related infections

- Total number conducted - 02
- Total delegates enrolled - 80

g. USAID (United States Agency for International Developments)) Hospital Infection Control Committee workshop

- Total number conducted - 01
- Total delegates enrolled - 40

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h. Single cell OMICS TCS workshop

- Total number conducted - 01
- Total delegates enrolled - 30

i. AIIMS 26th Annual Neurosurgery workshop

- Total number conducted - 01
- Total delegates enrolled - 90

j. Hands-on workshop in Plastic Reconstruction & Aesthetics

- Total number conducted - 01
- Total delegates enrolled - 26

k. Pancreato jejunostomy workshop

- Total number conducted - 01
- Total delegates enrolled - 03

l. Content Development workshop

- Total number conducted - 01
- Total delegates enrolled - 10

m. Engineers meet from Indian Institute of Sciences (Dental & Neurosurgery)

- Total number conducted - 01
- Total delegates enrolled - 08

n. TEF Model Simulation (Pediatric Surgery)

- Total number conducted - 01
- Total delegates enrolled - 13

o. Annual Conference-Surgical Workshop
(Bowel Anastomosis, USG guided core needle biopsy)

- Total number conducted - 01
- Total delegates enrolled - 120

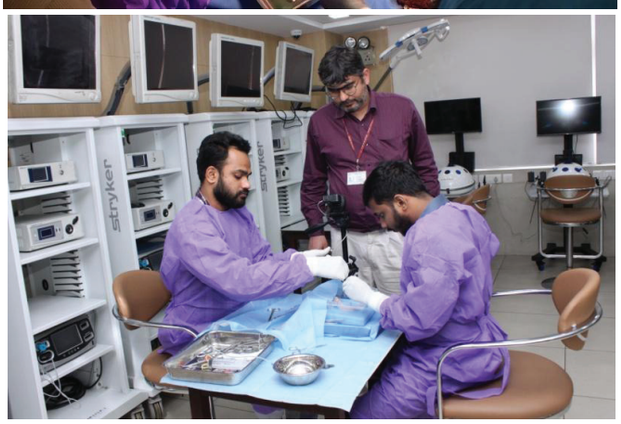
Skill Training at WET LAB





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SET Facility Delegates Visit

Ministerial visit from Denmark:




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Danish Delegation level Visit:




Visit of G20 Delegates from Somalia:




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Visit of Delegates from Novo Nordisk Foundation, Denmark:





National Medical College Network (NMCN)

SET Facility is the Nodal Centre for the National Medical College Network (NMCN), a Ministry of Health & Family Welfare (MoHFW), Govt. of India's green field project on e-health. It aims to interlink the Medical Colleges across the country with the purpose of e-Education and e-healthcare delivery.

NMCN project is implementing medical education content development for quality education accessible to all medical professionals through a Learning Management Information System (LMIS) - **SAKSHAM** for undergraduate medical students for this purpose. More than 150 leading medical colleges across India, including AIIMS (New Delhi, Bhopal, Rishikesh), PGIMER, Chandigarh, JIPMER,Puducherry are contributing towards content development for e-Learning.

NMCN-SAKSHAM

Courses Uploaded

Courses	**253**
Lessons	**267**

Significant Meetings

20 September 2023: Director, NIHFW visit to SET facility and interaction with NMCN team

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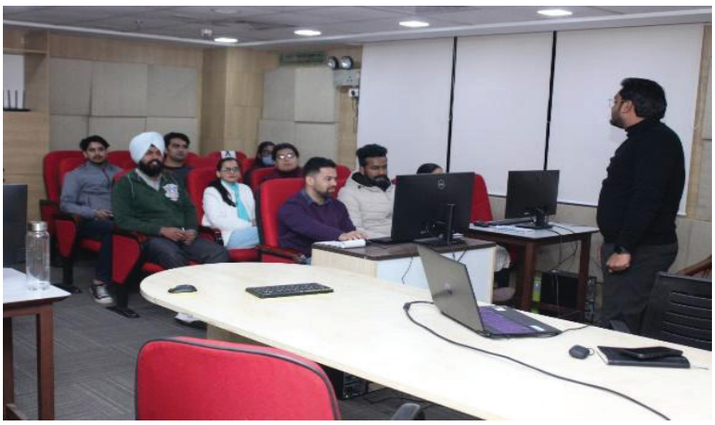
12 December 2023: SAKSHAM-LMIS stakeholders meeting at NIHFW

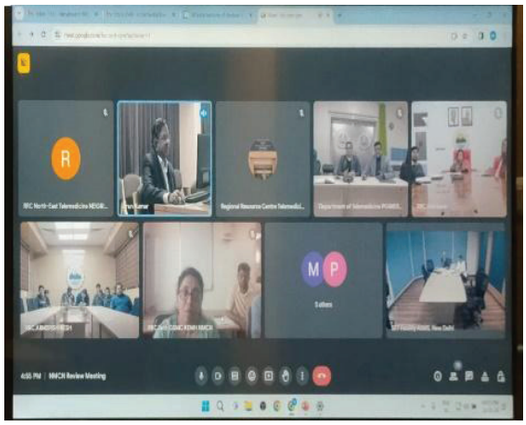




9-12 January 2024 Capacity Building: Graphic & Animation creation/editing Training - Content Development Team, AIIMS New Delhi

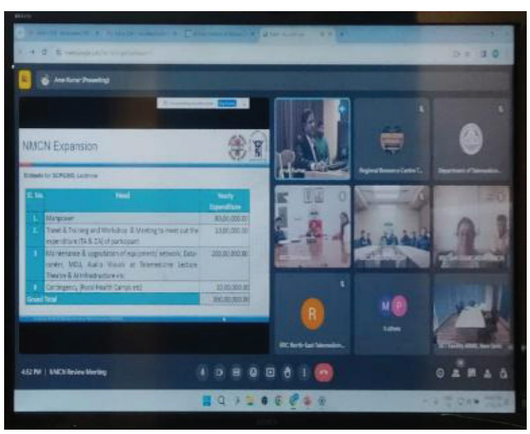
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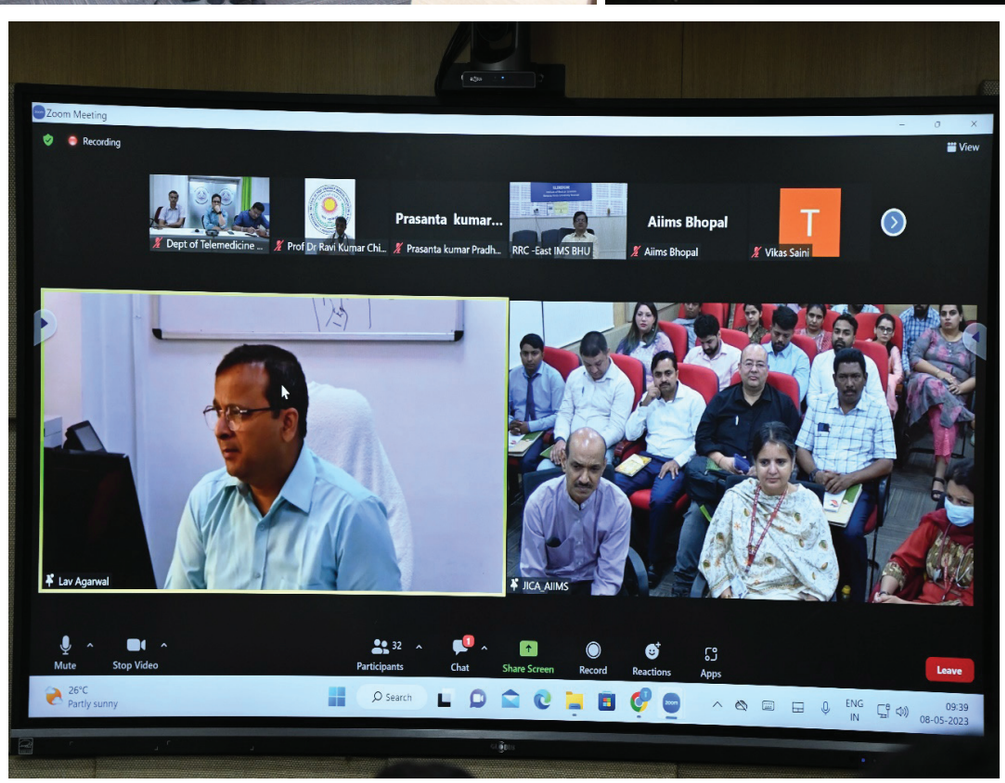




22 January 2024: NMCN NRC and RRC, Nodal Officers Meeting







NNF Report for S.E.T. Facility

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AIIMS, New Delhi has received an unrestricted grant from Novo Nordisk Foundation to develop a Centre of Excellence-in Medical Education.

Our vision under this project is to create a leading "Centre of Excellence (COE)" in medical education to promote the development and use of research-based innovative approaches to health professionals' education, which in turn will support quality health systems and reach vulnerable populations.

List of Physical /Online meetings

21 November 2023- Two days Workshop on Blended learning.

23 November 2023- Guest Lecture on Engaging Teaching formats.

23 November 2023-Workshop on PowerPoint.

24 February 2024- Symposium on Cardiometabolic Health.

28 February 2024- **SARAL- Our Institutional LMS"*Use it effectively*!**Hands-on Workshop.

7 December 2023- Team meeting with Anne Marie at Set Facility.

13 December 2023- Online introductory meeting with Lasse and Anne Marie.

31 January 2024- Meeting with Dr Shazina and Dr Rashmi regarding Qualitative Research workshop.

8 February 2024 - PEP Phase 2 meeting.

21 February 2024 - online meeting with COBL regarding phase 2.

28 February 2024- Online meeting with Dr Sumit Dr Shazina and Dr Rashmi regarding the Qualitative Research workshop.

4 March 2024 - Online meeting on 'Digital teaching methods and academic development'.

27 March 2024 - HPE seminar: From problem to research question.

4 April 2024- Online meeting PEP pre-grant - COBL visit to India October.

10 and 11 April 2024- NNF workshop 2.0.

24 April 2024- HPE seminar: Mixed methods in health professions education research.

Details of training and workshops

Sl	Details of training and workshops	No. of Participant	Date
1.	Two days Workshop on Blended learning	25	21 November 2023
2.	Guest Lecture on Engaging Teaching formats	25	23 November 2023
3.	Workshop on PowerPoint	30	23 November 2023
4.	Symposium on Cardiometabolic Health	30	24 February 2024
5.	SARAL- Our Institutional LMS"Use it effectively!"Hands-on Workshop	20	28 February 2024
6.	Workshop on Introduction to Qualitative Research Target audience	22	7 and 8 March 2024

Ongoing Projects

Small-scale Projects under PEP

1. Unveiling Disparities: Exploring the Gender Gap in Digital Literacy amongst Faculty in Higher Educational Medical Institute, a mixed methods study
2. Assessment of Perceptions, Barriers and Use of Active Learning in undergraduate teaching by Health Profession's educators - A Cross-sectional survey-based study in the Indian Context.
3. An interventional study on early research exposure (ERE) amongst undergraduate medical students.
4. Virtual Simulation vs. High-Fidelity Simulation in Nursing Education: A Randomized Controlled Trial.
5. Comparison of Self-learning vs Conventional booster administration for Retention of High-quality CPR Skills: A Randomised Trial.

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6. Baseline study of current digital teaching-learning practices at AIIMS New Delhi among faculty members.
7. Assessment of digital learning environment in medical institutes in India.
8. Protocol for Assessing Shortcomings and Effectiveness of an Ongoing Simulation-Based Anaesthesia Training Program.
9. Comparative aspects of traditional learning and blended learning in the context of medical education: A Systematic Review and Meta-Analysis.

Other Projects

1. In-depth analysis of efficacy and shortcomings of an ongoing simulation-based anaesthesia program.
2. Comparison of Traditional learning vs blended learning in students studying in medical institutes of India: A Systematic Review.

Completed Projects

Grant from WHO India- "Development of Essential MNCH Skill Modules for Teaching in Medical Undergraduate Curriculum by AIIMS-SET Facility, 22 June 2020 to 21 June 2021".

List of blended courses uploaded on SARAL:

S. No.	Name of the Participant	Course Name	Moderator	Link to the course on SARAL
1.	Dr. Tony George Jacob	Pleura and lungs- gross, histological, and developmental anatomy	Dr. Ravneet Kaur	Course: Pleura and Lungs: gross, historical and development anatomy (aiims.edu)
2.	Dr. Shreya and Dr. Heena	Arterial blood gas analysis	Dr. Rashmi Ramachandran	Course: ARTERIAL BLOOD GAS ANALYSIS BASICS (aiims.edu)
3.	Dr. Karthikeyan	Amino Acid Metabolism - An Overview and General Reactions		Course: Amino Acid Metabolism - An Overview and General Reactions, Topic: Learning Objectives (aiims.edu)
4.	Dr Suhani	USG: Abdomen		Course: Workshop on Ultrasound (aiims.edu)
5.	Dr Saurabh Mittal	USG: Lung		Course: Workshop on Ultrasound (aiims.edu)
6.	Dr. Devalina	endotracheal suction and bronchoscopy in intubated patients with COVID.		Course: endotracheal suction and bronchoscopy in intubated patients with COVID. (aiims.edu)
7.	Dr Simran Kaur	Nerve Muscle		Course: Nerve Muscle01, Topic: Lecture 2: Properties of nerve, RMP and Action potential (aiims. edu)

Glimpses of activities done in SET facility:

1. **SARAL**- Our Institutional LMS "*Use it effectively*!"

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2. AIIMS-NNF Phase 2 workshop

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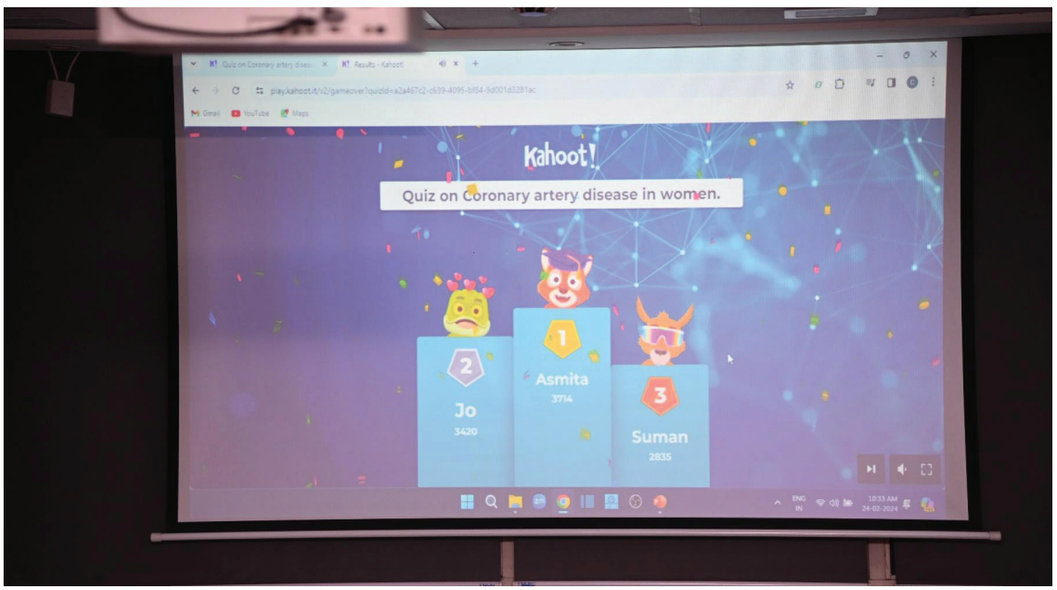




3. Symposium on women's cardiometabolic health

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Research Projects

Funded

Ongoing

1. National Medical College Network (NMCN), Professor Ambuj Roy, MIHFW, 4 Years, 2022-26, Rs. 2,63,20,800
2. Google Health Content, ProfessorAmbuj Roy, Google LLC, 1 Year, 2023-24, Rs. 86,73,855
3. Preparing the Centre of Excellence of Education of Health Professionals, PI:Professor Rashmi Ramachandran CO PI: Professor Ambuj Roy, NOVA Nordisk Foundation, 2 Years, 2023-25, Rs. 4,31,16,691

Ongoing

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1. Impact of simulation-based teaching on knowledge of performer, the actual conduct of aerosol-generating procedures and self-confidence while handling patients with Covid-19.
2. Comparison of different video laryngoscopes for Nasotracheal intubation in a manikin with difficult airway by experienced anesthesiologists: A randomized, self-controlled, crossover trial. (DM thesis)
3. Comparison of insertion characteristics of I-gel and BASKA mask during an ongoing CPR in a mannequin by medical students: a randomized mannequin study.
4. Comparison of King's Vision Video laryngoscope channeled and non-channeled blades with direct Laryngoscope for intubation in mannequins by medical students: a randomized manikin study.
5. Comparison of online content-based training with hands-on mannequin-based skill training on basic life support knowledge and skills among medical students.
6. Effect of video-based training reinforcement on retention of basic life support knowledge and skills following a formal simulation-based training among medical students
7. Effectiveness and Perceived Usefulness of a consolidated Skill-based Learning Program amongst Medical Interns: A Mixed Methods Study.
8. Evaluation of the effect of prior exposure to laparoscopic surgery on acquisition of robotic surgical skills in a simulated environment (MS Thesis).
9. Impact of microbreaks on visual, physical, and mental strain during simulated robotic surgical tasks - a randomized controlled trial (MS Thesis).
10. Remote trainer guided deliberate practice vs self-directed video-based training for retention of CPR skills: A randomized, comparative, assessor-blinded simulation study.
11. Resuscitation Practices in In-patient areas at All India Institute of Medical Sciences- a checklist-based prospective, observational data collection study
12. Upper limb muscle activity using surface electromyography (SEMG) during laryngoscopy and intubation and perceived workload on manikin in simulated difficult airway. (DM thesis)

Completed

1. Comparing the effect of traditional versus simulation teaching methods on neonatal resuscitation in terms of knowledge, skills, and self-confidence of nurses: A randomized controlled trial
2. Comparison of kings vision Video laryngoscope channeled and non-channeled blades with direct Laryngoscope for intubation in manikin by medical students: a randomized manikin studies.
3. Randomized trial to study the impact of Simulation-based learning over Conventional training on knowledge and self-efficacy of nursing students in Pediatric Medicine and Surgery wards.
4. Role of low fidelity simulation in acquisition of midwifery skills among nursing students: A mixed method approach

Telemedicine Services

Activities details period from 01-04-23 to 31-03-2024

Sl	Activities	Qty.
1.	Academic Celebration	7
2.	Academic Program Celebration	5
3.	Clinical Combined Round	28
4.	Clinical Grand Round	22
5.	Clinical Pathology Clinic	6
6.	Classes – Academic	13
7.	Conferences	18

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8.	Consultation	2
9.	Counselling	3
10.	Course – Training	4
11.	Clinic – Online	2
12.	Demonstration	2
13.	Exam	21
14.	Guest Lecture	18
15.	Interview – Online	11
16.	Live Streaming on YouTube	47
17.	Meeting - Online	36
18.	Oration	8
19.	Presentation – Online	1
20.	Public Lecture	15
21.	Tele-CME	58
22.	Tele-Consultation (Online)	18
23.	Tele-Evidence	11
24.	Webinar	2
25.	Workshop	20

Tele-CME



Guest Lecture

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Ministerial Meeting





Project Meeting



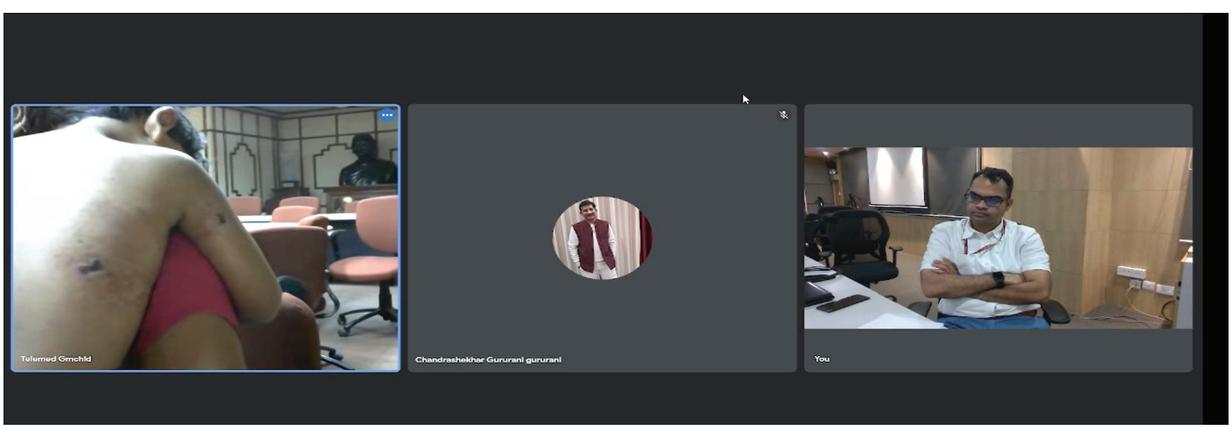


Webinar

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Tele-Consultation with Govt. Medical College, Haldwani, Uttarakhand



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AIIMS Telemedicine YouTube Channel details period from 01-04-2023 to 31-03-2024					
Sl	**Date**	**Activities**	**Title**	**Views**	**Departments**
1.	03 April 23	Meeting	Meeting - Introduce the Early Career Grant Program from Royal Society of Tropical Medicine & Hygiene	347	CRU
2.	05 April 23	Public Lecture	Celebration of World Health Day	703	CCM
3.	13 April 23	Oration	Dr. Hari Prakash	283	CDER
4.	15 April 23	Public Awareness Program	Parkinson's Disease	1,412	Neurology
5.	16 April 23	Celebrations	The Foundation Day 2023 Celebration by Cardiothoracic & Neurosciences Centre	2399	CNC Foundation Day
6.	19 April 23	Symposium cum Workshop - Chardham	Confluence of Holistic Aspects of Research & Development in High Altitude Medicine	316	Physiology
7.	19 April 23	Symposium cum Workshop	Symposium cum Workshop "CHARDHAM"	255	Physiology
8.	25 April 23	Public Lecture	Autism Awareness/Acceptance: Towards a Neuro-Inclusive World for All	5600	Neurology
9.	27 April 23	Guest Lecture	Data & Statistical Errors in Medical Research	505	Director Office
10.	09 May 23	Guest Lecture	Importance of Science Communication	523	Biophysics
11.	11 May 23	Celebration	International Nurses Day Celebration	2557	CON
12.	15 May 23	Oration	Dr. L. K. Bhutani	1789	Dermatology

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AIIMS Telemedicine YouTube Channel details period from 01-04-2023 to 31-03-2024					
Sl	**Date**	**Activities**	**Title**	**Views**	**Departments**
13.	02 June 23	Guest Lecture	Meet the Finerenone TrialistFinerenone - A New Hope for Improved Cardiorenal outcomes in patients with T2D with CKD	2028	Nephrology
14.	07 June 23	Public Lecture	Lessons from our Spirituality	610	Physiology
15.	09 June 23	Public Lecture	SWAYAMA Courses on Yoga	474	Physiology
16.	14 June 23	Public Lecture	Excellence in Healthcare: Serving with Spirituality	1778	Physiology
17.	18 June 23	CME	Non-Invasive Ventilation: Physiotherapy Intervention and Perspective	1383	CTVS
18.	21 June 23	Celebration	9th International Yoga Day 2023	1791	CIMS
19.	05 July 23	Guest Lecture	AIIMS Medical Humanities Initiative “Science & Spirituality”	1,096	Physiology
20.	02 August 23	Guest Lecture	Hope, Healing & Health	2279	Physiology
21.	15 August 23	Celebration	77th Independence Day Celebration	2,198	AIIMS, New Delhi
22.	21 August 23	Convocation	48th Convocation AIIMS, Session: 1, MBBS, BSc Hons Nursing, BSc Paramedical, BSc Nursing (PB)	52202	Academic Section
23.	23 August 23	Medicine & Meditation	Elevating Healthcare through Humane Values & Spirituality	7,984	Physiology
24.	24 August 23	Medicine & Meditation	Elevating Healthcare through Humane Values & Spirituality	3149	Physiology
25.	04 September 23	Celebrates	Chandrayaan Mahotsav	485	AIIMS, New Delhi
26.	06 September 23	Science And Spirituality	Spirituality is the Key for Chikitsa	539	Physiology
27.	25 September 23	Cultural	Institute Day Cultural Evening	5402	Academic Section
28.	25 September 23	Oration	68th AIIMS Foundation Day Celebrations & AIIMS Diamond Jubilee Oration	2345	Academic Section
29.	25 September 23	Cultural	Institute Day Cultural Evening	5,402	AIIMS
30.	14 October 23	Workshop	G. I. Surgery & IAPEN Delhi Chapter	1405	G. I. Surgery
31.	20 October 23	Dr. S. K. Kacker Oration	Otolaryngology & Head-Neck Surgery & Academic Section	517	ENT
32.	29 November 23	Public Lecture	Air Pollution: Impact on Health	650	Media & Protocol Division
33.	30 November 23	Celebration	Professor S. K. Kabra Retirement	5,330	Pediatrics
34.	13 December 23	Dedication to the Nation Ceremony	AIIMS New Buildings	2,550	Hospital Administration

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AIIMS Telemedicine YouTube Channel details period from 01-04-2023 to 31-03-2024					
Sl	**Date**	**Activities**	**Title**	**Views**	**Departments**
35.	18 December 23	Public Lecture	Mysterious Pneumonia & Respiratory Illness among Children in China	1764	Media & Protocol Division
36.	21 December 23	World Disability Day		1025	College of Nursing
37.	30 January 24	Oration	3rd Research Day AIIMS Golden Jubilee Oration	196	Research Section
38.	30 January 24	Oration	3rd Research Day AIIMS Silver Jubilee Oration	254	Research Section
39.	31 January 24	Public Lecture & Panel Discussion	Epilepsy	1665	Neurology
40.	06 February 24	Guest Lecture	Evolution of Clinical Epidemiology: Anecdotes to Evidence	487	Cardiology
41.	08 February 24	Oration	Sarveshwari Memorial	311	Neuro-Surgery
42.	09 February 24	Oration	Dr. A. K. Banerji Oration	516	Neuro-Surgery
43.	06 March 24	Public Lecture & Panel Discussion	Sleep Disorder	626	Neurology
44.	13 March 24	Guest Lecture	The Role of Nutrition in Prevention & Reversal of Diabetes, Obesity & Cardiovascular Disease	357	Media & Protocol Division
45.	19 March 24	Guest Lecture	"Emerging Clinical Applications of Ultra High-Field MRI"	390	Neuro-Imaging & Interventional Neuro-Radiology
46.	22 March 24	Guest Lecture	"Lessons for Advancing Life Expectancy"	2379	Hospital Administration
47.	26 March 24	Public Lecture	Prevention from TB, Treatment & Role of Nutrition	1012	Microbiology

AIIMS Telemedicine_1 YouTube Channel details period from 01-04-2023 to 31-03-2024					
Sl	**Date**	**Activities**	**Topic title**	**Viewers**	**Departments**
1.	11 April 23	Clinical Combined Round (CCR)	"Cruising through the mayhem-behind the smoke" & "Jaw-dropping tumor & Primary hyperparathyroidism"	291	Medicine - Unit-I & Surgery - Unit-I
2.	11 April 23	Clinical Grand Round (CGR)	"Why Increased Prevalence of IH in India"	35	Endocrinology
3.	18 April 23	Clinical Combined Round (CCR)	"To be or Not to be? " "Puerperal sepsis and the empress of all maladies"	291	Pediatrics & Obst. Gynae
4.	18 April 23	Clinical Grand Round (CGR)	"Explaining it done on export India direct 75"	214	Geriatric Medicine
5.	25 April 23	Clinical Combined Round (CCR)	"When Acid lover Attack"	136	Hematology & ENT
6.	25 April 23	Clinical Pathology Clinic (CPC)	Clinical Discussion: Dr. R. K. Dewan & Pathology Discussion: Dr. Balamurugan T	223	Pathology

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7.	01 August 23	Clinical Combined Round (CCR) Participating	" Kidney: A mirror of systemic disease" & Urology: "Kidney tumor in fused kidneys"	105	Nephrology & Urology
8.	01 August 23	Clinical Grand Round (CGR)	"Explaining Medically Unexplained Physical Symptoms - A Glimpse of Research Done at AIIMS and Way Ahead"	3	Medicine Unit - III
9.	08 August 23	Clinical Combined Round (CCR)	Medical Oncology: "When Hickam 's Dictum trumps Occam 's Razor How Rare Do We Dare" & Surgical Oncology: "Reason For Headache is Also Behind the heart"	196	Medical Oncology & Surgical Oncology
10.	08 August 23	Clinical Grand Round (CGR)	"Super Selective IAC for Retinoblastoma A Multi-disciplinary Perspective"	99	Ophthalmology
11.	22 August 23	Clinical Combined Round (CCR)	"Multifocal cutaneous infections: A clue to systemic dissemination" & Dental: "Prosthodontic rehabilitation of large Oro-facial defect post COVID mucormycosis" AIIMS, New Delhi	130	Dermatology & Dental
12.	22 August 23	Clinical Grand Round (CGR)	"Fibro-Adipose Vascular Anomaly"	76	Plastic Surgery
13.	29 August 23	Clinical Combined Round (CCR)	"Obstructed Pathways: Mysterious Pools of Accumulation!" & "Double Trouble Walking on a tight rope"	632	Medicine Unit III & Surgery Unit III
14.	29 August 23	Clinical Pathology Clinic (CPC)		179	CDER
15.	05 September 23	Clinical Combined Round (CCR)	"Stony Brain and Dancing Dame: The Chisel Effect" & "Multidisciplinary Approach in a Giant Cervico- dorsal Vertebral Body Tumor"	254	Neurology & Neurosurgery Unit - I
16.	05 September 23	Clinical Grand Round (CGR)	"Adrenalectomy for functional tumours: Multidisciplinary management"	118	Urology
17.	12 September 23	Clinical Combined Round (CCR)	"A Complex hematological tale: unveiling anaemia's hidden connection" & "Mending a broken Flask"	225	Geriatric Medicine & JPNATC Orthopedics
18.	12 September 23	Clinical Grand Round (CGR)	"Division of Conservative Dentistry	87	Dental
19.	19 September 23	Clinical Combined Round (CCR)	Radiotherapy: "Total Body Irradiation in Relapsed All" & Ophthalmology: "Ocular manifestation in a case with Mucopolysaccharidosis"	192	Radiotherapy & Ophthalmology
20.	19 September 23	Clinical Grand Round (CGR)	"Surgical vascular and peritoneal access for renal replacement therapy in ESRD: A decade of experience"	91	Surgery Unit - IV
21.	26 September 23	Clinical Combined Round (CCR)	"Unravelling the Mystery of Catatonia in children" & "Hypoglycemia following gastric bypass: A Rare Clinical Odyssey"	92	Psychiatry & Surgery Unit - II
22.	26 September 23	Clinical Pathology Clinic (CPC)		119	Pediatrics Unit - III

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23.	03 October 23	Clinical Combined Round (CCR)	Rheumatology: “The covert over(t)lap “ & “Bariatric Surgery in pregnancy: Tipping the scale”	130	Rheumatology & Obstetrics and Gynaecology Unit - II
24.	03 October 23	Clinical Grand Round (CGR)	“Moya Moya Disease”	102	Neuro-Surgery
25.	10 October 23	Clinical Combined Round (CCR)	“Anesthesiology, Pain Medicine & Critical care” & “Dear Laparoscopic Surgeon: A Word of Caution with the use of Glutaraldede!!”	182	Anaesthesiology & Pediatric Surgery
26	10 October 23	Clinical Grand Round (CGR)	“Primary Ciliary Dyskinesia”	313	Paediatrics Unit - III
27.	17 October 23	Clinical Combined Round (CCR)	“Expecting the unseen: a breathless puzzle in pregnancy” & Orthopedics: “Avoiding knee replacement - No more a Myth”	252	Medicine Unit - II & Orthopedics
28.	17 October 23	Clinical Grand Round (CGR)	“Miracle and Challenge: Navigating pregnancy in the shadows of leukemia and lymphoma”	133	Obstetrics & Genecology Unit - III
29.	31 October 23	Clinical Combined Round (CCR)		59	Cardiology & CTVS
30.	31 October 23	Clinical Pathological Conference (CPC)	Clinical Discussion: Dr. Sarita Shamsunder (VMMC & Safdarjung Hospital) Pathology Discussion: Professor Sandeep Mathur	164	Obstetrics & Genecology Unit - I
31.	07 November 23	Clinical Combined Round (CCR)	“The Challenges of Kidney Replacement Therapy in an HIV positive Recipient” & Neuro-Surgery: “Pituitary Woes & Fungal Foes”	138	Pediatrics & Neuro-Surgery
32.	07 November 23	Clinical Grand Round (CGR)	clinical Grand Round “Disability Rehabilitation related legislations and their relationship with AIIMS”	35	Physical Medicine & Rehabilitation (PMR)
33.	14 November 23	Clinical Combined Round (CCR)	“Frozen precision without incision: Advancing mediastinal sampling” & Plastic Surgery: “Fighting fall frost”	122	Pulmonary Medicine & Plastic Surgery
34.	14 November 23	Clinical Grand Round (CGR)	“Surgical management of Crohn’s disease: A journey over two decades”	93	G.I. Surgery
35.	21 November 23	Clinical Combined Round (CCR)	Neuroradiology: “Acute neuro intervention - the saving hand” & JPNATC NS: “Pediatric traumatic brain injury: Performing under pressure”	41	Neuroradiology & JPNATC NS
36.	21 November 23	Clinical Grand Round (CGR)	“Dual diagnosis - Recognition and Expansion”	35	Psychiatry
37.	28 November 23	Clinical Combined Round (CCR)	“Multiple endocrine neoplasia: How many are too many!” & “Crouching tiger and hidden danger”	700	Endocrinology & Surgery Unit - IV
38.	28 November 23	Clinical Pathological Conference (CPC)	Haematology Clinical Discussion: Professor Pankaj Malhotra (PGIMER, Chandigarh) Pathology Discussion: Dr. Balamurugan T.	45	Haematology

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39.	16 January 24	Clinical Combined Round (CCR)	"Mosaic Marvels Unveiled Stature Enigma" & "Fantastic Factor in Double Jeopardy"	134	Pediatrics Unit-II Obstetrics & Gynaecology Unit - I
40.	16 January 24	Clinical Grand Round (CGR)	Optimizing Breast Aesthesis: Our experience and the way forward	144	Surgery
41.	23 January 24	Clinical Combined Round (CCR)	"Endoscopic Resection of GI Tumors: Pushing the Frontiers" "A tale of Pushing the limit in Pancreatic Cancer"	324	Gastroenterology & G. I. Surgery
42.	23 January 24	Clinical Grand Round (CGR)	The Inflammatory Flame: From molecules to mammals and back - The dawn of a new era in Medicine	361	Medicine
43.	06 February 24	Clinical Combined Round (CCR)	"Sighting the Right Trees in the Forest: Story of a Vexed Patient"	366	Medicine
44.	06 February 24	Clinical Grand Round (CGR)	"Flight of the phoenix: Beyond cancer & cure"	746	Pediatrics
45.	13 February 24	Clinical Combined Round (CCR)	"A Shot in dark - Diagnosing a Lung mass"	128	Pediatrics Unit - III
46.	13 February 24	Clinical Grand Round (CGR)	"Corrosive injuries of the Upper GI tract: Experience over four decades"	137	G. I. Surgery
47.	20 February 24	Clinical Combined Round (CCR)	"Differentiation block in a cancer of differentiation"	107	Hematology
48.	20 February 24	Clinical Grand Round (CGR)	"Understanding & Management of Attention Deficit Hyperactivity Disorder (ADHD)"	249	Psychiatry
49.	27 February 24	Clinical Combined Round (CCR)	Uncovering hidden source: Delving into rare contributor to low back pain	568	Nephrology
50.	27 February 24	Clinical Pathology Clinic (CPC)	Clinical Discussion: Professor Devashish (H.O.D. of Neurology at Govind Ballabh Pant Hospital) Pathology Discussion: Professor Vaishali Suri (Neuropathology AIIMS New Delhi) AIIMS, New Delhi	289	Neurology
51.	05 March 24	Clinical Combined Round (CCR)	"Turning the Tide: Navigating the complexities of dual transplants"	258	Medical Oncology
52.	05 March 24	Clinical Grand Round (CGR)	"Congenial Cardiac disease in pregnancy: Our experience over 10 years"	150	Obstetrics and gynecology Unit - II
53.	12 March 24	Clinical Combined Round (CCR)	"Chasing shadows: Delayed diagnosis of peripheral T cell lymphoma"	339	Dermatology
54.	12 March 24	Clinical Grand Round (CGR)	"Intracranial davf etiopathology, classification and management"	133	Neuroradiology

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55.	19 March 24	Clinical Grand Round (CGR)	Management of Wilms tumour at AIIMS Over a period of 20 years (AIIMS WT - 99 Study)	140	Paediatric Surgery
56.	26 March 24	Clinical Combined Round (CCR)	Unraveling the complexity of brain infection	218	Neurology

Faculty contributing to various academic activities at the SET Facility by Director, AIIMS.

S.N.	Faculty Name	Departments
1.	Dr.V. Seenu	Department of Surgical Disciplines
2.	Dr. Rashmi Ramachandran	Anaesthesiology, Pain Medicine and Critical care
3.	Dr. Devalina Goswami	Anaesthesiology, Pain Medicine and Critical care
4.	Dr. Dalim K Baidya	Anaesthesiology, Pain Medicine and Critical care
5.	Dr. Nishant Kumar	Anaesthesiology, Pain Medicine and Critical care
6.	Dr. Abhishek N	Anaesthesiology, Pain Medicine and Critical care
7.	Dr. Parin Lalwani	Anaesthesiology, Pain Medicine and Critical care
8.	Dr. Shreya B Shah	Anaesthesiology, Pain Medicine and Critical care
9.	Dr. Nishkarsh Gupta	Department of Onco Anaesthesiology
10.	Dr. Rakesh Garg	Department of Onco Anaesthesiology
11.	Dr. Vinod	Department of Onco Anaesthesiology
12.	Dr. Gyanendra Pal Singh	Department of Neuro Anaesthesiology
13.	Dr. Prabudh Goel	Department of Paediatrics Surgery
14.	Dr. Anu Sachdeva	Department of Paediatrics
15.	Dr Rajni Sharma	Department of Paediatrics
16.	Dr. Jhuma Sankar	Department of Paediatrics
17.	Dr. Narendra Bagri	Department of Paediatrics
18.	Dr. K.Aparna Sharma	Department of Obstetrics & Gynecology
19.	Dr. Juhi Bharti	Department of Obstetrics & Gynecology
20.	Dr. Jyoti Meena	Department of Obstetrics & Gynecology
21.	Dr. Vidushi Sinha	Department of Obstetrics & Gynecology
22.	Dr. Archana	Department of Obstetrics & Gynecology
23.	Dr. Anubhuti Rana	Department of Obstetrics & Gynecology
24.	Dr. Deepali	Department of Obstetrics & Gynecology
25.	Dr. Kusum	Department of Obstetrics & Gynecology
26.	Dr. Ravneet Kaur	Centre for Community Medicine
27.	Dr. Harshal Salve	Centre for Community Medicine
28.	Dr. Hemanga K. Bhattacharjee	Department of Surgical Disciplines

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29.	Dr. Suhani	Department of Surgical Disciplines
30.	Dr. Mohit Joshi	Department of Surgical Disciplines
31.	Dr. Kamlesh Kumari Sharma	College of Nursing
32.	Dr. Smita Das	College of Nursing
33.	Ms. Levis Murray	College of Nursing
34.	Dr. Arvind Kumar	Department of Medicine
35.	Dr. Ranveer Singh Jadon	Department of Medicine
36.	Dr. Upendra Raj	Department of Medicine
37.	Dr. Akshay Kumar	Department of Emergency Medicine
38.	Dr. Rishi Nayyar	Department of Urology
39.	Dr. Brusabhanu Nayak	Department of Urology
40.	Dr. RK Yadav	Department of Nephrology
41.	Dr. Anju Gupta	Department of Anaesthesia
42.	Dr. Animesh Ray	Department of Medicine
43.	Dr. Pankaj Jorwal	Department of Medicine

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4. Examination Section

Dean

Vijay L Kumar

Associate Dean (Examination)

Naval K Vikram

Assistant Controller of Examination

MK Singh

Finance and Chief Accounts Officer

Sh. Padam Singh
(till 13 January 2024)

Accounts Officer

Sh. Amit Kumar
(w.e.f. 13 January 2024)

The Examination Section of AIIMS, New Delhi stands as a cornerstone in the institution's academic infrastructure, meticulously orchestrating the entirety of examination processes with precision and diligence. Responsible for overseeing the entire examination lifecycle, from scheduling and question paper preparation to result processing and record management, this department ensures the seamless execution of assessments for medical students. With a commitment to upholding the highest standards of academic integrity and fairness, the Examination Section works tirelessly to administer exams in a controlled and secure environment, facilitating the evaluation of student's knowledge and skills accurately. Moreover, it plays a pivotal role in implementing policies and guidelines that align with the institution's academic ethos, fostering an environment conducive to learning and excellence.

The Examination Section is complimenting the fulfilment of trinity of Mission of the Institute of Bringing Education, Research and Patient Care to all economic and social sectors of the country without any disparity.

Through its unwavering dedication to good examination practices, regulatory compliance, continuous improvement initiatives, and student-centric approach, the Examination Section of AIIMS, New Delhi epitomizes excellence in medical education assessment, contributing significantly to the institution's esteemed reputation and the development of future healthcare professionals.

MISSION

Conducting examination and assessment of the All India Institute of Medical Sciences with precision, upholding the highest standards of education, quality and competence.

During the period 2023-2024, the Examination Section conducted the following Professional, Entrance and Recruitment Examinations:

A. POSTGRADUATE AND UNDERGRADUATE PROFESSIONAL EXAMINATIONS

Details of various undergraduate and postgraduate professional examinations conducted by the Examination Section, AIIMS New Delhi, from 1 April 2023-31 March 2024.

Details of Undergraduate Professional Examinations: -

Number of Exams conducted: 27

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Number of candidates appeared: 425

Data of Undergraduate Professional Examinations held between 1 April 2023 – 31 March 2024

S. No.	Month & Year	Examination	Total Candidates	Passed	Fail	Absent
1	**May 2023**	Final M.B.B.S. (Supplementary)	09	06	01	02
2	**July 2023**	BSc in Dental Operating Room Assistance Phase - III	07	07	–	–
3	-do-	Bachelor of Medical Radiology and Imaging Technology Phase - III	11	11	–	–
4	-do-	BSc in Operation Theatre Technology Phase - III	02	02	–	–
5	-do-	Bachelor of Optometry Phase - I	01	–	–	01
6	-do-	Bachelor of Optometry Phase - II	04	02	02	–
7	-do-	Bachelor of Optometry Phase - III	14	14	–	–
8	-do-	BSc in Dental Hygiene Phase - III	04	04	–	–
9	-do-	Second M.B.B.S. (Supplementary)	33	18	04	11
10	-do-	Bachelor of Medical Radiology and Imaging Technology Phase - I	06	06	–	–
11	-do-	BSc in Operation Theatre Technology Phase - I (Supplementary)	01	01	–	–
12	**October 2023**	First M.B.B.S.	134	119	12	03
13	-do-	Bachelor of Medical Radiology and Imaging Technology Phase-I	08	02	06	–
14	-do-	BSc in Operation Theatre Technology Phase-I	04	04	–	–
15	-do-	Bachelor of Optometry Phase-I	09	07	02	–
16	-do-	Bachelor of Optometry Phase-II	02	01	01	–
17	-do-	Bachelor of Optometry Phase-III	01	01	-	–
18	**December 2023**	Final M.B.B.S.	103	88	10	05
19	**December 2023 to January 2024**	First M.B.B.S.(Supplementary)	22	15	05	02
20	**March 2024**	BSc in Dental Operating Room Assistance Phase-II	02	02	–	–
21	-do-	Bachelor of Optometry Phase-I	08	04	–	04
22	-do-	Bachelor of Optometry Phase-III	12	09	02	01
23	-do-	BSc in Dental Hygiene Phase-II	01	01	–	–
24	-do-	BSc in Operation Theatre Technology Phase-II	04	04	–	–
25	-do-	BSc in Operation Theatre Technology Phase-III	05	05	–	–

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26	-do-	Bachelor of Medical Radiology and Imaging Technology Phase - I	09	06	02	01
27	-do-	Bachelor of Medical Radiology and Imaging Technology Phase - II	09	09	-	-
		TOTAL	**425**	**348**	**47**	**30**

Details of Postgraduate Professional Examinations

Number of Exams conducted: 19

Number of Candidates appeared: 728

Data of Postgraduate Professional Examinations held between 01 April 2023 – 31 March 2024

S.No.	Month & Year	Examination	Total Candidate	Absent	Passed	Fail
1.	**May 2023**	MD	181	02	177	02
2.	-Do-	MS	31	–	30	01
3.	-Do-	MDS	12	–	12	–
4.	-Do-	Fellowship Programme	24	–	24	–
5.	-Do-	M. Biotechnology	16	–	16	–
6.	**December 2023**	MD	125	03	120	02
7.	-Do-	MS	18	–	18	–
8.	-Do-	MDS	10	–	10	–
9.	-Do-	Fellowship Programme	16	–	16	–
10.	-Do-	M. Biotechnology	0	0	0	–
11.	**May 2023**	DM	59	–	59	–
12.	-Do-	MCh	30	–	30	–
13.	-Do-	MSc Courses	47		47	
14.	-Do-	MSc Nursing-II	20	–	20	–
15.	**August 2023**	MSc Nursing-I	32	01	30	01
16.	**October 2023**	MSc Nursing –I	01	–	01	–
17.		MSc Nursing - II	01	–	01	–
18.	**December 2023**	DM	62	–	60	02
19.	-Do-	MCh	43	–	43	–
		Total	**728**	**06**	**714**	**08**

B. Entrance Examinations for Undergraduate and Postgraduate courses:

Details of Entrance Examination for Academic Courses: —

Number of Entrance Exams conducted: 17

Number of Applicants: 244322

Number of Candidates appeared: 204080

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Sl. No.	Courses	Date of Examination	No. of Candidates Applied	No. of Candidates Appeared
1.	MD/MS/MDS (AIIMS) July Session 2023	07 May 2023	65134	59520
2.	DM/MCh/Fellowship Programme/MD/(Hosp. Admn.) (July Session 2023)	29 April 2023	6929	5375
3.	Fellowship Programme July 2023 session	15 April 2023	237	96
4.	Online BSc (Hons) Nursing 2023	12 June 2023	66188	50547
5.	Online BSc Nursing (Post-Basic) 2023	27 May 2023	791	444
6.	Online BSc (Hons) Paramedical Courses 2023	24 June 2023	21579	12116
7.	Online MSc Courses 2023	17 June 2023	1124	743
8.	Online MSc Nursing 2023	27 May 2023	4145	2599
9.	Online M. Biotechnology Entrance Examination 2023	17 June 2023	922	558
10.	Senior Residents Recruitment Examination, July 2023 Session	15 July 2023	1614	1371
11	PhD. July Session 2023	02 September 2023	621	529
12.	Senior Residents Recruitment Examination January 2024	29 December 2023	769	601
13.	MD/MS/MDS (AIIMS) January 2024 Session	05 November 2023	66588	62997
14.	INI-SS January 2024 Session	28 October 2023	6761	5835
15.	Fellowship Programme January 2024 session	08 November 2023	121	91
16.	PhD. January Session 2024	09 February 2024	549	534
17.	SR/SD- Jammu	12 September 2023	250	124
		Grand Total	**244322**	**204080**

Candidate Passed in PhD Viva-Voce Examination
1 April 2023-31 March 2024: 32

C. RECRUITMENT EXAMINATIONS DURING 1 April 2023-31 March 2024

Sl. No.	Name of Examination	Applied	Appear
1.	AIDS Educator cum Counsellor	8	4
2.	Assistant Dietician	99	73
3.	Assistant Security Officer	32	24
4.	Draftsman Grade III	2	2
5.	JP OT OccupTherapist	30	20
6.	JP OT Physiotherapist	1047	813
7.	Jr. Engineer (Ac & R)	22	15
8.	Jr. Engineer (Civil)	339	191
9.	Jr. Engineer (Electrical)	342	246

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10.	Junior Hindi Translator	56	37
11.	Junior Photographer	17	11
12.	Librarian Grade III	15	9
13.	Library Attendant Grade-II	29	22
14.	Library Guard	66	38
15.	Life Guard	2	2
16.	Mechanic (AC & R)	40	31
17.	Medical Social Service Officer Gdll	179	142
18.	Multipurpose Worker	248	201
19.	Nuclear Medical Technologist	3	1
20.	Operation Theatre Assistant	960	796
21.	Ophthalmic Technician Grade 1	108	77
22.	Perfusionist	58	41
23.	Pharmacist Gd.ll	318	197
24.	Public Health Nurse	42	14
25.	Statistical Assistant	85	63
26.	Stenographer	368	251
27.	Store Keeper (Drugs)	485	372
28.	Store Keeper (General)	124	70
29.	Technical Assistant (ENT)	6	5
30.	Technician (Radiology)	1132	848
31.	Vocational Counsellor	5	3
32.	Workshop Assistant (CWS)- (Carpenter)	8	6
33.	Workshop Assistant (CWS)- (Electronics)	39	27
34.	Workshop Assistant (CWS)- (Fitter)	13	9
35.	Workshop Assistant (CWS)- (Mechanist)	26	23
36.	Workshop Assistant (CWS)- (Refrigeration)	7	7
37.	Workshop Assistant (CWS)- (Welding)	4	3
38.	Workshop Technician Grade II (R&AL)- (Leather)	1	1
39.	Workshop Technician Grade II (R&AL)- (Prosthetic)	27	22
40.	Security Cum Fire Guard	555	299
41.	JAA	2135	1099
42.	Receptionist	38	23
43.	NORCET-5 (Stage-I)	85892	81675
44.	NORCET-5 (Stage-II)	20815	20613
		115827	**108426**

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Details of Recruitment Examinations: -

Number of Examination conducted: 44

Number of Applicants: 115827

Number of candidates appeared: 108426

Overall Details of Examinations: -

1. Details of Undergraduate Professional Examination: -
   a. Number of Entrance Exams conducted: 27
   b. Number of candidates appeared: 425
2. Details of Postgraduate Professional Examination: -
   a. Number of Entrance Exams conducted: 19
   b. Number of candidates appeared: 728
3. Details of Entrance Examination for Academic Courses: -
   a. Number of Entrance Exams conducted: 17
   b. Number of Applicants: 244322
   c. Number of candidates appeared: 204080
4. Details of Recruitment Examination: -
   a. Number of Examination conducted: 44
   b. Number of Applicants: 115827
   c. Number of candidates appeared: 108426

Entrance Examinations conducted:

1. INICET for admission to PG courses [(MD/MS/MDS/Mch(6yrs)/DM (6years)] was conducted on 7 May 2023 for July 2023 session at 208 Centre and INI-CET for PG courses of INIs was conducted on 5 November 2023 for January 2024 session at 214centersrespectively. The results were declared on 13 May 2023 and 11 November 2023, respectively.
2. INI-SS selection for admission to various Post-Doctoral (super-specialty) courses viz. DM/MCh/MD (Hospital Administration) for July 2023 session was conducted on 29 April 2023 and January 2024 session was conducted on 28 October 2023.
3. The Institute has also conducted CBTs for the Post of Senior Residents/ Senior Demonstrators for July 2023 session was held on 15 July 2023 and for January 2024 session was held on 29 December 2023 respectively.
4. Selections of candidates for registration to PhD programme for July 2023 session were held on 2 September 2023 and January 2024 session was held on 9 February 2024.
5. BSc (Hons.) Nursing course-2023 Entrance Examination was held for AIIMS, New Delhi and other AIIMS on 12 June 2023 in CBT online mode.
6. The Entrance Examination for admission to MSc Course/M. Biotechnology courses August 2023 session held in Delhi/NCR on 17 June 2023 in CBT online mode.
7. BSc Nursing (Post-Basic)/MSc Nursing Entrance Examination was held in Delhi and Outstation in CBT online mode on 27 May 2023 followed by the personal assessment of candidates on 28-29 June 2023.
8. The Entrance Examination for the fellowship programme for July 2023 session was held on 15 April 2023 for January 2024 session exam was conducted on 8 November 2023.
9. The Entrance Examination for BSc (Paramedical) courses for August 2023 session was held on 24 June 2023.

Participation in other events:

1. The Examination Section conducted online seat allocation for admission to INI-CET, INI-SS, BSc (Hons) Nursing, BSc Paramedical, MSc (Nursing) courses, MSc Courses, NORCET, Junior Residents(Non-Acad)with the Faculty & Staff of Academic Section/Recruitment Section participation. The examination Section also actively participates in personnel assessment for BSc (Nursing) Post-Certificate Course.
2. Examination Section also provides technical expertise to various Universities and Institutions in India and abroad for conduct of their various Examinations.

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Special Achievement

1. First-time NORCET was conducted twice a year, whereas Norcet-5 was held in two separate phases.
2. Special Consideration is given to "CRE-AIIMS" which was held in the shortest duration of 45 days for 60, 052 Candidates across India, filling 442 types of posts classified in 100 Groups for 3090 Vacant Positions for 14 AIIMS.
3. Establishment of Confidential Content Facility (CCF) at AIIMS, New Delhi which was inaugurated by Professor M. Srinivas Director, AIIMS New Delhi on 14 February 2024.

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5. General Administration

Additional Director (Administration)

Rabindra Agarwal
(up to 31 May 2023)

Manisha Saxena
(w.e.f.19 June 2023 to 8 December 2023)

Karan Singh
(w.e.f. 9 December 2023 to Till date)

Deputy Secretary

R Gopinath

The General Administration, including Personnel and Establishment Security, Estate, Engineering Services Department, Stores, Coordination, Parliamentary matters, grievances SC/ST/OBC/Women Cell, Legal etc of the Institute are controlled and supervised by the Additional Director (Admm). There are various There are various branches looking after the above-mentioned areas. Each branch is headed by a Senior Officer with supportive officers and staff members. A brief description of the Officers/Staff looking after various branches is given below:

Chief Administrative Officers

Deo Nath Sah
(up to 30 December 2023)

BS Gill (officiating)
(w.e.f. 1 January 2024 to date)

Superintending Engineers

AIIMS Campus

Jitendra Kumar Saxena
(up to 30 November 2023)

Deepak Kumar Bhutale (officiating)
(w.e.f. 1 December 2023 to date)

AIIMS, Jhajjar Campus

Deepak Kumar Bhutale (officiating)
(up to 22 March 2024)

Pradeep Kumar (Officiating)
(22 March 2024 to till date)

Executive Engineers

AIIMS Campus

D Vijay Raghwan

Deepak Bhutale

AIIMS, Jhajjar Campus

Sunil Kumar

Pradeep Kumar

Chief Security Officer

Digvijay Singh
(w.e.f. 13 March 2024 to date)

Deputy Chief Security Officer

RS Rawat

Sr. Administrative Officers

BS Gill

Anita Tete

Bhoop Singh

RK Sharma

Administrative Officers

RK Sharma
(up to 31 January 2024)

Nirmala J Kujur

Uttam Chand

Joginder Kumar

Kamal Chandra Bhatt

Saroj Lal

Rajesh Kumar

Anil Kumar

Sohanbir

Devi Parsad
(w.e.f. 25 October 2023 to date)

Gyan Chand
(w.e.f. 25 October 23 to date)

Ashok Kumar
(w.e.f. 6 February 2024 to date)

Rajender Singh
(up to 8 February 2024 (on deputation))

Sheshank Chaturvedi
(w.e.f. 31 March 2023 to date (on deputation))

Vishwesh Chaturvedi
(w.e.f. 1 April 2023 to date (on deputation))

Ankit Kumar
(w.e.f. 6 April 2023 to till date (on deputation))

Pawan Kumar
(w.e.f 27 April 2023 to date (on deputation))

Senior Stores Officer

Rakesh Kumar
(up to 31 December 2023)

Store Officers

Manohar Arya

(w.e.f 1 January 2019)

Archana Sharma

(w.e.f 1 January 2019)

Kamal Singh

(w.e.f 3 January 2019)

Yatender

(7 January 2021)

Suman Narnaulia

(w.e.f. 18 January 2023)

Hemant Kumar Arora

(w.e.f. 17 January 2023)

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Responsibilities of Establishment Section and General Administration include recruitment, service matters, conduct 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 strength of the Institute is **14177** Positions filled till 31 March 2024 is **11953** this include staff of all 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	Group "A" (Faculty)	1220	825
2	Group "A" (non-faculty)	749	532
3	Group "B"	7953	7287
4	Group "C"	4255	3309
	Total	**14177**	**11953**

Composition of SC/ST/OBC/Women Cell (AIIMS)

1.	Supervising Officer	Dr R Gopinath (IFoS), Deputy Secretary
2.	Liaison Officer's	Dr Rajpal, Professor of Ophthalmology, Dr RP Center, & Liaison Officer for SC/ST & PwD AIIMS New Delhi.
		Dr DN Sharma, Professor & HOD Radiotherapy, Dr BRAIRCH & Liaison Officer for OBC AIIMS, New Delhi
3.	Administrative Support Staff	Ms Saroj Lal, Administrative Officer
		Sh Deshraj, Junior Administrative Assistant
		Ms Pooja Kumari, Data Entry Operator (Outsourced)

Further, during the year 2023-24 (1 April 2023 to 31 March 2024) Complaints/representations from SC/ST/OBC category employees were received in the section. The details of the same are as under:

Total No. of complaints/reports of ICCSHWW: 39

Total No. of Cases disposed of: 19

Total No. of Cases under consideration: 20

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6. Main Hospital

Medical Superintendent

Sanjeev Lalwani
(16 December 2022 to 19 January 2024)

Nirupam Madaan
(19 January 2024 to Till date)

Department of Hospital Administration
Professor and Head
Sidhartha Satpathy

Professors
Sanjay Kumar Arya
Amit Lathwal
Mahesh R

Additional Professors
Anoop Daga
Parmeshwer Kumar
Angel Rajan Singh
Vijaydeep Siddharth

Associate Professors
Abdul Hakim
Jitender Sodhi

Assistant Professors
Vikas H
Namrata Makkar
Rakesh Narimati
Kanika Jain
Khalid Mehmood
Arun Verma
Nishant Sharma

Bed Complement

Bed Category	Hospital				Centre for Dental Education and Research	Cardiothoracic and Neurosciences Centre
	Main	B & PS	Surgical	Mch Block		
General ICU Observation	836 93 69	60 30 08	166 10 00	200 00 00	15 - 05	317 74 09
Private Ward	165	10	20	00	-	64
Total	**1163**	**108**	**196**	**200**	20	464
Grand Total	**1667**					

Hospital Performance Indices

Parameters	Main Hospital		CNC		CDER		Inference
	2023-24	2022-23	2023-24	2022-23	2023-24	2022-23	
Average length of stay (days)	9.5	9.9	10.8	11.5	4.7	4.8	Indicates effective utilization of beds of regular admissions

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Average bed occupancy rate (%)	85.3	83.1	78.3	79.5	71.2	69.7	Indicates fair occupancy.
Net death rate (%)	1.4	1.6	2.4	2.7	0.09	0.0	Indicates low mortality rate despite the fact that quite a large number of critically ill patients are admitted to the Hospital.
Combined crude infection rate(%)	7.4%	7.1%	-	-		-	

Publication: 1

Journal: 1 **Abstracts: 0** **Chapters in Book: 0** **Books & Monographs: 0**

6.1 Medical Records Department

Officer Incharge

Vikas H

Medical Record Officer & Sub Registrar (Births & Deaths)

Devanand Sharma

COVID-19 (Pandemic)

The role of **Medical Record Section** is to accumulate the COVID-19 data from the wards of Main Hospital to compile and send to several agencies and departments of Govt. of India for example IDSP, DGHS, DC South, Death Audit Committee, Health care workers, line listing and uploading the informations on COVID-19, Data management portal etc. on the daily basis even on Sundays and Gazetted holidays.

Education:-
A brief lecture of 10 Medical Record Technology from Holly Family Hospital students visited Medical Record Section, Main Hospital and a brief lecture was delivered on Medical Record Management at AIIMS by Medical Record Officer on 30 April 2024.

Trainings:-
Mr. Sandeep Kumar& Dharmjeet, Medical Record Technician have been nominated for (Six months) Medical Record Technician Training Programme w.e.f. 1 July 2023 to 31 December 2023& Mr Sandeep Sharma, Medical Record Technician have been nominated for (Six months) Medical Record Technician Training Programme w.e.f. 01 January 2024 to 30 June 2024 conducted at Safdarjung Hospital, New Delhi organized by CBHI, Ministry of Health & Family Welfare, Govt. of India.

Court Attendance
A total number of **593** 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
Approximately **7262** 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.

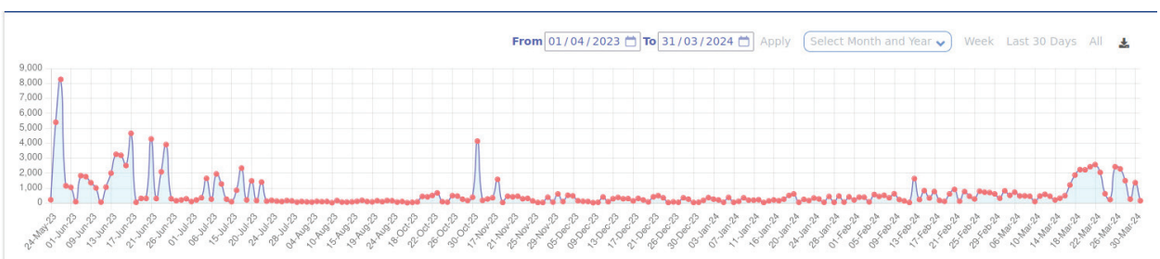
Computerization and Digitization of Medical Records
Digitization of Inpatient medical records of Main Hospital was started from the year 2014 for easy retrieval of records. More than 772312images (current year 2023-24) case records of the patients have been scanned for future reference.
In patient Services

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

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2. The AIIMS hospital has maintained its tradition of services and quality of patient care in spite of an increasing number of patients who visit the hospital from all over India as well as from abroad. A total number of 160865 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 in Appendix-II, III & V respectively. The details of deaths as per department and its indices are given in Appendix- IV.
3. A total number of 173784 Surgical Procedures (Major and Minor) were performed during the year in various Surgical Disciplines of Main Hospital, C.N. Centre and Centre for Dental & Education Research (CDER) are given in Appendix-VI.
4. Medical Records of indoor patients are systematically classified and categorized for easy retrieval 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 the Main Hospital, C.N. Centre and Centre for Dental & Education Research (CDER) are maintained separately by Medical Record Section of the Main Hospital.
5. A total number of 132116 ABHA id created in AIIMS Hospital.

Health Record Linked Trend



CENTRAL ADMISSION OFFICE AND HOSPITAL ENQUIRY

1. The Central Admission Office & Enquiry (CAO&E) of AIIMS functions round the clock for 365 days without break.
2. 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 performs important functions like patient registration for initiation of Admission Slip (Face-Sheet) and issuing of attendant passes etc.
3. The Admission Office also gives information to several ministries as well as to the higher authorities of AIIMS about the hospitalization of VIPs/VVIPs.
4. 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 the Jr. Reception Officer, Jr. Medical Record Officer and Medical Record Technicians etc.

OUT PATIENT DEPARTMENTS AND SPECIALTY CLINICS

A total number of **2172531 patients** attended various General out-patient departments (OPD), Specialty Clinics and the Emergency Department of the Main Hospital, AIIMS. The details of the out-patient load profile are given in Appendix-VII.

OTHER ACTIVITIES

1. Amendments made in the Inpatients Records during the year, 981
2. Amendments made in the Birth Records during the year, 597
3. Amendments made in the Death Records during the year, 509
4. Admission & other charges exempted for Indigent patients and patients admitted under JSSK Scheme in Main Hospital & CDER, 18756
5. Admission & other charges exempted for Indigent patients and patients admitted under JSSK Scheme in C.N. Centre, 1035 (CNC)

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The statistical data for the year 2023–2024 (Annual Report) has been prepared/compiled by **Mr. Rajbir Singh**, Medical Record Technician under the supervision of Medical Record Officer.

Table I. Yearly Statistical Health Bulletin –AT A GALNCE (APPENDIX-I)

Sl. No.	Item	Main Hospital		CT and NS Centre		CDER	
		2023-24	2022-23	2023-24	2022-23	2023-24	2022-23
1.	Total Patient Admitted	**139290**	**115745**	**20476**	18671	1115	1066
	a. Adults and Children	139290	115745	-	-	-	-
	—Regular	47527	38951	13570	12.25	967	865
	—Short	91763	76794	6906	6646	148	201
	b. Newborn infants	3059	2801	-	-	-	-
	Regular	3059	2801	-	-	-	-
	Short	00	00	-	-	-	-
2.	Patients discharged (including LAMA, absconded, discharge on request and deaths)	**132241**	**114322**	**20280**	18550	1063	1076
	a. Adults and Children	132241	111487	-	-	-	-
	—Regular	45628	36235	13641	11995	929	880
	—Short	86613	75252	6639	6555	134	196
	b. Newborn infants	2920	2835	-	-	-	-
	—Regular	2920	2835	-	-	-	-
	—Short	00	00	-	-	-	-
3.	Total days of care	**521004**	**462080**	**153784**	144246	4507	4402
	a. Adult and Children	434391	440809	-	-	-	-
	—Regular	409791	365557	147145	137691	4373	4206
	—Short	86613	75252	6639	6555	134	196
	b. Newborn infants	24600	21271	-	-	-	-
	—Regular	24600	21271	-	-	-	-
	—Short	00	00	-	-	-	-
4.	Average length of stay of (ALS-Regular patients)	**9.5**	**9.9**	**10.8**	11.5	4.7	4.8
	a. Adult and Children	9.6	10.1	-	-	-	-
	b. Newborn infants	8.4	7.5	-	-	-	-
5.	Total patient care days (as per daily census)	**425451**	**414758**	**129985**	131958	3900	3816
	a. Adult and Children	417896	411584	-	-	-	-
	b. Newborn infants	7555	3174	-	-	-	-

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6.	Daily average number of patients (as per daily census)	**1166**	**1136**	**356**	362	11	10
	a. Adult and Children	1145	1128	-	-	-	-
	b. Newborn infants	21	09	-	-	-	-
7.	Average bed occupancy	**85.3**	**83.1**	**78.3**	79.5	71.2	
	a. Adult and Children	85.4	82.5	-	-	-	-
	b. Newborn infants	79.6	0.6	-	-	-	-
8.	Births in Hospital	**3059**	**2801**	**-**	-	-	-
	a. Male	1607	1468	-	-	-	-
	b. Female	1451	1330	-	-	-	-
	c. Intersex	01	03	-	-	-	-
9.	Total Deaths in IPD (including newborn)	**2615**	**2616**	**695**	665	01	00
	a. Deaths under 48 hours	792	785	207	167	00	00
	b. Deaths over 48 hours	1823	1831	488	498	01	00
	c. Gross death rate (%)	2.0	2.3	3.4	3.6	0.09	0.0
	d. Net death rate (%)	1.4	1.6	2.4	2.7	0.09	0.0
10.	Total attendance in casualty	**124442**	**112227**	**-**	-	-	-
	Deaths	1399	2206	-	-	-	-
	Brought dead	1294	1370	-	-	-	-
11.	OPD Attendance including Special Clinics(Main Hospital)	**2172531**	**1789519**	**-**	-	-	-
	New cases	765723	654423	-	-	-	-
	Old cases	1406808	1135096	-	-	-	-

Table II. Department-wise admissions (Main Hospital and CN Centre and CDER) (APPENDIX-II) 2023-2024

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)	00	531	00	496	00	496	0.0
Dermatology and Venereology	631	1589	636	1509	8266	1509	13.0
Endocrinology and Metabolism	466	20	460	18	7754	18	16.9
Gastroenterology and Human Nutrition	1964	6748	1960	6472	29889	6472	15.2
Gastrointestinal Surgery and Liver Transplantation	1152	607	1210	519	16139	519	13.3

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Geriatric medicine	1075	1337	1099	1281	12971	1281	11.8
Haematology	1271	16102	1297	15569	18859	15569	14.5
Medicine I	1094	714	1027	718	12137	718	11.8
Medicine II	899	580	854	569	10623	569	12.4
Medicine III	1071	666	985	673	11636	673	11.8
Nephrology	1557	12425	581	12017	9059	12017	15.6
Newborn	3059	00	2920	00	24600	00	8.4
Neonatal ICU (NICU)	228	15	222	21	1875	21	8.4
Nuclear Medicine	223	125	199	123	552	123	2.8
Obstetrics and Gynaecology I	2608	2146	2635	2111	19321	2111	7.3
Obstetrics and Gynaecology II	3036	2139	2650	2051	18726	2051	7.1
Obstetrics and Gynaecology III	1845	1523	1887	1349	14756	1349	7.8
Oncology (Main)	473	00	476	00	3788	00	8.0
Orthopaedics I	1567	2786	1909	508	11950	508	6.3
Orthopaedics II	2002	3010	1657	2615	11205	2615	6.8
Otorhinolaryngology I	673	1190	750	1045	5205	1045	6.9
Otorhinolaryngology II	760	1298	693	1148	4498	1148	6.5
Otorhinolaryngology III	778	1214	756	1087	4399	1087	5.8
Paediatrics I	1008	4338	1068	4146	10564	4146	9.9
Paediatrics II	798	3119	710	2959	9673	2959	13.6
Paediatrics III	1168	10245	960	9900	9859	9900	10.3
Paediatric Surgery	1937	1658	1770	1575	16950	1575	9.6
Physical Medicine and Rehabiliatation	22	00	27	00	1699	00	62.9
Psychiatry	339	00	352	00	10777	00	30.6
Pulmonary Medicine and Sleep Disorders	650	5199	694	4996	6595	4996	9.5
Plastic and Reconstructive Surgery	2940	845	2937	873	32872	873	11.2
Radiotherapy	03	00	00	00	00	00	0.0
Rheumatology	15	1581	08	1402	72	1402	9.0
Surgical Disciplines I	1423	628	1447	505	12070	505	8.3
Surgical Disciplines II	1353	415	1296	290	10022	290	7.7
Surgical Disciplines III	1143	427	1074	312	10222	312	9.5
Surgical Disciplines IV	1588	556	1742	427	12950	427	7.4

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Surgical Disciplines V	1351	469	1428	359	9899	359	6.9
Surgical Disciplines VI	951	397	928	338	6886	338	7.4
Urology	2406	5121	2324	4750	15073	4750	6.5
Total (Main)	**47527**	**91763**	**45628**	**86613**	434391	**86613**	9.5
Cardiology	5227	2374	5196	2254	36343	2254	7.0
Cardiothoracic and Vascular Surgery	2456	05	2464	03	38698	03	15.7
Neurology I	976	1070	1051	1052	10621	1052	10.1
Neurology II	1054	647	1160	554	11534	554	9.9
Neurology III	912	954	811	1018	8450	1018	10.4
Neurosurgery I	1205	936	1230	936	19056	936	15.5
Neurosurgery II	1396	849	1387	758	20636	758	14.9
Neuroradiology	344	71	342	64	1807	64	5.3
Total (CNC)	**13570**	**6906**	**13641**	**6639**	**147145**	**6639**	**10.8**
CDER	**967**	**148**	**929**	**134**	**4373**	**134**	**4.7**

Fig.1: Department wise Admission (Main Hosp., CNC & CDER)-2023-2024

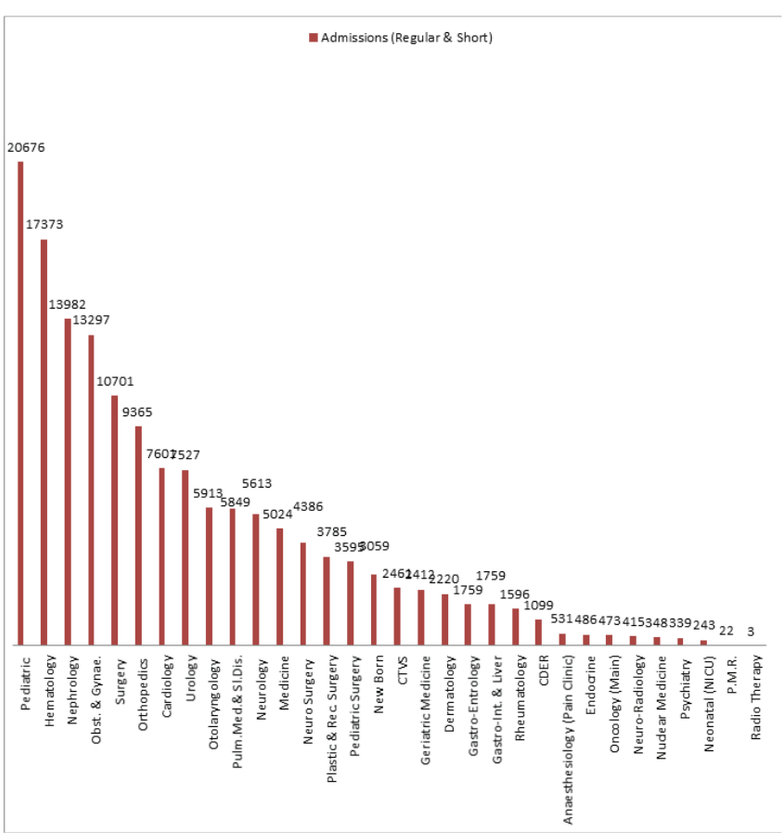


Fig 2. Department-wise average length of stay (Main Hosp., CNC & CDER Regular)-2023-2024

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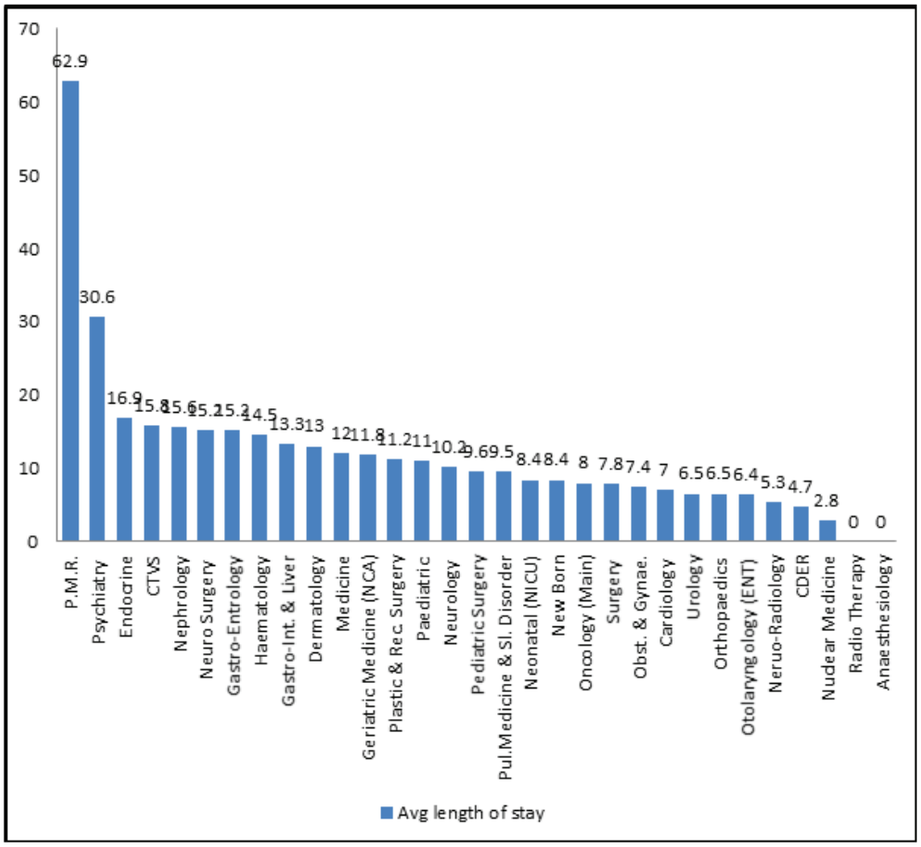
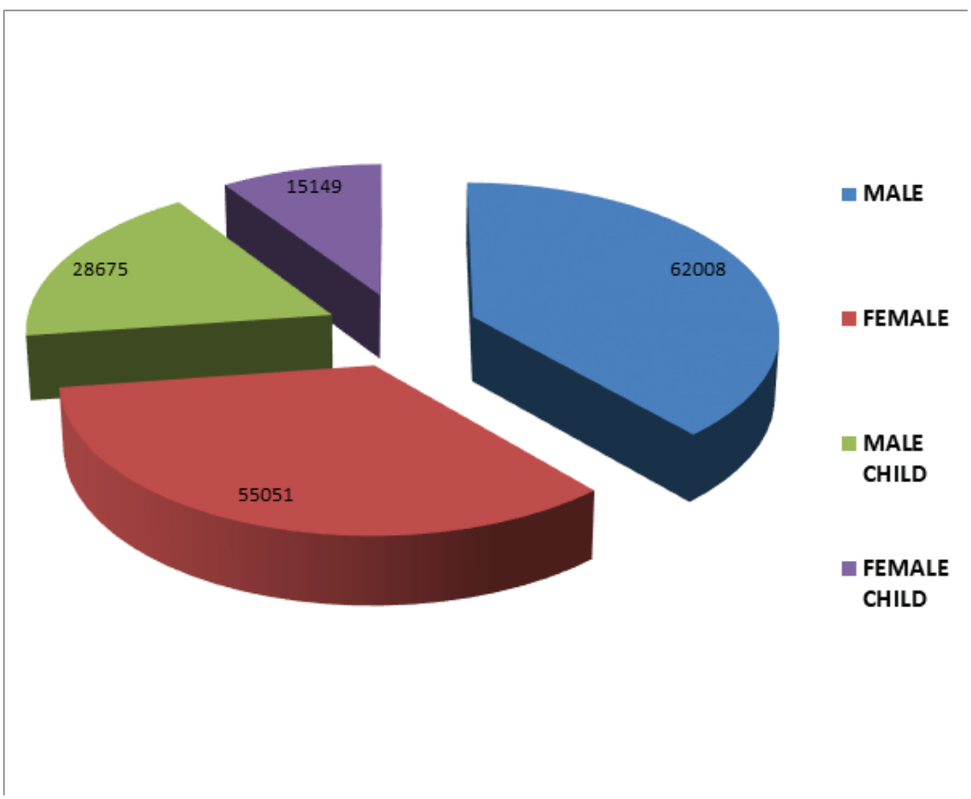


Fig 3. Gender-wise inpatients in Main Hospital, CN Centre and CDER-2023-2024



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Table III. Department-wise deaths in Main Hospital CDER and CN Centre 2023-2024

Department	Discharges	Total Deaths	Deaths under 48 hrs.	Deaths Over 48 hrs.	Gross Deaths Rate in %	Net Deaths Rate in %
Anesthesiology (Pain Clinic)	496	00	00	00	0.0	0.0
Dermatology and Venereology	2145	07	00	07	0.3	0.3
Endocrinology and Metabolism	478	01	01	00	0.2	0.0
Gastroenterology and Human Nutrition	8432	430	150	280	5.1	3.4
Gastrointestinal Surgery and Liver Transplantation	1729	81	21	60	4.7	3.5
Geriatric medicine (NCA)	2380	191	50	141	8.0	6.1
Haematology	16866	228	76	152	1.4	0.9
Medicine I	1745	133	45	88	7.6	5.2
Medicine II	1423	200	65	135	14.1	9.9
Medicine III	1658	207	72	135	12.5	8.5
Nephrology	12598	54	18	36	0.4	0.3
Newborn	2920	35	11	27	1.2	0.9
Neonatal ICU (NICU)	243	18	07	11	7.4	4.7
Nuclear Medicine	322	00	00	00	0.0	0.0
Obstetrics and Gynaecology I	4746	03	02	01	0.06	0.02
Obstetrics and Gynaecology II	4701	05	02	03	0.1	0.06
Obstetrics and Gynaecology III	3236	03	00	03	0.09	0.09
Oncology (Main)	476	140	68	69	29.4	16.9
Orthopaedics I	4299	04	02	02	0.09	0.05
Orthopaedics II	4272	08	00	08	0.2	0.2
Otorhinolaryngology I	1795	07	00	07	0.4	0.4
Otorhinolaryngology II	1841	04	00	04	0.2	0.2
Otorhinolaryngology III	1843	03	00	03	0.2	0.2
Paediatrics I	5214	79	24	55	1.5	1.1
Paediatrics II	3669	71	18	53	1.9	1.5
Paediatrics III	10860	76	17	59	0.7	0.5
Paediatric Surgery	3345	54	08	46	1.6	1.4

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Physical Medicine and Rehabiliatation	27	00	00	00	0.0	0.0
Psychiatry	352	00	00	00	0.0	0.0
Pulmonary Medicine and Sleep Disorders	5690	124	24	100	2.2	1.8
Plastic and Reconstructive Surgery	3810	261	72	189	6.9	5.1
Radiotherapy	00	00	00	00	0.0	0.0
Rheumatology	1410	00	00	00	0.0	0.0
Surgical Disciplines I	1952	39	08	31	2.0	1.6
Surgical Disciplines II	1586	29	07	22	1.8	1.4
Surgical Disciplines III	1386	34	06	28	2.5	2.0
Surgical Disciplines IV	2169	28	03	25	1.3	1.2
Surgical Disciplines V	1787	24	04	20	1.3	1.1
Surgical Disciplines VI	1266	23	07	16	1.8	1.3
Urology	7074	11	04	07	0.2	0.09
Total (Main hospital)	**132241**	**2615**	**792**	**1823**	**2.0**	**1.4**
Cardiology	7450	219	116	103	2.9	1.4
Cardiothoracic and Vascular Surgery	2467	229	25	204	9.3	8.4
Neurology I	2103	43	15	28	2.0	1.3
Neurology II	1714	55	14	41	3.2	2.4
Neurology III	1829	40	09	31	2.2	1.7
Neurosurgery I	2166	44	12	32	2.0	1.5
Neurosurgery II	2145	57	15	42	2.7	2.0
Neuroradiology	406	08	01	07	2.0	1.7
Total (CNC)	**20280**	**695**	**207**	**488**	**3.4**	**2.4**
CDER	**1063**	**01**	**00**	**01**	**0.09**	**0.09**

Fig 4. Geographical distribution of inpatients (Main Hospital, CN Centre and CDER)-2023-2024

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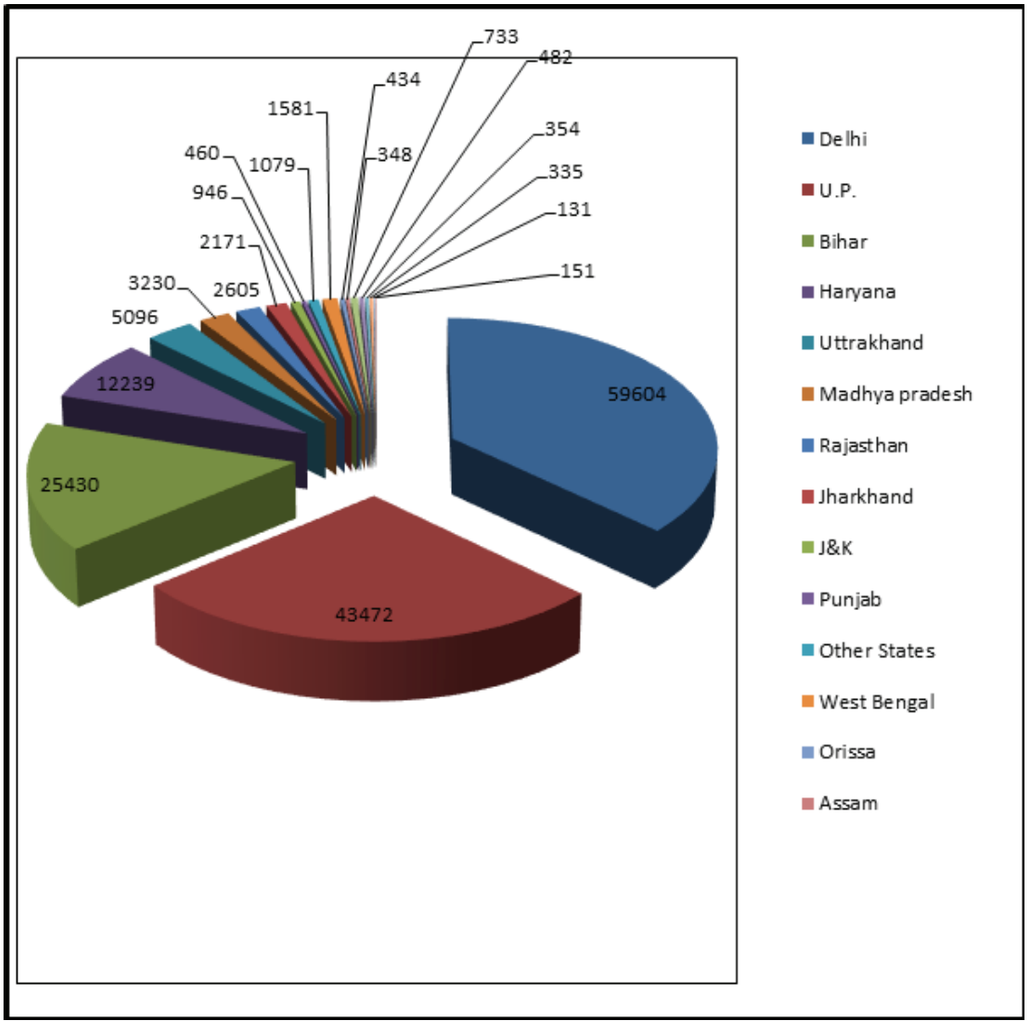


Table IV. Surgical procedures done in the Main Hospital, CDER and CN Centre 2023-2024

DEPARTMENT	Major	Minor		TOTAL
		Inpatient cases	Outpatient cases	
Surgical Disciplines I	**1136**	**226**	**2680**	**4042**
Surgical Disciplines II	**935**	**204**	**2354**	**3493**
Surgical Disciplines III	**891**	**249**	**2899**	**4039**
Surgical Disciplines IV	**1299**	**351**	**3149**	**4799**
Surgical Disciplines V	**1246**	**366**	**2097**	**3709**
Surgical Disciplines VI	**886**	**125**	**1752**	**2763**
Gastrointestinal Surgery and Liver Transplantation	**1019**	**00**	**00**	**1019**

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Urology	**2165**	**568**	**18236**	**20969**
Obstetrics	**1638**	**05**	**00**	**1643**
In vitro fertilization	**00**	**1528**	**00**	**1528**
Gynaecology I	**807**	**687**	**00**	**1494**
Gynaecology II	**731**	**798**	**00**	**1529**
Gynaecology III	**498**	**532**	**00**	**1030**
Foetal Medicine	**00**	**1145**	**00**	**1145**
Otorhinolaryngology I	**1408**	**125**	**11544**	**13077**
Otorhinolaryngology II	**1582**	**84**	**10900**	**12566**
Otorhinolaryngology III	**1500**	**96**	**11405**	**13001**
Orthopaedics I	**1984**	**1146**	**00**	**3130**
Orthopaedics II	**2109**	**1402**	**00**	**3511**
Paediatric Surgery	**1253**	**04**	**00**	**1257**
Casualty	**00**	**202**	**00**	**202**
Plastic and Reconstructive Surgery	**45**	**495**	**00**	**540**
Anaesthesiology (Pain Clinic)	**2558**	**856**	**17887**	**21301**
Haematology	**00**	**00**	**00**	**00**
Physical Medicine and Rehabilitation	**00**	**00**	**4631**	**4631**
Dermatology and Venereology	**00**	**00**	**12965**	***12965***
Total (*Main hospital*)	***25690***	***11194***	***102499***	***139383***
Dental Surgery/CDER	**780**	**49**	**27191**	**28020**
Neurosurgery I	1511	88	00	1599
Neurosurgery II	1636	69	00	1705
Total (CNC)	***6224***	***157***	***00***	***6381***

Table V. Attendance in outpatients and specialty clinics 2023-2024

Medical Disciplines		New Cases	Old Cases	Total
Medicine	General OPD	52589	126748	179337
	a) Obesity and metabolic disorders	147	336	483
	b) Infectious disease clinic	1416	5594	7010
Rheumatology	General OPD	6358	28953	35311
	a) Rheumatology clinic	61	3170	3231

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Geriatric Medicine		12116	41922	54038
Pulmonary Medicine & Sleep Disorders	General OPD	9509	25584	35093
	a) Sleep disorder	169	361	530
	b) Lung cancer	365	1212	1577
	c) ILD - PAH	244	1204	1448
	d) Combined pulmonary surgery	314	691	1005
Nuclear Medicine		2777	11911	14688
Endocrinology and Metabolism		14212	53508	67720
Nephrology	General OPD	6625	36619	43244
	a) Transplant clinic	139	10210	10349
	a) RTCC	390	2713	3103
Haematology		8398	13143	21541
Gastroenterology		31880	72544	104424
Paediatrics	General OPD	36603	87682	124285
	a) Well baby	884	598	1482
	b) Follow up TB	186	1142	1328
	c) Renal clinic	334	1433	1767
	d) Paediatricneurology	470	2620	3090
	e) Paediatric chest clinic	351	2741	3092
	f) High risk neonatal	358	1609	1967
	g) Genetic and birth defects clinic	6242	4933	11175
	h) Oncology clinic	268	1503	1771
	i) Child development clinic	410	1508	1918
	j) Endocrinology clinic	192	873	1065
	k) Neurocysticercosis clinic	85	504	589
	l) PCSC	288	1640	1928
	m) Rheumatology clinic	268	1455	1723
	n) Myopathy clinic	403	1219	1622
	o) Paediatricgastroenterologyclinic	273	1439	1712
	p) Autism	577	1108	1685

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Dermatology and Venereology	General OPD	41506	73345	114851
	a) STD(Dermatology surgery)	1433	2419	3852
	b) Allergy clinic	401	447	848
	c) Leprosy	330	2105	2435
	d) Psoriasis	293	826	1119
	e) Dermo-Surgery	801	956	1757
	f) Vitiligo	305	883	1188
	g) Photo Therapy	67	302	369
	h) Photo Dermatology	25	97	122
	i) Paediatric Dermatology	132	224	356
Psychiatry	General OPD	18213	73538	91751
	a) Child Guidance	16	50	66
	b) Case Progress Clinic	00	00	00
	c) Consultation Liasion Addiction	346	1179	1525
	Sub Total	259769	706801	966570

DISCIPLINES		**NEW CASES**	**OLD CASES**	**TOTAL**
Surgery		40337	48893	89230
Plastic Surgery		6314	24146	30460
Urology		15914	29746	45660
G.I. Surgery		4114	10805	14919
Paediatric Surgery (Specialty Clinics)	**General O.P.D.**	8058	21933	29991
	a) Hydrocephalus	00	06	06
	b) Paed. Urology	384	1309	1693
	c) P.S.T.C.	63	443	506
Anesthesiology	a) Pain Clinic	938	3145	4083
	b) Pre-Anesthesia Clinic	15567	3174	18741

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Orthopedics (Specialty Clinics)	**General O.P.D.**	58423	142769	201192
	a) Physio Therapy	34752	18684	53436
	b) Occupational Therapy	897	7202	8099
	c) Hydro Therapy	859	4323	5182
	e) Tuberculosis	04	28	32
	f) Scoliosis	297	501	798
	g) Hand Clinic	298	330	628
	h) C.T.E.V.	178	2722	2900
	i) Sports Clinics	06	14	20
	j) Fragility Fracture Clinic & Liaison Services	00	05	05
	k) Bone & Soft Tissue Sarcoma Clinic	05	12	17
Otorhino-laryngology (E.N.T.) (Specialty Clinics)	**General O.P.D.**	41420	77431	118851
	a) Audiology	65	34	99
	b) Speech	3250	3990	7240
	c) Hearing	130	123	253
	d) Voice	272	116	388
	e) Vertigo	134	253	387
	f) Rhinology	140	35	175
	H.N.& R.	291	334	625
Obstetrics & Gynaecology (Specialty Clinics)	**General O.P.D.**	34752	89604	124356
	a) IVF	750	1021	1771
	b) Family Welfare	1414	4751	6165
	c) Antenatal	472	2092	2564
	d) Endo-Gynecology	47	68	115
	e) High Risk Pregnancy	2093	9049	11142
Radio-Therapy		00	124	124
Physical Medicine & Rehabilitation (Specialty Clinics)	**General OPD**	15043	26929	41972
	a) Prosthetics & Orthotics	4495	10742	15237
	b) Disability Evaluation Clinic	51	239	290
	c) OPD (PT Section)	00	18279	18279
	d) OPD (OT Section)	00	7752	7752
	e) OPD (MSSO)	00	00	00

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OTHERS	1. Emergency/Casualty	79142	45300	124442
	2. E.H.S.	122330	81551	203881
	3. Nutrition	12255	00	12255
Sub Total		***505954***	***700007***	***1205961***
Grand Total		***765723***	***1406808***	***2172531***

6.2 Dietetics

With reference to office Memo. No. F.No.9-2/2024-Acad.II, dated 18 March 2024, for the data pertaining to patient care services by dietary services for the year 01 April 2023 to 31 March 2024 is enclosed herewith.

The approximate yearly data of different kinds of diets sent to the indoor patients of the main hospital and centres, comprising around 5 major meals in a day are given in Table 1.

Table-1. Total number of indoor patients diets for Main Kitchen (Main Hospital & Centers)

Type of Diets	Number of patients/annum
Normal Diet	468704
Private Diet	83119
Semi-solid Diet	49767
Therapeutic Diet	88499
Kitchen feed	46647
Guest House	1661
Total	**738397**

Nutrition counseling OPD are also run in the Main Hospital. The approximate number of indoor and OPD patients counseled are given in Table 2.

Table-2. Total number of patients given outdoor and indoor nutrition counseling(2023-2024)

Gender	New RAK OPD	Indoor	Total
Male	3639	6106	9745
Female	3548	5792	9340
Total	**7187**	**11898**	**19085**

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6.3 Hospital Billing Section

The donations received and the payments made to patients during the financial year 2023-2024 are:

Donations received from donors: Rs. 1336882.00

(Donations + Poor Fund boxes)

Payment made to (**405)** patients: Rs. 1769344.00

(The amount disbursed to these 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

Organization of Nursing Services

Chief Nursing Officer

⇩

Nursing Superintendent

⇩

Deputy Nursing Superintendent

⇩

Assistant Nursing Superintendent

⇩

Senior Nursing Officer

⇩

Nursing Officer

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 the 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	02
Nursing Superintendent	07
DNS	40
ANS	209
Senior Nursing Officer	969
Nursing Officer	4369
Total	5596

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Continuing Nursing Education (April 2023 - March 2024)

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 the standard of nursing care at AIIMS.

Nursing in-service education program

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

Facilitator: Ms. Kamlesh Chandelia till 29 February 2024

Ms. Nanki Rani (Actg) w.e.f 01 March 2024

Mentor: Ms. M.E. Shobha Sampath

Educators: Ms. Rebecca J. Herald

Ms Srinithya Raghavan till 4 July 2023

Ms J. Subbulakshmi

Ms C. Vasundhara Balaswamy - SB

Ms Maggie Renjith - BPS Block till December 2023

Ms Amrita Kumari - MCH Block

Ms Anita - NCA till December 2023

Ms. Aswathy M. U – BPS w.e.f July 2023

Ms Tisha Mary Thomas - Main Hospital w.e.f January 2024

Mr Radhey Shyam - SB w.e.f December 2023

Ms Arpana Masih - NCA w.e.f December 2023

I. In Service Education Weekly Classes

NIE sessions were conducted five days a week so that maximum Nurses would benefit from these sessions. Sessions were conducted offline on Monday, Wednesday and Friday from 11 am to 12 noon. Online sessions were conducted through Zoom on Tuesday and Thursday from 2.30 pm to 03.15 pm. The following topics were covered during the sessions.

- Management of Patients with Anemia
- Diabetes Mellitus
- Hypertension
- Health promotion – Diet & exercises
- Nursing Management of a critically ill patient
- Vaso active drugs
- Nursing management of patient on ventilator
- Cardiac emergencies
- Management of patient with dengue fever
- Oncological emergencies
- Respiratory emergencies
- Resilience
- Respiratory emergencies
- Management of patient in shock
- Patient safety
- Common medical emergencies
- Health care Bundles
- Parkinson's Disease

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- Elder Abuse
- Geriatric Nursing & NPHCE
- Legal aspects in nursing
- Poly pharmacy

A total of 7643 nurses attended 388 various NIE sessions.

II. Conferences and workshops Conducted By NIE

1) A two-day workshop on Emergency Nursing update along with BLS Training was conducted for 202 nurses working in Emergency and other emergency wards in eight batches (08) from June 2023 to August 2023.
2) A one-day workshop on **Renal Transplant Nursing** was conducted for nurses working in the Surgical Block in five batches covering total of 162 nurses.
3) A one-day workshop on 21 August 2023 on "**Health Promotion**" for the senior Nursing administrators was conducted for 80 nursing personnel.
4) A three-day national conference "**GERICON 2023**" organized along with the Department of Geriatrics for 58 nurses from 28 -30 September 2023.
5) As per the instruction from MOHFW, a series of classes were taken for nurses on "**Management of Heat Related Illness including complications in adults and pediatric patients**" in all the blocks and centers. These sessions were taken from 21 April 2023 to 6 May 2023. A total of 352 nurses were sensitized regarding the same.

III. Credentialing

A total of ninety-five (95) nurses were issued certificates of credit hours for registration in the Nursing Council.

IV. Induction Training

A well-structured induction program was carried out for newly recruited nurses from November 2023 for NORCET IV and from January to February 2024 for NORCET V for a total of 357 nurses in 11 batches on the following topics.

Theory	Skill stations	Other training
• Introduction to AIIMS & Nursing Culture at AIMS • Hospital Routines • Conduct Rules • Leave Rules • Patient Safety • NIS • Communication skills	Basic Nursing Procedures • Medication Administration • Nebulisation & Common Equipments • Oxygenation & Suctioning • Intravenous Cannulation • Resuscitation cart	Basic Life Support

V. Conferences and workshops Coordinated By NIE along with College of Nursing, at SET/CMET, AIIMS, New Delhi.

S No	Name of the workshop	Date	Number of participants
1.	Medico legal aspects in Nursing	05 April 2023	35
2.	Medication optimization and bundle care	03 April 2023	34
3.	Ayushman Bharat Digital Mission (ABDM), Healthcare Professionals Registry (HPR) workshop	12 April 2023	78
4.	Workshop on cytotoxic drug safety	18 September 2023	05

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5.	Simulation in nursing service and education	18 – 25 October 2023	15
6.	Nursing leadership; A force for a change	09 October 2023	30
7.	Breast cancer workshop	16 October 2023	05
8.	Unleashing the potential; the journey to independent practice	31 October 2023	35
9.	Future nursing; a leading change	02 November 2023	20
10.	World stroke day	28 October 2023	07
11.	Sustaining quality assurance through contemporary techniques	21 November 2023	34
12.	Respectful maternity care	18 – 21. 12.2023	12
13.	Workplace excellence; strategies for success	05 February 2024	30
14.	Psychological first aid	15 February 2024	35
15.	Pioneering nursing research strategies for evidence practice.	13 February 2024	30
16.	Assessing the coverage, utilization and impact of Ayushman Bharat scheme among rural women.	14 February 2024	10
17.	World Kidney Day Programme	13 – 14 March 2024	15
18.	Integrating alternative therapies in Nursing Practice	26 March 2024	30
19.	Mind matters: Nurturing mental health for nurses	28 March 2024	30

A total of 490 nurses participated in above mentioned workshops/Conferences.

VI. Conferences and workshops Coordinated By NIE (Outside AIIMS):

During 2023-2024, nurses from different departments in main hospital attended several National and International conferences/ workshops.

S No	Name of the workshop	Date	Venue	Number of participants
1.	Palliative care ;Nursing Perspectives	20 May 2023	Conference Hall	30
2.	Yoga workshop for nursing officers	16 June 2023	CIMR, Convergence Block	41
3.	Training of nurses in advanced care of respiratory illness in children.	26 August 2023 & 27 August 2023	SET facility	40
4.	Nursing training module	13 August 2023	Board Room	05

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5.	The future of nursing research; harnessing the power of digital tool in nursing research	25 October 2023	JLN auditorium	02
6.	Palliative care: By all and for all	17 – 19 November 2023	JLN Auditorium	02
7.	4th national conference, Society for public health, education, research & empowerment	6 – 8 November 2023	NAMS	20
8.	Training on infection prevention & control including BMW for nodal officers (As resource persons)	11 – 12 November 2023	Kerala	10
9.	Global health challenges & nursing solutions	23 January 2024	CMET	31
10.	Workshop on Pain Management	01 – 07 February 2024	ABCON	03
11.	Personality development, communication & presentation skills	10 February 2024	JPNATC	49
12.	Care during pregnancy & Labour; ensuring quality care	14 – 20 March 2024	ABCON, New Delhi	02
13.	Training course on research methodology	18 – 22 March 2024	NIHFW	01
14.	Empowering nursing; where innovations meet compassion	11 – 15 March 2024	RAK CON	02
15.	Personality development, communication & presentation skills	20 March 2024	JPNATC	32

A total of 270 nurses were sent for the above Workshops/Conferences.

VII. Cardiac Resuscitation Training Programme

A total of 216 Nurses were sent for training on Cardiac Resuscitation at SET facility twice a month from April 2023 to March 2024.

VIII. ORBO workshops

A total of 150 nurses in seven batches were trained on Deceased Organ & Tissue Donation by ORBO at AIIMS, New Delhi.

IX. Organizing educational visits

a. Nursing educators in AIIMS conducted orientation programme for a group of 130 II year P C BSc, IV year BSc and II year Msc nursing students along with seven faculties from various colleges of Pune, Mumbai and Mysore.

X. As facilitators/Resource persons

- Promotional training for nurses at KSCH & LHMC hospitals.

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- Resource persons at Ministry of Health & Family Welfare, Dte. General of Health Services, Government of India
- ORBO training
- Workshops organized by College of Nursing, New Delhi.

XI. Deputation of nurses for higher studies

During the year 2023 – 2024, two nurses for PC Bsc program and three nurses for Post graduation in Nursing have been enrolled.

XII. Public Awareness Program

- "Mental Health Awareness Program" was conducted in NCA OPD on 10 October 2023. A public talk was given to 258 OPD patients regarding self-care and issues of mental health in the elderly.
- Sensitization program for nursing personnel on "Cervical Cancer Awareness & Prevention" was conducted at NCA on 10 January 2024 for a total of 62 nursing personnel.
- Sensitization of patients and attendants regarding resources and facilities available at BPS.

XIII. NABH training conducted by NIE at MCB & SB.

a. A total of 11 sessions for all nurses in MCB.
b. Two sessions for all nurses in Surgical Block.
c. Two sessions for all nurses in BPS

XIV. Training of Nurses from other Institute

a. A total of 83 nursing personnel from AIIMS Jammu were trained in clinical areas pertaining to MCB, SB and BPS by Nursing In Service educators posted in these areas.

XV. Future vision for NIE:

Release of new resource material.

1. Admission/Discharge/Lama/Transfer protocol revised edition
2. Emergency nursing manual for nurses as ready reckoner.
3. Increasing the period of induction for newly recruited nurses from three days to one month to give adequate training.

6.5 Blood Centre, Main Hospital

Department of Transfusion Medicine, AIIMS, New Delhi

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PATIENT CARE:

(a) Facilities available in the department (including special clinics and/or special laboratory facilities:

- Autologous blood donation
- Voluntary blood donation camp facility.
- Apheresis procedures (Plateletpheresis, Granulocytapheresis, Therapeutic plasma exchange, PBSC collection)
- Automated blood grouping and serology.
- Automated infectious markers testing
- ID-NAT testing
- 100% blood component preparation.
- Antibody screening and identification
- Antibody titers (ABO and alloantibodies).

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- Rh (D, C, c, E, e) and K phenotypes inventory of red cells
- Leucodepleted blood/components.
- Irradiation facility.

b) Blood collection

S no.	Work done	2021-2022	2022-2023	2023-2024
1.	Total blood units collected • Voluntary Donors • Replacement donors • Apheresis components	45194 8448 35003 1743	54093 12562 41531 2617	62524 11371 48413 2740
2.	Voluntary donation camps organized	45	100	83
3.	Therapeutic plasma exchanges	270	344	420
4.	Peripheral blood stem cell collection	36	44	60
5.	Granulocyte collection	3	14	5

c) Blood component preparation

S no	Blood components	2021-2022	2022-2023	2023-2024
1.	Red blood cells (PRBC+LD-RBC)	44848	52673	57649
2.	Whole blood derived platelet conc	37960	46027	49835
3.	Fresh Frozen plasma	18980	28823	28480
4.	Fresh Plasma	24470	22569	29475
5.	Cryoprecipitate	504	506	772
6.	Component Quality control	412 each	432 each	646 each

d) Routine and emergency Laboratory activities including issue of blood components

S no.	Test	2021-2022	2022-2023	2023-2024
1.	Blood Grouping (Patient + Donor)	98947	120391	126962
2.	Antibody screening (Patient + Donor)	98947	112608	110111
3.	Extended phenotype of red cells (Donor)	-	4946	4336
4.	Total patient requests received	55872	65104	66708
5.	Cross match (routine + emergency)	50747	57779	48386
6.	Total blood (PRBC + LD-PRBC) issued	41275	47716	47007

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7.	PRBC issued to other blood centres / hospitals	2280	1934	1302
8.	Weak R (D) testing of donor	-	3178	3387
9.	Surplus plasma issued to fractionators	4176 Liters	31351	39034

e) Immunohematology Laboratory

S no.	Test	2021-2022	2022-2023	2023-2024
1.	Indirect Coombs test	1799	2268	1887
2.	Direct Coombs test	2198	3999	4561
3.	Antibody titre (ABO+ Alloantibody)	537	1050	1027
4.	Phenotype for minor blood group	2032	2255	2533
5.	Resolution of crossmatch incompatibility	770	1057	93
6.	Resolution of Blood group discrepancy	67	79	93
7.	Antibody identification (Patient + donor)	1301	1661	1273
8.	Work-up of Transfusion Reaction	80	51	74
9.	Quality control of reagents	7	19	13
10	EQAS	1	4	4

f) Infectious disease screening laboratory

Infectious disease markers	**Number of tests**		
	2021-2022	**2022-2023**	**2023-2024**
HIV 1 & 2	45651	54093	62290
HBV	45651	54093	62699
HCV	45651	54093	62468
Syphilis	45651	54093	62204
Malaria	45651	54093	62204
ID NAT Screening	63279	82814	100401
NAT discriminatory	-	-	5995

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6.6 Annual Report of Infection Control Nurses Activities in the Main Hospital 2023-2024

Infection Control Core Committee:

Members:

1. Dr Nirupam Madan	Medical Superintendent, AIIMS & Chairperson
2. Dr Bimal Kumar Das	Professor, Department of Microbiology & Co-Chairperson
3. Dr Rakesh Lodha	Professor, Department of Pediatrics
4. Dr Rashmi Ramachandran	Professor, Department of Anaesthesia
5. Dr Vijaydeep Siddharth	Additional Professor, Hospital Administration
6. Dr Piyush Ranjan	Professor, Department of Medicine
7. Dr Karan Madan	Additional Professor, Department of Pulmonary Medicine
8. Dr Gagandeep Singh	Additional Professor, Department of Microbiology
9. Dr Hitender Gautam	Additional Professor, Department of Microbiology
10. Dr Nishant Verma	Additional Professor, Department of Microbiology
11. Dr Sarita Mahapatra	Additional Professor, Department of Microbiology
12. Dr Jhuma Sankar	Additional Professor, Department of Paediatrics
13. Dr Pankaj Jorwal	Additional Professor, Department of Medicine
14. Dr Arvind Kumar	Additional Professor, Department of Medicine
15. Ms. Nirmal Kain	Nursing Superintendent, Infection Control
16. Ms. Evangelin Vasanth	ANS, Infection Control
17. Ms. Betty Maria Binu	SNO (HR), Infection Control
18. Mr Dhawal Dwivedi	Nsg Officer, Infection Control
19. Mr. Kunj Bihari Gauttam	Nsg Officer, Infection Control
20. Ms. Aswathi A K Nsg	Officer, Infection Control
21. Ms. Tsering Lamo	Nsg Officer, Infection Control
22. Ms. Spandana Kapudasi	Nsg Officer, Infection Control
23. Ms. Preeti Balyan	Nsg Officer, Infection Control
24. Ms. Kanupriya	Nsg Officer, Infection Control
25. Ms. Sweta Verma	Nsg Officer, Infection Control

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 were discussed and rectified.

Activities of HICCOM

- HICCOM (Hospital Infection Control Committee) conducted training program for all health care workers, cadre wise regarding Infection prevention and control practices.

  Total **2973** health care workers were trained.
- The ICNs took sessions on infection control practices for nursing personnel organized by college of nursing AIIMS.
- HICCOM develops written document (manual) outlining the various infection control policies and procedures followed at AIIMS and periodically updating it.
- SOPs on Bio Medical Waste Management, Needle stick injury, Spill management protocols and Disinfectant solution in the form of charts were updated. It was distributed and displayed in all clinical areas of AIIMS.
- The ICNs took sessions on Hand Hygiene, respiratory etiquettes and importance of personal hygiene for Kitchen staff of Main Kitchen.
- The ICNs took sessions on Hand Hygiene, respiratory etiquettes, Cleaning / disinfection techniques and Bio-Medical Waste Management for Multi-tasking staff of New RAK OPD, Mother & Child Block, Surgical Block

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and Main Hospital

- ICNs are collecting CLABSI, CAUTI, VAP and SSI data on daily basis and generating device associated infection rate. ICNs are maintaining Bundle checklists daily.
- ICNs are actively involved in monitoring of Microwaves at Biotic Facility and Plasma sterilizers of various critical areas by exposing biological indicators.
- The ICNs took sessions for various health care workers on solid waste management. (Dry and wet waste)
- ICNs are actively involved in administrative rounds of clinical areas conducted by HICCOM core committee
- ICNs were actively involved as a resource person for training of trainers at NIHFW New Delhi.
- ICNs were actively involved as a resource person for training and development of guidance document on IPC including BMW management during public health emergencies with collaboration between USAID, JHPIEGO and AIIMS New Delhi. Total 80 health care workers were trained from various medical colleges of India.
- ICNs were actively involved in Training of trainers on Hospital Infection prevention and control practices for nursing officers of NCA Jhajjar, CRHSP AIIMS Ballabhgarh, NDDTC Ghaziabad and AIIMS Jammu.
- ICNs are actively involved in conducting and organizing Hands on training sessions on Hospital Infection prevention and control practices for newly joined nursing officers of all the blocks of AIIMS at SET facility AIIMS.
- ICNs took active participation in "Swachhata Pakhwada" activities and organized various activities for all the health care workers.
- Sensitization on hand hygiene, PPE, spill management and needle stick injury protocols, personal hygiene, loading of BMW trolleys according to the BMW rules were emphasized to Biotic workers, sanitary attendants, security guards, kitchen staff and hospital attendants.
- ICNs are attending HICCOM meeting whenever required by HICCOM core group members and involved in sensitizing the dynamic guidelines on Environmental cleaning to increase the frequency of disinfection of all surfaces (Low touch and high touch areas), disinfection of items and correct dilution of disinfectant solutions

Activities of Infection Control Nurses:

1. Collection of data on total HCAIs 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 crude infection rate is calculated and submitted for annual reporting.
2. Device associated infection rate is calculated on monthly basis and submitted to respective departments.
3. Individual area rounds conducted by Infection Control Nurses on daily basis by using checklists and whenever need arises, onsite training programs were conducted in the clinical areas and problems were rectified after discussing with the HICCOM core committee members.
4. Surveillance activities: collection of samples (environmental culture, sterility and In-use samples). Itis also carried out by ATP illuminometer and Air sampler machine from different areas of hospital for Surveillance purpose on monthly basis.

   Reports are collected and distributed to all respective areas to reinforce proper protocols as per the hospital policy.
5. Maintainingincident report book: to record outbreaks, to monitor and to manage.
6. Maintaining the Daily report book for reporting.

Annual Health Care Associated Infection (HCAI) Rate w.e.f. – April 2023 - March 2024

AREA	Total Major Surgeries/Admissions	HCAI	%
Surgical Units	10766	216	2
ICU'S	3264	818	25

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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
3811	1358	2815	1224	996	134

$$\textbf{Combined HCAI rate: } = \frac{216+818}{14030} \times 100 = 7.4\%$$

Surveillance Samples collected during April 2023- March 2024 (Main Hospital, AIIMS)

Monthly surveillance data for surgical units and ICUs are calculated and submitted to MRD section. Annual combined data analysis of surgical units and ICUs are calculated and distributed to Professor Dr Bimal Kumar Das, Professor Microbiology and Co-Chairperson Hospital infection Control, Professor Dr Nirupam Madan, Medical superintendent AIIMS,

Mrs. Nanki Rani, Chief Nursing Officer, Dr Vijaydeep Siddharth, officer in-charge of infection control from hospital administration and to Medical Record section.

Mrs. Evangelin Vasanth
ANS (HR)

Mrs. Nanki Rani
Chief Nursing Officer

Professor Bimal Kumar Das
Deptt. Of Microbiology

6.7 Medical Social Welfare Unit (H)

Chief Medical Social Service Officer
Mr BR Shekhar

Supervising Medical Social Service Officer
Mr Pankaj Kumar

HIGHLIGHTS

The Medical Social Welfare Unit (H) is working under the supervision of Medical Superintendent since 1960 to provide social, psychological and financial support for patients and to alleviate distress while receiving treatment. The MSW Unit (H) has 16Medical Social Service Officers (MSWOs) taking care of OPDs and Wards of 20 important departments in the main hospital including 24x7 Emergency Social Welfare Services.

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Gift distribution in Paediatric Surgery ward

- **Citizen Charter:** Information about Medical Social Welfare Services was updated on AIIMS Website under Citizen charter
- **Collaborative Meet:** A Collaborative meeting of different organizations was conducted
- **Wish granting initiative:** Arranged the meeting of International CEO-Make A Wish, Professors & HOD of Department of Hematology and finally with the Director-AIIMS to increase the number of beneficiaries. Coordinated and organized the wish-granting of approx 400 children through 4 major events in AIIMS.
- **Celebration with children:** Diwali & Christmas celebration with gift distribution was organized in Pediatric Surgery Wards.



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- **World Social Work Day:** A special celebration and wish granting event was organized with children suffering from critical illness and the event was graced with the presence of Medical Superintendent and Additional Director – AIIMS.



- **Independence Day Celebration:** On the occasion of 76th Independence day a special wish-granting event was organized in JLN Auditorium where 76 children received gifts as per their wishes by the Director, MS and other dignitaries

EDUCATION

1. Orientation sessions on "Medical Social Work in Hospital Setting" for MSW students/Healthcare workers: 5
2. Mr B. R. Shekhar, Chief MSWO chaired a scientific session in 10th Annual National Conference of AIAMSWP organized by MG International Hindi Vishvadyalaya
3. Mr B. R. Shekhar, Chief MSWO served as a Panelist in Effective implementation of Policy, Initiative and future direction of ABPMJAY at CMET – AIIMS organized by College of Nursing, AIIMS, New Delhi on 14 February 2024
4. Mr Pankaj Kumar, Supervising MSWO chaired a scientific session in 10th Annual National Conference of AIAMSWP organized by MG International Hindi Vishvadyalaya
5. Mr. Vivek Kumar Singh, MSWO served as a Panelist in the National Pediatric Hematology-Oncology conference at AIIMS-New Delhi

Lecture delivered: 10

PATIENT CARE

Patient care/supportive activities:

1. Cashless treatment of entitled AB-PMJAY scheme beneficiaries.
2. Exemption of hospital charges
3. Free medicines/surgical items by the hospital for indoor patients
4. Financial assistance through Umbrella Scheme of Rashtriya Arogya Nidhi (RAN), Prime Minister's National Relief Fund (PMNRF), Chief Minister's Fund, Delhi Arogya Nidhi (DAN), Vice-President's Fund and other such funds for medical treatment
5. Rehabilitation of Unknown/Without attendant/Destitute/Orphan patients

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6. Resource mobilisation through government & non-government agencies
7. Counseling & Guidance to patients and their attendants as per the need & requirements
8. Railway concession to outstation patients as per government rules
9. Health education & awareness through Seminars, Lectures, one-to-one counselling, Group-work and IEC material etc.
10. Counseling & coordination for authorization of organ donors; and awareness/ motivation to prospective organ donors.
11. Capacity building and sensitization of Social Work students and Healthcare professionals
12. Short-term and long-term Research activities to improve evidence-based practice
13. Management & supervision of the accommodation facilities at AIIMS Vishram Sadan

Item	2023-24
AB-PMJAY beneficiaries	10940
Financial assistance through RAN Umbrella scheme	HMDG - 240 RAN - 90
Financial assistance through AIIMS Poor Fund	484
Financial assistance through NGO/Trust/Foundations (Approx data)	105
Free medicines/surgical items for admitted patients (Approx data)	5200
Online Exemptions of hospital charges (Approx data)	Rs 55, 00, 000/-
Rehabilitation of Unknown/Without attendants/ indigent patients (Approx data)	380
Authorization of unrelated Organ Donors under THOA-1994	12
Railway Concession (Approx data)	12000

AWARDS, HONOURS AND SIGNIFCANT EVENTS

- **Mr. B. R. Shekhar, Chief MSWO** received **National Health ICON WHO Diamond Jubilee Award** as Emerging Medical Professional on 6 April 2023 at India Habitat Center, New Delhi
- **Mr B. R. Shekhar, Chief MSWO,** as a Member in **Interim Commission for Allied & Healthcare Professionals**, attended many meetings and contributed towards landmark decisions to standardize the Allied Healthcare Profession in the country
- **Mr Vivek Kumar Singh, MSWO** was certified as a **'Trainer of Mobilizing Support'** by **CtGA & NCOI University of Netherlands** after 90 hours of intense training & assessment in Adis Ababa, Ethiopia in June 2023.



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Training on Workplace Violence (WPV) in Hospital setting



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Wish-Granting Event on the occasion of
World Social Work Day 2024

6.8 Department of Endocrinology and Metabolism.

67th Annual Report (1.4.2022 to 31 March 2023) OPD/Clinic data

OPD/Clinic attendance from 1 April 2023 to 31 March 2024

Endo New Patient	Endo Old Patient	PAE Clinic	DOY Clinic	GDM Clinic	Total
14068	53877	661	2049	519	71746

Month wise break-up for OPD attendance from 1 April 2023 to 31 March 2024

Month	New Patient	Old Patient	PAE Clinic	DOY Clinic	GDM Clinic	Total
April 2023	1011	3822	46	181	28	5088
May 2023	1268	4494	70	170	38	6040
June 2023	1187	4133	61	160	35	5576
July 2023	1259	4319	74	165	38	5855
August 2023	1347	4882	73	181	43	6526
September 2023	1152	4602	43	210	61	6068

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October 2023	1168	4755	63	171	50	6207
November 2023	1098	4123	21	134	59	5435
December 2023	1108	4820	51	147	55	6753
January 2024	1123	4387	72	158	22	5762
February 2024	1215	4844	49	168	44	6320
March 2024	1132	4696	38	204	46	6116
Total	14068	53877	661	2049	519	71746

6.9 Department of Orthopaedics

Overview:

The Department of orthopaedics in AIIMS has doctors with specializations in the field of joint replacement, sports medicine, hand surgery, musculoskeletal oncology, paediatric orthopaedics, spine surgery and treatment of complex trauma. The recent innovations in orthopaedics surgery such as minimally invasive joint replacement, surface replacement arthroplasty, revision hip and knee replacements, minimally invasive spine surgery, vascularised grafting for non-unions, limb reimplantation, arthroscopic PCL and shoulder surgery are all being practiced here.

The department do provide following hospital services:

Patient Care:

The department is known to perform several complex orthopaedic surgeries and the operation theatres are one of the best equipped, comparable to any advanced centre in the world. With the introduction of robotic facility, EOS facility, advanced intraoperative imaging facilities and many other advanced technologies, the department has achieved a high standard of patient care. Link for an overview of the department https://www.aiims.edu/en/introductaryvideoortho.html

There are **Special clinics** like scoliosis, sports injury clinic where patients get referred to after attending OPD Consultation.

There is a **Bone Bank Facility** also where both live donor bone and cadaveric bone are preserved and used as and when required.

Along with this, there is a modern **Physiotherapy unit** as well for comprehensive care of patients.

Operation Theatres:

There is a total 7 modular Operation Theatres (first floor M.S. Office) dedicated to the Orthopaedics department with latest technology installed to provide quality care to the patients and make them feel calm and comfortable inside the OT complex. The OT complex has a meeting room with live transmission of surgeries for teaching and demonstration along with a live feed to auditorium, conference hall and consultant's room have been installed.

Patient care services in Orthopaedics:

Item	2021–2022	2022–2023	2023–2024
OPD consultations	15, 423	2, 23, 498	2, 01, 192
Special clinic consultations		3063	4400
Patients provided rehabilitation services.			66, 717
Total inpatient admissions	5312	8869	9365

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CLINIC NAME	Number of Patients Catered
Tuberculsosis Clinic	32
Scoliosis Clinic	798
Hand Clinic	628
CTEV Clinic	2900
Sports Clinic	20
FFC &FLS	05
Bone & Soft tissue tumor clinic	17

	Unit - I	Unit - II	Total
Major OT Procedures	1984	2109	4093
Minor OT procedures	1146	1402	2548
Admissions	4353	5012	9365

OPD services Roaster

Day	Morning	Afternoon
MONDAY	**Unit-II (OPD & Follow Up Clinic)** Dr H. L. Nag/Dr Shah Alam Khan/Dr Vijay Kumar/ Dr Mohd. Tahir Ansari/Dr Venkatesan S. Kumar/Dr Vivek Shankar/Dr Love Kapoor	**Bone & Soft Tissue Sarcoma Clinic** Dr Shah Alam Khan Dr Venkatesan S. Kumar
TUESDAY	**Unit-I (OPD & Follow-Up Clinic)** Dr Rajesh Malhotra/ Dr Ravi Mittal/ Dr Bhavuk Garg/ Dr Vijay Kumar Digge/Dr Vikrant Manhas/Dr Arun M Swamy/Dr Sahil Batra/Dr Shrijith M.B. T.B. Clinic Dr Bhavuk Garg	
WEDNESDAY	**Unit-II** Dr H. L. Nag/Dr Vijay Kumar/Dr Mohd. Tahir Ansari/ Dr Venkatesan S. Kumar/Dr Vivek Shankar	**Hand Clinic** Dr Mohd. Tahir Ansari/Dr Vijay Kumar D. SPORTS CLINIC Dr H. L. Nag/Dr Vijay Kumar
THURSDAY	**Unit-I** Dr Ravi Mittal/ Dr Bhavuk Garg/Dr Vijay Kumar Digge/Dr Vikrant Manhas/Dr Arun M Swamy/Dr Sahil Batra/Dr Shrijith M.B. SPINE CLINIC Dr Bhavuk Garg	**Scolosis Clinic** Dr Bhavuk Garg/Dr Vivek Shankar FRAGILITIY FRACTURE CLINIC Dr Rajesh Malhotra/Dr Vijay Kumar D./Dr Vikrant Manhas DISABILITY CLINIC Unit-II

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FRIDAY	**Unit-II** Dr Shah Alam Khan/Dr Vijay Kumar/Dr Mohd. Tahir Ansari/Dr Venkatesan S. Kumar/Dr Vivek Shankar/Dr Love Kapoor	**Ctev Clinic** Dr Shah Alam Khan/Dr Venkatesan S. Kumar/Dr Love Kapoor **Disability Clinic** Unit-II
SATURDAY	**Unit-I** Dr Rajesh Malhotra/Dr Ravi Mittal/Dr Bhavuk Garg/ Dr Vijay Kumar Digge/Dr Vikrant Manhas/Dr Arun M Swamy/Dr Sahil Batra/Dr Shrijith M.B.	

Physiotherapy

- The physiotherapy unit is functional from Monday to Saturday. All the patients referred from the OPD are assessed on the same day and called directly for follow-up visits without any registration requirement.
- There are two rooms for providing physiotherapeutic management including diagnostic, prognostic and therapeutic functions for timely screening and interventions. There are occupational therapy services as well as hydrotherapy services also for the patients.
- Hydrotherapy is an important wing of physiotherapy taking special care of systemic conditions like Rheumatoid Arthritis, Ankylosing spondylitis and other arthritic conditions with obesity. Modalities available are steam bath, whirlpool bath and treadmill.

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7. College of Nursing

Professor cum Principal

Latha Venkatesan

Associate Professors

Shashi Mawar	Sibi Riju	Aditi P Sinha
Ujjwal Dahiya	Cecilia MS	Manju Amit Kumar Rajora
Levis Murry	Y Surbala Devi	Smita Das
Milan Tirwa	Ajesh Kumar TK	Tarika Sharma
Anubha Devagourou		Mamta Choudhary

Tutors

Gayatri Batra	Babita Sahoo	Meena Ara
Seema Sachdeva	Neelima Raaj	Nemkholam
Hansaram	Monika Sabharwal	Manita Dalal
Suman Dabas		Savita

HIGHLIGHTS

Nodal Centre for Clinical Induction cum capacity building program for Nursing Officers of AIIMS Jammu and AIIMS New Delhi. Organized clinical induction cum capacity building program for 450 nursing officers from AIIMS, Jammu in various departments and centers of AIIMS, Delhi. Organized capacity-building workshops for Jammu nurses on HIC, Wound care, chemotherapy, nursing informatics, advanced burns management, and simulation. The syllabus for the Nurse practitioner course in palliative nursing was prepared and submitted for approval in AIIMS. Funded by MoHFW, organized three Short-term training programs for nurses in Hospital infection control, Nursing informatics, and simulation-based nursing education. MoU signed for International Collaboration with university colleges, in Denmark, Keele University, UK, was facilitated. Organized National Conference on "Clinical Nursing Research: Collaborative excellence" Jointly organized by the College of Nursing, AIIMS, New Delhi, and Clinical Nursing Research Society-North Zone CNRS. Funded by ICMR, Organized a workshop on "Skill and Simulation-based Training of Nurses on Patient Safety in Hospitals" for nursing officers in Delhi. Funded by ICMR, Organized a workshop on "Skill and Simulation-based training of nurses on Respectful Maternity Care" for midwives in Delhi. Contributed to developing National Assessment and Ranking framework for Nursing Colleges, NABET, QCI, India. Organized a series of 10 In-service education workshops for nursing officers at AIIMS, New Delhi. Organized seven days of program on Breastfeeding, Infant and young child feeding – counsellor training program. Various World Health Days were observed like National Safe Motherhood Day, International Nurses Day, World Breastfeeding Week, World Environment Day, International Yoga Day, World Suicide Prevention Day, World Heart Day, World Cancer Day, World Stroke Day, World Mental Health Day, World Kidney Day. Student Development programs: Student wellness program, Anti-ragging awareness program, Prevention of NSI, Immunization with Hepatitis B, Global career guidance program, personality development program, Sports Dayand Annual College Day were organized for the students. Students participated in state and national-level SNA competitions and won prizes. They also participated in research day and bagged the first three prizes. Institute Day Celebration, Blood Donation camps, Walkathon for Swachatahi Seva, Mental Health Day, Hindi essay writing competitions. Faculty Development Program: Faculty Clinical Update has been initiated every Wednesday. The topics presented in FDP were: Moyamoya disease, Safe handlining of chemotherapy drugs, interactive teaching technology tools, repetitive transcranial magnetic stimulation as a treatment modality for mentally ill patients, virtual CPR: Indian CPR guidelines, Extended focussed assessment with sonography for Trauma, Rotational Thromoboelastometry. FDP on Hands-on Systematic Reviews and Meta-Analysis and Mentoring the nursing students, Use of safe delivery app was organized for faculty. Initiated an Ongoing Partnership on Nursing Education between AIIMS College of Nursing and Danish University Colleges.

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EDUCATION

Students Admitted:

Course	Sanctioned strength	No. of Students admitted	Current strength
BSc (Hons.) Nursing	96+5= 101	97	94
BSc (P.B.) Nursing	50+1=51	36	33
MSc Nursing	29+7+1= 37	36	30
a. Oncological Nursing		05	5
b. Critical Care Nursing		06	4
c. Pediatric Nursing		05	3
d. Neurosciences Nursing		05	5
e. Nephrological Nursing		05	5
f. Cardiological/CTVS Nursing		05	5
g. Psychiatric Nursing		05	3

Current students' strength:

Course		I year	II year	III year	IV year
BSc (Hons.) Nursing	Regular	90	79	84	77
	Irregular	04	-	-	10
BSc (P.B.) Nursing	Regular	33	30		
	Irregular	-	-		
MSc Nursing	Regular	30	30		
	Irregular	01	-		
Total		158	139	84	87

Students Graduated:

Course	No. of Students
B.Sc (Hons) Nursing	68
B.Sc (P.B.) Nursing	39
M.Sc Nursing	20
Total	127

CMEs/Workshops/Symposia/National and International Conferences

Total No. of CNE events organized by the department

1. Nursing Leadership : A force for a change-Workshop for nurses, 9 October 2023, New Delhi
2. Training course for Nurses on Simulation in Nursing Education and Service, 18 October 2023, New Delhi
3. Application of Lean Six Sigma in Managerial Nursing Research, 25 October 2023, New Delhi
4. Transformation in Nursing-From practice to independent practice, 31 October 2023, New Delhi

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5. Workshop on "Transforming healthcare through digitalization", 2 November 2023, New Delhi
6. Healing Hearts and Mind: Understanding Psychosocial Aspects in Palliative Care: Annual Conference of Delhi State Chapter of IAPC (Delhi-IAPCCON 2023), 19 November 2023, New Delhi
7. Efficacious, Sustain Quality Assurance through contemporary techniques, 21 November 2023, New Delhi
8. Building Competencies and Skills for Global Careers in Nursing. Online International conference, 24 November 2023, New Delhi
9. Probability and Non-Probability Sampling. Workshop on Nursing Research and Statistics, 21 December 2023, New Delhi
10. Respectful Maternity Care-ICMR-funded workshop, 18 December 23-21 December 2023, New Delhi
11. Workshop on Skill and Simulation Based training of Nurses on Patient Safety in Hospitals, 11 January 24-13 January 2024, New Delhi
12. Global Health Challenges and Nursing Solutions, 23 January 2024, New Delhi
13. Breast feeding, Infant and young child feeding-Lactation counsellor training program (Certificate course in BFIYCF), 29 January 2024, New Delhi
14. Inservice education Program on Mastering workplace excellence: Strategies for Success, 5 February 2024, New Delhi
15. Workshop on Pioneering Nursing Research Strategies for Evidence-Based Practices, 13 February 2024, New Delhi
16. Assessing the coverage, Utilization, and Impact of Ayushman Bharat Scheme among rural women in Selected States of Northern India, 14 February 2024, New Delhi
17. Psychological First Aid-Practical, Humane, and supportive care. In-service education program, 15 February 2024, New Delhi
18. Enhancing quality of Paediatric Oncology nursing. National Paediatric Oncology Nursing Conference, 19 February 2024, New Delhi
19. Inservice education program on "Integrating Alternative Therapies with Nursing Practice: Power to heal and to be healed", 26 March 2024, New Delhi
20. Mind Matters: Nurturing Mental Health for Nurses, 28 March 2024, New Delhi

Lectures delivered at CMEs, National and International conferences

Lectures delivered: 103

2021–2022	2022–2023	2023–2024
82	76	103

Oral papers/posters presented: 32

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
10	3	32

RESEARCH

Funded projects

Ongoing

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1. A descriptive study to assess predictors of low milk volume among mothers of preterm admitted in a tertiary care facility, Ms Suman, Intramural funded project under early career development, 2 Years, 2021-2024 (Extension for one year due to maternity and child care leave), Rs 4,62,000
2. A Randomized Control Trial to compare the effectiveness of Nurse-Led Mobile App-Based Intervention vs routine care on knowledge, initiation of Breastfeeding and Exclusive Breastfeeding among mothers delivering in a selected hospital, Dr Latha Venkatesan, AIIMS, 1 Year, 2024-25, Rs 15,00,000
3. Transferring Evidence to Inform Policy and Practice in Local Context: What Digital Health Tools can promote Self-care Management among pregnant women?, Dr Latha Venkatesan, AIIMS, 1 Year, 2024-25, Rs 5,00,000
4. Virtual simulation vs traditional teaching method: a randomized controlled trial, Dr Shashi Mawar, AIIMS, SET Facility PEP project, 2 Years, 2023-25, Rs 30,00,000

Completed

1. Assessing the coverage, Utilization, and Impact of Ayushman Bharat Scheme among rural women in Selected States of Northern India, Dr Latha Venkatesan, ICSSR, 6 months, 2023-24, Rs 14,00,000
2. Effectiveness of Epilepsy care APP on Quality of Life and First Aid management of Seizures (FAMS) by parents of children with refractory Epilepsy reporting at AIIMS: A pilot randomised study, Pathak Pragya, Gulati Shefali, Mary Cecilia, Surbala Yumnam Devi, AIIMS, 2.5 years, 2020-2023, Rs 2,00,000

Departmental projects (including thesis/dissertations)

Ongoing

1. A comparative study to assess awareness, perception and behavior of medical and non-medical college going young adults regarding HPV vaccination
2. A descriptive study to assess knowledge and attitude regarding fire accidents and safety measures in hospital among nursing students at AIIMS, New Delhi
3. A descriptive study to assess the prevalence, characteristics, impact and self-care management of headache among nursing and paramedical students at AIIMS, New Delhi.
4. A mixed method study to explore the status and factors affecting utilization of nursing process among nurses at AIIMS, New Delhi
5. A mixed method study to explore the status of utilization of nursing process and factors affecting its utilization among nursing officers working at AIIMS, New Delhi
6. A Phenomenological study to explore the lived in experiences, challenges and coping strategies faced by parents of children with Mucopolysaccharidosis
7. A qualitative study to explore lived experience and perspectives of parents in parenting a child with kidney transplantation at AIIMS, New Delhi
8. A Quasi-Experimental study to assess the effectiveness of Tele- Nursing Follow- up education program on Knowledge regarding anticoagulation, medication adherence and INR control among patients underwent mechanical valve replacement (MVR) at CTVS, AIIMS, New Delhi
9. A quasi-experimental study to assess the effect of nurse-led intervention program on knowledge and confidence of mothers regarding home-based care of children with solid organ tumors at AIIMS, New Delhi
10. A randomised control trial to assess the effectiveness of nurse led psycho education session on medication adherence and symptom severity among patients with depression attending psychiatry OPD AIIMS, New Delhi
11. A randomised controlled trial to assess the efficacy of Chin-tuck maneuver in Neurogenic dysphagia among stroke patients attending Neurosciences Centre, AIIMS, New Delhi
12. A randomized control trial study to assess the effectiveness of mobile app- based self -management vs booklet based self-management of breast cancer related lymphedema prevention on knowledge, compliance and quality of life among breast cancer patient receiving treatment at a tertiary care centre

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13. A randomized controlled trial to assess the effectiveness of 2% Mupirocin vs 0.5%Neomycin vs placebo intranasal ointment on prevention of surgical site infection (SSI) among adult patients undergoing cardiac surgery at AIIMS, New Delhi
14. A randomized controlled trial to assess the effectiveness of nurse led tobacco cessation intervention among patients attending OPD at AIIMS, New Delhi
15. A study to assess family perception regarding end-of-life care and care giver burden of terminally ill with oncological illness at AIIMS, New Delhi
16. A study to assess knowledge and concerns regarding sexual health among post myocardial infarction patients visiting cardiology outpatient department, AIIMS, New Delhi
17. A Study to assess prevalence and factors related to imposter syndrome on performance failure and coping strategies among nursing officers in AIIMS, New Delhi
18. A study to assess the effect of Nurse-Led cardiac Rehabilitation on knowledge practices and clinical parameters of the adult patients undergoing cardiac surgery at CTVS, AIIMS, New Delhi
19. A study to assess the effect of Thirst Bundle Intervention (TBI) on thirst intensity and dry mouth among heart failure patients visiting at heart failure clinic, AIIMS, New Delhi
20. A study to assess the effectiveness of didactic lecture vs tabletop exercise among Nursing students' knowledge and skill with regard to Hospital Disaster Preparedness at AIIMS, New Delhi
21. A study to assess the effectiveness of exercise 30 min walk on HRQOL among myasthenia gravis patients attending neuro OPD, AIIMS, New Delhi
22. A study to assess the effectiveness of family and patient education using a video-based teaching on knowledge and preprocedural anxiety of family members and patient undergoing EEG at AIIMS, New Delhi
23. A study to assess the effectiveness of green tea (Camellia sinensis) based mouthwash on oral health status, pain and quality of life among advanced head and neck cancer patients in a tertiary care centre - Randomized controlled trial
24. A Study to Assess the Effectiveness of Mobile Application Based Home Care Management Programme of Kidney Transplant Upon Knowledge and Practice of Patients Undergone Kidney Transplantation in AIIMS, New Delhi
25. A study to assess the effectiveness of Modified Early Warning Score (MEWS) on Patient's Outcome and barriers related to its use by Nursing officers in Medicine Ward, AIIMS, New Delhi
26. A Study to assess the effectiveness of Nelson's Inhaler and spirometry versus Electric steam inhaler and spirometry to relieve chest congestion among post-operative Neurosurgery patients admitted in Neuroscience centre, AIIMS, New Delhi
27. A study to assess the effectiveness of Nurse Led couple therapy in improving marital intimacy and communication among partners of post-mastectomy patients in a selected tertiary care hospitals
28. A study to assess the effectiveness of nurse led group brief intervention on social functioning, criminality and health among ODS patients attending NDDTC, AIIMS, New Delhi: A randomized controlled trial
29. A study to assess the effectiveness of patient and family education using a structured information booklet on knowledge and anxiety of patients & family members undergoing EEG at AIIMS, New Delhi
30. A study to assess the Effectiveness of Structured Nursing Guideline on Seizure Action Plan in terms of Knowledge and Practice of Nurses and Selected Patient Outcome in Neuroscience Center AIIMS, New Delhi
31. A study to assess the effectiveness of structured teaching program on knowledge regarding gender - based violence among adolescents in selected schools of Delhi
32. A study to assess the effectiveness of video assisted teaching on knowledge and behavioral practices regarding renal health among employees at AIIMS, New Delhi
33. A study to assess the effectiveness of video assisted teaching program on nasogastric tube feeding regarding knowledge and practice among primary care givers of patents with nasogastric tube in-situ admitted at AIIMS, New Delhi
34. A study to assess the effectiveness of Video Teaching Program on Knowledge & Practice regarding tracheostomy Suctioning as compared to standard teaching program among nursing student of AIIMS, New Delhi

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35. A study to assess the factors influencing eating pattern and their impact on nutritional status among nursing students in College of Nursing, AIIMS, New Delhi
36. A study to assess the family perception regarding End of Life care and caregiver burden in terminally ill with oncological illness at tertiary hospital, AIIMS, New Delhi
37. A Study to Assess the Impact of Cyberchondria on Health Anxiety and Psychological Well-Being among Patients attending New RAK OPD, AIIMS, New Delhi
38. A study to assess the impact of nurse- led education bundle for infection control with follow up teleconsultation on incidence of febrile neutropenia and caregivers's knowledge among parents of children with acute leukemia at AIIMS, New Delhi
39. A study to assess the impact of nurse-led intervention on patient care practices & caregiver burden among caregivers of patients with traumatic brain injury at AIIMS, New Delhi
40. A study to assess the knowledge, attitude and practice regarding radiation safety with a view to develop radiation safety booklet for nurses working at IRCH, AIIMS, New Delhi
41. A study to assess the knowledge, awareness, and acceptance of Human Papilloma virus vaccine (HPV) among health care workers at AIIMS, New Delhi
42. A study to assess the need with a view to develop and evaluate the effectiveness of an intervention programme on Respectful Maternity Care in terms of Knowledge, attitude, practices of Nurses and perinatal care experiences of mothers in selected hospitals of Delhi NCR.
43. A study to assess the prevalence of Metabolic syndrome among young adults at AIIMS with a view to develop Preventive Metabolic Syndrome Pamphlet
44. Astudy to assess caregiver burden, anxiety, depression and coping strategies among caregivers of neurodegenerative disorder patients
45. Effectiveness of a brief psychological intervention on stress and coping among newly Diagnosed breast cancer patients at AIIMS Delhi: a Randomized Controlled Trial
46. Effectiveness of Nurse Initiated Sonotriage On Nurses Knowledge, Skills and Triage Rate Among Patients in Emergency Department of A Tertiary Care Hospital, New Delhi
47. Randomized Control Trial to assess the impact of web - based home care management programme on quality of life, adherence to treatment and nutritional markers among chronic peritoneal dialysis patients of selected hospitals of Delhi
48. The study to assess association of perceived stigma with quality of life, coping, among caregivers of patients with severe mental illness in a tertiary care hospital
49. To assess the effect of blended teaching on treatment compliance, inhaler technique and knowledge regarding home care among parents of asthmatic children

Completed

1. A comparative study to evaluate the efficacy of 2% Muprocin vs 0.5% Neomycin intranasal ointment on prevention of surgical site infections (SSIs) among patients undergoing cardiac surgery in AIIMS, New Delhi
2. A Cross Sectional Study To Assess The Level Of Anxiety, Depression And Stress Of Patients With Cardiac Disorders During COVID-19 Pandemic
3. A cross-sectional study to assess caregiver burden, anxiety, depression, and coping strategies among caregivers of neurodegenerative disorder patients taking treatment at CNC AIIMS, New Delhi
4. A Cross-Sectional Study To Assess The Impact Of COVID-19 On Psychological Well-Being And Family Dynamics Among Parents Of Children With Developmental Disorders at AIIMS, New Delhi
5. A Cross-sectional study to Assess the Knowledge Regarding rights and Responsibilities of Nurses at a Selected Tertiary care Hospital
6. A Cross-sectional study to Assess the knowledge Regarding Selected Obstetric emergencies among BSC [Hons.] nursing 4th Year students at AIIMS, New Delhi

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7. ‘A cup to enjoy safe menstrual period’-an interventional study to assess the knowledge and attitude using booklet on safe use of menstrual cup among nursing students in tertiary hospital of South Delhi, India-BSc (Hons.) 4th year Nursing students
8. A Descriptive Study To Evaluate The Knowledge And Attitude Regarding Utilization And Conservation Of Oxygen Among Nursing Officers Working In Pediatric Units At AIIMS, New Delhi With A View To Develop An E - Educational Booklet
9. A Prospective Study To Assess Knowledge, Attitude And Compliance To Standardized Surgical Safety Checklist Among Operating Room Nursing Officers Working In AIIMS, New Delhi
10. A Prospective Study To Assess The Incidence And Predisposing Factors Of Phlebitis Associated With Peripheral Intravenous Cannula In Children Admitted In Pediatrics Wards At AIIMS, New Delhi
11. A Quasi Experimental Study To Assess The Effectiveness Of Structured Counselling Among Caregivers Of Heart Failure Patients On Selected Outcomes In Cardiology Department At AIIMS, New Delhi
12. A randomized control trial study to assess the effectiveness of mobile app based self management vs self-management of breast cancer related lymphedema prevention on knowledge, compliance and quality of life among breast cancer patient receiving treatment at a tertiary care centre
13. A Randomized control trial study to compare the effectiveness of mobile app-based vs booklet based self-management on lymphedema prevention on knowledge, compliance, and quality of life among breast cancer patients at AIIMS, New Delhi
14. A Randomized Control Trial To Assess The Effect To Simulation Based Teaching On Knowledge, Skill And Confidence Of Undergraduate Nursing Student In Performing Defibrillation
15. A randomized control trial to assess the effectiveness of nurse led tobacco cessation interventions among patients attending OPD at AIIMS, New Delhi
16. A Randomized Controlled Trial To Assess The Effect Of Blended Exercise Program On Rigidity Score Among Parkinson’s Disease Patients Attending Neurology OPD At AIIMS, New Delhi
17. A Randomized Controlled Trial To Assess The Effectiveness Of Nurse - Led Navigation Clinic On Patient Satisfaction, Treatment Adherence And Anxiety Among Adult Oncology Patients Attending Outpatient Unit Dr B.R.A. Irch AIIMS, New Delhi
18. A Randomized controlled trial to evaluate the efficacy of 2% Mupirocin vs 0.5% Neomycin intranasal ointment vs placebo intranasal application on prevention of surgical site infections (SSIs) among adult patients undergoing cardiac surgery in AIIMS, New Delhi
19. A Study To Assess Effectiveness Of Educational Intervention For Primary Caregivers On Knowledge Regarding Immunization And Immunization Status Of Children Who Are Undergoing Cardiac Surgery At AIIMS, New Delhi
20. A Study To Assess Effectiveness Of Video-Assisted Teaching Program On Kegel’s Exercise To Reduce The Severity Of Urinary Incontinence Symptoms And On Quality Of Life Among Women Visiting Urology And Gynaecology Opd At Aims, New Delhi
21. A Study To Assess Factors Affecting Mental Health Literacy And Mental Health Help-Seeking Attitude Of Nursing Students at College of Nursing, AIIMS, New Delhi With A View To Develop An Information Booklet
22. A Study to Assess The Effect Of Audio Visual Distraction On Fistula Cannulation Pain And Biophysiological Parameters Among Patients Undergoing Hemodialysis At Aiims, New Delhi
23. A Study to Assess the Effect of CTVS ICU Clinical Pathway on Nurses’ Knowledge, Levels of Satisfaction And Barriers To Implementation Of The Clinical Pathway At AIIMS, New Delhi
24. A Study To Assess The Effect Of Multi-Component Intervention Programme Regarding Care Of Infants After Cardiac Surgery On Knowledge, Confidence, Level Of Satisfaction Of Parents And Selected Patient Care Outcomes At AIIMS, New Delhi
25. A study to assess the effect of Nurse led Cardiac Rehabilitation on knowledge, practices and clinical parameters of the adult patients undergoing cardiac surgery at CTVS, AIIMS, Delhi
26. A study to assess the effect of simulation based ventilator alarm management training on nurses’ knowledge and practices in a tertiary care hospital
27. A study to assess the effect of Thirst bundle intervention on thirst intensity and dry mouth among heart failure patients visiting at heart failure Clinic, AIIMS, New Delhi

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28. A Study To Assess The Effectiveness Of A Mobile Application-Based Educational Intervention Regarding Oral Hygiene On Knowledge, Attitude And Practice Among Parents Of Children With Congenital Heart Diseases At AIIMS, New Delhi
29. A Study To Assess The Effectiveness Of An Information Booklet On Knowledge And Practice Of Picc Line Home Care In Patients Discharged With A Picc Line At BRA-IRCH, AIIMS, New Delhi
30. A Study To Assess The Effectiveness Of Education On Knowledge, Stress, Anxiety And Psychosocial Concerns Of Parents Having Children With Hypospadias And Attending Pediatric Surgery OPD at AIIMS, New Delhi
31. A study to assess the effectiveness of Knowledge Enhancement programme on HPV and HPV vaccine in terms of Knowledge among B.Sc (Hons) nursing students of CON, AIIMS, New Delhi
32. A Study To Assess The Effectiveness Of Mobile App-Based Psycho-education Package On Activities Of Daily Living, Medicine Adherence And The Severity Of Disease Among Patient With Depression, Attending Outpatient Psychiatry Department
33. A study to assess the Effectiveness of Modified Early Warning Score (MEWS) on Patients Outcome and barriers related to its use by Nursing Officers in Medicine Ward, AIIMS, New Delhi
34. A Study to assess the effectiveness of Nelson's Steam Inhaler and Spirometry versus Electric Steam Inhaler and Spirometry to relieve chest congestion among post operative Neurosurgery patients admitted in Neurosciences Centre, AIIMS, New Delhi
35. A study to assess the effectiveness of nurse led group brief intervention onsocial functioning, criminality and health among ODS patients attending NDDTC, AIIMS, New Delhi: A Randomized Controlled Trial
36. A study to assess the effectiveness of structured teaching programme on knowledge regarding gender-based violence among adolescents in selected schools of Delhi
37. A Study To Assess The Effectiveness Of Video Assisted Teaching On Knowledge Regarding Risk Factors, Prevention, And Management Of Varicose Veins Among Security Guards Of AIIMS, New Delhi
38. A study to assess the effectiveness of video assisted teaching on knowledge and behavioral practices about renal health among employees at AIIMS, New Delhi
39. A Study To Assess The Impact Of COVID-19 On Care Of Patients With Heart Failure
40. A Study To Assess The Impact of COVID-19 Pandemic On Nursing Education Among Nursing Students Of AIIMS, New Delhi
41. A study to assess the impact of nurse-led intervention on patient care practices & caregiver burden among caregivers of patients with traumatic brain injury at AIIMS, New Delhi
42. A Study To Assess The Impact Of Simulation Based Teaching On Breaking Bad News With Regard To Attitude, Confidence And Skill Among Nurses In Paediatric Intensive Care Unit AIIMS, New Delhi
43. A study to assess the impact of simulation based training on knowledge and attitude among BSc (Hons.) Nursing students in regard to Trauma Triage at AIIMS, New Delhi
44. 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 (Layperson) Residing In AIIMS Campus
45. 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
46. A study to assess the Knowledge regarding WHO Labor Care Guide among Nurses working in Maternity Units of selected Hospital of Delhi NCR
47. A Study To Assess The Knowledge, Attitude And Practice To Cauti Bundle Among Nurses Working In Adult ICU At AIIMS, New Delhi
48. A Study To Assess The Prevalence Of Risk Factors Of Stroke And Impact Of Vak Model Based Act Fast Educational Program On Recognition And Stroke Knowledge Among Security Guards Working At AIIMS, New Delhi
49. A Study To Assess The Sleep Cycle Of Unconscious Traumatic Brain Injury Patients Monitored By Smartwatch At Neurosurgery ICU, AIIMS, New Delhi
50. A Study To Assess Thirst Intensity And Thirst Distress And The Practices For Its Management Among Heart Failure Patients Admitted In The Cardiology Unit, AIIMS, New Delhi.

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51. A Study to compare the effectiveness of silver based dressing vs conventional dressing in prevention of surgical site infection among post-operative patients of laparoscopic cholecystectomy in AIIMS, New Delhi
52. A Study To Develop And Assess The Effect Of The Implementation Of Post-Extubation Nebulization Protocol On Selected Patient Care Outcomes In Pediatric Patients And Nurses' Knowledge And Practice About Post-Extubation Nebulization For Pediatric Patients Admitted In CTVS ICU
53. A Study to evaluate the feeding practices of the Mother Infant dyad aged 6weeks to 2 years of age at AIIMS, New Delhi
54. Clinical Audit Of Selected Nephrology Nursing Procedures Performed In Nephrology Unit Of AIIMS With A View To Develop Nephrology Nursing Procedure Protocol Following COVID-19 Guidelines
55. Effect of tailored diet plan on nutritional status, compliance, barriers, and patient satisfaction among the cancer patients discharged with the nasogastric tube at AIIMS, New Delhi: Randomized Control Trial
56. To study the effectiveness of blended Exercise Program on Rigidity Score of Parkinson's Disease Patient
57. Use Of Force Sensitive Resistor In Gauging Pressure Applied By A Mechanical Compression Device Over Femoral Sheath Removal Site And Its Association With Patients Level Of Site Discomfort And Post Procedure Complications Among Patients Of Transfemoral Coronary Interventions In A Tertiary Care Hospital

Collaborative projects

Ongoing

1. Effectiveness of a Nurse led Virtual Liver Cirrhosis Clinic on QOL, Self efficacy and Health Outcomes among patients with liver cirrhosis, Department of Gastroenterology and HNU
2. Nurse led Genetic Awareness (NuGenA), Department of Obstetrics and Gynecology
3. Online Compulsive buying behaviour and its Association with internet addiction, self-esteem, impulsiveness and emotional distress among nursing students, NDDTC

Research over past 3 years

Research project	2021–2022	2022–2023	2023–2024
Total funded projects	8	2	6
Total funding	Rs 12, 141, 059	Rs 950, 000	Rs 70, 62, 000

PUBLICATIONS

Total Publications: 28; **Journal articles: 24** **Chapters in books: 3** **Books: 1**

Publications over Past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	42	17	36
Journal articles	36	16	32
Abstracts	-	-	-
Chapters in books	04	01	03
Books	02	00	01

PATIENT CARE

- Started Nurse led Liver cirrhosis clinic at Gastro OPD.
- Teaching and training BSc post basic nursing students in Emergency department and Trauma Emergency and Burn and plastic unit

AWARDS, HONOURS AND SIGNIFICANT EVENTS

The poster for college on Institute Day received 2nd Prize.

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Ms Akriti Chaudhary, M. Sc 2nd year student, received Commendation Award during AIIMS Research Day 2024 for the study "A study to assess the Effectiveness of Modified Early Warning Score (MEWS) on Patients Outcome and barriers related to its use by Nursing Officers in Medicine Ward, AIIMS, New Delhi".

Professor Latha Venkatesan was awarded International Council of Nurses: Leadership for Change certificate by the Indian Nursing Council; Selected for ICMR international fellowship with the University of Texas, Austin; AIIMS-UCL London project: The research project is selected and approved for funding; Completed Fellowship in Quality Assurance by the International Society for Quality Assurance (IsQUA); Engaged in collaborations with overseas universities for knowledge sharing and academic exchange; Facilitated MoU signing and subsequent facilitation of activities with university colleges from Denmark and Keele University, UK. Four working groups are created with Denmark and AIIMS faculty to work on Center of Excellence, Simulation, COBL, and Research; Facilitated MoU signing with Keele University. London; Completed WHO Assessor Course: Global Benchmarking Tools, WHO Assessor; WHO course for Joint External evaluation for subject matter experts; Contributed to INC for preparing nurse practitioner courses in transplant nursing and geriatric nursing. Contributed to NABET for developing an accreditation assessment framework for assessment of nursing colleges in India; Presented paper in the International Council of Nursing conference in Montreal, Canada; Presented several papers in national conferences as an invited speaker; Invited and contributed as a subject expert at the Islamic university, Kashmir, RMLIMS, Lucknow, AIIMS, Jammu, and as a board of studies member of PGI @Rohtak, AIIMS at Patna, Deogarh, and Gorakhpur; Doctoral advisory committee member of IGNOU; Nursing education committee member of the Indian Nursing Council. Accreditation and grievance committee member of NABH, ICMR@ Bhopal, and NABET; Vigilance committee member of INC; Received second prize on 68th institution day for the poster on "AIIMS: Leading India's Health care security". Contributed to develop National Assessment and Ranking for nursing colleges by NABET, Quality Council of India; Completed Leadership for change program by International Council of Nurses; Invited as national faculty to train CHO in Orissa by NIHFW and PGI collaborative initiative supported by Ministry.

Dr Shashi Mawar received National Health ICON WHO Diamond Jubilee Year Award 2023 for Legendary Nursing Professional on 6 April 2023 at India Habitat Centre, New Delhi; Received award for invaluable contribution towards Skills and simulation-based training at AIIMS Delhi from SET facility, AIIMS; was expert member for DHR ICMR fellowship PhD program; expert for genetic counselling guideline formation for ANC developed by Indian Association of Pediatric surgeons; Organised four Health Day programs for public Awareness in urban community funded by AIIMS - World Stroke Day on 29 October 2023, World Disability Day on 4 December 2023, World cancer Day on 5 February 2024, World kidney day program on 14 March 2024; Conducted COLS training for Group D staff of AIIMS and trained approx. 1500 layperson; Organised a National level Conference on health For All SPHERE on 5-7 November 2023; Organising secretary for World kidney Day National Symposium in collaboration with dept of Nephrology on 13-14 March 2024; Conducted intercollege Quiz competitions and poster competitions.

Dr Aditi P Sinha organized workshop "Sustaining Quality Assurance through Contemporary Techniques" on 21 November 23; Organized World Stroke Day on 28 October 2023; Assistant organizer for National "4th National Conference of SPHERE" 2023 on 6-8 November 2023.

Dr Cecilia MS was Invited as a subject expert in 2023 in a consultative meeting on scope of practice of Nurse Practitioner by ADG, Nursing division, Ministry of health and family welfare, Govt of India.; Chair for research committee Nursing Scholar Society Forsythia chapter; PediSTARS INDIA Full member; Annual member Canadian Alliance of Nurse educators Using Simulation (CANSim).

Dr Y Surbala Devi was External examiner for Ph.D. in Nursing from Kerala University of Health Sciences; Chairperson - Session on Gaming Disorder, 2nd International Virtual Conference on Behavioural Addiction and Substance Use Disorder, 3 October 2023, New Delhi.
Dr Milan Tirwa was Member of the Nursing Teachers Association of India.

Dr Tarika Sharma received best paper award for a study entitled Effectiveness of a Nurse led Virtual Liver Cirrhosis Clinic on QOL, Self efficacy and Health Outcomes among patients with liver cirrhosis: Pilot study during Chitkara University Doctoral Consortium organized at Chitkara University, Punjab.

Dr Anubha Devagourou organized workshop "Sustaining Quality Assurance through Contemporary Techniques" on 21 November 2023; Organized World Kidney Day on 13-14 March 2024; Assistant organizer for National "4th National Conference of SPHERE" 2023 on 6-8 November 2023; Technical support for development of modules and strengthening of comprehensive care of elderly as a component of Ayushman Bharat by Help Age India.

Dr Monika Sabharwal won Consolation Prize in Essay writing competition for Faculty during Hindi Pakhwada.

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8. Research Section

Deans (Research)

Kaushal K Verma
(up to 31 October 2023)

Professor Jeewan S Titiyal
(w.e.f. 12 October 2023 to till date)

Associate Dean (Research)

Vineet Ahuja

Highlights

The Institute has comprehensive state of art facilities for teaching, research and patient care. Research is a very important component of the trinity of this Institute. The institute has always maintained a very competitive research environment. As mandated, the faculty, scientists and students of this Institute have been initiating to conduct basic science, clinical and public health research. The Research Section is the Nodal facilitator and the mandate of the Research Section is to support and strengthen research in the Institute.

Various schemes of Intramural Research Grants have been initiated. A new intramural funding scheme for conducting Nursing Research Projects for Nursing Faculty and a new scheme for Undergraduate Mentorship Research Skills for students at AIIMS has also been initiated. The Research Section has also introduced a new research initiative for providing funding support to foster research temperament amongst medical/dental post-graduates. Junior Residents and Senior Residents sometimes find it challenging to carry out quality research work in the absence of adequate funds. This scheme will provide financial support to MD/MS/MDS/DM/MCh residents to accomplish the research objectives in their thesis. Besides, impetus to infrastructure and capacity building exercise was through operationalizationalfacilities of Centralized Core Research Facilities (CCRF), Clinical Research Unit (CRU) and Center for Medical Innovation & Entrepreneurship (CMIE)/BioNEST.

EXTRAMURAL PROJECTS

Funding Agency	Number of Projects	Grant received (Rs INR) (1 April 2023 to 31 March 2024)
ICMR	405	90, 10, 25, 684
DHR	55	11, 03, 13, 774
DST	41	5, 73, 58, 131
SERB	56	6, 47, 43, 459
DBT/Welcome Trust	57	19, 47, 40, 052
Non-Government/Indian Funding Agencies (Pvt.)	142	9, 94, 18, 476
International	88	30, 14, 25, 135
Ministry etc	62	20, 69, 23, 506
	906	**193, 59, 48, 217**

INTRAMURAL PROJECT SCHEMES:

Early Career Intramural research grants – for Assistant Professor and Associate Professors at AIIMS

1. Single Principal investigator with co-investigators

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2. Funding : Rs 5 Lakhs/year – extendable to two years
3. Monitored by Internal Project Review Committee

Intramural Inter-disciplinary collaborative research projects - for all levels of faculty at AIIMS

1. Two Principal investigators from two different departments/disciplines with complementary expertise
2. Funding – Rs 5 Lakhs/year per PI for two years (Total Rs 20 Lakhs)
3. Monitored by External Project Review Committee

Undergraduate Mentorship for Research Skills (Modified):

1. Group of two or three MBBS/BSc students under the guidance of a faculty member (designated as Mentor)
2. Based on the merit of the project, a total short-term funding of Rs 50, 000/- per student will be sanctioned once in 5 years
3. If two or three more students combine to form a team under a mentor the funding would also be combined (If three students combined: Funding of Rs 1.5 Lakhs will be given to mentor)

Inter-Institutional collaborative research projects with:

1. IIT-Delhi
2. IIT – Kharagpur
3. THSTI, Faridabad

- Two Principal investigators from two different institutes with complementary expertise
- Funding (intramural from both institutions) – Rs 5 Lakhs/year per PI for two years (Total Rs 20 Lakhs)
- Monitored by External Project Review Committee

AIIMS-UCL

International research collaboration with University College London continued and six projects were awarded this year also. Four projects were awarded last year

- Two Principal investigators from the two institutes with complementary expertise
- Funding will be jointly provided by UCL and AIIMS, New Delhi. Each successful proposal will receive upto £5, 000 per year for UCL faculty and upto Rs 5 lakh per year for AIIMS, New Delhi faculty for one year
- Monitored by External Project Review Committee

Faculty of Nursing Intramural Project Scheme:

- a new intramural funding scheme for conducting Nursing Research Projects and promoting evidence-based Nursing practices for patient care is being introduced
- Upto 10 projects will be funded under Intramural Research Grant Scheme
- A total funding of Rs 5.0 Lakhs per year will be sanctioned for a period of 1year. The maximum funding will be Rs 10 Lakhs for a project duration of 2 years

Financial support for MD/MS/MDS/DM/MCh Thesis:

- A new research initiative for providing funding support to foster research temperament amongst medical/dental post graduates
- total financial support of Rs 2 Lakhs from the Intramural Research Grant to the selected candidates for pursuing their thesis research project
- The number of awards will be limited to 100 per year (50 per batch of June and December; distribution of awards is- 32 for MD/MS residents, 15 for DM/MCh residents and 3 for MDS residents)

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Intramural Funding ongoing projects:

Scheme	Ongoing Projects	Grant
Early Career Grant Scheme	153	8, 31, 25, 553
AIIMS-Collaborative	42	4, 75, 59, 845
AIIMS-IIT Delhi	21	1, 19, 66, 356
AIIMS-THSTI	7	33, 88, 500
AIIMS-UCL	5	24, 95, 560
AIIMS-UG	17	27, 31, 900
SSWC	1	7, 50, 000
MD/MS/MDS/DM/MCh Thesis Grant	23	22, 29, 500
	269	**15, 42, 47, 214**

ENDOWED CHAIR:

Shobha Seth Wenger' Distinguished Chair in Gynaecologic Oncology under "Mira Seth Corpus Fund"

- Mira Seth Corpus Fund had donated money to AIIMS to establish chair in Gynaecologic Oncology
- Purpose of the endowed chair: This prestigious Chair will be awarded to a Senior Faculty/Scientist from AIIMS, New Delhi who has an outstanding track record in the field of Gynaecologic Oncology.
- Dr Sandeep Mathur, Professor of Pathology has been awarded 'Shobha Seth Wenger' Distinguished Chair in Gynecologic Oncology under "Mira Seth Corpus Fund" for a period of 2 years

INTERNATIONAL FELLOWSHIPS FOR AIIMS FACULTY

The objective of the fellowships is to provide opportunities to gain advanced training in emerging areas of medical sciences and utilize them for work at AIIMS, New Delhi. These are not meant for attending conferences, society meetings or CMEs. Faculty who demonstrate a commitment to a specific area of work that requires advanced knowledge, provide a specific work-plan with a host who is reputed in that area, and show that the knowledge gained will be put to use at AIIMS, New Delhi, will be preferred.

Areas for fellowships:

Emerging areas in Clinical medicine, Basic sciences & Public Health with translational component

Duration of Fellowships:

Two to four weeks. Any duration beyond 4 weeks will not be supported financially by the travel grant and will be subject to specific approval on case-to-case basis.

The list of awardees for AIIMS International Fellowship 2023-24:

S. No	Name	Area of Research Interest	Foreign Mentor & Institute	Duration of fellowship
1	**Dr Nitesh Tewari** Additional Professor, Deptt. of Pediatric and Preventive Dentistry, CDER	Dental Traumatology, Regenerative Dentistry, Molecular Biology	**Dr Ujjal Kumar Bhawal**, Nihon University School of Dentistry, Sake-cho Nishi, Matsudo, Japan	3 week
2	**Dr L Gopichandran** Associate Professor Department of College of Nursing	Nurse Informatics, Palliative care and Nurse led models care.	**Jackie L Michael** UTA College of Nursing and Health Innovation, Nedderman Drive, Arlington, Texas, USA	4 week

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3	**Dr Deepak Gunjan** Associate Professor Department of Gastroenterology and Human Nutrition	Advance therapeutic endoscopy and pancreatic disease	**Dr Ken Ohata** Chief and Director Endoscopy, Department of Gastroenterology, NTT Medical Centre, Higashi-Gotanda, Shinagawaku, Tokyo, Japan	4 week
4	**Dr Kanwaljeet Garg** Additional Professor Department of Neurosurgery	Neuromodulaton (including Movement disorders), Spine	**Professor Ali Rezai**, Director Associate Dean & Vice President of Neuroscience Rockefeller Neuroscience Institute, Morgantown, WVU, USA	4 week

INFOSYS CHAIR IN ONCOLOGY

Preamble: Infosys Foundation has donated grant to AIIMS to establish a chairs, in Cancer (Oncology) of 5 Crores. The objectives of the Infosys endowment are as follows:

1. Establish Chairs–
2. Promote and support Faculty, Scientists and Students for pursuing research
3. To support exchange of students and faculty with various national and international universities
4. To provide travel fellowship to young doctors, scientists and faculty
5. Any other suitable academic purpose approved by the Board

Number of Awardees: It is likely that many experts will be selected for these prestigious chairs every year for a period ranging from 1 to 3 months. The limiting factor will be the total expenditure on such visits, which should not exceed Rs 20 Lacs/year for all such visits combined.

List of awardees for Infosys Chair in Cancer (Oncology) for the year 2023-24.

S. No	Name of Candidate	Name of Sponsored AIIMS Faculty
1	**Dr Asima Mukhipadhyay** Consultant Gynecological Oncology and Lead in Cytoreductive Surgery, James Cook University Hospital, UK	Dr Neerja Bhatla, Professor & Head, Department of Obst. & Gynae
2	**Dr Kyung Tae** Secretary-General, Asia-Pacific Society of Thyroid Surgery (APTS), Director, Hanyang University Hospital Cancer Center, Professor, Department of Otolaryngology-Head and Neck Surgery, College of Medicine, Hanyang University, Seoul, Korea	Dr Alok Thakar Professor & Head Department of Otolaryngology & Head Neck Surgery
3.	**Professor Laurence Klotz** Professor of Surgery University of Toronto, Sunnybrook Health Sciences Centre, Canada	Dr Amlesh Seth Professor & Head Department of Urology

TRAVEL SUPPORT SCHOLARSHIP UNDER AIIMS ENDOWMENT FUND

i) Augmentation of number of travel fellowships for students, residents, PhD scholars, and research staff to participate in International/National conferences, workshop quiz

ii) Meeting being held every two months for selection of candidates for award of travel grant

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Months	International	National for UGs	Amount Sanctioned (Rs)
April to May	15	9	Rs 1200000
June to August	24	11	Rs 1880000
September to November	14	13	Rs 1140000
December to March	14	8	Rs 920000
TOTAL	**67**	**41**	**51, 40, 000**

I. MoUs signed during 2023-2024:

i) **Census Data Research Centre (CDRC)** is an initiative of The Office of Registrar General & Census Commissioner, India (ORG&CCI) with an objective to promote use of anonymized micro-data from census for in-depth research by qualified researchers by allowing access to Census data. Such research would allow greater utilization of data and also contribute towards improving methodology of data collection during census as well as identify strengths and weaknesses of micro-data. The workstation will be fully equipped with all the facilities for research on confidential micro-data from Census 2001, Census 2011 & onwards.

In this regard, anMOU has been signed between Office of the Registrar General, India, Ministry of Home Affairs and AIIMS, New Delhi for Setting-up workstation for research on sample micro data from census.

ii) **An MoU has been signed between Royal Society of Tropical Medicine and Hygiene, London** ("RSTMH") and AIIMS, New Delhi for collaboration in the following areas:

- Sharing knowledge and expertise
- Organizing joint academic and scientific activities, such as academic exchanges, short courses, seminars, workshops, and lectures on topics of shared interest
- Promoting membership of RSTMH, with a discount to AIIMS New Delhi faculty and students
- Offering discounts where possible for Article Processing Charges to AIIMS New Delhi faculty and students for publication in RSTMH journal International Health
- Exchanging scientific information through publications and other materials
- Exchanging information and promoting mutually beneficial activities and opportunities through their respective newsletters and websites such as RSTMH Grants
- Developing communication products (print and multimedia) on various thematic areas to raise awareness and advocate at the policy level
- To encourage relevant AIIMS New Delhi research to be published in RSTMH's journals, including a potential editorial
- Other areas identified from time to time by mutual consent

iii) **MoU singed between AIIMS- Institute of Genomics and Integrative Biology** (CSIR) to establish the "AIIMS-IGIB Collaborative Platform" for initiating wide ranging collaborations involving academic, research, product, process and human resource development which will have a profound social and economic impact for our country.

The process for call for proposals inviting research projects has been initiated and a total number of 36 proposals have been received.

iv) **MoU singed with Indraprastha Institute of Information Technology, Delhi (IIIT-D)**to establish the "AIIMS-IIIT-D Collaborative Platform" for initiating wide ranging collaborations involving academic, research, product, process and human resource development which will have a profound social and economic impact for our country.

v) **Dr S Ramachandran Chair for Neurosciences:**

- Mrs Bhama Ramachandran w/o Dr S Ramachandran, Former Secretary, Department of Biotechnology, Government of India and AIIMS, New Delhi has donated money to AIIMS to establish chair in Neurosciences
- An MoU has been signed to encourage excellence in the pursuit of research and academic activities in the Neuroscience field

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vi) Dr Suredra K Chawla award:

- This award is for the best research paper in the field of Cardio-Thoracic Surgery under AIIMS Endowment funds (donated INR 10 Lakh). Categories of award will be granted as: first award- Rs 25000/-; Second award- Rs 15000/-
- Dr Suruchi Hasija, Professor of Cardiac Anaesthesia and Critical Care has been received first prize for best research paper entitled "Bivalirudin anticoagulation in neonates and infantsundergoing cardiac surgery" published in Journal of Cardiothoracic and Vascular Anesthesia.

II. Third AIIMS ANNUAL RESEARCH DAY

The Research Section has been celebrating Research Day every year. The annual event is dedicated to highlighting the breadth of research and depth of discovery at the Institute as it provides an excellent opportunity to students, residents, scientists and faculty to showcase their research work/poster and platform presentations. In addition, mentoring talks and panel discussion are also organized.

Third Annual AIIMS Research Day was celebrated on 30 January 2024. The 3rd Research Day included the following activities:

- **Dr Rajiv Bahl**, Secretary to Govt. of India, Department of Health Research and Director General, ICMR delivered the **AIIMS Goden Jubilee Oration** titled **"Medical Research in India- vision and action"**
- **Dr Rajesh S Gokhale**, Secretary, Department of Biotechnology and Department of Science and Technology, Govt. of India delivered the **AIIMS Silver Jubilee Oration** titled **"Harmonizing connections: Interorgan crosstalk for metabolic health"**. The participation by Faculty and students was phenomenal highlighting the centre stage which research occupies for members of this institution
- One interactive session entitled ***"How career planning is different for women: a session for all genders"*** *was delivered by* **Dr Shubha Tole,** Professor of Neurobiology at Tata Institute of Fundamental Research, Mumbai
- Keynote addresses were delivered on ***"How to build a hippocampus"*** by **Dr Shubha Tole,** Professor of Neurobiology at Tata Institute of Fundamental Research, Mumbai
- AIIMS values the commitment and contributions of all its students, residents, scientists, and faculty over the years, who have contributed to make this institute a leader in the country in terms of research output indices
- The research efforts of AIIMS Faculty were recognized by giving following awards:
  - Research Excellence Awards (Year - 2022)
  - Oncology Awards (Year - 2022)
  - 'Shobha Seth Wenger' Distinguished Chair in Gynaecologic Oncology
  - Dr Surendra K Chawla Award for best paper in CTVS
  - Infosys chair in oncology
  - In addition, there were Best paper presentations (12 platform and 596 poster) in various categories of students such as PhD., MBBS, BSc., MSc., Nursing, Junior Resident, Senior Resident and Project Staff
  - A peoples' choice award' was also given for the most liked poster

A total of 596 posters showcasing the research carried out by AIIMS students were displayed and evaluated. Prizes were awarded to the best oral papers and posters in various categories (MBBS, BSc. MSc., Nursing, PhD, JR, SR, SDG and Project Staff).

- A total of 87 awards in all were given in these student categories:-

Category	Number of Abstracts	Prize Awarded
MBBS	23	10
BSc	03	1
MSc	36	8
PhD	177	12
Junior Residents (MD/MS)	85	14

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Senior Residents (DM/MCh/Fellows/ Non-Acad)	130	15
Nursing	15	8
Project Staff	117	9
SDG	10	7
Selfie Award	-	3
Total	**596**	**87**

- Also, 15 devices developed by the AIIMS Faculty were displayed in the Exhibition and 3 were awarded
- There was a vibrant Panel Discussion, which was moderated by Prof Anurag Agrawal, Dean Biosciences and Health Research, Ashoka University. The panel consisted of senior medical research policy makers – Dr Prashant Warier, Co-founder & CEO, Qure.a,. Dr Anurag Rathore, Chemical Engineering, IIT Delhi, Dr Lipika Dey, Professor of Ashoka University, Mr. Rajroshan Sawhney, Google Research Partnership, Health AI Lead, APAC, Dr Krithika Rangarajan, Associate Professor, AIIMS, New Delhi The panelists discussed the Artificial Intelligence, Big data, Innovative Science: Transforming Health Care.The Institute has been widely acknowledged and recognized for its research quality, ethics and applicability. The faculty, scientists and students of AIIMS have been largely instrumental in maintaining this culture of cutting-edge research. The Institute has outstanding scientific talent with diverse research interests

VI. AIIMS EXCELLENCE AWARDS and ONCOLOGY Awards (2022)

The Research Section has implemented a programme to recognize quality research outputs of its faculty/scientists by awarding "AIIMS Excellence Awards" and Oncology Awards. There are two categories of prizes: Basic/Fundamental Science and clinical/Applied Science. Original publications published in peer reviewed index journals are eligible for the said awards. A total number of Publication received for the year 2022 **(Clinical Science Category: 59, Basic Science Category: 41 & Oncology Clinical Category: 21, Oncology Basic Category: 14**).
A list of the AIIMS Excellence Awardees for the year 2022 is as under:

Research Excellence Basic Sciences Category Awards: 2022

S. No.	Name	Title	Name of Journal	Comments
1	Dr Archana Singh Additional Professor	Chronic hyperglycemia drives alterations in macrophage effector function in pulmonary tuberculosis.	European journal of Immunology	First Prize
2	Dr Rupesh K Srivastava Associate Professor	Bifidobacterium longum Ameliorates Ovariectomy- Induced Bone Loss via Enhancing Anti-Osteoclastogenic and Immunomodulatory Potential of Regulatory B cells (Bregs)	Frontiers in Immunology	Second Prize
3	Dr Baibaswata Nayak Professor	Pattern recognition receptor CD14 gene polymorphisms in alcohol use disorder patients and its Influence on liver disease susceptibility.	Frontiers in Immunology	Second Prize
4	Dr Manoj Kumar Tembhre Scientist	Interleukin-33 Induces Neutrophil Extracellular Trap (NET) Formation and Macrophage Necroptosis via Enhancing Oxidative Stress and Secretion of Proatherogenic Factors in Advanced Atherosclerosis	Antioxidants	Third Prize

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5	Dr Dinu S Chandran Additional Professor	Differential role of central and peripheral arterial stiffness in determining brachial artery resting retrograde flow in patients with ischemic heart disease vs healthy subjects	Journal of Human Hypertension	Third Prize
6	Dr Sujata Mohanty Professor	Promoting in-vivo bone regeneration using facile engineered load-bearing 3D bioactive scaffold	Biomedical Materials	Third Prize
7	Dr Thoudam Debraj Singh Associate Professor	Application of elastin-like polypeptide (ELP) containing extra-cellular matrix (ECM) binding ligands in regenerative medicine	International Journal of Biological Macromolecules	Third Prize
8	Dr Sachin Kumar Scientist-II	Evaluation of the programmed death-ligand 1 mRNA expression and immunopositivity and their correlation with survival outcomes in Indian lung cancer patients	Human Cell	Third Prize
9	Dr Siddhartha Kundu Assistant Professor	Temporal GSSA: a numerically robust R-wrapper to facilitate computation of a metabolite-specific and simulation time-dependent trajectory from stochastic simulation algorithm (SSA)-generated datasets.	Journal of Bioinformatics and Computational Biology	Commendation
10	Dr Uma Sharma Professor	NMR based metabolic profiling of patients with potential celiac disease elucidating early biochemical changes of gluten-sensitivity: A pilot study	Clinica Chimica Acta	Commendation
11	Dr KH Reeta Professor	Dihydromyricetin alleviates cerebral ischemiare perfusion injury by attenuating apoptosis and astrogliosis in peri-infarct cortex	Neurological Research	Commendation
12	Professor Ashish Suri Professor	Effect of the Segmentation Threshold on Computed Tomographye Based Reconstruction of Skull Bones with Reference Optical Three-Dimensional Scanning	World Neurosurgery	Commendation
13	Dr Pranay Tanwar Professor	Computational investigation reveals that the mutant strains of SARS-CoV2 have differential structural and binding properties	Computer Methods and Programs in Biomedicine	Commendation

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Basic Science (Oncology)

S. No.	Name	Title	Name of Journal	Comments
1	Dr Kunzang Chosdol Professor Biochemistry	Upregulation of Atypical Cadherin FAT1 Promotes an Immunosuppressive Tumor Microenvironment via TGF-b K	Frontiers in Immunology	First Prize
2	Dr Vaishali Suri Professor Neuropathology	DNA methylation profiling of meningiomas highlights clinically distinct molecular subgroups	Journal of Neuro-Oncology	Second Prize
3	Dr Jyotirmoy Banerjee Associate Professor Biophysics	Transcriptomic profiling of nonneoplastic cortical tissues reveals epileptogenic mechanisms in dysembryoplastic neuroepithelial tumors	Functional & Integrative Genomics	Third Prize

Clinical Science Category

S. No.	Name	Title	Name of Journal	Comments
1	Dr Purva Mathur Professor Laboratory Medicine	Health-care-associated bloodstream and urinary tract infections in a network of hospitals in India: a multicentre, hospital-based, prospective surveillance study	The LANCET	First Prize
2	Dr Sameer Bakhshi Prof & Head Medical Oncology	Sex disparity in childhood cancer in India: a multi-centre, individual patient data analysis	The LANCET	Second Prize
3	Dr Kana Ram Jat Additional Professor Pediatrics	Azithromycin for Poorly Controlled Asthma in Children: A Randomized Controlled Trial	Asthma Original Research (CHEST)	Second Prize
4	Dr Piyush Ranjan Professor Medicine	Effect of intensive weight-loss intervention on metabolic, ultrasound and anthropometric parameters among patients with obesity and non-alcoholic fatty liver disease: an RCT	European Journal of Clinical Nutrition	Third Prize
5	Dr Animesh Ray Associate Professor Medicine	A study on the morbid histopathological changes in COVID-19 patients with or without comorbidities using minimally invasive tissue sampling	Journal of Medical Virology	Third Prize
6	Dr Biswaroop Chakrabarty Additional Professor Pediatrics	The Childhood and Adolescent Sleep Evaluation Questionnaire (CASEQ): Development and validation of an ICSD-3-based screening instrument, a community and hospital-based study	Journal Of Sleep Research	Third Prize

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7	Dr Deepali Jain Professor Pathology	Molecular signature of postmortem lung tissue from COVID-19 patients suggests distinct trajectories driving mortality	Disease Models & Mechanisms	Third Prize
8	Dr Yatan Pal Singh Balhara Professor Psychiatry	A randomized controlled trial to assess effectiveness of GamE- an e-Health intervention to self-manage gaming with an aim to prevent gaming disorder	Asian Journal of Psychiatry	Third Prize
9	Dr Archna Singh Addl Professor Biochemistry	Standardisation and application of a novel multiplex assay for estimating micronutrient status and inflammatory markers in women of Sauria Paharia and Santhal tribes of Jharkhand	British Journal of Nutrition	Third Prize
10	Dr Sanjeev Kumar Gupta, Professor	Clinical and Prognostic Impact of Copy Number Alterations and Associated Risk Profiles in a Cohort of Pediatric B-cell Precursor Acute Lymphoblastic Leukemia Cases Treated Under ICiCLe Protocol	European Hematology Association	Commendation
11	Dr Ayush Agarwal Assistant Professor	Primary CNS vasculitis (PCNSV): a cohort study	Nature Portfolio	Commendation
12	Dr Sandeep Aggarwal Professor	Impact of bariatric surgery on urinary incontinence in morbidly obese individuals	Surgical Endoscopy	Commendation
13	Dr Krithika Rangarajan Assistant Professor Radio-diagnosis	Ultra-high resolution, multi-scale, context-aware approach for detection of small cancers on mammography	Scientific Reports	Appreciation
14	Dr Awadh Kishor Pandit Associate Professor Neurology	Mucormycosis in COVID-19 Patients: A Case-Control Study	Microorganisms	Appreciation

Oncology Award - Clinical Science Category

S. No.	Name	Title	Name of Journal	Comments
1	Dr CS Bal Professor & Head Nuclear Medicine	Survival Outcomes in Metastatic Gastroenteropancreatic Neuroendocrine Tumor Patients Receiving Concomitant 225Ac-DOTATATE–Targeted a-Therapy and Capecitabine: A Real-World-Scenario Management-Based Long-Term Outcome Study	The Journal of Nuclear Medicine	First Prize
2	Dr Sameer Bakhshi Professor & Head Medical Oncology	Prevalence of micronutrient decency and its impact on the outcome of childhood cancer: A prospective cohort study	European Society for Clinical Nutrition and Metabolism	Second Prize

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3	Dr Anita Chopra Professor Laboratory Oncology Unit	Prognostic utility of key copy number alterations in T cell acute lymphoblastic leukemia	Hematological Oncology	Third Prize

Third Research Day Photos










CLINICAL RESEARCH UNIT

Clinical Research Unit (CRU), Research Section, AIIMS, New Delhi aims to provide high quality technical expertise and assistance in planning, designing, implementation and analysis of investigator-initiated clinical research, in compliance

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with the global best practices. CRU holds a notable position as an affiliated centre for Cochrane India Network (CIN AIIMS) and serves as an advanced hub for clinical trials, actively contributing to the ICMR's "Indian Clinical Trial & Education Network (INTENT).

The CRU working committee:

1. Professor JS Titiyal, Dean (Research)
2. Professor Kaushal K Verma, Ex-Dean (Research)
3. Professor Vineet Ahuja, Associate Dean (Research)
4. Professor Vijay Prakash Mathur, Professor & Head, Paediatric and Preventive Dentistry
5. Professor Sameer Bakhshi, Professor & head, Department of Medical Oncology
6. Professor Rakesh Lodha, Professor, Department of Paediatrics
7. Professor Sumit Malhotra, Professor, Centre for Community Medicine
8. Dr M Jeeva Sankar, Additional Professor, Department of Paediatrics
9. Dr Pooja Gupta, Additional Professor, Department of Pharmacology
10. Dr Saurabh Kedia, Additional Professor, Department of Gastroenterology
11. Dr M Kalaivani, Assistant Professor, Department of Biostatistics
12. Dr Pradeep Kumar, Scientist-II (Epidemiology), Clinical Research Unit
13. Dr Ashish Datt Upadhyay, Scientist-II (Biostatistics), Clinical Research Unit
14. Dr Kamalesh Kumar Patel, Scientist-II (Health Economics), Clinical Research Unit
15. Dr Sanjukta Sarkar, Scientist-II (Health Economics), Clinical Research Unit

Highlights:

The Clinical Research Unit (CRU) at AIIMS, New Delhi, has achieved significant milestones in advancing clinical research and promoting academic excellence. Here are the key highlights of our accomplishments:

- Successfully organized multiple workshops and training programs aimed at enhancing research skills and knowledge dissemination among clinical research professionals
- Presented ground-breaking research findings at prestigious national and international conferences, contributing to the advancement of scientific knowledge and innovation
- Spearheaded impactful projects funded by the Indian Council of Medical Research (ICMR), with a focus on addressing anemia-related challenges as part of the Anemia Mukt Bharat initiative
- Published influential research articles in renowned journals, reflecting the quality and significance of our research endeavours in addressing critical healthcare issues
- Mentored numerous research proposals for extramural grants, including grants from ICMR and the Royal Society of Tropical Medicine and Hygiene (RSTMH), fostering a culture of research excellence and innovation within the department
- Facilitated various capacity-building initiatives, including journal clubs and critical appraisal sessions, to enhance the research skills and competencies of our scientists

Workshops organized:

The following workshops were organised during the FY 2023-24 by the CRU team:

S. No	Title of workshop	Dates	Total attendees
1.	Early Career Research Methodology	8-9 August 2023	81
2.	Grant Writing Workshop	28-29 August 2023	53

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3.	National Training Program on "Good Clinical Practice (GCP)	17-18 October 2023	34
4.	Research Data Capturing using REDCap	1-2 December 2023	47
5.	Research Methodology	21-22 March 2024	67

Oral papers/posters presented: 11

Departmental projects (including thesis/dissertations)

Ongoing

1. Effect of different Iron folic acid (IFA) formulations, doses, frequencies on pregnancy and neonatal outcomes among anaemic pregnant women: A Systematic Review and Meta-analysis (ICMR), Dr Pradeep Kumar, Scientist-II (Epidemiology), ICMR, 1 Year, June 2023-2024, Rs 7.48 Lakhs
2. Efficacy of supplementation/fortification of iron to low birth weight new born/pre-term/SGA on Anemia status: A Systematic Review and meta-analysis (ICMR), Dr Pradeep Kumar, Scientist-II (Epidemiology), ICMR, 1 Year, June 2023-2024, Rs 7.48 Lakhs

Number of Publications: 22

AWARDS, HONOURS AND SIGNIFICANT EVENTS

1. Second Prize for Best e-poster in ICTRIMS 2023 which was held from 18-20 August 2023 in New Delhi, India
2. Best e-poster Award at 30th Annual Conference of the Indian Academy of Neurology, IANCON 2023 under the aegis of Madurai Academy of Neurology which was held from 14 to 17 September 2023 at Courtyard by Marriott Madurai
3. Awarded Travel grant to attend ESOC 2023 to be held from 24-26 May 2023 at Germany
4. Second prize for Position in presentation in thematic session at EFICON 2023 which was held from 30 September to 1 October 2023 at Goa Medical College, Bambolim, Goa

CRU Departmental Core activity

1. The CRU mentored 29 research proposals from various departments of the institute for the recent call for small and intermediate investigator-initiated research proposals for extramural grants funded by the Indian Council of Medical Research (ICMR), New Delhi
2. The CRU team evaluated 97 intramural research proposal during the FY 2023-24
3. The CRU team provided mentorship to three Institute faculty to develop their revised version of the submitted manuscript along with the reviewer comment responses to their respective international journal
4. Two research proposals for Early Career grants by the Royal Society of Tropical Medicine and Hygiene (RSTMH) 2024 were mentored by the CRU
5. The CRU team provided mentorship to the Institute faculty to design protocols for writing systematic reviews and meta-analyses
6. The internal academic activities, including journal club, critical appraisal, and seminars, was routinely conducted to enhance the capacity of its scientists
7. All CRU scientists were actively involved in organising 3rd Research day that was great success

Centralized Core Research Facility

Faculty & Scientists:

	Sub-Facility	Faculty Coordinator	Scientist-II
1.	Bio-Analytics	T Velpandian, Professor, Ocular Pharmacology & Pharmacy Division, RP Centre for Ophthalmic Sciences	Hanuman Prasad Sharma

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2.	Bioinformatics	Punit Kaur, Professor, Department of Biophysics	Amit Katiyar Dibyabhaba Pradhan
3.	BSL-3	SS Chauhan, Professor & Head of Biochemistry –(1 April 2023 to 30 November 2023) Lalit Dar, Professor & Head, Microbiology (w.e.f. 14 December 2023)	Sunita Kanswal
4.	Flow Cytometry	DK Mitra, Professor & Head, Department of TII	Rahul Sharma Ravinder Singh
5.	General Facility	Kalpana Luthra, Professor & Head, Department of Biochemistry	Vikas Sharma Shubbir Ahmed
6.	Genomics Core Facility	Madhulika Kabra, Professor and Head, Department of Pediatrics	Lata Rani
7.	Microscopy	Parthaprasad Chattopadhyay, Professor, Department of Biochemistry	Saumitra Dey Choudhury
8.	Proteomics	Punit Kaur, Professor & Head, Department of Biophysics	Sabyasachi Bandyopadhyay
9.	Project Management	Dean (Research) Associate Dean (Research)	Kamal Gulati

HIGHLIGHTS

1. Centralized Core Research Facility (CCRF) was re-dedicated by Professor David Julius, Nobel Laureate (2021) recipient of Nobel Prize in Physiology on 18 January 2024. CCRF is an integrated hub of contemporary technologies and laboratories in the advanced areas of: Genomics, Proteomics, Bioanalytics, Bioinformatics, Microscopic imaging, Flow cytometry, General facility, BSL-2/3. CCRF is accessible to AIIMS faculty, scientists, and student researchers.
2. Kamal Gulati was appointed as Honorary Lecturer at University College London (UCL) Global Business School for Health 2023-2026. He also received Fellowship of Erasmus University - ZonMw Gender in Health Research Fellowship (2023).

EDUCATION

Bioinformatics facility is involved in the following educational activities:

	Co-Supervisor	DC member	No of students	Department
M.D.	Kamal Gulati	1	1	Hospital Administration
Ph. D.	Amit Katiyar	8	2	Biochemistry, Dermatology, Pathology, Neuropathology, Anatomy
Ph. D.	Dibyabhaba Pradhan	2	-	Microbiology, B.R.A.IRCH
MSc	Dibyabhaba Pradhan	-	1	Biotechnology

CMES/WORKSHOPS/SYMPOSIA/NATIONAL AND INTERNATIONAL CONFERENCES

1. Chevening-British High Commission Workshops on Healthcare Leadership, Operational Excellence, and Digitalization at PGIMER, Chandigarh. 1-2 February 2024
2. Organized Chevening-British High Commission Workshops on Healthcare Leadership, Operational Excellence, and Digitalization, AIIMS, Jammu, 22-23 January 2024
3. Chevening Shakti India-UK online mentoring programme' webinar for senior women doctors in collaboration with UCL Global Business School for Health, UK. First webinar held on 12 January 2024

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4. Targeted multi-omics - Hands-on workshop using LC-MS/MS (Targeted Proteomics, Metabolomics and Lipidomics) – 21 December 2023, CCRF, AIIMS, New Delhi
5. Targeted multi-omics - Hands-on workshop using LC-MS/MS (Targeted Proteomics, Metabolomics and Lipidomics) Session II – 19 March 2024, CCRF, AIIMS, New Delhi
6. Organized workshop and hands on training on "NGS data analysis" during 11-12 December 2023 at CCRF: Bioinformatics Facility, AIIMS, New Delhi
7. A flow cytometry wet workshop jointly organized by the FACS Facility and "Indian Immunology Society (IIS)" on the theme "Flow cytometry and its role in multicolor immunophenotyping" on 4 October 2023
8. A flow cytometry wet workshop jointly organized by the FACS Facility and "The Cytometry Society (TCS) India" on the theme "Advancing Research Through Cell Sorting" on 26 October 2023
9. Genomics Facility, in collaboration with The Cytometry Society and Laboratory Oncology (AIIMS) organized a workshop "Multi-Omics at the Single Cell Level" at CCRF, AIIMS, New Delhi on 27 October 2023
10. Lata Rani served as member of the organizing committee for 15th AIIMS-TCS Annual Conference & Workshops 2023, Theme: From Basics to Multi-Omics at AIIMS, New Delhi held on 28-29 October 2023
11. Hands-on Confocal Microscopy Training Workshop was organized on 11 October 2023

Lectures delivered: 25

Kamal Gulati: 10 **Hanuman Prasasd Sharma: 2** **Dibyabhaba Pradhan: 3**

Amit Katiyar: 1 **Vikram Saini: 4** **Lata Rani: 1**

Sabyasachi Bandyopadhyay: 4

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
4	16	25

Oral papers/posters presented: 21

Oral/poster presentations over past 3 years

2021-22	2022-23	2023-24
2	2	21

RESEARCH

Funded projects

Ongoing

Kamal Gulati

1. Enabling medical leadership in India and England: A comparative study 'EMLIE', Kamal Gulati, AIIMS Research Section, 1 year, May 2023-2024, Rs 5,00,000

Amit Katiyar/D Pradhan

1. Deciphering the role of RNA modifications in development of therapeutic resistance in IDH1 WT glioblastoma, PI: Vikash Sharma, AIIMS, 2 years, 2023-24, Rs 10, 00000

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2. Defining the whole exome sequencing based genetic determinants in Indian patients with congenital heart diseases, PI: Manoj K Tembhre, ICMR, 2 years, 2023-24, Rs 56,00,000
3. Transforming CNS Tumor Care: Harnessing Histopathological Data, Multiomics and Artificial Intelligence for Precision Diagnosis and Effective Management, PI: Vaishali Suri, ICMR, 3 years, 2023-26, Rs 14,0000000

Vikas Sharma

1. Deciphering the role of RNA modifications in development of therapeutic resistance in IDH1 WT glioblastoma, Dr Vikas Sharma, AIIMS intramural Funding, 1 Years (extendable for next year), March 2024, February 2025, Rs 5 Lakh per year

Departmental projects (including thesis/dissertations)

Bioinformatics

Ongoing

1. Ab initio identification of T cell epitopes for tuberculosis vaccine candidate
2. Comparative assessment of cancer driver genes and mutational signatures of Xeroderma pigmentosum with sporadic skin cancers

Completed

1. Splicing Studies: DENV & K562 PMA model

Collaborative projects

Bioinformatics

Ongoing

1. Deciphering the role of RNA modifications in development of therapeutic resistance in IDH1 WT glioblastoma, CCRF, AIIMS
2. Defining the whole exome sequencing based genetic determinants in Indian patients with congenital heart diseases, Cardiac Biochemistry, AIIMS
3. Transforming CNS Tumor Care: Harnessing Histopathological Data, Multiomics and Artificial Intelligence for Precision Diagnosis and Effective Management, Department of Neuropathology, AIIMS

Completed

1. Establishing the cause in sudden unexplained deaths in Young, Pathology, AIIMS
2. Genomics of Gall Bladder Carcinoma in Indian Patients, B.R.A. IRCH, AIIMS

Genomics

Collaborative projects

Ongoing

1. A multi-omics study and development of a prognostic computational model for COVID-19 to correlate clinical outcomes and disease sequelae with the differential immunological response, mutational and vaccination status in India, Department of Biophysics
2. To assess the incidence and prevalence of second primary malignancies (SPM) both preceding or following CLL diagnosis and their impact on the disease course and overall survival (OS), Laboratory Oncology Unit, B.R.A.IRCH

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Proteomics

Collaborative projects

Ongoing

1. Multiplexed Spatially Resolved Analysis of Protein Signature of the Invasive Front of Oral Squamous Cell Carcinoma. Funding Agency: ICMR (2024-27), Department of Pathology
2. Serum proteomics for the identification of biomarkers to flag predilection of COVID-19 patients to various organ morbities. Funding Agency: ICMR (2022-25), Department of Biophysics
3. To study the role of serum proteomics profiles in subjects with metabolic syndrome. Funding Agency: MoHFW, Govt. of India (2023-26), Department of Medicine

Completed

1. Proteomics Study on COVID-19 - Investigation of Disease Specific Signature Proteins. Funding Agency:AIIMS Intramural grant (2020-22), Department of Biophysics and Department of Microbiology, AIIMS, New Delhi

Research over past 3 years

Research Project/Faculty	2021-2022	2022-2023	2023-2024
Dr Kamal Gulati	1	1	2

SERVICES PROVIDED

i. **Bioanalytics** facility utilizes the ultra-modern instruments for the isolation, purification and mass spectrometric characterization of analytes from biological sources (human, animals, plants, and micro-organisms). The facility is further expected to extend the horizon by involving multi-omics in a qualitative as well as quantitative manner for lipidomics, metabolomics and glycomics

ii. **Bioinformatics** facility is a high-performance computing facility consisting of high-end GPU/CPU based compute nodes (for NGS data analysis, molecular modeling, deep learning etc.,) and 1PB PFS storage systems. This facility works closely with other core facilities (such as genomics, proteomics, metabolomics, etc.) by providing continuous and seamless data storage, access, and analysis of the large amount of data generated by these and others departments/ center/facilities. To date, the facility has provided services over 40 departments of AIIMS on more than 80 large-scale projects in genomics, next-generation sequencing, and clinical research. The facility also supports MSc/MD/ PhD students in achieving their scientific goals and assists faculty in developing projects in genomics and NGS

iii. **Flow-Cytometry** core facility at CCRF, AIIMS stands at the forefront of advanced cell analysis and sorting technologies and provides state of the art instrumentation and resources for fluorescent analysis of cells at the single cell level, including high-speed fluorescence-activated cell sorting. The facility houses two most advanced flow cytometers, BD FACS Aria Fusion Sorter (18 Color 5 LASER) and BD FACS Symphony A5 (35 Color, 5 LASER) with the dedicated scientific and technical team. The facility is fully operational to the researchers and assist at every step from experimental /panel design to data analysis in all the areas of flow cytometry including training, workshop, acquisition, data analysis, and cell sorting etc

iv. **General Facility** provides instrumentation and technical supports for basic molecular biology and protein biology works. The facility is routinely used by the researcher for conducting experiments and sample processing. The major usage and services provided by GF are ultracentrifuges (4), centrifuges (48), PCR machines (16), electroporator (32), multi-mode reader (7), equipment for DNA and protein electrophoresis (20), rapid semi-dry Western blot apparatus (2), multimode-gel documentation system (21), biosafety hood (19), lyophilizer (6). Besides providing instrumentation services the GF also provided research guidance and experimental planning, qPCR data analysis (in addition to training in techniques). The facility actively provides hands-on training and guidance to users for a variety of experiments

v. **Genomics:** Facility serves as a resource hub for AIIMS researchers. We provide essential support in designing methodologies for grant proposals and executing research projects that involve genomic elements. The facility has been accessed by numerous users for training purposes as well as for the preparation of next-generation

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sequencer-ready libraries. In the past year, the facility facilitated the preparation of 32 libraries for whole exome sequencing and 324 libraries for custom target panels. The facility is involved in continuous monitoring of emerging variants of SARS-CoV-2 as one of the regional genome sequencing laboratories of Indian SARS-CoV-2 Genomics Consortium (INSACOG) since 10 June 2021.The facility is equipped with the appropriate infrastructure as well as trained manpower to sequence at least 400 samples in a month. As a part of INSACOG surveillance study, a total of 272 samples have been sequenced, analysed and successfully submitted to INSACOG Hub, Integrated Disease Surveillance Programme (IHIP-IDSP) portal and have been published on GISAID portal in the year 2023-24

vi. **Microscopy:** The confocal system was installed in CCRF in November 2020 and became operational from mid-February 2021. Since then, it has been used extensively by researchers from various departments.This state-of-the-art confocal system is equipped with a temperature and gas-controlled incubation chamber for live imaging applications. The system was upgraded to a semi super-resolution system by adding the Airyscan module in January 2023. This facility helps researchers in the fields of biochemistry, microbiology, biotechnology, anatomy, pathology, pharmacology, medical physics-IRCH and stem cell facility among others towards addressing their research questions related to biomarker discovery, clinic pathology, drug assay, and molecular diagnosis

vii. **Proteomics:** Support for gel-based (2D-GE and DIGE) and LCMS/MS based proteomics experiments from all sorts of biological samples like cells, tissues, biofluids and microorganisms. Qualitative and quantitative comprehensive proteomics experiments (label free and label based) and data analysis for protein biomarker discovery. Have provided facility and support to 36 researchers from 17 different departments at AIIMS. Various types of supports were provided which include but not limited to (1) Proteomics study designing, (2) Sample processing, (3) Vacuum concentration of solutions containing biological samples (4) LCMS/MS Data analysis (5) Bioinformatics analysis (6) Submitting project proposal, (7) Submitting article for publications and (8) Submitting LCMS/MS raw files to public repositories

viii. **Project Management:** Provided support for: restoration of CCRF by coordinating several restoration committee meetings and liaison with faculty, scientists, engineers, and vendor. The renovation work got completed and inaugurated by a Nobel Laureate on 18 January 2023. Member of the Central Committee for organization of 3rd Research Day celebrations at AIIMS on 30 January 2023.Assisted in coordination of the exhibition of posters, distribution of awards, SDG abstract submissions, and organization of Research Day

Bioanalytics

	Number of users	
Consultation regarding planning and execution of bioanalytical work	25	N/A
Execution of bioanalytical work	1250 hrs	1250 hrs

Flowcyotmetry

	Number of hours		
	2023-24 (Current)	2022-23	2021-2022
BD FACS Aria Sorter	49	32	13
BD FACS Symphony	504	150	14
TOTAL	553	182	27

Services provided	Number of users		
	2023-24 (Current)	2022-23	2021-2022
BD FACS Aria Sorter	06	03	4
BD FACS Symphony	21	13	5
TOTAL	27	16	9

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Genomics

	2021-2022	2022-23	2023-24 (Current)
Library Preparation	Exome Sequencing (n=32), Target sequencing (n=56), Chromosome screening (n=41)]	Exome Sequencing (n=32), Chromosome screening (n=36)]	Exome Sequencing (n=32), Target sequencing (n=324)
SARS-CoV-2 sequencing	412	872	272
Next Generation Sequencing	40	Nil	Nil
Sanger Sequencing	364	Nil	Nil
Fragment Analyzer	11	75	195
Qubit	645	500	1578
Protocol and experiment design for submission of grant proposal/ for achieving the objectives proposed	06 users	05 users	05 users

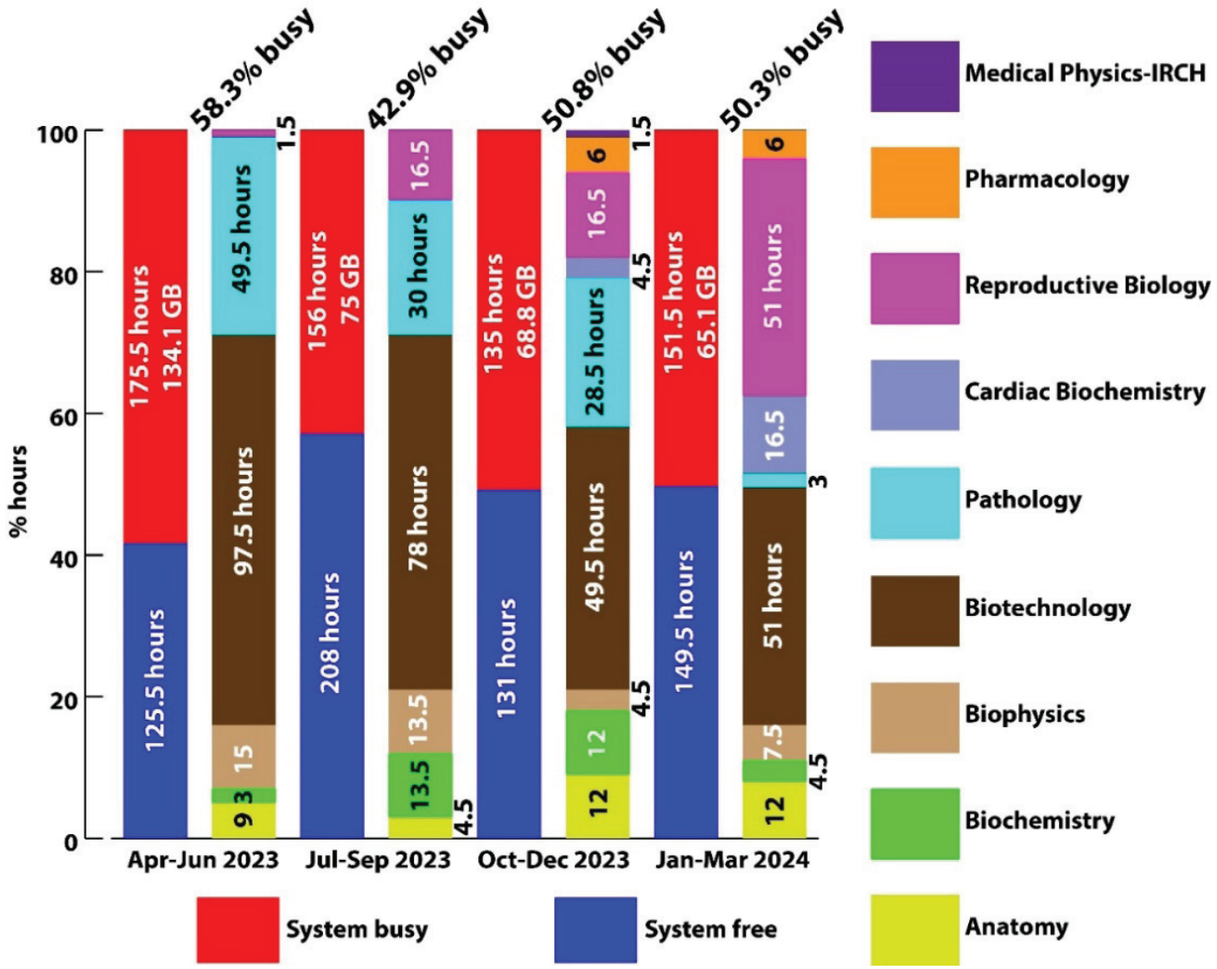
Microscopy

Total number of users	Total number of hours (lasers) used	Total number of hours (offline image analyses/ processing) used
17	618 hours	6 hours

	Number of users		
	2021-22	2022-2023	2023-24 (current)
Confocal Imaging	14	21	17
Offline Image Analyses	6	4	1
TOTAL	20	25	18

	Number of hours		
	2021-22	2022-2023	2023-24 (current)
Confocal Imaging	287.5	609.5	618
Offline Image Analyses	126	52	6
TOTAL	413.5	661.5	624

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PUBLICATIONS

Total Publications: 25; Journal: 20; Abstract: 4 Book: 1

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total	**14**	**32**	**25**
Journal article	10	29	20
Abstract	4	3	4
Book chapter	--	--	1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

International visit: A group of faculty and students of UCL Global Business School for Health, UK to AIIMS and had meetings with faculty of Endocrinology, and Hospital Administration etc. on 8 January 2024.

Kamal Gulati was Appointed as Honorary Lecturer at University College London (UCL) Global Business School for Health; Fellowship of Erasmus University - ZonMw Gender in Health Research Fellowship; Oxford University, Green Templeton College Certificate for Management in Medicine Programme; Awarded Chevening CAPF funding (GBP 8500) as Lead Resource to conduct capacity building workshops in India in collaboration with UCL Global Business School for Health, UK; Wellcome Trust DBT-India Alliance International Award in the field of Research Management. Invited Reviewer to review proposals submitted to the 84th Annual Meeting of the Academy of Management (AOM 2024), USA; Reviewer of International journals: BMJ Leader, Lancet Regional Health South East Asia, International Journal

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of Healthcare Management, Asia Pacific Journal of Health Management, Frontiers in Sociology, Asia Pacific Journal of Management, Section Work, Employment and Organizations, Discover Health Systems.

Sunita Kanswal Invited to assess practical exams and viva-vocefor BSc Medical Lab Technology course under the subject General Microbiology and Immunology at Delhi students at the Delhi Pharmaceutical Sciences and Research University(DPSRU), Pushp Vihar, New Delhi (25 September 2023).

Amit Katiyar was Examiner/expert for MSc Practical Examinations and Viva-Voice assessment at Guru Gobind Singh Indraprastha University (formerly Indraprastha University), Dwarka, Delhi, India (25 January 2023); Selection committee member for Project Associate-II position under project "Advent of Omicstechnologies in Precision and Targeted Therapeutic" at ICMR-NICPR, Noida (17 October 2023); Reviewer of scientific research articles.

Lata Rani was Attended 11th congress of Molecular Pathologist Association of India (MPAICON), held at AIIMS Delhi on 16-18 February 2024; Attended Hands on workshop "Single Cell Transcriptomics with BCR/TCR profiling using 10x Genomics platform" held at ILS Bhubaneswar on 28-31 August 2023.

Saumitra Dey Choudhury was attended the EMBL Course: Advanced Imaging Techniques, 7-12 May 2023, EMBL Heidelberg, Germany; attended the Indian Drosophila Research Conference, 6-9 December 2023, IISER Thiruvanthapuram, Kerala; attended the Indian Society of Developmental Biologists Meeting, 21-24 February 2024, BLiSC campus (inSTEM-NCBS), Bengaluru, Karnataka.

S. Bandyopadhyay received Best Poster award in IPAFNH-PSI 2023 Conference organized by Proteomics Society of India in New Delhi during 20-22 November 2023.

Dibyabhaba Pradhan was Joined as Panelist in the panel discussion on Drug Discovery and Bioinformatics at INVICTUS, the annual techfest of Delhi Technological University (DTU); Question Setter for MSc Bioinformatics paper BI 508; Reviewer of research grants for Qatar National Research Fund; Reviewer of Scientific Research Articles.

ACTION PLAN



To make CCRF fully functional to provide support to faculty and student researchers at AIIMS.

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Centre for Medical Innovation and Entrepreneurship (CMIE)

Centre for Medical Innovation and Entrepreneurship (CMIE) is flagship bio-incubator at All India Institute of Medical Sciences, New Delhi supported by BIRAC, GoI and AIIMS, New Delhi. Launched in June 2021, CMIE operates from two sites:

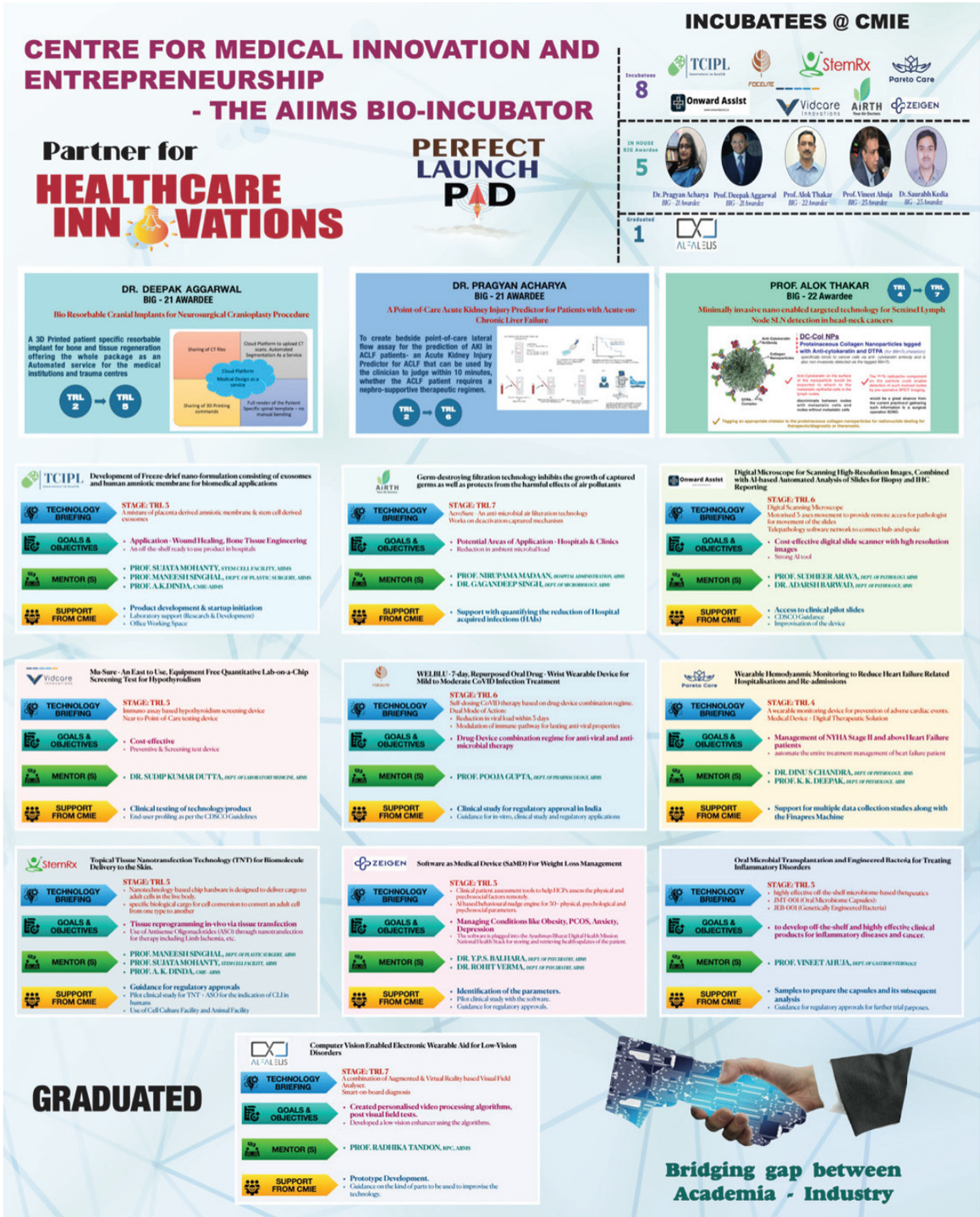
a. Room No. 901, 9th Floor, National Centre for Ageing, AIIMS which houses landing office and laboratory. The facility was officially inaugurated on 19 October 2023 by Professor M. Srinivas, The Director, AIIMS in August presence of Professor Jeewan S Titiyal, Dean (RS), Professor Kaushal K. Verma, Dean (Academics) and members from BIRAC and faculties of AIIMS, New Delhi)

b. 4th and 5th floor of Research Block, NCI, Jhajjar Campus of AIIMS, Delhi which houses the office, meeting rooms and fully-functional laboratories including central laboratory facility for the incubatees. The facility of NCI – AIIMS, Jhajjar will be used extensively by all the incubatees of CMIE – AIIMS. This facility was inaugurated by Union Health Minister Dr Mansukh Mandaviya in the presence of MoS (Health) Prof S P Singh Baghel & Dr Bharati Pravin Pawar, and other dignitaries on 13 December 2023

CMIE seeks to capitalize on indigenous academic innovations in the healthcare sector by enabling the results of research efforts carried out by such Faculty/Scientist/ Students/Residents/Researchers of AIIMS, New Delhi. Along this line, CMIE – AIIMS also enables Indian startups working in healthcare area to leverage the mentorship and guidance of AIIMS clinical and non-clinical faculty, and also by giving them paid access to advanced laboratory equipment and resources at AIIMS.

Since its inception, CMIE – AIIMS has incubated 8 start-ups with one start-up graduating who are mentored by faculties from various department of AIIMS including Department of Microbiology/Laboratory Medicine/Stem Cell/RPC and others. A notable achievement of CMIE – AIIMS is the support offered to the faculty members of AIIMS, Delhi to write and submit their innovations to BIRAC under the Biotechnology Ignition Grant (BIG) wherein, 5 faculties (out of 11 applications) have been granted the award from the BIG – 21, 22 and 23 call. The faculties winning the BIG award are Professor Deepak Aggarwal, Department of Neurosurgery (BIG – 21); Dr Pragyan Acharya, Department of Biochemistry (BIG – 21); Professor Alok Thakar, Department of Otolaryngology & Head-Neck Surgery (BIG – 22); Professor Vineet Ahuja, Department of Gastroenterology (BIG – 23); Dr Saurabh Kedia, Department of Gastroenterology (BIG – 23). CMIE – AIIMS has also supported faculty members with the other schemes like PACE, SIBRI supported by BIRAC.

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CMIE – AIIMS has been instrumental in drafting "Faculty Entrepreneurship Policy". The policy is a result of series of discussion with active inputs, suggestions of internal members of AIIMS and external members including policy makers from BIRAC, ICMR and fellow incubator representative of FITT, IIT – Delhi.

Following the success of first bootcamp titled "Bootcamp in Wound-care" organized in April 2023, CMIE – AIIMS has organized 2 more bootcamps namely, "Bootcamp in New-Born Care" in November 2023 and "Bootcamp in Oncology" in January/February 2024. Both events saw an enthusiastic participation of 12-13 participants who were provided a

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platform for clinical immersion including OPD/IPD visits, screening camps, theoretical session and important visits/ session encompassing discussions various areas in newborn care and oncology.

The links for the synopsis of the bootcamp:
New Born Care:-https://www.youtube.com/watch?v=WRIJA3uNRYU
Oncology:-https://www.youtube.com/watch?v=FI2D5i0s6fc

Apart from these, CMIE – AIIMS has organized:

"Healthcare Innovation - Perspectives Beyond The Science" with an aim to provide an exposure to all faculty, researchers and students of AIIMS to all these elements like Novelty, Intellectual Property Right, Ensuring Reproducibility of Research Data in the process of Good Laboratory Practice, regulatory approval pathways, attracting investment or industrial partners and so on.

Few glimpses of the event along with the brochure information:









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9.1 Anaesthesiology, Pain Medicine and Critical Care

Professor and Head

Lokesh Kashyap

Professors

Ganga Prasad	VK Mohan (retired on 31 January 2024)	Vimi Rewari
Vanalal Darlong	Jyotsna Punj	Ravindra Kumar Pandey
Anjolie Chhabra		Rashmi Ramachandran

Additional Professors

Puneet Khanna	Bikash Ranjan Ray	Rahul Kumar Anand
Debesh Bhoi	Shailendra Kumar	Souvik Maitra
Akhil Kant Singh	Rakesh Kumar	Nishant Patel

Associate Professors

Anju Gupta	Kelika Prakash	Ajisha Aravindan
Mritunjay Kumar	Parin Chellani	Sulagna Bhattacharjee
Shreya Bharat Shah	Abhishek Nagarajappa	Christopher Dass
	Manpreet Kaur (resigned on 8 June 2023)	

Assistant Professors

Priyankar Kumar Datta	Sana Yasmin Hussain	Neha Pangasa
Dhruv Jain	Amit Kumar	Aditi Suri
Heena Garg	Nitin Choudhary	Anshul Singh
Choro Athiphro Kayina	Sudhansu Sekhar Nayak	Subodh Kumar
Sachin Kumar	Swati Mehta	Neha Garg
Sakshi Duggal	Ram Singh	Prakash Gyandev Gondode
Sushmita Bairagi	Ajeethviswanathan T	Sneha Singh
Vanitha Rajagopalan	Rupavath Ramkumar (Resigned on 16 April 2023)	Amit Kumar Malviya (Resigned on 22 May 2023)
Surabhi Gupta	Savitri HG	T Nageswara Rao
	VineetaVenkateswaran (Resigned on 15 September 2023)	

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HIGHLIGHTS

The exponential expansion of the department which started last year, continued this year too. Clinical workload increased significantly compared to the previous years.

The Surgical Block ICU, capacity, increased to 12 beds from 8 beds. Anaesthesia services were extended for three OTs as compared to two operation theatres (OTs)in the Burn and Plastic Surgery block. Emergency anaesthesia services were started in the Paediatric Surgery OT and Maternity OTs in the Mother & Child Block. The Acute Pain Services (APS) which mainly covered main AIIMS until last year, extended services to provide epidural top-ups and analgesia for patients operated in the Surgical Block and Mother & Child Block OTs.

The Pain Clinic, which started as a stand-alone service 2 years ago, started functioning five days a week this year, as compared to the previous three days a week, catering to an increasing number of patients. Interventional pain services in the operation theatre were extended from once a week to twice a week. Therefore the number of interventional pain procedures performed both in the Pain Clinic and Pain OT increased substantially this year. The number of patients in the PAC Clinic also increased.

The department faculty and residents provided medical services for pilgrims of the Amarnath Yatra in 2023.
A number of faculty members were promoted to Associate Professor and Additional Professor this year and a number of faculty members joined the department as Assistant Professor.

A number of conferences, workshops and guest lectures were organised by the department in the fields of Anaesthesiology, Critical Care and Chronic Pain. Regular monthly Delhi ISA meetings were hosted by the department and satellite anaesthesia workshops and lectures were held during 3rd AIIMS International Spine Deformity Course. A national conference for Operation Theatre technologists was also organised by the department.

The department faculty was engaged in a number of funded and collaborative research projects both within and outside AIIMS, with the aim of advancing pain management, critical care, and anesthesia services. These projects encompassed a wide range of medical specialties and involved collaborations with multiple departments.

EDUCATION

Academic Course/ Degree	Number of students
MD Anaesthesiology	99
DM Critical Care Medicine	27
Fellowship in Pain Medicine	8
BSc Operation Theatre Technology	13

Educational programs and Classes taken

Similar to previous years the department ran simultaneous training programmes (including weekly seminars, case presentations, journal clubs, and tutorials) for Anaesthesia postgraduates, DM Critical care students, Fellows in Pain Medicine, BSc OTT students and MBBS undergraduates. Regular entry, end-semester and exit examinations were conducted by the department faculty for all these courses. Faculty members also took classes for BSc and MSc (Critical care)Nursing students. The number of students being trained by the department also increased this year.
The stand-alone Simulation-based learning programme also exponentially increased the number of classes for postgraduates this year. New faculty members were inculcated into this program. Simulation Workshops were also organized for the DM Critical Care Medicine residents.

MD Anaesthesiology Classes

- Seminars: 29
- Case presentations: 27
- Journal Club:19
- Tutorials: 09
- Simulation classes: 49
- MD Thesis Submitted: 28

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DM Critical Care Medicine Classes

- Seminars: 34
- Case presentations: 30
- Journal Clubs: 29
- DM Thesis Submitted: 10

Fellowship in Pain Medicine Classes

- Seminars: 27
- Case Presentation: 17
- Journal Club: 15

BSc OT Technology Classes(Anaesthesia classes)

- 1st year: 66
- 2nd year: 58
- 3rd year: 43

Exclusive in-house Training programmes and Guest Lectures Held for Resident doctors of the Department

1. Simulation-based training program on "Trans-oesophageal Echocardiography" for DM Critical Care Medicine residents on 1 April 2023. Organised by Dr Sulagna Bhattacharjee.
2. Guest Lecture by Professor Kameshwar Prasad, Director, Fortis Hospital, Vasant Kunj on "Research Methodology" on 21 September 2023. Organised by Professor Lokesh Kashyap & Dr Shailendra Kumar.
3. Guest Lecture by Dr Douglas Hansell, Intensivist from Massachusetts General Hospital on "Non-Invasive Hemodynamic Monitoring" Massachusetts General Hospital on 6 November 2023. Organised by Dr Sulagna Bhattacharjee.
4. Workshop on "Professional development program for Educators of Simulation-based teaching" on 15 and 16 February 2024 at Medical Cobotics Centre, IIT New Delhi. Organized by Dr Akhil Kant Singh.
5. Guest Lecture by Dr SN Raja, Professor of Anaesthesiology and Neurology and Director of Pain Research at the John Hopkins University School of Medicine on "Pain and its management: challenges, opportunities and hope" on 27 February 2024. Organised by Dr Akhil Kant Singh.

CMEs/ Workshops/Symposia/National and International Conferences organised by the Department:

1. Hemodynamic Monitoring Workshop, Indian Society of Anaesthesiologists, 1 September 2023, New Delhi
2. AIIMS Pain Practice and Regional Anaesthesia, APPRA 2024, 3–14 January 2024, New Delhi
3. Monthly clinical meet, Indian Society of Anaesthesiologists, 16 February 2024, New Delhi
4. Third National Conference of Operation Theatre Technologist, 16 & 17 March New Delhi
5. Anaesthesia Symposium in the 3rd AIIMS International Spine Deformity Course, 23 March 2024, New Delhi
6. AIIMS Cadaveric Airway Workshop, 31 March 2024. New Delhi

Lectures delivered: 232

Lokesh Kashyap: 1	**Ganga Prasad: 1**	**Vimi Rewari: 20**
Jyotsna Punj: 8	**Ravinder Kumar Pandey: 7**	**Anjolie Chhabra: 11**
Rashmi Ramachandran: 8	**Puneet Khanna: 13**	**Bikash Ranjan Ray: 24**
Rahul Kumar Anand: 13	**Debesh Bhoi: 15**	**Souvik Maitra: 6**

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Akhil Kant Singh: 2
Ajisha Arvindam: 2
Shreya Bharath Shah: 2
Abhishek N: 2
Subodh Kumar: 1
Heena Garg: 4
Dhruv Jain: 4
Amit Kumar Malviya: 1
Choro Athiphro Kayina: 4
Sneha Singh: 1
Rakesh Kumar: 4
Anju Gupta: 5
Sulagna Bhattacharjee: 8
Priyankar Kumar Datta: 2
Sachin Kumar: 5
Vanitha Rajagopalan: 1
Ram Singh: 2
Sushmita Bairagi: 2
Neha Garg: 1
Aditi Suri: 1
Nishant Patel: 21
Parin Lalwani: 2
Mritunjay Kumar: 3
Neha Pangasa: 3
Swati Mehta: 3
Sana Yasmin Hussain: 3
Amit Kumar: 4
Sakshi Duggal: 2
Nitin Choudhury: 10

LECTURES DELIVERED OVER PAST 3 YEARS

2021-2022	2022-2023	2023-2024
195	215	232

LIST OF ORAL PAPERS/ POSTERS PERESENTED: 41

LIST OF ORAL PAPERS/POSTERS OVER PAST 3 YEARS

2021—2022	2022—2023	2023- 2024
21	21	41

RESEARCH

Funded projects

Ongoing

1. A comparative study of melatonin and gabapentin in reducing preoperative anxiety, Dr.Kelika, AIIMS, 3 Years, 2020-23, Rs 3.5 Lakhs
2. Association between DNA Telomere Length in Peripheral Blood Leukocytes and Post-Operative Cognitive dysfunction (POCD) and Post-Operative Delirium (POD) in Elderly patients undergoing Major Orthopaedic surgery under General Anesthesia: A Prospective Observational Study, Dr. Puneet Khanna, DST, CSRI, 3 Years, 2023-26, Rs 80 Lakhs
3. Comparison of LMA®ProSeal and LMA®Protector TM as airway device in laparoscopic surgeries-a randomised controlled superiority trial, Dr Aditi Suri, AIIMS, 1 Year, 2024-25, Rs 3,65,500
4. Comparison of paralysis of laryngeal adductor vs adductor pollicis at time of intubation with NIM EMG endotracheal tube, Dr Jyotsna Punj, AIIMS, 3 Years, 2015-18, Rs 5 Lakhs
5. Correlation of lung and gut microbiome of critically ill patients: A cross sectional study, Dr Choro Athiphro Kayina, AIIMS, 2 Years, 2023-25, Rs 9 Lakhs
6. Development of a mobile phone digital health application based tele-consultation (tele-PAC) model, and its comparison with face-to-face consultation for pre-anaesthesia evaluation-A randomized controlled non-inferiority trial, Dr Amit Malviya, AIIMS, 1 Year, 2024-25, Rs 5 Lakhs
7. Effect of 10% dextrose as an adjuvant in lumbar epidural adhesiolysis: a prospective randomized controlled study, Dr Dhruv Jain, AIIMS, 2 Years, 2024-26, Rs 10 Lakhs
8. Effect of Anaesthetic Agents on Intestinal Microbiome and Cognition in Paediatric Patients Undergoing Elective Surgeries, Dr Anju Gupta, ICMR, 2 Years, 2024-27, Rs 60 Lakhs
9. Effect of Carbohydrate Loading on Recovery of Patients undergoing Total Knee Replacement Surgery-A Randomised controlled trial, Dr Sana Yasmin Hussain, AIIMS, 2 Years, 2024-26, Rs 9,63,000

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10. Effectiveness of Methylene blue as an adjuvant vasopressor in reducing 28 days mortality in septic shock patients: An open-labelled multicentric, Randomised control Trial, Dr Bikash, ICMR, 3 Years, 2023-26, Rs 6.194 Lakhs
11. Evaluation of the effect of fibrinogen on peripartum haemorrhage in Placenta Accreta Spectrum (PAS) disorders, a double blind randomized controlled trial, Dr Amit Malviya, ICMR, 3 Years, 2024-27, Rs 73,30,709
12. Impact of an enhanced recovery after surgery (ERAS) protocol on length of stay, perioperative outcomes and complications in paediatric laparoscopic surgeries, Dr Shreya Shah, AIIMS, 1.5 Years, 2022, ongoing, Rs 5 Lakhs
13. In-situ simulation for assessment of CPR feedback device use for BLS skills in trained CPR providers: A pre-post intervention study, Dr Amit Kumar, AIIMS, 2 Years, 2024-26, Rs 4.96 Lakhs
14. Preparing a centre of excellence for education of health professionals, Rashmi Ramachandran, Novo Nordisk foundation, Denmark, 2 Years, 2023-2024, 2025-26, Rs Rs 4,45,85,570
15. Remote trainer guided deliberate practice vs self-directed video-based training for retention of CPR skills: A randomized, comparative, assessor blinded simulation study, Dr Abhishek N, AIIMS, 2 Years, 2020-22, Rs 4.8 Lakhs
16. Role of biomarkers in patients undergoing major musculoskeletal tumor surgery and its correlation with different anaesthetic techniques and peri-operative outcomesa, Dr Lokesh Kashyap, AIIMS, 2 Years, 2021-23, Rs 2.4 Lakhs
17. The effects of normoxic vs hyperoxic conditions on the incidence of Post-Operative Cognitive Dysfunction (POCD) and identification of miRNA in POCD in elderly patients undergoing non cardiac surgery: A Prospective Observational Case Control Study, Dr. Puneet Khanna, AIIMS, 2 Years, 2022-23, Rs 10 lakhs
18. The impact of various anaesthetic techniques on circulating nucleosome, cell-free DNA, and extracellular histone in major orthopaedic trauma surgery and development of SIRS, Dr Parin Lalwani, AIIMS, 2 Years, 2021-23, Rs 10 Lakhs
19. To evaluate the role of serum cell free DNA (cf DNA) as a diagnostic surrogative marker and severity predictor in inhalational burns injury-A prospective cohort study, Dr Rupavath Ramkumar, AIIMS, 2 Years, 2024-26, Rs 7.25 Lakhs
20. Urinary novel microRNAs, as a biomarker for prediction of acute kidney injury in sepsis, Dr Bikash, AIIMS, 2 Years, 2021-24, Rs 6.2 Lakhs

Completed

1. Effect of general anaesthesia with mechanical ventilation on biomarkers of lung inflammation/injury in COVID-19 survivors-A cohort study, Dr Shreya Shah, AIIMS, 1.5 Years, 2021-23, Rs 10 Lakhs
2. Effect of Nicotine Replacement Therapy on peri-operative opioid requirement in abstinent tobacco smokers undergoing spinal fusion, a double blind randomized controlled trial, Dr Puneet Khanna, ICMR, 3 Years, 2021-24, Rs 50 Lakhs
3. Efficacy of LMA Gastro™ versus Endotracheal Tube for interventional gastrointestinal endoscopy procedures under general anaesthesia: A prospective randomized trial, Dr Anju Gupta, AIIMS, 1 Year, 2021-22, Rs 3 Lakhs
4. To determine gut colonization of Clostridiodes difficile, Vancomycin resistant Enterococci and Carbapenem Resistant Enterobacteriacea e in COVID-19 recovered patients, Dr Ajisha Aravindan, AIIMS, 1 Year 3 months, 2022-23, Rs 10 Lakhs

DEPARTMENTAL PROJECTS (INCLUDING THESES)

Ongoing

1. A comparative study of Quadratus Lumborum Block vs Epidural block for postoperative analgesia in patients with gynecological malignancies
2. A comparative study to evaluate analgesic efficacy of ultrasound guided forearm nerve block with dexmedetomidine as adjuvant for hand surgery in paediatric patients: A randomized trial
3. Aerosolized Colistin in Ventilator Associated Pneumonia Caused by Carbapenem Resistant Acinetobacter: A Randomized Controlled Trial
4. Analgesic Efficacy of Intrathecal Dexmedetomidine versus Intrathecal Morphine as Adjuvants to Bupivacaine in patients undergoing Total Laparoscopic Hysterectomy: A Randomized, Double blind, Parallel group, Non-Inferiority Trial

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5. Analgesic efficacy of sacral erector spinae plane block in Lumbosacral spine surgeries as compared to conventional Management: A randomized controlled trial
6. Artificial Neuron-Machine learning analysis of volatile organic compound to predict carbapenem-resistant gram-negative bacteria a cause of lower respiratory tract infection.
7. Assessment of short-term retention of skills and knowledge after Basic Cardiopulmonary Life Support Training in healthcare workers: A prospective interventional study
8. Assessment of the analgesic efficacy of bilateral pectointercostal fascial block and intermediate cervical plexus block in patients undergoing bilateral axillo-breast approach (BABA) endoscopic thyroidectomy under general anaesthesia: a randomized controlled trial.
9. Association Between Cumulative Fluid Balance to Estimated Colloid Oncotic Pressure Ratio and Perioperative Outcome in Adult Patients Undergoing Emergency Abdominal Surgery
10. Association Between Perioperative Hypertension, Length of Hospital Stay And Perioperative Cardiovascular Complications: A Prospective Observational Study From Tertiary Care Centre
11. Association Between Post-Operative Delirium and Cognitive Dysfunction with Serum Uric Acid And C-Reactive Protein Levels in Elderly Patients Undergoing Major Surgery Under General Anesthesia: A Prospective Observational Study
12. Can a glow beyond the flow predict epidural drug spread in paediatrics?-An observational study
13. Comparative efficacy and safety of I-gel supraglottic airway and self-pressurizing Air-Q intubating laryngeal airway during general anesthesia in infants: A prospective randomized trial.
14. Comparative Evaluation of Analgesic Efficacy of The Ultrasound Guided Erector Spinae Plane (ESP) Block Versus Transversus Abdominis Plane (TAP) Block in Children Undergoing Unilateral Abdominal Surgeries: A Prospective Randomised Controlled Trial
15. Comparative Evaluation of Anatomical Spread in classical thoraco-lumbar interfacial plane (TLIP) block and Modified TLIP block: A cadaveric study
16. Comparative evaluation of sphenopalatine ganglion block and dexmedetomidine nebulization for treatment of post dural puncture headache in obstetric patients.
17. Comparison between analgesic efficacy of Sacral Multifidus Plane block vs Caudal Block in paediatric anorectal surgeries-A Randomized controlled trial
18. Comparison between pressure support ventilation and spontaneous ventilation during extubation and emergence in reducing post operative atelectasis in patients undergoing major abdominal surgeries: A Randomised controlled trial
19. Comparison between the inferior vena cava collapsibility index and internal jugular vein collapsibility index in prediction of post-spinal hypotension in overweight and obese patients : An observational non-inferiority study"
20. Comparison between ultrasound guided Modified Thoracoabdominal Block Through Perichondrial approach (M-TAPA) in combination with External Oblique Plane Block (EXOP) v/s M-TAPA in laparoscopic cholecystectomy: A prospective, Randomized, Comparative Study
21. Comparison of analgesic efficacy of modified plain thoraco-lumbar interfascial plane block (TLIP) Vs modified thoraco lumbar interfascial plane block with dexmedetomidine as adjuvant in patients undergoing lumber disc surgeries A-comparative randomized controlled trial
22. Comparison of analgesic efficacy of Pericapsular group of nerve block Versus Quadratus Lumborum type III block in adult patients undergoing unilateral hip arthroplasty: A comparative randomized control trial
23. Comparison of Analgesic Efficacy Of Pudendal Nerve Block With Caudal Block Using Bupivacaine And Clonidine In Children Undergoing Hypospadias Repair: A Prospective Randomized Study
24. Comparison of analgesic efficacy of two approaches to the ultrasound guided erector spinae plane block in patients undergoing modified radical mastectomy: A randomized controlled trial
25. Comparison of bispectral index guided propofol etomidate and etofol infusion for supraglottic airway device insertion in paediatric patients: a randomized clinical trial
26. Comparison of effect of ringer lactate and isotonic Bicarbonate combination therapy versus Ringer lactate alone in early fluid restriction of burns patients-A Randomized controlled trial

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27. Comparison of fasting gastric volume in males and females undergoing elective surgery using ultrasound: A Prospective observational study
28. Comparison of Glide scope and C-Mac Video laryngoscope for intubation in paediatric patients: A prospective, comparative & randomized study
29. Comparison of hemodynamic effects of orotracheal intubation using Macintosh blade C-MAC versus D blade C-MAC Video-laryngoscope in hypertensive patients undergoing elective surgeries
30. Comparison of intra-articular pulsed radiofrequency by two needle technique and steroid injection for sacroiliac joint pain: a randomized, double-blind trial
31. Comparison of Longitudinal Axis in plane Approach Vs Oblique Axis In Plane Approach For Ultrasound Guided Radial Artery cannulation-A Randomized Controlled Study
32. Comparison of mechanical power between PCV vs VCV in children undergoing laparoscopic surgery under general anaesthesia: A randomized controlled trial.
33. Comparison of Nasogastric Tube insertion using conventional technique vs Compression of Soft Tissues (COST) technique in intubated patients: A Randomized Control Trial
34. Comparison of Perineural Dexamethasone and Dexmedetomidine Vs Dexamethasone only as an Adjuvant in Ultrasound Guided Sciatic Nerve Block Via Popliteal Approach In Orthopaedic Below Knee Surgeries: A Double Blind Randomised Controlled Trial
35. Comparison of polymyxin-B with minocycline versus polymyxin-baith high dose subatu in carbapenum resistance acinobactorbaumannii ventilator associated pneumonia-a randomized double blind non inferiority study
36. Comparison of sevoflurane and isoflurane during oocyte retrieval on in-vitro fertilization outcomes: A retrospective study.
37. Comparison of the analgesic efficacy of continuous segmental epidural block with dilute local anaesthetic solution and fentanyl to epidural morphine boluses in dilute local anaesthetic in paediatric patients undergoing upper abdominal surgery: a randomized controlled trial.
38. Comparison of the effect of console-based video games on visuomotor skills of novice residents: A double blinded Randomized Control Trial
39. Comparison of TUORenKingtaek® video laryngoscopy and direct laryngoscopy for tracheal intubation by novice anaesthesia residents: A Randomised controlled trial
40. Comparison of ultrasound guided dynamic needle tip positioning versus longitudinal axis in-plane technique for radial artery cannulation in elderly: A prospective, randomized controlled study.
41. Comparison of ultrasound-guided double-injection vs triple injection technique of inter-truncal approach of supraclavicular nerve block: A randomised non-inferiority trial
42. Comparison of USG Guided Oblique Axis In Plane technique (OA-IP) Vs Short Axis Dynamic Needle Tip Positioning (SA-DNTP) technique for Radial Artery Cannulation in Adults-A prospective Randomized Trial
43. Comparison of USG guided Short Axis-Dynamic Needle Tip Positioning (SA-DNTP) technique vs Long Axis in Plane (LAIP) technique for Radial Artery Cannulation in Adults performed by Novice Anaesthesia Residents after Structured Simulated training
44. Comparison of venous excess ultrasound grading (VExUS) based fluid management with standard fluid management in critically ill adult burn injury patients post initial resuscitation-a randomized controlled study
45. Comparison of weight versus weight for age for size selection of LMA in malnourished peds patient-a randomized crossover trial
46. Computed Tomography imaging and anatomical evaluation of spread in cervical erector spinae block: A cadaveric study
47. Correlation of Thyromental distance and the ease of passing a nasotracheal tube through the glottis: a Prospective observational study
48. Does a change in optic nerve sheath diameter have an association with postoperative emergence delirium in paediatric patients undergoing laparoscopic surgeries? An observational study
49. Early goal directed albumin administration in patients with secondary peritonitis: A single center open labelled randomized controlled trial.

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50. Effect of 5% human albumin-based perioperative fluid therapy in perforation peritonitis patients undergoing emergency laparotomy: A randomized controlled trial
51. Effect of anaesthetic agent of intestinal microbiome.
52. Effect of bilateral external oblique intercostal block (EOIB) on peri-operative analgesia in upper abdominal surgeries-a randomised controlled trial
53. Effect of cumulative fluid balance on delirium predicted by CAM-ICU and functional near-infrared spectroscopy NIRS GDED mapping of frontal cortex in critically ill patients with septic shock-A prospective observational study.
54. Effect of dexamethasone on post operative cognitive decline in elderly population: a randomized controlled triple blind trial
55. Effect of dexamethasone on post operative cognitive decline in elderly population: a randomized controlled triple blind trial
56. Effect of different degrees of head of end elevation of the bed on respiratory mechanics during extubation in patients undergoing routine surgical procedures under general anaesthesia.
57. Effect of early administration of noradrenaline on postoperative organ dysfunction in patients undergoing elective abdominal surgery: a randomized, double blinded, placebo-controlled trial
58. Effect of Erector Spinae block with bupivacaine and ketamine versus bupivacaine alone on chronic postoperative pain in patients undergoing modified radical mastectomy: a pilot study
59. Effect of erector spinae block with bupivacaine and ketamine vs bupivacaine alone on acute postoperative pain and opioid consumption in patients undergoing modified radical mastectomy
60. Effect of I:E ratio optimisation and prolonged end inspiratory pause on post-operative lung atelectasis and pulmonary complications in adult patients undergoing major open abdominal surgery: A randomised controlled trial.
61. Effect of instillation of intranasal dexmedetomidine on the duration of caudal analgesia in paediatric Infra-umbilical surgeries
62. Effect of nitrous oxide during oocyte retrieval on in-vitro fertilization outcomes: A retrospective study.
63. Effect of passive exercises on skeletal muscle wasting in critically ill mechanically ventilated patients-a randomized controlled trial
64. Effect of verapamil as an adjuvant to epidural steroid injection in chronic lumbar radicular pain: A randomized, double-blind study
65. Efficacy of calcium gluconate in prevention of uterine atony during lower segmental cesarean section delivery: a randomized controlled trial
66. Efficacy of hydroxy-ethyl starch with ropivacaine in prolongation of analgesia with supraclavicular brachial plexus block-a randomised control pilot study.
67. Evaluation of effective dose90 (ED90) of oral dexmedetomidine as premedication for preschool children undergoing day care procedures-a biased coin up and down methodology
68. Evaluation of the effect of fibrinogen on perioperative bleeding during scoliosis surgery, a double blind randomized controlled trial.
69. Evaluation of the predictive performance of sonographic airway assessment parameters to predict difficult airways in children of age group 1 to 10 years
70. Factors influencing perioperative outcomes in Mandibular reconstruction using vascularized free fibular as well as radial flap: A retrospective review of 150 patients
71. Factors influencing the incidence of chronic post-surgical pain following thoracic surgeries: a retrospective cohort study in the Indian Subcontinent
72. Frailty as a predictor of clinical severity in geriatric COVID-19 patients: A prospective observational study
73. Genome wide association of genetic marker with sevoflurane induced emergence delirium in pediatric population.
74. Hemodynamic stability with prophylactic infusion of norepinephrine v/s phenylephrine after subarachnoid anesthesia in elderly patients-a-randomized controlled double-blind trial
75. Impact of an enhanced recovery after surgery (ERAS) protocol on length of stay, perioperative outcomes and complications in paediatric laparoscopic surgeries

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76. In situ stimulation for assessment of CPR feedback device use for BLS skills in trained CPR providers: A prepost intervention study
77. Incidence and risk factors for Chronic post thoracotomy pain and its impact on the quality of life: A Prospective Observational study in the Indian subcontinent
78. Ketofol vs Ketodex vs Ketofen Sedation for Dressing in Burns in Adult Patients: A Randomized Controlled Trial.
79. Lignocaine versus ketamine as an adjunct to propofol for sedation during endoscopic retrograde cholangiopancreatography (ERCP): a randomized controlled trial
80. Low dose methylprednisolone in early mild moderate ARDS in burn patients: A Single center open label Randomized control trial
81. Lumbar ESP vs Caudal block for hip and proximal femur surgery in children
82. Myocardial performance index for prediction of an outcome in septic shock patients: A prospective observational pilot study.
83. Nicotine Replacement Therapy Reduces the Incidence of Delirium and Cognitive Dysfunction in post operative period in abstinent tobacco smoker: A Double Blind Randomized Controlled Trail.
84. Oxygen reserve index for detection of hyperoxemia and titration of oxygen in intensive care: A prospective observational cohort study.
85. Palpation method versus ultrasound guided posterior tibial artery (pta) cannulation in adult patients: a randomized controlled trial
86. PENG vs interscalene for shoulder manipulation procedure: an RCT
87. Point of care ultrasound to confirm correct positioning of central venous catheter tip-A prospective observational study
88. Polymyxin vs. Ceftazidime-avibactam with aztreonam for primary treatment of Carbapenem Resistant Enterobacteriaceae (CRE) and Carbapenem Resistant Pseudomonas aeruginosa (CRPA) [CARE trial].
89. Prediction of Weaning Outcome by Diaphragmatic Surface Electromyography: A Prospective Observational Study
90. Preoperative Ultrasound assessment of quadriceps depth for Identifying Frailty and post operative delirium: An observational Study
91. Prognostic implication of right ventricular dysfunction score among patients with sepsis.
92. Randomized controlled trial to compare dexamethasone and clonidine in ultrasound stellate ganglion nerve block parameters of NRS and vascular dynamics
93. Randomized trial comparing Pulsed Radiofrequency to Conventional Radiofrequency in ultrasound guided Glossopharyngeal neuralgia
94. Reclassification of acute respiratory distress syndrome by addition of ventilatory ratio, PEEP and static respiratory system compliance: Analysis of NHLBI database
95. Retrospective Analysis of Factors Influencing Prolonged Intubation in Adult Burns Patient in a Tertiary Care Institute
96. Role of comprehensive lung ultrasound in predicting postoperative pulmonary complications after emergency abdominal surgery: a prospective observational study
97. Role of femoral vein plasticity in prediction of acute renal injury in patients with peritonitis and abdominal sepsis a prospective observational study.
98. Role of metabolic syndromes (MetS) in the incidence of post-operative delirium and cognitive dysfunction in elderly patients undergoing major surgery under general anesthesia: A prospective observational study.
99. Role o Renal Resistive Index in predicting acute kidney injury in severe burn injury-A prospective observational study
100. Sleep-disordered breathing and emergence delirium in children: a comparison between Pittsburgh Sleep Quality Index (PSQI) and Sleep trouble breathing and unrefreshed (STBUR) questionnaire.
101. Sonographic assessment of suprahyoid airway parameters in patients planned for elective Proseal placement-a pilot, observational study.

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102. Systemic antimicrobial prophylaxis in critically ill burns patients-An open label randomized control trial.

103. Temporal Stability of Sub phenotypes of Septic Shock after Corticosteroid Therapy: A Retrospective Analysis

104. The 90% Effective Dose (ED 90) of 0.75% Intrathecal Ropivacaine for Day Care Surgery in Patients Undergoing Lower Abdominal, Inguinal and Urological Surgery-Estimation with the Biased Coin Up-and-Down Sequential Method

105. The effect of positive end-expiratory pressure administered by Proseal laryngeal mask airway on peri-operativeatelectasis measured by lung ultrasonography-A randomised controlled trial

106. The effect of standard versus restricted fluid therapy in pediatric patients undergoing major elective abdominal, thoracic and genitourinary surgery: a non-blinded randomized controlled trial

107. To compare the effects of standard vs transpulmonary pressure guided intraoperative peep on postoperative atelectasis in patients undergoing upper abdominal surgeries.

108. To Compare the Opioid Sparing Effects Of Gabapentin, Dexamethasone, Paracetamol and Ketorolac (Ga-Dex-PaK) vs Dexamethasone, Paracetamol and Ketorolac (DexPaK) combination In patients undergoing modified radical mastectomy: A Prospective Randomized Double-blind Controlled Trial.

109. To evaluate effect of Carbon Dioxide Insufflation on Optic Nerve Sheath Diameter in Endoscopic Thyroid and Parathyroid Surgery: An observational study

110. To evaluate efficacy of tranexamic acid as anti-inflammatory agent and its effect on shunt patency in Lieno Renal shunt surgeries-a prospective, randomized, double-blind, placebo control study

111. 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.

112. To Study Effectiveness of Anterior Femoral Cutaneous Nerve Block in addition to Proximal Adductor Canal Block and local infiltration analgesia in patients undergoing unilateral primary total knee arthroplasty: A randomized Controlled Trial

113. To study the analgesic effectiveness of Anterior femoral cutaneous block in addition to Proximaladductor canal block and Local infiltration analgesia in patients undergoing unilateral primary total kneearthroplasty.

114. To study the correlation of cumulative fluid balance and diaphragmatic dysfunction among ventilated patients

115. To study the efficacy of 6% hydroxyethyl starch (HES) with 0.25% ropivacaine for ilioinguinal/iliohypogastric block alone with wound infiltration in prolonging duration of postoperative analgesia in paediatric unilateral inguinal hernia.

116. Ultrasonographic Assessment of Tonsillar Volume in Children undergoing tonsillectomy; a predictor of post-operative morbidity

117. Ultrasonographic Subcutaneous Edema Assessment for Cumulative fluid balance and ICU outcome-A prospective observational study.

118. Ultrasound guided classical thoraco-lumbar interfacial plane (TLIP) block and Erector Spinae Plane (ESP) block: Cadaveric study for injectate spread

119. Use of isotonic bicarbonates in the prevention of acute kidney injury in high voltage electrical burns: a double blinded randomised controlled trial

120. Use of IV immunoglobulin mixture in the treatment of burn sepsis: a randomized control trial

121. Validation of pressure transducer derived derived femoral artery corrected flowtime for volume responsiveness in adult patients with septic shock.

122. Validation of Updated Diagnostic Criteria of ARDS in COVID-19 Patients: A Retrospective Study

123. Velocity time integral and stroke volume measured in the ascending aorta for prediction of volume responsiveness in mechanically ventilated adults with septic shock

124. Volume controlled vs pressure control volume guarantee ventilation in emergency laparotomy: a randomized controlled trial

Completed

1. A comparative study of two different doses of tranexamic acid in reducing blood loss inhepatobiliary surgeries

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2. Air Q ILA as a conduit for orotracheal intubation in children: A comparison between supine and lateral position
3. Analgesic efficacy and safety profile of Glossopharyngeal nerve block using Extraoral Anatomical landmark technique VS Ultrasound Guided technique in patients with Eagles Syndrome.
4. Association of malnutrition with inhalational anaesthetic requirement and awakening during day care procedures in children
5. Attitude and understanding regarding anaesthesiology as a career option amongst medical under graduates in India : A cross-sectional study
6. Can nasopharyngeal suction prior to supraglottic airway (SGA) removal reduce the incidence of post-SGA removal adverse airway events in children?-a randomised controlled trial.
7. Comparison between the Medial and Lateral approaches of Ultrasound-guided Costoclavicular Brachial plexus block for upper limb surgeries-A Pilot Interventional randomised control trial
8. Comparison of analgesic efficacy of ropivacaine and levobupivacaine in labor analgesia by dural puncture epidural technique-a prospective double-blinded randomized trial
9. Comparison of awake nasotracheal intubation using flexible Fibre-optic bronchoscope versus D blade CMAC Video-laryngoscope in patients having anticipated difficult airway under topical local anaesthesia and dexmedetomidine infusion.
10. Comparison of Caudal epidural block with Multiple injection Costotransverse block for renal surgeries in paediatric patients: A prospective randomised, blinded clinical trial.
11. Comparison of structured didactic training Vs. hands on training on ORSIM simulator for improving Fibreoptic intubation Proficiency in novice anaesthesia residents in difficult airway scenarios: A randomised controlled trial
12. Comparison of the effect of ketofol and ketodex as procedural sedation and analgesia for oocyte retrieval during in vitro fertilization procedures-a randomized controlled trial.
13. Comparison of wide-awake local anaesthesia without tourniquet (WALANT) versus wide awake local anaesthesia and forearm tourniquet (WALA with FAT) and ultrasound guided individual peripheral nerve block (IPNB) for wrist and hand surgeries: a prospective randomised controlled trial.
14. Development &Validation of a Machine Learning Model for Predicting Post-operative Pulmonary Complications: Secondary analysis of three randomized trials
15. Does an ANSiscope TM predict post thoracic epidural hypotension?-An observational study
16. Duration of mechanical ventilation prediction in critically ill patients: development and validation of an AI model.
17. Effect of different degrees of head of end elevation of the bed on respiratory mechanics during extubation in patients undergoing routine surgical procedures under general anesthesia.
18. Effect of different patient positions on post induction hypotension caused by Propofol-A randomized comparative trial
19. Effect of instillation of intranasal dexmedetomidine on the duration of caudal analgesia inpaediatric infra-umbilical surgeries
20. Effect of pre-procedure anxiety and estrogen levels on Post-operative Nausea and vomiting (PONV) in patients undergoing diagnostic laparoscopy and hysteroscopy for infertility: A Prospective Observational Study
21. Effect of regional anaesthesia on inflammatory biomarkers levels in patients undergoing surgery for giant cell tumour of bone and it's correlation with perioperative bleeding and outcome.
22. Effect of wrist angulation on ease of radial artery cannulation in paediatric population: ultrasound-guided anatomical assessment
23. Efficacy of a novel technique for percutaneous dilatational technique in criticallyill patients.
24. Efficacy of high-volume pericapsular nerve group (PENG) block in patients withacetabular fracture for positioning for subarachnoid block: Prospectiveobservational study.
25. Efficacy of Retrolaminar Plane Block in Patients Undergoing Breast Surgeries: a single-centre, prospective, observational study
26. Evaluation of effect of ketofol and ketodex on duration of seizure activity, hemodynamicprofile, recovery times and cortical activity in patients undergoing electroconvulsivetherapy for depression.

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27. Evaluation of physiological respiratory parameters with the use of N-95 respirators after similar set of Exercise in health care professionals: A cross over Study
28. Impact of preoperative anxiety on propofol induced hypotension in children undergoing elective surgery under general anesthesia: a prospective observational study
29. Indocyanine Green Enhanced TTT Vs TTT for Treatment of thicker tumors in Retinoblastoma-A Randomised Control Trial.
30. Molecular detection of legionella pneumophila by real time PCR and characterization of isolates by sequence-based typing
31. Perioperative anaesthetic management of paediatric congenital laryngomalacia-A Retrospective study
32. Perioperative opioids and postoperative neurocognitive outcomes in elderly patients undergoing laparoscopic surgery: A prospective observational study.
33. Perioperative outcome of patients undergoing major pelvic surgeries in a tertiary health center in India: A retrospective analysis
34. Predictors for postoperative ICU stay in scoliosis-a retrospective study
35. Safety and efficacy of low dose intrathecal anaesthesia for outpatient tubal ligation
36. The association between pulmonary function tests and difficult airway in morbidly obese patients
37. The use of Ultrasound as a reliable tool for endotracheal intubation when performed by novice Anaesthesia Residents-A Prospective Observational study.
38. To assess the technical feasibility of ultrasound guided outplane lumbar sympathectomy block and its confirmation by fluoroscopy in patients with peripheral arterial disease: a prospective observational study
39. To assess time to first rescue analgesic requirement following preoperative Genicular Nerve Block in arthroscopic knee surgeries.
40. To Compare The Opioid Sparing Effects Of Dexamethasone, Paracetamol and Ketorolac(Dex-PaK) vs Paracetamol and Ketorolac (PaK) combination In Total Laparoscopic Hysterectomy: A Prospective Randomized Double blind Controlled Trial
41. To compare the sedative effect of subarachnoid block with and without iv midazolam using BIS monitoring in patients undergoing lower limb surgeries-A randomized controlled trial
42. To evaluate the efficacy of different doses of iv dexamethasone on the duration of subarachnoid block in patients undergoing infraumbilical surgery: a randomized control double blinded study.
43. Use of Continuous Positive Airway Pressure during inhalational induction does not result in quicker induction but increases Sevoflurane consumption.
44. Utilization of NIRS monitor to compare the regional cerebral oxygen saturation between dexmedetomidine and propofol sedation in mechanically ventilated critically ill patients with sepsis-a prospective randomized control trial
45. Warming of intravenous fluids-are microparticles released?-an observational study

INTER DEPARTMENTAL COLLABORATIONS

Ongoing

1. A prospective, randomized controlled study to compare intraperitoneal onlay mesh plus repair versus transabdominal preperitoneal mesh plus repair for patients with primary ventral hernia, Department of Surgical Discipline, AIIMS, New Delhi
2. A Randomized controlled trial on efficacy of single dose of intraoperative dexamethasone in reducing postoperative pain in caesarean section, Department of Obstetrics and Gynecology, AIIMS, New Delhi
3. Ambispective cohort study to evaluate the effect of Supraglottoplasty on Tracheomalacia in pediatric patients with Congenital Laryngotracheomalacia, Department of Otolaryngology and Head and neck surgery, AIIMS, New Delhi
4. Anatomical evaluation of spread in costotransverse foramen block at thoracic level by Computed Tomography imaging: A cadaveric study, Forensic medicine Toxicology and Radiology, AIIMS, New Delhi

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5. Assessment of CSF cytokines level in patients with confirmed meningitis/meningoencephalitis, Department of Medicine AIIMS, New Delhi
6. Comparison between patient-controlled analgesia with fentanyl and multimodal parenteral analgesia in reducing pain due to second trimester medical termination of pregnancy-A randomized controlled trial, Department of Obstetrics and Gynaecology, AIIMS, New Delhi
7. Efficacy and safety of Onabotulinum toxin A (Botox) injections in the upper esophageal sphincter for the treatment of Pharyngo-esophageal Dysphagia due to cricopharyngeal dysfunction-A Randomized Control Trial, Department of Neurology, Department of Gastroenterology and Human nutrition Department of Radiodiagnosis, AIIMS New Delhi
8. Extent of Pelvic Lymphadenectomy during Radical Cystectomy-A Multi-Institutional Open Label Randomized Trial between Standard and Extended Pelvic Lymphadenectomy., PGIMER, Chandigarh; AIIMS, New Delhi; JIPMER, Pondicherry, AIIMS, Bhubaneshwar; AIIMS, Jodhpur; AIIMS, Rishikesh
9. Microscopic analysis of Crystallization of clinically used local anaesthetic mixture when combined with dexamethasone and dexmedetomidine (PI), Department of Biochemistry, AIIMS New Delhi
10. NMR-based CSF metabolomics for biomarker identification for poor outcomes in TB Meningitis patients-, Department of Medicine AIIMS, New Delhi
11. Proteomic-based Outcome Biomarker Exploration in ESKAPE organism sepsis in major burns (PROBESCAPE), Department of Plastic, Reconstructive and Burns Surgery, AIIMS New Delhi
12. Role of Maternal Cardiovascular Markers in Predicting Adverse Outcomes in Women with Pre-Eclampsia., Department of Obstetrics and Gynecology, AIIMS, New Delhi
13. The effects of normoxic vs hyperoxic conditions on the incidence of Post-Operative Cognitive Dysfunction (POCD) and identification of miRNA in POCD in elderly patients undergoing non cardiac surgery: A Prospective Observational Case Control Study, Department of Psychiatry AIIMS, New Delhi
14. To compare the speed of intravenous induction of anaesthesia using ketamine in pediatric patients with and without congenital heart disease, Department of Cardiac Anaesthesiology, CN Centre, AIIMS New Delhi

Completed

1. A comparison of Multiple injection costo-transverse block (MICB) and Erector spinae plane block (ESPB)for post-sternotomy pain relief in paediatric patients undergoing cardiac surgery-A prospective, randomised, comparative study, Department of Cardiac. Anaesthesia
2. A comparison of Multiple injection costo-transverse block (MICB) and Erector spinae plane block (ESPB)for postoperative pain relief in adults undergoing cardiac surgery-A prospective comparative study., Department of Cardiac Anaesthesia
3. A Computed Tomography imaging & anatomic study to investigate mechanism of action of Sacral Erector spinae Blockade, Department of Anatomy and Department of Radiology, AIIMS, New Delhi
4. A Prospective Randomized Controlled Trial to Compare Pain Relief In Pre-Emptive Versus Post-Operative Local Anesthetics Infiltration At Port Site Incision In Patient Undergoing Laparoscopic Cholecystectomy, Department of Surgical Discipline, AIIMS, New Delhi
5. Analgesic efficacy and safety profile of Glossopharyngeal nerve block using Extraoral Anatomical landmark technique VS Ultrasound Guided technique in patients with Eagles Syndrome., Department of Radiology, AIIMS New Delhi
6. Comparison of analgesic efficacy of ropivacaine and levobupivacaine in labor analgesia by dural puncture epidural technique-a prospective double-blinded randomized trial, Department of Obstetrics and Gynecology, AIIMS, New Delhi
7. Determination of duration of vecuronium and isoflurane in type 2 diabetic patients with diabetes with and without cardiac autonomic neuropathy, Department of Physiology, AIIMS, New Delhi
8. Effect of integrated Yoga on ART outcomes and psychological stress in patients undergoing In-Vitro-Fertilization (IVF) cycles: A Prospective Randomized Controlled Trial-, Department of Obstetrics and Gynecology, AIIMS, New Delhi
9. Molecular detection of legionella pneumophila by real time PCR and characterization of isolates by sequence based typing, Department of Microbiology, AIIMS New Delhi

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10. Short segment versus long segment myotomy during per oral endoscopic myotomy for Achalasia Cardia: A Randomized Controlled Trial, Department of Gastroenterology and Human Nutrition, AIIMS, New Delhi
11. Use of pulsated electro-magnetic fields (PEMF) as an adjunct for treatment of chronic back pain: a prospective randomized study. IEC/NP-281/2013, Department of Orthopaedics, AIIMS, New Delhi
12. UV radiation for decontamination of mobile phones of Health care workers at a tertiary care hospital, Department of Microbiology, AIIMS New Delhi

RESEARCH PROJECTS OVER PAST 3 YEARS

Research projects	2021-2022	2022-2023	2023-2024
Total funded projects	19	15	20
Total funding(Lakhs)	Rs. 216.4	Rs. 274.8	Rs. 761.7

PUBLICATIONS: 148

Journal: 122 **Abstracts: 7** **Chapters in books: 18**

Books: 1

Publications over past 3 years

Item	**2021–2022**	**2022–2023**	**2023- 2024**
Total	**140**	**198**	**148**
Journal articles	121	141	122
Abstracts	1	18	7
Chapters in books	18	36	18
Books	0	3	1

PATIENT CARE

Specialities	**No of cases performed**
Operating Theatres	
GI Surgery OT	925
Urology	1936
ENT	2205
Gynaecology AB8 Main OT	79
MCH Block Gynaecology	2294
MCH Maternity OT	2232
IVF OT	391
Gynaecology total cases	4996
Paediatric surgery AB8 Main OT	202
Paediatric surgery MCH Block OT (Elective)	2148
Paediatric surgery MCH Block OT (Emergency, August 2023 onwards)	280
Paediatric surgery total cases	2630
Orthopaedics OT	6623
Peripheral Services (Endoscopy, CT, MRI, MECT, DSA)	4865
Surgery Block OT (Elective)	4526
Surgery Block OT (Elective)	1116
Surgery Block OT (Total Cases)	5642
Burn and Plastic Block (Elective)	2204
Burn and Plastic Block (Emergency)	303
Burn and Plastic Block (Total)	2507

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AB8 Emergency	Cases Peripheral Calls	2208 1865
Anaesthesia Services at Centres		
Dental Surgery (CDER)		704
Ophthalmic Surgery (Dr. R P. Centre)		9440
Intensive Care Units		
AB 8 ICU	New Admissions	682
Surgery Block ICU	New Admissions	598
Burn & Plastic Surgery ICU	New Admission	1941
Pain Medicine		
Pain Clinic	Old patients	2981
	New patients	897
Pain OT (AB8 Main OT)		584
Pain Clinic Interventions		813
PAC Clinic		20981

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Lokesh Kashyap was unanimously elected as the President of Indian Society of Anaesthesiology, Delhi Branch 2024-25. He was elected as Board member of a Charitable organization "Asha '' Transforming lives in the slums of Delhi Founded by Padmashri Dr Kiran Martin at Delhi; He was the mentor for kidney transplanted session at AIIMS Rishikesh in September 2023.

Professor Ganga Prasad was made the administrative In-charge of clinical services in anaesthesia and critical care at JPN trauma centre at AIIMS (New Delhi). He became a Member of the Bureau of Indian standard (BIS) for anaesthesia equipment (New Delhi). He is the Faculty coordinator of central workshop at AIIMS (New Delhi), CPIO for RTI queries of Department of Anaesthesiology, Pain Medicine and Critical Care at AIIMS (New Delhi). He is the chairman of BSc (OT technology) course committee at AIIMS, New Delhi and of DPC committee for central workshop at AIIMS (New Delhi). He was the Organizing chairperson of the 8th AIIMS Ultrasound guided Regional Anaesthesia cadaveric workshop at JPN trauma centre, AIIMS, New Delhi on 24-25 February 2024.He was Subject expert for selection of Assistant professors for north MCD Medical college, New Delhi. He was also subject expert for selection of Assistant and Associate Professor at AIIMS Madurai and AIIMS Bhuvneshwar. He Chaired several sessions

Professor Vimi Rewari was appointed as an External Member of the Constitution of the Board of Studies at AIIMS, Bhatinda. She was appointed as Member of Specialty Board for Minimum Accreditation Criteria and Curriculum/ Syllabus for 2 years Postdoctoral fellowship course in Transplant Anaesthesia by the National Board of Examinations in Medical Sciences.

Professor Jyotsna Punj was invited to deliver a Notable alumni lecture at JNMC, AMU in September 2023. She undertook International training in Neuromodulation at Pain Center; 13 – 20 January 2024, Washington. She became Associate editor of IJPUT (International Journal of Perioperative Ultrasound & Applied Technologies); and is a member of the Editorial Boards of the Russian Journal of Obstetrics, Annals of Critical Care, Journal of Anaesthesiology and Clinical Pharmacology, Indian Journal of Anaesthesia, Saudi Medical journal, BMJ open, International Journal of Pediatrics, SOJ Anesthesiology Pain Management. She is Co-Chairman of Pain Fellowship Teaching; Chairman of AB8 Nursing Coordinator.

Professor Ravinder Kumar Pandey continued as Editor in chief of international journal of perioperative ultrasound and applied techniques (IJPUT) and International Indexed Journal of Perioperative Ultrasound and Applied Techniques (IJPUT) since 2014. He was reviewer of Pub Med Indexed Journals, JCA, JOACP, IJA, Journal of Medical Care Report, BMJ (open), Associate editor of Journal of National Board and ICA. . He was chief coordinator of USG guided Peripheral nerve block workshops organized by Army association of Anaesthesia and Pain faculty. He Chaired Symposium of 3rd AIIMS, International spine deformity course on 23 March 2024 and a session on Case-based discussion at 3rd National Conference of Operation theatre Technologists on 16 March 2024 at JLN Auditorium, AIIMS, New Delhi.

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Professor Anjolie Chhabra She was faculty for co-organising of IAPA 2024 Annual Conference pre-conference workshop on Paediatric regional anaesthesia.

Professor Rashmi Ramachandran is Professor in charge for skill and simulation – based learning in Management Committee for CMET; Member of the Hospital Infection Control Committee (HICCOM-CORE) group of AIIMS, New Delhi**;** Professor In charge for skill and simulation – based learning in Management Committee for CME; Member of the Internal Complaint Committee for Sexual Harassment of Women at the Workplace (ICCSHWW) at AIIMS, New Delhi. She was member of selection board for selection of Medical Officers for the forthcoming 44 ISEA, in ESSO-National Centre for Polar and Ocean Research), an Autonomous Society under the Ministry of Earth Sciences, Vasco-da-Gama-Goa; She was Guest of Honour in the International Conference Generic concept in simulation at Symbiosis International University, Pune, Maharashtra on 20 October 2023.

Dr Puneet Khanna received several grants for paper presentations at international conferences : DST (SERB) to present paper in SWAN Sydney, 3-4 March 2023, by INSA to present paper in SWAN Sydney, 3-4 March 2023, grant by ICMR to present the paper in 9th ERAS World Congress 2023, Lisbon, Portugal (31 May-2 June 2023). He received grant as the Principal Investigator from the ICMR project to deliver a lecture at 27th Annual SCARMU Meeting, Phnom Penh, Cambodia (24 -25 November 2023) and a grant by CSIR to present the paper in APICS, Singapore (18 -20 August 2023). He won several awards: the Best 20 abstracts (1000 SGD) from LMIC IN APICS, Singapore 18 -20 August 2023; Best Abstract Award-3rd place for paper in Kore Anaesthesia 2023, Seoul, Korea, 9 to 11 November 2023; Second prize in the 3rd AIIMS Research Day 2024, New Delhi, India, 29 to 30 January 2024); Second appreciation award for paper presented at 3rd AIIMS Research Day 2024, New Delhi, India (29 to 30 January 2024); Third appreciation award for paper presented at 3rd AIIMS Research Day 2024, New Delhi, India (29 to 30 January 2024). He was nominated in research category in first 3 in Prix Galien India Award, 3 March 2024. He has cleared NQAS ASSESOR (NQAS External Assessors Training). He assumed office as Chief Editor: (DELHI ISA newsletter).

Dr Debesh Bhoi was selected as General Secretary Indian Society for Study of Pain (ISSP) Delhi Chapter; he organized AIIMS Pain Practice & amp; Regional Anaesthesia (APPRA) CME and Workshop on the 13 -14 January 2024.

Dr Nishant Patel got first prize in E poster (Airway management) at the World congress of Anaesthesiologists held at Singapore 3-7 March 2024 for paper titled "Flexible Bronchoscope vs C-MAC D-Blade video-laryngoscope for awake nasotracheal intubation in patients with anticipated difficult airway under topical local anaesthesia and dexmedetomidine infusion- A comparative randomized controlled trial". He received a certificate of appreciation as resource person for Advanced Cardiac Life support (ACLS) training program organized with joint collaboration of SET Facility, AIIMS New Delhi, DGHS and GNCTD.

Dr Anju Gupta was selected as Indian representative for European society of regional anesthesia; appointed Associate Editor of Journal of Medical case report; received the Dr MK Dey award by Indian College of Anaesthetist; cleared EDRA exam; reviewer of articles for IJA, JOACP, Frontiers in Paediatrics, BMJ open, Journal of Clinical anaesthesia (IF-6).

Dr Parin Lalwani completed India Diploma in Regional Anaesthesia (IDRA) in July 2023 (Awarded by Indian College of Anaesthesiologist). She completed the European Diploma in Anaesthesia and Intensive Care (EDAIC) on 9 Sept 2023 at Warsaw Poland. She completed the Certificate Course in Basic Cardiac Ultrasound (FATE) by USABCD at Ganga Hospital Coimbatore in January 2024 provided by the American Society of Regional Anaesthesia.

Dr Shreya Bharat Shah was certified as Instructor for the AHA accredited Paediatric advanced life support course, July 2023. She won an award for free paper presentation at the National conference of Indian Association of Paediatric Anaesthesiologists in February 2024. She chaired a session on Placenta previa in 3rd National Conference of Operation Theatre Technologists-2024 Conference at AIIMS, New Delhi.

Dr Abhishek Nagarajappa was workshop faculty for the following workshops: Video-laryngoscopy in neonates in the 2nd National Conference on Neonatal Anaesthesia, NASCON 2023 held at AIIMS, New Delhi on 23 July 2023; Blocks of Lower limb: obturator, adductor canal, Lateral Femoral Cutaneous nerve and saphenous nerve blocks during the AIIMS Pain Practice and Regional Anaesthesia (APPRA) 2024, 13 - 14 January 2024; 5th Content development workshop, course on CPR, at SET Facility, AIIMS, New Delhi, 19 July 2023:

Dr Sana Hussain was certified as Provider and Instructor in BCLS and CCLS by Indian Resuscitation Council Federation (IRCF) in November 2023, February 2024 and Instructor for conducting SAFE Operating Room course for surgeons, anaesthesiologists and paramedics, October 2023. She trained in Research Leadership Mentoring Programme (JRLMP - 5), JIPMER, Puducherry. She developed Medical E Learning Content (Saksham) for undergraduates (E course module)

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under National Institute of Health and Family Welfare (NIHFW) on the following topics: Intraoperative Anaesthesia Management, Evolution and Expansion of the Practice of Anaesthesia.

Dr Dhruv Jain was elected as Executive Member of the Indian Society of Pain Clinicians' for the term 2023-2025. He was certified as Provider and Instructor in BCLS and CCLS by Indian Resuscitation Council Federation (IRCF). He trained in research leadership and mentoring programme (JRLMP) at JIPMER, Pondicherry. He contributed to developing E course module on Regional anaesthesia and central neuraxial blocks for Medical E Learning Content (Saksham) for undergraduates under National Institute of Health and Family Welfare (NIHFW).

Dr Neha Pangasa participated as a guest faculty in various regional anaesthesia and pain workshops: ISACON Delhi 2023, ISACON National 2023, IDRA 2023, AURA 2024, APPRA 2024 and Neonatal airway workshop-NASCON 2023. She chaired a session on Obese patient posted for bariatric surgery in NCOTT 2024 on 16 March 2024.

Dr. Sachin Kumar is a certified as 'Instructor' for conducting SAFE Operating Room course for surgeons, anaesthesiologists and paramedics, 28-29 October 2023.

Dr Swati Mehta was faculty at LARC-MTV (LHMC Anaesthesia Refresher Course-Mastering Table Viva) in December 2023 and at the Paediatric Airway Seed Workshop conducted by LHMC, Delhi in April 2023. She was instructor for AHA accredited BLS/ ACLS course at St. Stephen's Hospital, Delhi in May 2023 and at ESI Hospital, Rohini, Delhi in January 2024. She was faculty at Primae Curae or first Emergency Response workshop of Medicus Conventis conference for MBBS students at LHMC, Delhi in June 2023.

Dr Anshul Singh has qualified for the final round of the BIRAC's BIG grant, in the medical device category related to patent pending medical innovation - a novel urine measurement and rapid analysis device; for the same also filed a PCT patent application.

Dr Ajeethviswanathan T attended the ACLS and BLS provider course and was deemed to have instructor potential**.**

Dr Vanita Rajagopalan was workshop faculty in Airway management in trauma patient- on arrival resuscitation in Trauma Bay- Workshop during the 1st International Conference of Trauma Anesthesia and Critical Care, PGIMER, Chandigarh, 2 November 2023.

Dr Ram Singh was workshop faculty in Haemodynamic Monitoring (TTE & PAC) during the 62nd Annual Conference of Indian Society of Anaesthesiologists, 25 August 2023, AIIMS, New Delhi.

Dr Amit Kumar Malviya was faculty in the Hands on training of teachers for COLS and ELS (Emergency life support) for teaching to school going children – Experience from AIIMS, Delhi during the NMOCON, 24 – 25 February 2024, Rishikesh.

Dr Choro AthiphroKayina participated as resource faculty of "Training the Trainers" workshop for "Primer in Trauma" in leveraging R&D of Academia for marketable products, promotion and growth of start-ups in Medical and Healthcare – Role of MCC on 22 September 2023 at IIIT Delhi Okhla. She was workshop faculty during the 1st Annual International Conference of Society of Trauma Anaesthesia, PGIMER, Chandigarh, 3 November 2023.

Dr Neha Garg was workshop faculty on Problem-shooting ventilator graphics during the Airway Mechanical ventilation workshop by ISCCM, Delhi, 3 November 2023.

Dr Rupavat Ramkumar was course faculty for the Advanced Emergency Burn Management Course at AIIMS, New Delhi, as part of National Programme for Prevention and Management of Trauma and Burn Injuries (Under MOHFW) at Burn and Plastic surgery block, AIIMS New Delhi**;** resource faculty for Training for AIIMS Jammu Nursing Staff on Airway, oxygen therapy and pain management in Burns patients, 28 -30 November 6 -8 December 13 -15 December 2023, AIIMS, New Delhi.

Dr Sakshi Duggal was resource faculty in CPR Workshop in NCOTT, held on 17 March 2024, AIIMS, New Delhi.

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9.2 Anatomy

Professor and Head

A Shariff

Professors

SB Ray	Rima Dada	Arundhati Sharma (Genetics)
Renu Dhingra	TC Nag	Ritu Sehgal

Saroj Kaler

(Electron Microscopy)

Additional Professors

Tony George Jacob	Neerja Rani
Seema Singh	S C Yadav

(Electron Microscopy)

Assistant Professors

Prabhakar Singh	Arthi Ganapathi

(Electron Microscopy)

Assistant Processors (contract)

Parul Kaushal

Assistant Processors

Javed A Quadri	HarishaKusuma	Sweta Maurya
11 September 2023	11 September 2023	11September 2023

VidhuDhawan	Monica Baxla
11 September 2023	28 September 2023

Scientists

Prabhakar Tiwari	Manoj Kumar

HIGHLIGHTS

Education

The Department conducted a summer training program in electron microscopy from May 16 to 15June2023, which was attended by participants from different parts of India.

CMEs, /Workshops/Symposia/National and International conferences

Events organized/facilitated by the Department of Anatomy, AIIMS, New Delhi

1. Workshop onElectron Tomography of Biological Specimens,17-20April 2023
2. In-house teaching session by Department of Plastic, Reconstructive and Burns Surgery, 20 August2023
3. OculoplastyWorkshop on 17 December 2023
4. Demonstration of anatomical specimens to Class XI and XII students, 21 January 2024

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5. Ultrasound-guided regional anaesthesia workshop between 24-26 February 2024
6. AIIMS Pelvi-acetabular trauma update on 17 March 2024
7. Five Hugo Robotic cadaveric workshops for training residents
8. The 39thNational Training Program in Electron Microscopy, 27 November – 8December 2023.
9. International Conference on Molecular and Cellular Electron Tomography from 21-22 April 2023.

Lectures delivered at CMEs, National and International conferences.

Lectures delivered: 55

SB Ray: 1 | Rima Dada: 23 | Arundhati Sharma: 1
TC Nag: 2 | Tony George Jacob: 21 | Neerja Rani: 1
SC Yadav: 6

Total number of lectures delivered over past 3 years

	2021-2022	2022-2023	2023-2024
Total no. of lectures delivered	73	72	55

List of oral papers/posters presented: 50

Total number of oral/poster presentations over past 3 years

Presentation	2021-2022	2022-2023	2023-2024
Oral/posters	35	50	50

RESEARCH

Funded projects

Ongoing

1. An experimental study to understand the mechanisms of choroidal capillary death in ageing eye with emphasis on involvement of macrophages and other immunocompetent cells, TC Nag, ICMR, 3 Years, 2021-24, Rs 31.0
2. Cisplatin-encapsulated HPV virion-based targeted delivery vehicle validation on cervicectomy samples using high-resolution Cryo-Electron Tomography, Subhash C Yadav, ICMR, 3 Years, 2024-27, Rs 97.54
3. Contribution of glial gap junctions towards morphine tolerance in rats, SB Ray, DST, 3 Years, 2019-23, Rs 35.5
4. Cryo-Electron Microscope Imaging facility for biological specimens (Cells and Tissue), Subhash C Yadav, DBT, 5 Years, 2021-26, Rs 2400.0
5. Development of artificial intelligence-based models for prediction of self-harm amongst the patients of depression, Arundhati Sharma, ICMR, 3 years, 2023-26, Rs. 50.00
6. Effect of yoga on visual function, biomarkers of cellular ageing and mitochondrial copy number in Leber hereditary optic neuropathy (LHON) patients, Rima Dada, ICMR, 3 Years, 2021-24, Rs 30.0
7. Effects of maternal chronic intermittent hypoxia on the cholinergic system and cognitive function of offspring in rat, Prabhakar Singh, DST, 3 Years, 2023-26, Rs 80.0
8. Elucidating the role of molecular signatures with Yoga therapy in Diabetes, Rima Dada, DHR, 3 Years, 2023-26, Rs 72.0
9. Expression patterns of melatonin receptors MTI and MT2 in oesophageal cancer, Arthi G, IRG, 1 Year, 2023-24, Rs 5.0
10. External delivery of Cisplatin using Human Papilloma Virus (HPV 16) based nanocarriers for treatment of cervical cancer, Subhash C Yadav, DHR, 3 Years, 2021-24, Rs 30.0

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11. Fluorosis mitigation in. community of Bihar through intervention and counselling, A Shariff, DST, 3 Years, 2020-23, Rs 152.76
12. Impact of Yoga-based lifestyle intervention on polycystic ovarian syndrome (PCOS), Rima Dada, AYUSH, 3 Years, 2023-26, Rs 61.0
13. Investigation of Changes in Peripheral and Central Nervous System in An Experimental Model of Chronic Pancreatitis in Mice, Tony George Jacob, ICMR, 3 Years, 2019-23, Rs 32.23
14. Molecular profiling in Retinoblastoma using cell-free DNA from aqueous humor, Arundhati Sharma, IRG, 2 Years, 2023-25, Rs 10.00
15. National Networking Program for Artificial Intelligence based methods for healthcare data, Arundhati Sharma, DBT, 5 Years, 2023-28, Rs 186.19
16. SMARCE1 mediated mechanisms of transcriptional modulation in trophoblast cell invasion during placentation and their status in preeclampsia, Renu Dhingra, ICMR, 3 Years, 2023-26, Rs 40.0
17. The Impact of Yoga Intervention on Blood-Based Biomarkers, Epigenetic Modifications, and Immune System Dysregulation in Alzheimer's Disease: A Pilot Study, Prabhakar Tiwari, AIIMS-THSTI, 2 Years, 2024-26, Rs 10.0
18. To study the effect of Yoga on DNA methylation alterations of imprinted genes and key genes of developmental importance in idiopathic recurrent pregnancy loss following spontaneous or assisted conception, Rima Dada, ICMR, 3 Years, 2022-25, Rs 85.0
19. To study the role of cholinergic transmission on amyloid beta-induced neurodegeneration, Prabhakar Singh, ICMR, 3 Years, 2023-26, Rs 30.0
20. Utility of Artificial Intelligence in differentiating, thyroid malignant lesions, Arundhati Sharma, DBT, 3 Years, 2020-24, Rs 74.16

Completed

1. "Effect of yoga on spermatozoa transcripts and miRNA expression in idiopathic infertility and early pregnancy loss", Rima Dada, SATYAM, 3 Years, 2020-23, Rs 55.0
2. Establishment of Laser Confocal Microscope Facility for biomedical live cell Imaging and for nano-particulate drug delivery, Subash Chandra Yadav, DST-FIST, 5 Years, 2018-23, Rs 165.0
3. Mitochondrial dynamics and status of autophagy in rat retinal photoreceptor cells after experimental iron overload in rats, TC Nag, ICMR, 3 Years, 2019-22, Rs 30.0
4. Status of hydrogen sulphide producing enzymes, matrix metalloproteinases and miR-22 in preeclampsia and their role in modulating trophoblast invasion, Renu Dhingra, DST, 3 Years, 2019-23, Rs 15.0

Departmental projects (including thesis/dissertations)

Ongoing

1. A histo-morphometric study of the Anterior Cruciate ligament and Tendons around the Knee joint
2. A study of the role of macrophages and other immunocompetent cells in the age-related changes of choroidal capillaries in rats.
3. A Study on Hydrogen Sulphide Mediated Transcriptional Modulation in Trophoblast Cells and their Association with Preeclampsia
4. Age-related morphological and neurochemical changes in glutamatergic neurons of the human inferior colliculus.
5. An experimental study to understand the mechanisms of choroidal capillary death in ageing eye with emphasis on involvement of macrophages and other immunocompetent cells.
6. An investigation into the status of expression of sensors of unfolded protein response in rat retina due to iron accumulation.
7. Analysis of Fourier transform infrared spectroscopy in pancreatic neuroendocrine tumor patients.
8. Behavioral and neuroanatomical evaluation of neuropathic pain in rodents
9. Effect of Transforming growth factor beta in a rat model of osteoarthritis

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10. Effect of Yoga on ageing and functional decline.
11. Expression and quantification of Neurotrophic factors (BDNF and NT-3) and their receptors across the ageing human cochleae and peripheral blood.
12. Expression of SMARCE1 (BAF 57) in blood and placentae of patients with pre-eclampsia.
13. Expression pattern of ghrelin in the retina and its link with light insult in rats.
14. Expression profile of novel proteins in blood of pancreatic neuroendocrine tumor patients.
15. Genetic and Epigenetic profiling in patients of Anterior Pituitary Adenoma
16. Genetic and epigenetic profiling in patients with opioid dependence
17. Genetic screening of patients with Men2 syndrome
18. Genetic studies to identify mutations in patients with cardiomyopathies
19. Identification and evaluation of novel proteins, inhibitors of apoptotic proteins and exosomes in cases of pancreatic neuroendocrine tumors.
20. Identification of HPV-16-induced cervical cancer cells from cytology samples
21. Impact of Yoga and Meditation on Epigenetic Profile in Rheumatoid Arthritis
22. Impact Of Yoga-Based Intervention On Quality Of Life Of Glaucoma Patients
23. Impact of yoga on Alzheimer's disease
24. Impact of Yoga on Obesity
25. Impact of Yoga on Paternal Factors Early pregnancy losses
26. Meditation-based stress reduction: Is it therapeutic for Primary Open Angle Glaucoma (POAG)
27. Molecular studies in Fibromyalgia
28. Mutation analysis in Anti Mullerian Hormone gene in poor responders
29. Mutations in OPA1 gene and mt DNA in optic neuropathy
30. Pattern of mTORC1 expression in rat retina in experimental iron overload.
31. Role of microglia in pain at the spinal level in a rat model of arthritis
32. Role of SMARCE1/ BAF57 in Migration and Invasion Ability of HTR8/SVneo Trophoblast Cell Line
33. Role of Yoga on polycystic ovarian syndrome (PCOS)
34. Study of Association of Methylenetetrahydrofolate Reductase (MTHFR) Polymorphisms in Infertile Men
35. Study of exosomes in saliva of pancreatic neuroendocrine tumor patients.
36. Study on the association of Polymorphism, Methylation and Expression status of Monoamine Pathway genes with Alcohol Dependence
37. Study to identify changes in the transcriptome of Stevens-Johnson syndrome (SJS)
38. To study Gene Expression, Epigenetic alterations, oxidative DNA damage in infertile men after Yoga intervention and to analyze effect of their serum on cancer cell lines
39. To study the morphological changes in endothelin-1 induced capsular infract, Model in rat brain.

Completed

1. An In vitro study of CSE & HTRA1 in trophoblastic cell invasion
2. Correlation of neuropathic pain with microglial activation in the nervous system.
3. Effect of garlic (Allium sativum L) extract on mice models of chronic pancreatitis.
4. Effect of hydrogen sulphide on protein arginine methyl transferase -1 (PRMT-1) signalling on trophoblastic cells and its association with preeclampsia
5. Effect of Resveratrol on Arsenic Trioxide-induced Hepatotoxicity in Mice

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6. Evaluation of expression of Cystathionine Gamma Lyase (CSE) and High Temperature requirement (HtrA1) in preeclampsia and their association
7. Mitochondrial dynamics and status of autophagy in retinal photoreceptor cells in a rat model of experimental iron overload
8. Role of Hydrogen Sulphide as a pharmacological modulator in adverse pregnancy outcomes like preeclampsia
9. Study of Hydrogen Sulphide, HMGB1 and RAGE in serum and placenta in preeclampsia
10. Study of metabolites of kynurenine pathway in rat model of neuropathic pain.
11. The study of enteric glia and vasoactive intestinal peptidergic neurons in the enteric nervous system of ulcerative colitis patients

Collaborative projects

Ongoing

1. A Cross sectional study for assessment of Matrijabhava (Maternal factor) and Rasajabhava (Nutritional factor) for causation of childhood Leukemia in purview of epigenetics", Chaudhary Brahm Prakash AyurvedCharakSansthan Delhi
2. A study of the efficacy of intraperitoneal injection of methyl prednisolone on the severity of organ dysfunction in adult male Wistar rats with acute pancreatitis induced by surgical ligation of the biliopancreatic duct, GI Surgery
3. Age dependent dynamics of sperm telomere and inter-relation with DNA damage response, Reproductive Biology
4. AIIMS+ CSE- IIT-D Center of Excellence Collaborative Neuro-Engineering platform for excellence in innovation and translational research, Neurosurgery
5. An observational study of anatomical concept of shadgarbhkarbhav (six procreative factors) in Prevalence of Arbuda, Chaudhary Brahm Prakash AyurvedCharakSansthan, Delhi
6. Assessment of genetic prevalence of NASH related liver cirrhosis with association of MatrajaBhava (Maternal Factor) - A cross-sectional study, Chaudhary Brahm Prakash AyurvedCharakSansthan
7. Centre for Advanced Research and Excellence in Pancreatic Diseases, Gastroenterology
8. Checking the feasibility of aotoplasty balloon catheter for endovascular occlusion of aorta', Surgical disciplines
9. Cytogenetic and Molecular Analysis in Infertility, Anatomy Dept, AIIMS, Raipur
10. Development of training model for delineation of vascular supply relevant to reconstructive surgical procedures of face and hand. A novel method of cadaver processing, Plastic reconstructive and burns surgery
11. Effect of Semen Cryopreservation on Sperm Telomere Biology and Fertilization Potential damage Response, Reproductive Biology
12. Electroencephalographic changes in early and advanced Glaucoma, R P Centre for Ophthalmic Sciences
13. Evaluation of Yoga Based Interventions and Transcranial Magnetic Stimulations on Cognition, Neuromodulation and Stress in Obesity: A Randomized Controlled Trial, Physiology
14. Extending the horizon of endoscopic neurosurgery: A cadaveric study as a starting step to introduce posterior fossa endoscopic approaches to the armamentarium of minimally invasive neurosurgery of our institute, Neurosurgery
15. Factors leading to early onset degeneration in Bioprosthetic valves implanted in a younger population- a multidisciplinary analysis, CTVS
16. Fluorosis mitigation in the community of Bihar through intervention and counselling, Anatomy
17. Genetic studies in fibromyalgia, Physiology
18. Genetic studies on aqueous fluid in retinoblastoma, R P Centre for Ophthalmic Sciences
19. Genetics of alcohol and drug dependence, Psychiatry
20. Genetics of Juvenile glaucoma, R P Centre for Ophthalmic Sciences
21. Genetics of Steven Johnson Syndrome, R P Centre for Ophthalmic Sciences
22. Genetics studies of cardiomyopathies, Cardiology

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23. Genome wide Analysis to explore stress, inflammation and cellular aging following short- and long-term yoga-based intervention in obesity and DM, Physiology
24. Genotype and Phenotype correlation in POAG, Dr RP Centre for Ophthalmic Sciences
25. Identification and Characterization of novel genetic variants associated with cardiovascular diseases in diverse ethnic populations of India, Cardiology
26. Impact of advanced paternal age and poor; lifestyle on sperm epigenome: Possible etiology in autism spectrum disorder, Pediatrics
27. Impact of preoperative steroids on trabeculectomy outcomes: a Randomized Controlled Trial, R P Centre for Ophthalmic Sciences
28. Impact of short-term yoga-based intervention in obesity, Physiology
29. Impact of YBLI on childhood depression, Psychiatry
30. Impact of yoga and meditation on Epigenome in Rheumatoid Arthritis, Medicine
31. Material characterization of brain tissue and development of tissue-device interaction based neurosurgical simulation tools, Neurosurgery
32. MEN1 gene mutation in patients of primary hyperparathyroidism, pancreatic tumors and pituitary tumors and its clinical implications, Endocrinology
33. Microsurgical comparison of operative exposure of IAC through middle fossa and retro sigmoid hearing preservation skull base approaches - a laboratory investigation, Neurosurgery
34. Mutational Analysis of ASMD, R P Centre for Ophthalmic Sciences
35. Non-alcoholic fatty liver disease in Indian lean and obese patients: similarities and differences, Gastroenterology
36. Partnership in Education of Healthcare Professionals, Novo Nordisk Foundation Denmark and SET Facility, AIIMS New Delhi
37. Prevalence and genetic mutations profile of Primary Ciliary Dyskinesia in Indian Children, Pediatrics
38. Randomised control trial on the effect of transcranial magnetic stimulation of pathomechanism of gait and urodynamics in patients with partial transection of the spinal cord, Physiology
39. Role of ashwagandha in management of Infertility, Centre for Ayurveda, Guru Gobind Singh University
40. Study of cryopreservation effects on sperm mitochondrial and nuclear DNA integrity and its influence on fertilization event, Reproductive Biology
41. Study of Oxidative Stress on Sperm Shelterin expression and Chromatin function in Infertile males, Reproductive Biology
42. Study of Oxidative Stress on Sperm TERRA expression and Chromatin function in Infertile males, Reproductive Biology
43. Study of sperm oxidative state, shelterin protein expression and chromatin function in infertile males, Reproductive Biology
44. Study of sperm oxidative state, TERRA expression and chromatin function in infertile males, Reproductive Biology
45. Vulnerability assessment of Matrijabhava for the causation of Metabolic disorders in childhood: A cross sectional study, Chaudhary Brahm Prakash AyurvedCharakSansthan, Delhi
46. Vulnerability assessment of RasajaBhava (Nutritional component) for the Causation of Asymmetric IUGR - A cross-sectional study, Chaudhary Brahm Prakash AyurvedCharakSansthan
47. Yoga and impact on QOL in Glaucoma, R P Centre for Ophthalmic Sciences
48. 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, R P Centre for Ophthalmic Sciences

Completed

1. A study of the efficacy of intraperitoneal injection of methyl prednisolone on the severity oforgan dysfunction in adult male Wistar rats with acute pancreatitis induced by surgical ligation of the biliopancreatic duct, GI Surgery

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2. Effect of transcranial, magnetic stimulation on pain modulation status in fibromyalgia patients, Physiology
3. Factors leading to early onset degeneration in Bioprosthetic valves implanted in a younger population- a multidisciplinary analysis, CTVS
4. Genetics of MEN2 syndrome, Endocrinology
5. Identification and Characterization of novel genetic variants associated with cardiovascular diseases in diverse ethnic populations of India, Cardiology
6. Mutation analysis of seven genes (NR5A1, DAX1, DHH, DMRT1, SOX9, SRY, WT1) in patients with Gonadal dysgenesis and 46, XY karyotype, Endocrinology
7. Oxidative stress evaluation in amniotic fluid of couples with normal and couples pregnant with fetus with congenital malformation, Obstetrics and Gynaecology
8. Pharmacological and molecular approaches to investigate the effect of Adhatodavasica in experimental models of bleomycin-induced pulmonary fibrosis, Pharmacology

Research over past 3 years

Research Projects	2021-2022	2022-2023	2023-2024
Total funded projects	34	20	20
Total funding	3283.54	2942.22	3512.32

PUBLICATIONS: 60

Journals: 54 **Abstracts: 4** **Chapter in Books: 2**

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total	**55**	**52**	**60**
Journal Articles	45	41	54
Abstracts	3	9	4
Chapter in books	7	2	2

PATIENT CARE

GENETIC DIAGNOSTIC and COUNSELLING SERVICES

Karyotyping	209
Yq microdeletion screening	68
ROS estimation	254
DFI	72
Molecular screening	
Corneal dystrophies	25
DNA for Genetic analysis of various disorders	389
Miscellaneous	54
Cytogenetic Analysis	4

EMBALMING OF DEAD BODIES	232
For transportation	193
For teaching/research	39

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Patientcare related activities	2021-2022	2022-2023	2023-2024
Genetic Tests	757	525	1075
Diagnostic tests for heavy metals/toxic elements/micronutrients in blood/urine	779	3200	7500
Embalming of dead bodies	38	169	232

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor A Shariff in addition to his routine administrative responsibilities towards the institute and the department as a head, he is successfully running the Clinical Ecotoxicology Diagnostic and Research Facilityestablished by himself, which is a first of its kind facility in the country and providing life-saving diagnostic testing services to the patients from AIIMS as well as other healthcare institutions across the country. He is also a Co-PI for more than 10 interdepartmental collaborative research projects carrying out research in Clinical Ecotoxicology.He has served as an expert member of the Selection Committees for AIIMS, Kalyani, Bhubaneswar; AIIMS, Jodhpur; AIIMS, Patna and AIIMS, Bhopal etc, Dr. He has served as Member of the Expert Committee for ICMR, New Delhi and Member of Project Review Steering Group (PRSG), Ministry of Electronics & Information Technology (MeITy), Government of India for the evaluation of various research projects.

Professor SB Raywas a member of the selection committee for appointment of faculty in different medical colleges. He acted as an External Examiner for 1st Professional MBBS examination in various Government Medical colleges, Institutes of NationalImportance and the National Board of Examinations. He has evaluated PhD theses from various Government Institutes. He participated in relief operations for preservation of bodies of accident victims in the Balasore train accident in June 2023 coordinated by the Ministry of Health and Family Welfare. He has assisted in a medicolegal investigation of a Central Investigative agency.

Professor Rima Dada is a Task Force Member of the Ayushman Bharat Scheme (Wellness). She holds the Chair for Yoga and Genetics Taksha Centre for Integrative Medicineand Yoga (CIMY), USA. Professor Rima Dada was honored with Certificate of Excellence towards an outstanding contribution to the quality of the Journal and for serving as an Associate Editor for the National Journal of Clinical Anatomy. Invited as a Chief guest at NSS-DTU & Department of Biotechnology, Delhi TechnologicalUniversity. Was an expert in meeting: Benefits and barriers of Yoga Research Orgnized by CCRYN_Collaborative Centre for mind body intervention through Yoga, PGIMER, Chandigarh Dr Dada is member of the Institute ethics committee of SVYASA Bangalore and DC member of the School of Biotechnology, Amrita Institute Kottayam. Dr Dada was nominated as expert in a 6-memberhigh-powered committee constituted by MoHFW and AYUSH for drafting guidelines to promote Yoga research. She is also an expertinthe evaluation/ formulation & review of questions by NBE and for NEET examination and on board of governors and expert for medical assessment and Rating Board (MABR), NMC. Dr Dada is a Member of the Committee for Yoga Science Communication, constituted by Inter-University Centre for Yogic Sciences, Bengaluru of UGC, Ministry of education, GOI. Dr Dada was nominated as expert for evaluation of projects under ICMR-CARE scheme and projects in task force mode in NCD and RBMH section (ICMR). Was reviewer for various adhoc projects by ICMR/DBT/DST/Welcome Trust. She was nominated as expert for the Advisory Committee/The Ayush Interdisciplinary R&D Task Force on High Impact Research in Yoga, Ministry of Ayush, GOI. Dr Dada is the honorary Guest faculty of PGI-CCRYN and the only university of Yoga in USA. She is external faculty for the IFS course in Clinical embryology and diploma in ART. Sheconducted PhD Viva voce exam as an External Examiner for Genetics. Delivered talks on Total health and herwork on yoga in various lifestyle diseases appeared in leading newspapers like TOI, HT and the Hindu and also on TV, Vigyan Prasar and BBC. She has conducted interviews under APS and under the Public service commission. Participated as Expert for an onsite Technical Evaluation Committee for Centre for Advanced Research and Excellence in Kidney Diseases at SGPGI and PARAM NIMHANS. She isan expert in review workshops of MCQ Question Bank MBBS Exit level by NBE and PG expert for NMC. Participated in online Training on Managing Leadership & High Performing Teams by NPC. She is a reviewer for over 45 journals.She was invited by UGC to deliver lectures on wellness for their employees. Dr Dada is Member secretary and CPIO of Vishram Sadan and member core committee for institute day and election commissioner for UG elections.

Professor Arundhati Sharmaacted as a reviewer for projects, manuscripts for publications and PhD and MD theses. She is the nodal person for the Departmental Annual report and website information. Her lab's work on the Genetics of Alcohol dependence was posted by ICMR on its official website on X (Twitter). A part of her published work on Multiple endocrine neoplasia -II (MEN 2) has been incorporated in Williams Textbook of Endocrinology, (a standard textbook of Endocrinology) in chapter 42, page 1653. She was interviewed by a Hindi magazine Vanitha, (published by the Malayala Manorama group) for women in the field of sciencewhich was published in the month of September 2023.

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Professor Renu Dhingra work was entitled 'Vascular Endothelial Growth Factor Alleviates Endoplasmic Reticulum Stress via PERK, IRE1, and ATF6 Pathways in Trophoblast Cells" and "Association of Vascular Endothelial Growth Factor and Soluble fms-Like Tyrosine Kinase-1 Polymorphisms with Their Circulating Protein Levels in Preeclampsia' received the Dr. H.J. Mehta Memorial award-2019 and Dr Matilal Pan Memorial award -2019 respectively which was Announced at the 70th NATCON held in 2023.

Professor TC Nag examined a PhD thesis and reviewed 112 manuscripts for publications in various journals. He received a Fellowship fromthe Indian Academy of Neurosciences and organized a mini-symposium at the XLI Annual Meeting of the Indian Academy of Neurosciences (Jiwaji University, Gwalior; December 4-6, 2023). He was a member of abstract review committee and judge in third AIIMS Annual Research Day presentation,29-30 January2024.

Professor Ritu Sehgal currently holds the designation of the Central Public Information officer (CPIO) for the Anatomy Department to look after the work under the RTI Act, 2005; Faculty-in-charge for the Central Lab. 1006; Departmental Faculty co-ordinator for Histological Techniques course; Vice President & Life Member of the newly constituted AIIMS Association for Anatomy since February 2024. She contributed as Resource Faculty Expert for confidential examination work at the Union Public Service Commission on 18January and 1February 2024; Nodal officer of Anatomy Department and Member of the Exhibition Sub-committee for the 68th Institute Day held in September 2023; Organizing Member for the 'SPARC 2024' contests, part of the Student Wellness Initiative, conducted at AIIMS, New Delhi on 9March 2024; Departmental Counsellor for Student Mentorship Program, co-ordinating counselling and aiding MBBS students requiring help. She actively engaged in discussion and delivered the Vote of Thanks for CSIR & PCRM organized talks on 'Diet, Health and Wellness' and 'Impact of Nutrition on Non-communicable Diseases' at the Ramalingaswami Board Room in March 2024.

Dr SarojKaler is currently a Member of the Asian Pacific Society of Neurochemistry, Indian Academy of Neurosciences, Teaching Schedule committee at AIIMS, New Delhi. She reviewed research articles submitted to several journals. Teaching In-charge of the MBBS 2023-24 batch from February 2024 to April 2024. She facilitated the first professional examinations (Main & supplementary) as an internal examiner. She has been an external examiner for MBBS first professional examinations and postgraduate (MD, MSc) final examination at Universities in Delhi and outside**.** One MBBS student received summer fellowship 2023 under her supervision. Her student has been awarded International Financial Aid forattending the International Association for the Study of Pain (IASP) 2024 World Congress on Pain to be held in August in Amsterdam, Netherlands. She has assisted the whole body donation program.

Dr Tony George Jacob organised three workshops in collaboration with the SET facility: 'Blended learning (21 and 22 November 2023); 'PowerPoint. (23 November 2023), and 'SARAL- Our Institutional LMS "Use it effectively!" (28 February 2024). Dr Jacob has been appointed as the Faculty-in-Charge of the Central Animal Facility and continues to be a member to the Institutional Animal Ethics Committee. He is a member of numerous institutional Technical Specification Committees, especially related to microscopy and image analysis. He has contributed to the National Medical Council Network as a member of Committee for Telemedicine and e-Learning and to Bureau of Indian Standards as a member of the Committee- MHD 23 that looks after equipment for Anatomy and Forensic Sciences. He continues to be on the Editorial board and review committees of numerous National and International biomedical journals. He also continues to be a resource person for Microscopy, Communication Skills, and Writing/Reviewing a Manuscript.

Dr Neerja Rani:served as anadjunct faculty at Jiwaji University, Gwalior for MSc neuroscience course. She has evaluated a PhD thesis and conducted PhD viva voce examination. She is a member of the PG board of studies in the Departmentof Anatomy of a Government Medical collegeand has been an external examiner for regular first professional MBBS examination in anatomy at several medical colleges in and outside Delhi. She has also served as a member of a selection committee as external expert for the selection of senior resident postsin a Government Medical college.

Dr Seema Singh: Faculty in charge of organizing and conducting internal exams for the first year MBBS 2023–24 batch along with a compilation of results; Resource person in 9thINCPT AIIMS-2023; Appointed as external examiner at Delhi University; Published and reviewed articles.

Dr Subash Chandra Yadav: was awarded second prize in Innovative Devices Category, on the research day of AIIMS, New Delhi. He has organized the 2nd National Workshop on "Electron Tomography of Biological Specimens" from 17-20April 2023, and International Conference on "Molecular and Cellular Electron Tomography" from the 21-22, April 2023, at Electron Microscope Facility, AIIMS, New Delhi. He was the general secretary of the Scientific Training programs of SAIF AIIMS New Delhi.

Dr Prabhakar Singh: served as a guest editor for the Indian Journal of Biochemistry and Biophysics. He was the organizing secretary of the three training programs [(1) National Scientific Training Program in Biological Electron

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Microscopy, (2) Summer Training Program in Biological Electron Microscopy and (3) 2nd workshop on Electron Tomography of Biological Specimens] and one international conference [International Conference on Molecular and Cellular Electron Tomography] organized by Sophisticated Analytical Instrument Facility, Department of Anatomy, AIIMS, New Delhi.

Dr Arthi Ganapathy: received travel awards from SERB and ICMR for presenting her research work at APICA ANZACA conference held in Dunedin New Zealand in December 2023. She has been awarded a certificate of appreciation for taking online anatomy lectures for first-year medical students of I.N. Ulianov Chuvash State University, Russia. She is on the board of Anatomy post-graduate studies to review the MD Anatomy curriculum of a medical college. She is a reviewerin various scientific journals.

Visiting Scientist

Dr Santosh Mishra from the State University of North Carolina, USA delivered a lecture on "Ouch and Itch" on September 20, 2023, in the Ramalingaswami Board Room.

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9.3 Biochemistry

Professors & Head

Shyam S Chauhan
(From 1 February 2023 till 30 November 2023, Superannuated)
HOD Biotechnology: 1 November 2020 to 30 November 2023
Kalpana Luthra
(From 1 December 2023)

Professors

PP Chattopadhyay
Sudip Sen
Alpana Sharma
Archna Singh-I
(From July 2023)
Kunzang Chosdol

Additional Professors

Archana Singh-II
Ashok Sharma
Rakhee Yadav
Jayanth Kumar P
Pragyan Acharya
Pramod Kumar Gautam
Subhradip Karmakar
Riyaz Ahmad Mir

Associate Professor

Siddhartha Kundu

Assistant Professor

Karthikeyan Pethusamy

HIGHLIGHTS

- 42 Research projects are ongoing in the department funded by various national and international agencies such as DBT, DST, ICMR, DHR, DRDO, Welcome Trust, Ministry of AYUSH and Intramural AIIMS, amounting to Rs 69.03 crores and 16 research projects were completed this year
- 63 Departmental projects and 49 collaborative projects are ongoing with different faculty of the various departments 20 Departmental projects were completed this year
- 74 Research publications and 11 abstracts were published in indexed National and International Journals of repute
- 47 Invited talks were delivered by the faculty and 76 research papers were presented by faculty/research students (oral/poster) at various national and international scientific forums
- Departmental faculty have received a total of three research awards for the year 2023, 2 AIIMS Excellence research awards in Basic Sciences (1st and 3rd) and one research award in Oncology Basic Sciences received on research day 30 January 2024
- One Faculty has received the Best Immunology Teacher (Senior) Award by Immunocon-50, 2023 and one faculty has received K L Gupta Memorial Oration, ACBICON, 2023. One faculty has received the Awadhesh Saran Oration Award in the Association of Clinical Biochemists of India, 2023
- Faculty and students received a total of 33 awards and prizes for oral presentations along with travel grants at various national and international conferences
- 13MSc, 14 MD, 9 SR and 42 registered PhD students are working in the department

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- The practical for MBBS and coursework for MD & MSc students teaching curriculum was further expanded to add more advanced classes in various topics encompassing the current advances in research
- A formal PhD coursework and its assessment for PhD students is completed for 4 batches and is ongoing for the current batch in the department, comprising various modules
- Department provides **clinical services** to the patients by performing different tests. The porphyria tests were performed in 150 samples received from different departments. A departmental faculty has been made in charge of the Molecular Diagnostic Laboratory at NCI Jhajjar. Molecular diagnostic services, including BCR-ABL Quantitative (Major, Minor, Micro), a genetic test; Acute Lymphoblastic Leukemia (ALL) 10-gene Comprehensive Panel; and Acute Myeloid Leukemia (AML) Multiplex Panel Real-Time PCR test, have been conducted on 83, 45, and 42 cancer patients, respectively
- As a part of the National Medical College Network (NMC) Module "Saksham" our departmental faculty has submitted 25 online Biochemistry lectures
- One faculty has filed a patent and an Indian patent has been awarded. Title: "A BROADLY NEUTRALIZING ANTIBODY" Authors: Dr Kalpana Luthra, Sanjeev Kumar, Dr Rakesh Lodha: Indian Provisional Patent Application No.: 201811021940, 12 June 2018, LIPC Ref: 55/PA/AJ/CA/2018. Publication number 50/2019: Indian Patent Number: 502350 dated 23 January 2024

EDUCATION

Undergraduate

The department introduced some modifications in the UG teaching curriculum, aimed at enhancing both the skill development and keeping 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 connection. 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-analyzer-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.

Medical Education: One faculty from our department is Professor in charge of e-learning in SET facility. E-learning modules have been made by several faculty members of the department on NMC-based UG Biochemistry topics and uploaded on LMIS.

Postgraduate

These include 13MSc and 14 MD students. The department also has 42 Ph.D. students. There are two N-PDF working as post-doctoral students and two Research associates.

The postgraduate teaching curriculum was further expanded to add more advanced classes in the Molecular Biology and Cancer Biology modules. The 'Clinical Case Discussion' has been modified to discuss complex case reports from various journals for the MD, MSc students and Senior Residents.

Formal coursework for PhD students is initiated in the department with various modules. It covered Advanced Laboratory Instrumentation, Cell biology and Culture techniques, Human and Animal Ethics, Biostatistics, Research methodology etc. Students were assessed and graded after completion of coursework.

The department is also giving formal training to pediatric genetics **DM and ENT MCh** students in molecular biology. Our department conducts Journal clubs every Tuesday in which senior residents and junior residents MSc Students ae presenting recent research done on various biomedical areas.

CMEs/Workshops/Symposia/National and International Conference:

- Professor Alpana Sharma organized the symposium on International Day of Immunology in SD Global School NCR Delhi (29 April 2023)
- Dr Jayanth Kumar conducted a workshop on gene expression analysis for 150 participants as part of the 20th National IAOMP PG convention (July 2023)
- Dr Ashok Sharma coordinated The 8th World Cancer Congress – 2024 hosted at JNU Convention Centre, Jawaharlal Nehru University, New Delhi, India. 18-20 March 2024

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- Dr Ashok Sharma and Dr Riyaz Ahmad Mir organized "National Science Day" of India, Invite Professor GK Rath and Dr Manish Tripathi University of Texas USA as a keynote speaker to deliver a talk on "Advancing Colorectal Cancer and the NC Genome" on 28 February 2024, in LT-2, AIIMS

Lectures delivered: 47

Shyam S Chauhan: 2	**Kalpana Luthra: 8**	**Alpana Sharma: 4**	**Kunzang Chosdol: 2**
Sudip Sen: 1	**Archana Singh I: 2**	**Archana Singh II: 3**	**Subhradip Karmakar: 1**
Ashok Sharma: 10	**Pragyan Acharya: 4**	**Riyaz Ahmad Mir: 2**	**Pramod K Gautam: 2**
Siddhartha Kundu: 1	**Karthikeyan Pethusamy: 5**		

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
21	46	47

List of oral papers/posters presented: 76

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023-2024
13	71	76

RESEARCH

Funded projects

Ongoing

1. A pilot study evaluating role of Homoeopathic medicine in Cancer patients as adjuvant treatment to chemotherapy/ radiotherapy, and correlating with Molecular Markers, Dr Ashok Sharma, DBT, GOI, 2 years, 2022-24, Rs 1.0 Crores
2. A Point-of-Care Acute Kidney Injury Predictor for Patients with Acute-on-Chronic Liver Failure, Dr Pragyan Acharya, BIRAC DBT, 2 Years, 2023-25, Rs 49,00,000
3. CARE in Pancreatic Diseases, Dr Parmod Garg, Dr Kalpana Luthra, ICMR, 5 Years, 2019-24, Rs 5.06 Crores
4. Characterizing, Revolving, Supporting, Monitoring and Managing Sustainable Food Systems to address malnutrition in indigenous tribal communities of India. CARISMMA sustainable food systems study, Archna Singh (Center PI), India Alliance: Team Science Grant (988)lakhs, 5 Years, 2023-28, INR (93.2 AIIMS share)
5. Construction of therapeutic cells with synthetic circuits targeting relapse in B-cell Acute Lymphoblastic Leukemia, Jayanth Kumar Palanichamy, ICMR Intermediate Grant, 4 Years, 2024-28, Rs 308 Lakhs
6. Cysteine Cathepsins in Acute Lymphoblastic Leukemia: Implication(s) in Prognosis and Therapeutics-, Dr Shyam S Chauhan, ICMR, 3.5 Years, 2020-23, Rs 21.9 Lakhs
7. DBT NCI-AIIMS Translational Cancer Research Centre for Five Years (Phase-1), DBT, GOI, Dr Ashok Sharma, DBT, GOI, 5 Years, 2022-27, Rs 40 Crores (Phase1)
8. Deciphering the synergism between IGF2BPs and m6A machinery in B-cell Acute Lymphoblastic Leukemia, Dr Jayanth Kumar Palanichamy, SERB Core Research Grant (CRG), 3 Years, 2022-25, Rs 63 Lakhs
9. Delineating the co-evolution of HIV-1 broadly neutralizing antibodies and circulating viruses in mono-zygotic twins pediatric elite-neutralizers, Dr Kalpana Luthra, DST, 3 Years, 2021-24, Rs 47.4 Lakhs
10. Delineating the molecular mechanisms involved in relapse of pediatric B-cell Acute Lymphoblastic Leukemia, Jayanth Kumar Palanichamy, DHR Grant-In-Aid Intersectoral Research Grant, 3 Years, 2023-26, Rs 59 Lakhs

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11. Development of a CRISPR-Cas9 based AAV (Adeno Associated Virus) vector for HDR (Homology Directed Repair) mediated genetic correction as a therapeutic intervention for Gaucher's disease, Jayanth Kumar Palanichamy, ICMR Rare Disease Grant, 3 Years, 2024-27, Rs 54 Lakhs
12. Development of diagnostics and experimental therapeutics using CRISPR based technologies (As Co-PI) Funds shared, Dr Subrata Sinha, Dr Kalpana Luthra, Dr P Chatophadhy, Dr Shyam S Chauhan, Dr Kunzang, DBT, 3.5 Years, 2020-24, Rs 1.95 Crores
13. Development of therapeutic broadly neutralizing monoclonal antibodies against circulating HIV-1 clade C in children and adults, Dr Kalpana Luthra, DBT, 3 Years, 2023-26, Rs 3.19 Crores
14. Editing of Atoh1 in cadaver derived supporting cells for the regeneration of auditory cells, Dr Riyaz Ahmad Mir, ICMR, 3 Years, 2021-24, Rs 70 Lakhs
15. Effect of hypoxia on different neural cell types in vitro-a model to design therapeutic strategies against cerebral palsy in preterm infants, Dr Sudip Sen, DBT, 3 Years, 2018-21, Rs 69 Lakhs
16. Elucidating the targeted, therapeutic role of docetaxel-loaded-HSP70 peptide complex in PDX Mouse Models, Dr Pramod K. Gautam, ICMR-investigator-initiated research proposals, 3 Years, 2023-26, Rs 88 Lakhs
17. Evaluating effect of astrocytes on oligodendrocyte function by influencing cholesterol metabolism in a model of hypoxic brain injury, Dr Vadanya Srivastava (PhD student), DHR, 3 Years, 2023-26, Rs 54.7 Lakhs
18. Exploring the link between fatty acid metabolism and bioenergetics in pediatric B-cell leukemias: implications for tumor survival and treatment response. Archna Singh, SERB Core Research Grant (CRG), 3 Years, 2023-26, Rs 34.79 Lakhs
19. Identifying the role of Treg cells and MDSCs in endothelial dysfunction, Dr Alpana Sharma, ICMR, 3 Years, 2019-23, Rs 45.31 Lakhs
20. Insights into the molecular mechanisms of clinically relevant non-haem iron(II)-and 2-oxoglutarate-dependent dioxygenases and an assessment of their relevance to disease biology, Dr Siddhartha Kundu, AIIMS-IMRG, 2 Years, 2020-22, Rs 5 Lakhs
21. Multi-institutional grant "An Integrative Clinico-Proteo-Genomics Approach Towards Biomarker Development for the Monitoring of Non-Alcoholic Fatty Liver Disease (NAFLD) Progression to Adverse Outcome", Dr Pragyan Acharya, DHR, 3 Years, 2023-26, Rs 1.3 Crores
22. NLRP3 Inflammasome gene polymorphisms and their expression in Periodontitis-a genetic study in North Indian population, Dr Alpana Sharma, AIIMS collaborative project, 2 Years, 2021-23, Rs 17.5 Lakhs
23. Numerical approximation of reaction-specific disassociation constants from the convex cone of a generic metabolic network, Siddhartha Kundu, SERB-MATRICS, 3 Years, 2022-25, Rs 6 Lakhs
24. Role of FAT signalling in Oligodendroglioma: Identification of novel molecular targets and their clinical implications, Dr Kunzang Chosdol, ICMR, 3 Years, 2021-24, 38.67 Lakhs
25. Role of M1 macrophage on DNA methylation and PI3K-AKT Signaling Pathway analysis in tumor-associated mesenchymal stem cells in Breast cancer, Dr Pramod Kumar Gautam, IRG, AIIMS, New Delhi, 2 Years, 2022-24, Rs10 Lakhs
26. Role of NF-kB in inflammation and immune response of Trauma Hemorrhagic shock patients: The protective effects of Estrogen, Dr Ashok Sharma, AIIMS, 2 Years, 2022-24, Rs 10 Lakhs
27. Role of PIH1D1: A component of R2TP complex in Thyroid cancer, Dr Riyaz Ahmad Mir, IMRG, 2 Years, 2023-25, Rs 10 Lakhs
28. Strategy to up-regulate CXCR4 in mobilized stem cell grafts collected from patients and to study their homing property in mice, Dr Subhradip Karmakar, DBT, 1.5 Years, 2022-24, Rs 30 Lakhs
29. Study of humoral immune response and its genetic correlates in infection free "resisters" among household contacts of adult pulmonary tuberculosis, Archana Singh, SERB, 3 Years, 2022-25, Rs 39 Lakhs
30. Study of immune correlates in TST and IGRA negative household contacts compared to TST and IGRA positive household contacts of adult pulmonary tuberculosis patients, Archana Singh, IMRG, 2 Years, 2021-23, Rs 10 Lakhs
31. Study of the FAT1-PDCD4 signaling axis in Periampullary cancer, Dr Kunzang Chosdol, ICMR, 3 Years, 2021-24, Rs 49.80 Lakhs
32. Study of Visceral Adipose Tissue (VAT) derived factors as modulators of co-morbidities in obesity, Dr Rakhee Yadav, AIIMS Intramural, 2 Years, 2023-25, Rs 10 Lakhs

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33. Targeting the Metabolic Reprogramming of Innate Immune Responses as a Therapeutic Strategy in Acute-on-Chronic Liver Failure, Dr Pragyan Acharya, SERB CRG, 3 Years, 2024-27, Rs 57,89,695
34. To characterize gelsolin gene expression and its impact on inflammatory pathways and survival outcomes in patients of Acute Myeloid Leukemia, Dr Karthikeyan P, AIIMS IMRG, 2 Years, 2023-25, Rs 10 Lakhs
35. To investigate the potential of Atoh1 knock in approach using CRISPER mediated adenovirus for hair cell regeneration in mouse cell lines derived from the organ of Corti, Dr Riyaz Ahmad Mir, IMRG, 2 Years, 2024-26, Rs 10 Lakhs
36. To investigate the role of inflammation in the pathogenesis of Myelodysplastic syndrome (MDS) and to identify the different MDS subtype-specific novel transcripts associated with its progression into Acute Myeloid Leukaemia (AML)", Dr Subhradip Karmakar, SERB, 3 Years, 2023-26, Rs 65 Lakhs
37. To investigate the Role of Peroxisome Proliferator-Activated Receptor Gamma in Human Placental Development and Preeclampsia, Dr Subhradip Kamakar, DBT, 3 Years, 2022-25, Rs 56 Lakhs
38. To study expression of FcRIIIa receptor and correlate with polymorphic variants in resister phenotype of tuberculosis compared with latent tuberculosis, Archana Singh-Mentor, UG Mentorship Grant, 1, 2022-23, Rs 2 Lakhs
39. Tumor Dynamics and Immune cell interactions in anaplastic thyroid carcinoma, Dr Riyaz Ahmad Mir, ICMR, 3 Years, 2021-24, Rs 30 Lakhs
40. Understanding Inter Compartmental Crosstalk between Insulin-sensitive and insulin-resistant obese and non-obese phenotypes using Adipose Tissue, Dr Archna Singh, Department of Biotechnology, India, 3 Years, 2021-24, Rs 19 Lakhs
41. Understanding the role of neutrophil heterogeneity and its therapeutic potential in the inflammatory liver disease Acute-on-Chronic Liver Failure (ACLF), Dr Pragyan Acharya, SERB, 3 Years, 2022-25, Rs 45 Lakhs
42. Unveiling the therapeutic potential of a Unani herbal formulation in hematological malignancy, Dr Alpana Sharma, AYUSH, 5 Years, 2017-23, Rs 62.12 Lakhs

Funded Research Projects over past 3 years

Research projects Year	2021-2022	2022-2023	2023-2024
Total funded projects	52	49	42
Total funding	Rs 65.66 crores	73.5 Crores	69.03 Crores

Completed

1. "Insights into the molecular mechanisms of clinically relevant non-haem iron(II)-and 2-oxoglutarate-dependent dioxygenases and an assessment of their relevance to disease biology", Siddhartha Kundu, AIIMS, 2 Years, 2020-23, Approx. 6 Lakhs
2. Adaptive Immune Responses to Covaxin and Covishield: A comparative study, Dr Jayanth Kumar Palanichamy, AIIMS Intramural Research Grant, 2 Years, 2021-23, Rs 10 Lakhs
3. Artificial intelligence in Oncology: Harnessing big data and advanced computing to provide personalized diagnosis and treatment for cancer patients, Dr Ashok Sharma, MeitY, 3 Years, 2020-23, Rs 2,91,67,160
4. Cysteine Cathepsins in Acute Lymphoblastic Leukemia: Implication(s) in Prognosis and Therapeutics, Dr Shyam S Chauhan, ICMR, India, 3 Years, 2020-23, Rs 21.9 Lakhs
5. Evaluation of a liposome-based cholesterol efflux assay against a macrophage-based efflux assay for measurement of reverse cholesterol transport capacity of HDL, Dr Archna Singh, ICMR, 2 Years, 2021-23, Rs 28 Lakhs
6. Evaluation of tumor-derived exosomes in blood during pre and post treatment of pancreatic cancer patients, Dr Pramod Kumar Gautam, Inter-disciplinary IRG, AIIMS, New Delhi, 2 Years, 2021-23, Rs 20 Lakhs
7. Generation and characterization of HIV-1 subtype-C based trimeric immunogens from infected children, Dr Kalpana Luthra, DBT, 4 Years, 2019-23, Rs 1.60 Crores
8. Genomic landscape of pediatric acute myeloid leukemia, Dr Riyaz Ahmad Mir, AIIMS Intramural Collaborative research project, 2 Years, 2021-23, Rs 10 Lakhs

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9. Immuno-epigenetics study of the humoral immune response in COVID-19 Patients from India, Dr Ashok Sharma, SERB, 3 Years, 2020-23, Rs 31,82,360
10. Metabolic reprogramming in B-ALL: identification of gene networks correlating with prognosis and chemoresistance in vivo and a novel ex-vivo primary culture model, Dr Archna Singh, AIIMS Collaborative intramural, 2 Years, 2021-23, Rs 20 Lakhs
11. Repurposing of Classical Ayurvedic Formulations for Their Anti-Viral Effects on SARS Cov-2 Protease: A Pre-Clinical in Vitro Screening Approach, Dr Pragyan Acharya, AYUSH, 1.5 Years, 2021-23, Rs 37 Lakhs
12. Study of effect of Hyperglycemia on phenotypic and functional alteration in differentiated macrophages from THP1 cell line and monocytes from pulmonary tuberculosis patients, Archana Singh, ICMR, 3 Years, 2019-23, Rs 30 Lakhs
13. The role of FAT1 regulated miRNAs in glioblastoma (GBM) aggressiveness: Identification of potential miRNA(s) as clinical marker(s) in GBM patients, Dr Kunzang Chosdol, SERB-DST, 3.5 Years, 2019-23, Rs 42.33 Lakhs
14. The Role of Peroxisome Proliferator-Activated Receptor alpha in Human Placental Development and Preeclampsia, Dr Subhradip Karmakar, ICMR, 3 Years, 2019-22, Rs 62 Lakhs
15. To investigate the effect of environmental particulate matter (urban pollutants) and heavy metal exposure on placenta trophoblast cells and on fetal development, Dr Subhradip Karmaka, ICMR, 3 Years, 2020-23, Rs 85 Lakhs
16. Transcriptome analysis to define Novel Pathways in Adenoid cystic Carcinomas and to correlate with clinical outcome, Dr Kunzang Chosdol, AIIMS (Collaborative Intramural grant), 2 Years, 2021-23, Rs 10.00 Lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. A CRISPR/Cas13 based RNA editing approach to correct the L483P mutation in Gaucher Disease
2. A study of immune responses in the pathophysiology of Human chronic pancreatitis
3. An investigation into the impact of particulate matter exposure on placental inflammatory response and fetal development.
4. Analysis of changes in fatty acid profiles of Coronary Artery Disease patients following dietary modifications.
5. Assessment of novel salivary biomarkers as compared to established serum biomarkers in predicting preeclampsia-a pilot study
6. Characterization of B cell receptor repertoire of HIV-1 subtype C infected individuals and generation of anti HIV-1 monoclonal antibodies
7. Characterization of gelsolin gene expression and its impact on inflammatory pathways in patients of Acute Myeloid Leukemia
8. Characterization of Innate Immune Responses in Acute-on-Chronic Liver Failure (Ph.D.)-submitted in December 2023. Awaiting defence
9. Cysteine cathepsins in Acute Lymphoblastic Leukemia: Implication(s) in Prognosis and Therapeutics
10. Elucidating molecular changes in neurons and oligodendrocytes after exposure to hypoxia
11. Elucidating the adjunctive ant tumorigenic potential of long chain fatty acid derivatives and niflumic acid in multiple myeloma cells
12. Elucidation of the Functional aspects and underlying Epigenetic Regulation of POTEB in Ovarian Cancer
13. Epigenetic regulation of FAT1 expression in cancer cells
14. Evaluating stage specific markers and cell signaling pathways associated with OL differentiation in vitro
15. Evaluating the role of Symphytum officinale in bone remodeling
16. Evaluation of Chemotactic Potential of ACLF Derived Neutrophils
17. Evaluation of CRISPR mediated Atoh1 knock in on hair cell differentiation in cells derived from Murine organ of Corti

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18. Evaluation of novel drug targets in Metabolic Dysfunction Associated Steatotic Liver Disease (MASLD)
19. Exploring macrophages and NK cells in the immunopathogenesis of pemphigus
20. FAT1 and autophagy in cancer cells
21. FAT1 protein: Its processing and cellular function in glioma cells
22. Functional Analysis of Human Long Non-Coding RNAs (lncRNA) and their Association with Spatial Genome Organization in Cancer
23. Functional interaction of FAT1, p53 and p300 in glioma cells
24. Functional link between FAT1 and YAP1 in glioma cells
25. Gene expression profile of DNA methylation machinery in AML and AML-MRC
26. Generation & Charecterization of infectious molecular clones from HIV-1 viral envelopes derived from infected children
27. Generation and characterization of lineage-based envelope trimers from HIV-1C infected paediatric neutralizers
28. Generation and characterization of pediatric HIV-1 envelope trimers towards immunogen design
29. Genome wide analysis of microRNA mediated regulation of Cancer Testis Antigen POTE in Triple Negative Breast Cancer"
30. Immunotherapeutic potential of novel Prostate, Placenta, Ovary, Testis-Expressed (POTE) Antigen in ovarian cancer
31. Influence of different grades of hyperglycemia on innate immune response in pathophysiology of active tuberculosis
32. Isolation and characterization of human neutralizing monoclonal antibodies generated during natural HIV-1 infection.
33. Modulation of cytotoxic effect of Doxorubicin incorporated nanoparticles by co-incorporation with chlorpromazine
34. Molecular insight into the chromatin dynamics and epigenetic changes during trophoblast cell fusion
35. Molecular Mechanism of Cancer-Testis/Germline Antigen POTEB/B2 in Ovarian Cancer
36. Molecular mechanisms underlying vulnerability of pre-myelinating oligodendrocytes to hypoxic injury
37. Molecular Relationship between the FAT1 Gene and Lipid Metabolism in Glioma
38. Phenotypic and functional characterization of myeloid derived suppressor cells (MDSCs) and regulatory T cells (Tregs) in atherosclerosis
39. R2TP expression and significance in Thyroid Cancer
40. Receptor-TLR Interactions Modulating Inflammation in Acute-on-Chronic Liver Failure (ACLF)
41. Role of E7 in hijacking the function of the R2TP complex
42. Role of FAT signalling in Oligodendroglioma: Identification of novel molecular targets and their clinical implications
43. Role of Macrophages phenotype in the regulation of mesenchymal stem cell migration and development in breast cancer
44. Role of memory T cells in renal cell carcinoma
45. Role of negative regulators of EGFR in malignant transformation of oral dysplasia
46. Role of PIH1D1 complex of R2TP complex in regulating cell cycle
47. Role of Prothymosin-? in Glial Tumorigenesis
48. Role of TAMs in autophagy and related molecules in Bladder cancer
49. Study of B cell subsets and their immune regulatory functions in urothelial carcinoma of bladder
50. Study of functional link between FAT1 and Microproteins in Cancer Cells
51. Study of immune response in TST and IGRA negative household contacts of adult pulmonary tuberculosis
52. Study of the FAT1-PDCD4 signaling in Periampullary cancer
53. Study on 3D genome architecture as an epigenetic regulator of pericentromerically localized cancer-testis/germline antigen POTE in cancer

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54. Studying the effect of MicroRNAs on RASSF1A modulation in Urothelial Carcinoma of Bladder
55. To characterize cell mediated immune response against unique T cell epitopes in spectrum of tuberculosis infection
56. To elucidate the role of ECM-Adipocyte communication in obesity induced adipose tissue dysfunctions
57. To explore the Notch/Cancer testis antigen POTEE signaling axis in chemoresistant relapsed ovarian cancer patients derived organoid/cell model
58. To investigate the effect of environmental particulate matter (urban pollutants) and gaseous (SO2) pollutants on placental trophoblast cells and on fetal development: an insight into the role of pollution in placental insufficiency and maternal & child health
59. To study the immunomodulatory effect of tumor derived exosomes on gamma delta T-cells
60. To study the role of nuclear receptors in pathogenesis of gallbladder cancer
61. To test the clinical utility of PSG (Placenta Specific glycoprotein) family of proteins in predicting risk of early onset Preeclampsia and compare with existing biomarkers
62. Validation of relapse specific genes' expression in B-ALL
63. Whole exome sequencing in hypertriglyceridemia: An exploratory study

Completed

1. A mathematical modelling and simulation study to investigate the relationship between the LPS/PGE2/cAMP-axis and metabolic induction of macrophage polarization
2. An in-silico and in-vitro study to elucidate the expression of POTE in ovarian cancer'
3. Detection of prostate cancer biomarker using sensitive and rapid lateral flow device with diagnostic and prognostic significance
4. Determining the immunomodulatory and antitumor function of hsp70 chemotherapeutic drug conjugates on cancer stem cells
5. Elucidating the role of memory T cells in renal cell carcinoma patients
6. Engineering of an HIV-1 native like trimeric envelope glycoprotein construct towards development of a clade C based immunogen
7. Exploring the role of CD206 receptor and its downstream effect in macrophages in tuberculosis patients with type 2 Diabetes Mellitus
8. Exploring the role of hypoxia in modulating ceramide metabolism and insulin sensitivity in adipocytes.
9. Expression of Notch signaling in cisplatin resistance EOC model
10. Functional interaction of FAT1 and miRNA in glioma
11. Investigation of the involvement of plasma membrane ATP binding cassette transporter A1 (ABCA1) in adipose tissue mediated insulin resistance
12. Molecular Signature of Glioma in the context of WHO 2016 classification of Glioma
13. Role of Macrophages in vitiligo
14. Signaling interactions between FAT1, p53 and HIF1a in glioma
15. Study of Androgen receptor-mediated events and molecular heterogeneity in breast cancer
16. Study of Androgen receptor-mediated events and molecular heterogeneity in breast cancer
17. Study of Immunophenotypes of monocyte subsets in TST and IGRA negative household contacts of adult pulmonary Tuberculosis
18. To elucidate the effect of NOTCH Modulator on the expression of POTEE in Epithelial Ovarian Cancer
19. To explore the effect of acsm3 on metabolic reprogramming in acute lymphoblastic leukemia
20. To identify the Estrogen-regulated miRNA network in Human trophoblast invasion

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Collaborative projects

Ongoing

1. "Role of specific nucleotide polymorphisms (SNP) rs1799971, rs1799972, rs702764, rs16918875, rs1051660, rs2236857, rs1042114, rs1800497, rs1799732, rs35286281, rs1360780, rs3800373 in determining risk and severity of opioid dependence: A case-control study (A-729)", Psychiatry
2. A comparative pilot study of rectus fascia pubovaginal sling surgery vs TOT in patients with urodynamically proven SUI, Department of Obs and Gyne, AIIMS, New Delhi
3. A Comparative Study of Anxiety and Depression in Low-Risk vs High-Risk Pregnant Women in Indian Settings, Obstetrics and Gynecology
4. A pilot study to investigate the clinical utility of circulating miRNA and RNA expression profiling in inherited bone marrow failure syndrome (IBMFS), Haematology
5. A randomised controlled trial to study the outcome of 'Routine episiotomy' versus 'No episiotomy' on perineal injury and pelvic floor dysfunction during normal vaginal delivery among primigravidawomen: A Pilot study, Department of Obs and Gyne, AIIMS
6. A randomized placebo-controlled trial to assess efficacy of vitamin D supplementation in non-cystic fibrosis bronchiectasis patients, Medicine
7. A randomized, open-label, controlled clinical trial to decipher the role of chronopharmacokinetics and chrono-genomics of tyrosine kinase inhibitors in the treatment of non-small cell lung cancer patients, Pharmacology
8. A study on hydrogen sulphide mediated transcriptional modulation using trophoblast cells and their association in preeclampsia, Department of Anatomy, AIIMS, New Delhi
9. A study on the underlying immune deficits and co-infections in patients with chronic pulmonary aspergillosis, Medicine
10. Aberrant Lipid Metabolic Pathways as Novel Molecular Targets in Aggressive Ocular Malignancies, Pathology, Dr RP Centre, AIIMS
11. Anemia Research Consortium as part of National Centre of Excellence and Advanced Research on Anemia (NCEAR-A), Community medicine
12. Chemotherapeutic Effect of a Selected Unani Medicine in Xenograft Mouse Model of Lung Cancer, Pharmacology
13. Chrono-pharmacokinetics and chrono-genomics of tyrosine kinase inhibitors in non-small cell lung cancer patients: RCT, Pharmacology
14. Clinical and radiologic profile, risk associations, caregiver burden and clinical outcomes in early and late onset dementia, Department of Neurology, CNC, AIIMS, New Delhi
15. Comparative study of two surgical procedures in women with stress urinary incontinence, Department of Obs and Gyne, AIIMS
16. Comparison of the outcomes of using connective tissue graft vs volume stable collagen matrix with modified coronally advanced flap for the treatment of multiple adjacent gingival recessions: A randomized clinical trial with molecular analysis, Periodontics (CDER AIIMS)
17. Determinants of Immune Reconstitution Inflammatory Syndrome (IRIS) in adult non-HIV Central Nervous System Tuberculosis (CNSTB) patients: a prospective cohort study, Department of Neurology, CNC, AIIMS, New Delhi
18. Development and preclinical validation of shared multiepitope vaccine against tuberculosis and malaria, TB Immunology group, ICGEB
19. Development of novel cancer immunotherapy by incorporating cancer/testis antigen NY-ESO-1 into Mycobacterium indicus pranii and evaluation of its antitumor efficacy and immune mechanisms using a mouse tumor model, DR BRAIRCH, AIIMS
20. Effect of NHE-1 blocker, Cariporide on initiation of return of spontaneous circulation in hypoxic cardiac arrest rat model, Department of Emergency Medicine, AIIMS, New Delhi
21. Effect of sodium-hydrogen channel (NHE-1) inhibitor in hypoxic cardiac arrest, Department of Emergency Medicine, AIIMS, New Delhi

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22. Effect of vitamin D supplementation on seizure frequency in persons with drug resistant epilepsy and its correlation with biomarkers, Pharmacology
23. Evaluation of effect of cyclosporine on inflammatory cytokine levels and dermatitis in patients of air-borne contact dermatitis due to plant parthenium, Department of Dermatology, AIIMS, New Delhi
24. Evaluation of Stress Biomarkers in Pregnancy and correlation with Maternal-fetal Outcomes, Obstetrics and gynaecology
25. Exploratory analysis of the association between pyrethroid exposure and Parkinson's disease: A case-control study, Department of Pharmacology
26. Generation and charecterization of therapeutic BCMA (B cell maturation antigen) specific antibodies in multiple myeloma (MM), Department of Medical oncology, AIIMS, New Delhi
27. Host and environmental factors in the acute exacerbations of childhood interstitial lung disease, Department of Pediatrics, AIIMS, New Delhi
28. Identification of factors predictive for weight loss after bariatric surgery: Building a Model for improving outcomes and maintaining weight loss, Surgical Disciplines
29. Immune signatures and role of neutrophils in pathophysiology of post tuberculosis pulmonary sequelae, Physiology
30. Immunoporosis: Establishing the role of Gtu-Innate Cells in Obteoporosis, Department of Biotechnology, AIIMS, New Delhi
31. Investigating clinically relevant genetic mutations and risk biomarkers in lung cancer using exhaled breath condensates (EBCs), Department of Pulmonary, AIIMS, New Delhi
32. Monoclonal Antibodies form Dengue Virus infected patients, Department of Biotechnology, School of Chemical & Life Sciences, Jamia Hamdard
33. Multi-institutional grant "An Integrative Clinico-Proteo-Genomics Approach Towards Biomarker Development for the Monitoring of Non-Alcoholic Fatty Liver Disease (NAFLD) Progression to Adverse Outcome", Gastroenterology AIIMS New Delhi, IILDS Kolkata, West Bengal, PGIMER, Chandigarh, CMC Vellore, KIMS, Bhubaneshwar
34. Nuclear factor kappa b activation, hypoxia inducible factor-1 and inducible nitric oxide synthase expression in human vascular endothelial cells by serum of adults with obstructive sleep apnea, Physiology
35. Nutritional status of pregnant women as assessed by nutrient intake, anthropometry and selected serum biomarkers in an urban slum of Delhi-A community based prospective study, Community medicine
36. Prevalence and causes of anemia among tribal women of reproductive age groups 15-49 years residing in district of LahulSpiti, Himachal Pradesh, India, Community Medicine
37. Prevalence of Immunoparalysis in severe sepsis, Department of Pediatrics, AIIMS, New Delhi
38. Prognostic Role of Serum Levels of Visfatin and Adiponectin and Tissue Expression of Pyruvate Kinase M2 in Patients with Endometrial Cancer, Obs and Gynecology
39. Randomized, Open labelled, Phase IIa /IIb Clinical trials to study the safety and efficacy of intravenous estrogen therapy in reducing the incidence of sepsis/septic shock in Trauma Hemorrhagic Shock patients", ICMR, 70L, Department of Emergency Medicine, AIIMS
40. Role of Epigenetics and Immune Factors in Female Genital Tuberculosis, Department of Gynaecology, AIIMS, New Delhi
41. The detection of current and resistant oral HPV using non-invasive method in Oral Potentially Malignant Disorders with their clinical and molecular characteristics, Centre for Dental Education & Research, AIIMS
42. To evaluate the role of R2TP complex as a novel regulator of PI3K/Akt/Mtor and AR signalling pathway in prostate cancer, Department of Pathology, AIIMS
43. To Investigate the role of Natural Killer cell in implantation failure and to study immunomodulatory effects of Intralipids in women with elevated uterine Natural Killer Cells in Fresh non-donor IVF cycles-A Randomized control Tria, Department of Gynaecology, AIIMS, New Delhi
44. To Investigate the synergetic anti-tumor effect of DN200434 (a potent inverse agonist of estrogen related receptor-?) and MK2206 (Akt inhibitor) in anaplastic thyroid cancer and papillary thyroid cancer in vivo, DR-BRAIRCH, AIIMS

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45. To study the sequential changes in maternal CRH level during the course of pregnancy and correlate with outcome its role as an endocrine mediator of parturition, Obstetrics and Gynecology
46. To test the clinical utility of Blood-based miRNA 371-373 and mi302/367 as an early biomarker to stratify who might be benefited from Retroperitoneal Lymph Node Dissection (RPLND): A patient-based study, Urology
47. Transcriptome analysis to define Novel Pathways in Adenoid cystic Carcinomas and to correlate with clinical outcome, Pathology, Dr RP Centre, AIIMS
48. Treatment of Multiple adjacent gingival recessions associated with non-carious cervical lesions: A randomized clinical trial with Molecular analysis comparing connective tissue graft to volume-stable collagen matrix.", Centre for Dental Education & Research, AIIMS
49. Urinary novel microRNAs as a biomarker for prediction of acute kidney injury in sepsis, Department of Emergency Medicine, AIIMS, New Delhi

Completed

1. Artificial intelligence in Oncology: Harnessing big data and advanced computing to provide personalized diagnosis and treatment for cancer patients, CDAC, Pune
2. Comparison of suction verses microdissection method for harvesting supporting cells from inner year, ENT
3. G-protein coupled receptors as drug targets in Non-alcoholic fatty liver disease (NAFLD): Evaluation in pre-clinical cellular models and primary hepatic stellate cells from rat models of NAFLD, Department of Pharmacology, AIIMS New Delhi
4. Immuno-epigenetics study of the humoral immune response in COVID-19 Patients from India, NII, New Delhi
5. Metabolic reprogramming in B-ALL: identification of gene networks correlating with prognosis and chemoresistance in vivo and a novel ex-vivo primary culture model, Medical Oncology, BRAIRCH
6. Molecular Characterization of Endometrial cancer and its correlation with clinicopathological features, Pathology, AIIMS
7. Molecular Characterization of malignant lacrimal gland tumours, Pathology, Dr R.P. Centre, AIIMS
8. Molecular characterization of NFkB pathway in uveal melanoma, Pathology, Dr RPCentre, AIIMS
9. Study on effects of probiotics on whole gut microbiome and clinical course in patients with critical care illnesses, Medicine
10. To investigate the molecular mechanisms of Keratoconus (KC) amongst Indian subjects, RP Center

Departmental/collaborative projects (Thesis/dissertation) over past 3 years

Year	2021-22	2022-23	2023-2024
Total Number of departmental projects	65	67	63
Total Number of collaborative projects	70	68	49

PATIENT CARE

PORPHYRIA TESTS:

This test was started from year 2020 in our department

Year	2021-22	2022-23	2023-24
Number of Tests	123	87	150

Clinical Biochemistry Laboratory (Porphyria testing) is a small sized Laboratory (<100 samples/day) under the Department of Biochemistry AIIMS Delhi. It provides diagnostic services to the registered patients of the Institute by performing porphyria screening test. There is a qualitative test for estimating the presence of urine porphobilinogen

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(Watson Schwartz reaction). This test screens for HCP (Hereditary Coproporphyria), AIP (Acute Intermittent Porphyria) and VP (Variegate Porphyria). The other test is semi-quantitative where urine and plasma porphyrin is measured in terms of the peak of fluorescence intensity at a particular spectrophotometric wavelength. The Tests are done manually with a turnaround time of twenty-four hours.

The number of tests/investigations are thrice per pt. sample as its panel of three tests.

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.

It is further stated that the lab has applied for NABL accreditation in February 2024 in accordance with ISO15189: 2022 ed for the present scope of our lab i.e. porphyria screening tests.
Our department has started Molecular testing laboratory at NCI Jhajjar and Dr Ashok Sharma additional professor of Biochemistry is Faculty in charge of this lab. The lab conducts various molecular tests as shown below.

Molecular Diagnostic Services: 170 tests (1 September 2023 to 31 March 2024)

1. BCR-ABL1 quantitative (Major, Minor & Micro) test = 83
2. ALL Comprehensive Panel = 45
3. AML Comprehensive Panel = 42

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor SS Chauhan (30 November 2023) was Served as Head of Biotechnology department in addition to his duties and responsibilities in the department of Biochemistry till 30 November 2023; Fellow of National Academy of Medical Sciences; Fellow of National Academy of Sciences; Fellow of Indian Academy of Biomedical Sciences; Chairman of Biosafety committee, animal ethics committee and Ph.D. Grievance Committee; Subject Expert for selection/promotion of faculty at KGMU, Lucknow, JIPMER Pondicherry and UPSC, Jammu and promotion of Scientists at DRDO, New Delhi; Served on the committee for selection of ICMR emeritus scientist and Research associate. Member of the Editorial Board of Indian Journal of Clinical Biochemistry; Chairman- Centralized Core Research Facility, AIIMS, New Delhi; Chairman-AIIMS Intramural Project Committee; Chairman- Institutional Biosafety Committee, AIIMS, New Delhi; Chairman- Animal Ethics Committee, AIIMS, New Delhi; Chairman- Ph.D. Grievance Committee, AIIMS, New Delhi; Member-PhD Counselling Committee, AIIMS, New Delhi; National Coordinator of Biochemistry- National Board of Examinations; Member- ICMR Emeritus Professor Selection Committee; Member -ICMR PDF Selection committee; Received Awadhesh Saran Oration Award of Association of Clinical Biochemists of India, 2023.

Professor Kalpana Luthra was Fellow of National Academy of Science, India (NASI), Date of induction is 3 December 2023; Fellow of Indian National Science Academy (INSA), Date of induction is 6 December 2023; Member of the Scientific and Clinical Advisory Committee (SCAG) of the Indian SARS-CoV2 Genomic Consortium (INSACOG); Member of the Governing Body of National Institute of Animal Biotechnology (NIAB) Hyderabad w.e.f September 2021 for 3 years; Member of the Jury for Sun Pharma Science Foundation Science Scholar Awards 2022-2024; Member of Technical Expert Group (TEG) committee to deal with appeals referred to the central government under the NMC act, MOHFW; Chairperson for Institutional Ethics Committee at University School of Biotechnology Guru Gobind Singh Indraprastha University, w.e.f 23 December 2020; Chairperson of Library subcommittee (subscriptions) AIIMS, New Delhi; Co-Coordinator of BSL3 Facility, CCRF, AIIMS New Delhi; Expert member for drafting the Exam syllabus and preparation of question Bank for conduct of DHR-ICMR Non-Medical Fellowship PhD Net on 28 February 2024 as immunology Expert; External Expert to conduct faculty interviews for AIIMS Bhatinda on 1 March 2024; Member of the Internal Assessment committee for conducting detailed assessment of the patient care and other areas at Main Hospital, AIIMS New Delhi; Co-Chairperson of scientific session "Cancer Biomarkers & Novel Therapeutics" at the 8th Edition of World Cancer Congress – 2024 18 March 2024 JNU Convention Centre, New Delhi, India; Chairperson a scientific session "Clinical Immunology Plenary Talks" at the Global Immunology Summit 2024, 16 February 2024 at THSTI, Faridabad; Member of the Deans's Research Committee (DRC) to facilitate & provide superior drive to research and encourage research activities at AIIMS New Delhi; Chairperson for screening of abstracts (Nursing) for the 3rd Research Day celebrations on 30 January 2024; Member for screening of abstracts (DM/ MCh/Fellow/Senior Residents (Acad & Non-Acad Sr. Resident) for the 3rd Research Day celebrations on 30 January 2024; Member of Internal Assessment committee under Kaya Kalp Scheme 2023-24, in AIIMS, New Delhi; Life Member of Indian Society of Translational Research (ISTR/LM/2023/201); Member of Project Review Committees (Basic Science-Committee-1) of Early Career; Member of the Aspire Life Sciences Research Committee; Member of Expert Committee for Translational activities

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in Biotechnology Industry Research Assistance Council (BIRAC); Member of the THSTI-JNU academic committee; Editorial Board Member of Indian Journal of Clinical Biochemistry; Member of Technical Specifications and Evaluation Committee (TSEC), for the procurement of Machinery and Equipment items having value Rs 1.00 crore or more, for Burns and Plastic Surgery Block, AIIMS New Delhi; Member of Technical Evaluation Committee (TEC-1) for evaluating the research proposals/applications received under "Human Resource Development (HRD) Scheme" for Department of Health w.e.f August 2022 for 3 years; Member of Animal Ethics Committee

Professor Alpana Sharma Received Best Immunology Teacher (Senior) Award by Immunocon-50, 2023; Received KL Gupta Memorial Oration, ACBICON, 2023; Nominated as Board of Studies External Expert at JN Med Coll AMU, Aligarh; Nominated as External expert for Research Committee at Univ of Jamia Hamdard, Delhi; Expert Selection Committee for Professor Post at AIIMS, Nagpur, AIIMS Bhubaneswar and VP Chest Institute, Delhi University; Chairperson MD exam Biochemistry at AIIMS, New Delhi; Nodal Officer for Annual report of Biochemistry Department; Member Annual Report Committee of AIIMS; Member Teaching Schedule Committee for UG at AIIMS; External examiner for PhD thesis and viva conduction at PGIMER, Chandigarh, JN Med Coll, AMU Aligarh, Punjab University, Chandigarh & KGMU Lucknow; 1MD thesis and 2 MSc theses reviewed of JIPMER Pondicherry and PGIMER, Chandigarh; Chaired scientific sessions in IABSCON at Patna, IMMUNOCON-50 and 6th World Cancer Congress; DNB question paper setting and exam assessor; Reviewed Adhoc research proposals of AYUSH, DST–SERB and CSIR submitted for financial grant; Active member of American Association for Cancer Research, USA and Int Gyne Cancer Society, USA; Editorial board member for Int journal: Molecular and Cellular Biochemistry (Springer) Student Dr Nidhi Gupta Received travel award at ICKSH 2024, Seoul, Korea, 28-30 March 2024; Ph D student Vishakha Hooda Received FIMSA travel award at FIMSA Advanced Training Course 2023 in Japan, 15-16 January 2024; PhD student Komal Sagar Received Travel scholarship from Keystone symposium**;** MSc student Nikita Sain Received certificate of appreciation at 3rd AIIMS Research Day 30 January2024; PhD student Shraddha Kapoor certificate of appreciation at 3rd AIIMS Research Day 30 January2024.

Professor Kunzang Chosdol received First Prize - Oncology Research Award for the year 2022 in recognition of outstanding publication under the category: Basic Science Oncology (3rd Research Day, 30 January 2024); **Chaired** the session on "ORGAN DEFINED CANCER: PANCREATIC CANCER" during 8th World Cancer Congress - 2024: on 18 March 2024, at JNU. Dr Sudip Sen; Dr Sona Fazil won "The Best Oral Presentation" in Junior Residents (Academic) category, on 3rd Research Day at AIIMS, New Delhi on 30 January 2024. Exposing premyelinating oligodendrocytes to hypoxia leads to a maturation arrest in a cell line model.

Dr Archana Singh II received 1st Prize, AIIMS Excellence Research Award at 3rd AIIMS Research Day-Self; Commendation Award, 3rd AIIMS, Research Day- PhD student Alisha Arora; Appreciation Award, 3rd AIIMS Research Day- PhD student Deepak Vats.

Dr Jayanth Kumar was selected and completed an advanced transcriptomics course conducted by Welcome Genome Connecting Science at Hinxton, Cambridge (June 2023); Conducted a workshop on gene expression analysis for 150 participants as part of the 20th National IAOMP PG convention (July 2023); *Presented a case series in the AIIMS CCR: 'Mosaic marvels Unveiled Stature Enigma'* Departments of Paediatrics, Radiology, Biochemistry and Biophysics Combined Clinical Rounds AIIMS, New Delhi January 2024.

Dr Ashok Sharma was Expert member of the Facility Monitoring Committee of the Sophisticated Analytical Instrument Facility (SAIF) of Shivaji University, Kolhapur, Maharashtra by the Department of Science and Technology, Govt, of India, New Delhi; Expert member of the project review committee of "Innovative Translational Research (ITR) division" -ICMR, India; Expert member of the project review committee of DST-SERB, GOI; Expert member of the project review committee of DBT, GO; Member of the Editorial Board of Frontiers in Oncology; 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 (IJIIT); Guest Editor for Special Issue on Immunoepigenetics: A Future Sentinel for Tumor Directed Therapies, Journal of Oncology, Hindawi; PLOS ONE, PLOS Genetics, PLOS Biology, BMC Cancer, Scientific Report, Frontiers in Neurology; Carcinogenesis- Oxford Journals; Laboratory Investigation– Nature; Molecular Biotechnology, Molecular, and Cellular Biochemistry- Springer, Molecular Report; Installed iOncology.ai in 7 district hospitals of states- Madhya Pradesh, Gujarat, Uttar Pradesh and Rajasthan; Coordinated The 8th World Cancer Congress – 2024 hosted at JNU Convention Centre, Jawaharlal Nehru University, New Delhi, India, 18-20 March2024; Organized "National Science Day" of Bharat (India), Invite Professor GK Rath and Dr Manish Tripathi university of Texas USA as a keynote speaker to deliver a talk on "Advancing Colorectal Cancer and the ncGenome" which is scheduled for 28 February 2024, in LT-2, AIIMS, New Delhi, India in the gracious presence of Honorable Additional Director of Administration (ADA), AIIMS Sh Karan Singh Ji. The Society of Young Scientists and Vijana Bharti will jointly organize this event; Coordinated the 9th India International Science Festival (IISF) 2023 to be held at Faridabad, Haryana from 17-20 January 2024 organized by The Ministry of Science & Technology, the Ministry of Earth Sciences, the Department of Space, and the Department of Atomic Energy, in association with Vijnana Bharati (VIBHA); Organized

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Scientific Conference "50th Golden Jubilee Immunocon-2023", Indian Immunology Society, JL Auditorium, AIIMS, New Delhi, 5-8 October 2023; Interview telecast on "Plants to Patients-Series III: Rethinking Ethnopharmacology" telecast on 17 March 2023; Media coverage at University of Patanjali, 28 February to 2 March 2023 on. "Plants to patients: Rethinking the ethno pharmacology.

Dr Pragyan Acharya was Task force member in DBT and ICMR; Evaluated MSc Thesis (i) IIT Delhi (MSc), (ii) Indian Institute of Science Bengaluru (PhD), (iii) University of Westminster, UK (PhD).

Dr Riyaz Ahmad Mir was Editor: Journal of clinical pathology and Laboratory medicine; Review editor Frontiers in Oncology; Nodal Officer for Annual report of Biochemistry Department; Nodal Officer for fire safety Biochemistry Department; External examiner dept of Biochemistry Govt. Medical Collage Baramulla J and K; PhD Thesis evaluation Department of Bioresource university of Kashmir; External examiner of PhD Viva voce Department of Bioresource university of Kashmir; Key note speaker and chaired a session International conference on Multidisciplinary Research and innovation ICMRI 2024; PG teaching coordinator department of Biochemistry.

Dr Rakhee Yadav was Participated in the Training on "Medical Laboratory System and Internal Audit as per ISO:15189:2012" organized by Training and Capacity Building (TCB) Cell, Quality Council of India at AIIMS Delhi on 11-12 April; Contributed in providing 03 modules for NMCN, Govt of India (Video Lectures (15-20min duration each) with PPT, uploaded and available at the NMCN website as per latest MBBS CBME curriculum).

Dr Pramod Kumar Gautam was Actively involved in departmental purchase, preparation of specification, participating in SPC meetings, and worked as assistant store in charge in the department; Worked as a Ph.D. Course work in charge; Involved in the (Central instrument facility, Department of Biochemistry) training program for newly joined MSc Ph.D. and MD students of the department; Invited to chair secession and judge posters at JNU in the conference on Mitochondria, Cell Death, and Human Diseases; Involved as a member of the selection committee for Scientist, JRF, SRF, and project staff.

Dr Siddharth Kundu was Received AIIMS excellence research award (3rd prize) in basic category.

Dr Karthikeyan Pethusamy was Elected as Chairman, Scientific Committee, Association of Clinical Chemistry and Lab Medicine Practitioners, Delhi Chapter.

Visiting Scientists:

Following scientists visited the department and delivered talks:

Dr Ujjal K Bhawal Associate professor. Nihon University School of dentistry Matsudo Japan on 21 July 2023
Dr Imran Khan Senior Scientist and team lead at Bristol My Squibb San Diego on 17 July 2023
Dr Sudhasni panda postdoc fellow center for infectious disease and vaccine research La Jolla institute of Immunology California March 2024

As part of the Department Guest lecture series -

1. Arpan Banerjee National Brain Research Centre (NBRC), Haryana
2. Soumen Basak National Institute of Immunology (NII), Delhi
3. Sheetal Gandotra Institute of Genomics and Integrative Biology (IGIB), Delhi
4. Sujatha Sunil International Centre for Genetic Engineering and Biotechnology (ICGEB), Delhi
5. Rama Akondy Ashoka University, Haryana
6. Raviraj Venkalaya Indian Institute of Technology (IIT) Jodhpur, Rajasthan
7. Bushra Ateeq Indian Institute of Technology (IIT) Kanpur, Uttar Pradesh
8. Manidipa Banerjee Indian Institute of Technology (IIT) Delhi, Delhi

PUBLICATIONS

Total Publications: 71

Journal articles: 56; Abstracts: 12; Chapters/Books Published: 3

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Publications over past 3 years

Year	2021-22	2022-23	2023-24
Journal articles	79	77	56
Abstracts	08	19	12
Total no of Chapters/ Books Published	02	01	03

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9.4 Biomedical Engineering

Professor and Head

Neetu Singh

Professor

Sandeep Jha

Associate Professors

Dinesh Kalyanasundaram
Anup Singh
Amit Mehndiratta
Deepak Joshi
Jayanta Bhattacharyya

Assistant Professors

Arnab Chanda
Biswarup Mukherjee
Sachin Kumar B
Naveen Kumar
Sarvesh Kumar
Priya Vashisth
Aarat Kalra
Pradipta Mukherjee

Emeritus Professor

Harpal Singh

Visiting Professor

KK Deepak

HIGHLIGHTS

The Department of Biomedical Engineering was established in 1971 as a joint venture of AIIMS, New Delhi and the 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 & 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
- Medical Implants

In the past year, the following highlights and recognitions are to be mentioned:

1. Exoskeleton device developed by Professor Amit Mehndiratta's lab heads to Australia for clinical trials in collaboration with Proxmed.
2. Mr Vidit Gaur was awarded the Young Researcher Award 2023 at the National Biomedical Research Competition (NBRCOM2023) held at ESIC Medical College, Alwar
3. Dr Neha Singh and Mr Debasish Nath have been awarded the Young Investigator Award 2023 by the Indian Federation of Neurorehabilitation (IFNR) for their research and contribution to the field of Post-Stroke Neuro-Rehabilitation

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4. Ahana Banerjee got the Young Researcher Award 2023 in the Life Science Category from the Society of Young Biomedical Scientists (SYBS) India
5. Young Researcher Award (First Prize) to Anandita Bharadwaj at Fourth Science Conclave cum National Biomedical Research Competition (NBRCOM) 2023 for the work, "Automated PCG-based Detection and Classification of Valvular Heart Diseases using Interpretable Deep CNN" in the Health Sciences category
6. Vidit Gaur, PhD student, wins the Global Scholar In Training Award (GSITA) from the American Association For Cancer Research
7. Professor Arnab Chanda appears in the Top 2% of Scientists worldwide as per the Scopus Elsevier 2023 database
8. Professor Arnab Chanda received the Young Faculty Research Award 2023 from IIT Delhi
9. Gurpreet Singh and Professor Arnab Chanda received the 'Top Cited Paper Award 2023' by IOP Publishing for their paper titled "Mechanical properties of whole-body soft human tissues: a review"
10. CBME organized an International Conference on Biomedical Materials and Technology (BioTEx 2023) from 27 November to 1 December 2023





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11. Visit by key dignitaries

Visit by Hon'ble DG, ICMR



Visit by His Excellency Minister of Economy, UAE, H.E. Abdulla bin Touq Al Marri



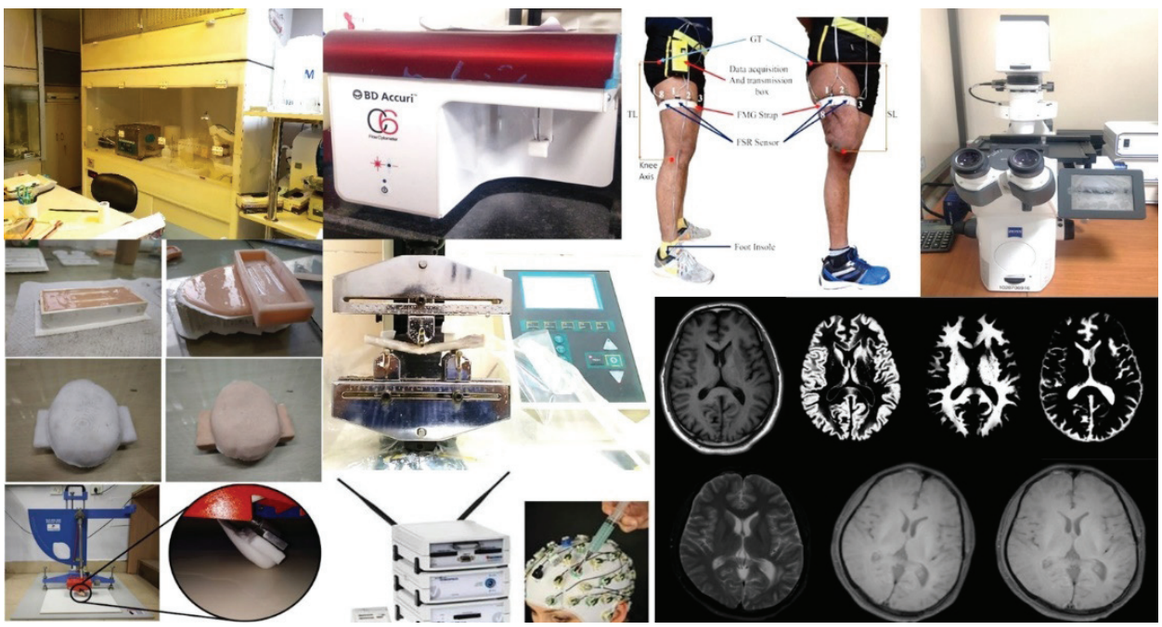
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EDUCATION

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. 58 PhD students and 7 MTech are currently being supervised by the department's faculty. Seven PhD students and Six MTech students graduated in the past year.

PhD Program in Biomedical Engineering at IIT Delhi

Admission to the PhD programme is normally made on the basis of an interview of eligible candidates conducted by the Centre for Biomedical Engineering (CBME), through its Centre Research Committee (CRC). The CRC may decide to conduct a written test as well, or multiple interviews, or other ways of testing, in order to screen the best suitable candidates. Applications are invited from candidates by advertising in IIT-Delhi web portals in March for the first semester and in October for the second semester every year.



M.Tech. Program in Biomedical Engineering at IIT Delhi







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RESEARCH

Funded projects

Ongoing

1. 3D Printed Facial Protection Equipment for Inhibiting COVID-19 Transmission, Arnab Chanda, Dentsply India Pvt Ltd India, Rs 7,50,000
2. A wearable system for quantitative assessment and recovery prediction during gait restoration in Parkinson's and Cerebral Ataxia Patients, Deepak Joshi, Department of Science and Technology (DST), Rs 54,06,630
3. Assessing the Efficacy of an Ultrasound Imaging System-Based Muscle Computer Interface for Neurorehabilitation in Individuals with Incomplete SCI: A Virtual Reality-Based Game Approach to Promote Residual Muscle Function, Biswarup Mukherjee, AO Spine Hong Kong, Rs 4,60,000
4. Assessing the potential of a novel nanoparticle formulation for expanding antigen-specific human T cells ex-vivo, Jayanta Bhattacharyya, IRD, IIT Delhi, Rs 10,00,000
5. Cell membrane-derived vesicles: A new generation nanocarriers for combined therapy applications, Neetu Singh, Science and Engineering Research Board (SERB), Rs 38,10,000
6. Centre for Advanced Research for Innovative Technology in Neurosurgical Devices and Instrumentation, Deepak Joshi, Indian Council of Medical Research, Rs 49,09,112
7. Combined neurological and functional assessments for the prediction and appreciation of individualized recovery profiles: an international study benchmarking clinical outcomes in acute spinal cord injury, Deepak Joshi, Department of Biotechnology, Rs 43,22,520
8. Developing artificial intelligence-based model for detection of malignant potential of pulmonary nodules in sarcoma using computed tomographic imaging and its prospective validation (Under IRD MFIRP Scheme in collaboration with AIIMS), Amit Mehndiratta, IRD, IIT Delhi, Rs 10,00,000
9. Development and evaluation of artificial intelligence system for detection and classification of occlusal caries, Anup Singh, ICMR, Rs 13,72,314
10. Development of Dendritic Cell Vaccine Against SARS-CoV-2, Jayanta Bhattacharyya, IRD, IIT Delhi, Rs 2,50,000
11. Development of High Expansion Auxetic Skin Graft Meshing Device for Severe Burn Injury Mitigation, Arnab Chanda, Indian Council of Medical Research, Rs 54,72,014
12. Development of methodology for quantitative multi-parametric MRI and evaluating its potential along with Machine Learning in classification of brain tumour and treatment follow-up, Anup Singh, Science and Engineering Research Board (SERB), Rs 30,28,360
13. Development of multi-parameter chips for detection of Sepsis in cirrhosis patients, Neetu Singh, Department of Science & Technology, Rs 23,45,068
14. Development of robotic platform with real-time perturbations to assess neuromuscular response in Virtual Reality (VR), Deepak Joshi, IRD, IIT Delhi, Rs 10,00,000
15. Development of surface-engineered smart nano-immunotherapeutic for the treatment of breast cancer, Jayanta Bhattacharyya, ICMR, Rs 54,74,043
16. Development of Technologies for Epidemiological Diseases-ICMR-DHR Medtech Product Development Acceleration Gateway of India (mPRAGATI), Dinesh Kalyanasundaram, ICMR, Rs 50,00,00,000
17. Engineering inexpensive nanostructured biomaterials for wound healing application, Sachin Kumar B, Science and Engineering Research Board (SERB), Rs 30,78,050
18. Enhancing Neural Activity by Thermogenetic Nanoprobes Under SPARC CELL, Neetu Singh, SPARC, MHRD, Rs 46,59,495
19. Exoskeleton Device for Upper Limb Rehabilitation, Amit Mehndiratta, Science and Engineering Research Board (SERB), Rs 30,10,000
20. Expansion and Scale-up of Medtech Innovation Training Programme: School of International Biodesign (SiB): Phase-V, Deepak Joshi, Department of Biotechnology, Five Years, 2022-26, Rs 3,89,44,295
21. Fallopian tube regeneration with colostrum-polymer nanofabricated biodrug, Neetu Singh, Department of Biotechnology, Rs 49,83,000

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22. Flow Sense Irrigator: A Smart, Adaptive and Affordable Device for Safe and Efficacious Endodontic Irrigation (Under IRD Student Startup Action Scheme), Biswarup Mukherjee, IRD, IIT Delhi, Rs 2,00,000
23. Integrated Sonomyography and Soft haptics-based Intuitive Control of Upper-Extremity Prosthetic Devices, Biswarup Mukherjee, IRD, IIT Delhi, Rs 5,00,000
24. International Conference on Biomedical Materials and Technology (BioTEx2023) from 27 November 2023 to 1 December 2023, Neetu Singh, Science and Engineering Research Board (SERB), Rs 3,50,000
25. Investigating neural correlates of humming bee sound during the Bhramari Pranayama, Deepak Joshi, IRD, IIT Delhi, Rs 10,00,000
26. Investigating the antiviral effectiveness of engineered dendritic-cell derived exosomes against Dengue virus, Jayanta Bhattacharyya, ICMR, Rs 8,24,000
27. Low power ultrasound imaging system for real-time activity monitoring, Biswarup Mukherjee, IRD, IIT Delhi, Rs 10,00,000
28. MOF-based Drug Delivery Systems with Theranostic Applications across Diseases, Priya Vashisth, Viva Bio LLC United States, Rs 14,70,428
29. MUCI pulsed DC-derived exosomes for Cancer immunotherapy [Naturally derived nanoparticles for cancer immunotherapy], Jayanta Bhattacharyya, Department of Biotechnology, Rs 67,10,000
30. Orally Ingestible Targeted Radical Polymerization (TRAP) Microdevices for Non-Invasive Sampling of the Upper Gastrointestinal Tract, Sarvesh Kumar Srivastava, ICMR, Rs 1,22,04,045
31. Oxygen Releasing Bioenergetic Injectable gel for Cartilage Regeneration, Sachin Kumar B, Indian Council of Medical Research, Rs 1,22,00,409
32. Re-engineering High-end Audiometric Devices for Robust and Affordable Audiological Testing - (Phase 2 of RP03140), Dinesh Kalyanasundaram, Indo German Science and Technology Centre, Rs 54,64,160
33. Revolutionizing Muscle Fatigue Measurement for Medical Students in Physiology Education (Under IRD MFIRP Scheme in Collaboration with UCL), Deepak Joshi, IRD, IIT Delhi, Rs 5,00,000
34. Scalable manufacturing of Low-Cost Face Shields as effective intervention against COVID-19 Transmission, Arnab Chanda, Clifford Chance India, Rs 10,00,000
35. SonoNeuro: A multimodal sonomyography-electromyography based system for biomechatronic control, Biswarup Mukherjee, SERB, Rs 47,56,400
36. Spirited AI, Anup Singh, IRD, IIT Delhi, Rs 2,00,000
37. Studying three-body binding reaction network in deterministic and stochastic settings, Deepak Kumar Agrawal, Science and Engineering Research Board (SERB), Rs 6,60,000
38. To develop a low-cost Indigenous Magnetic Growth Rod for Early-onset Scoliosis patients, Dinesh Kalyanasundaram, Indian Council of Medical Research, Rs 59,90,689
39. To study the role of USP37 in oncogenesis of ovarian cancer by using carbon nanodots embedded 3D cell culture platform (under MFIRP Scheme of IRD with AIIMS), Neetu Singh, IRD, IIT Delhi, Rs 10,00,000
40. Tracking of Abraxane by selective autophagy pathways in lung cancer cells using nanodiamonds, Jayanta Bhattacharyya, IRD, IIT Delhi, Rs 10,00,000
41. Trial of Unmanned Aerial Vehicles for medical supplies between CHRSP Ballabgarh and its associated centres, Amit Mehndiratta, All India Institute of Medical Sciences, New Delhi, Rs 2,50,000
42. Tumor stroma targeted salinomycin nano-formulation for the treatment of breast cancer, Jayanta Bhattacharyya, IRD, IIT Delhi, Rs 5,00,000

Departmental projects (including thesis/dissertations)

Ongoing

1. AI Based MR Image analysis of brain tumors
2. Assessment of cognitive stress via wearable nostril device and neurophysiological markers during short term meditation

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3. Assistive Technologies in biomedical applications
4. Ayurvedic drug eluting bioresorbable stent
5. Biodegradable polymeric nanoparticles for cancer therapy
6. Biomechanical evaluation of meniscal tissues at high strain rates and development of biomimetic meniscal replacements
7. Biomechanical Modelling of Diabetic Foot Ulcers
8. Cancer Imaging
9. Design and Development of patient-specific implants
10. Developing synthetic biological circuits for diagnostics and therapeutics
11. Development and validation of a wearable multi-channel phonocardiography system for heart valve assessment
12. Development of a Biofidelic Footwear Traction Testing device
13. Development of biopolymer-based formulations for pre-hospital care under combat operation
14. Electrical detection of pathogens by carbon dots
15. GAIT restoration in cerebral Palsy
16. Human-machine interfaces for individuals with partial spinal cord injury
17. Medical Image Analysis
18. Medical Resonance imaging for cancer diagnosis and prognosis
19. Microfluidic chip development biomedical application
20. MR Image Processing
21. MRI Data Analysis of Brain Tumor and Ischemic Stroke patients
22. Multifunctional Nanoparticle ancertheranostics
23. Nano-based Platforms for Drug Delivery
24. Nanodelivery system for cancer therapy
25. Nanoparticle mediated RNAi
26. Neuromuscular Biosignatures of sensorimotor control in individuals with upper limb amputation
27. Neurorehabilitation for spinal cord injury patients
28. NK cell-derived nanovesicles for cancer immunotherapy
29. Non Invasive biosenses for non-communicable disease
30. Quantitative MRI and its Applications
31. Development of Nanoplatforms for cancer margin clearance
32. Self-healing bioadhesive hydrogel for cartilage tissue regeneration
33. Sonomyography-based control for upper extremity bionic devices
34. Sprayable hydrogel loaded with polymeric microcarrier for metallic nanoparticles for wound healing application
35. Synthetic cellular compartments for cell-like systems to perturb diseased states - Towards building a synthetic cell

Completed

1. Cancer immunotherapy
2. Chronic wound healing
3. Development of Auxetic Skin Grafts with High Expansion Potential
4. Development of biodegradable nanoparticles for delivery of anticancer agents

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5. Modelling and Mitigation of Unexpected Slips and Falls in Hospitals
6. Tissue engineering to study cancer metastasis
7. Understanding cell-cell and cell material and interaction for tissue engineering application

Research over past 3 years

Research projects	2021-2022	2022-2023	2023-2024
Total funded projects	17	31	42
Total funding	Rs 6430 Lakhs	Rs 6152 Lakhs	Rs 6525 Lakhs

PUBLICATIONS

Total Publications: 54

Journal articles: 54; Abstracts: 0; Chapters/Books Published: 0

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9.5 Biophysics

SERB Distinguished Professor

TP Singh

Professor And Head

Punit Kaur

Professors

Savita Yadav | Sujata Sharma

G Hariprasad Rao | Sharmishtha Dey

Additional Professors

Ethayathulla AS | Krishna Kumar Inampudi

Saroj Kumar | Jyotirmoy Banerjee

Associate Professor

Pradeep Sharma

Scientists

Asha Bhushan | Manoj Kuma | Uddipan Das

HIGHLIGHTS

During the period under report, the Department of Biophysics had over 38 ongoing research projects funded by extramural grants. Research in the Department of Biophysics is concerned with determining the molecular basis of biological processes, rational structure-based drug design and discovering new specific biomarkers The department provides facilities for data collection on protein crystals, medical bioinformatics, protein sequencing and peptide synthesis, proteomics and dynamic light scattering. In the past year, faculty and scientists had 58 research publications in various peer-reviewed journals. The Department continued providing postgraduate education and short and long-term training to 3 trainees, 8 MSc, 40 PhD and 15 M.D. students.

EDUCATION

Postgraduate

The faculty and scientists of the Department of Biophysics continued with teaching and guiding students for PhD degrees, 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.

Lectures delivered at CMEs, National and International conferences (all lectures, invited talks, plenary lectures, and guest lectures except named Orations are to be listed here)

Lectures Delivered: 46

TP Singh: 18	**Punit Kaur: 4**	**Savita Yadav: 3**
Sujata Sharma: 3	**Hari Prasad: 2**	**Sharmistha Dey: 3**

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Ethayathulla AS: 1 **Krishna K Inampudi: 1** **Saroj Kumar: 1**

Jyotirmoy Banerjee: 6 **Manoj Kumar: 1** **Udippan Das: 3**

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
41	50	46

Oral papers/posters presented: 74

Oral/poster presentations over past 3 years

2021—2022	2022—2023	2023-24
34	41	74

RESEARCH

Funded projects

Ongoing

1. A case-control study to Develop "Exosomes based Molecular Signature" of Parkinson's Disease, Dr Saroj Kumar, ICMR, 3 Years, 2023-26, Rs 84,67,800
2. A multi-omics study and development of a prognostic computational model for COVID-19 to correlate clinical outcomes and disease sequelae with the differential immunological response, mutational and vaccination status in India, Professor Punit Kaur, ICMR, 3 Years, 2022-25, Rs 94,00,000
3. AMR-Educate: A multinational and interdisciplinary research-integrated education partnership for a sustainable future against infection and antimicrobial resistance threats, Professor Punit Kaur, The Norwegian Directorate for Higher Education and Skills under Norwegian Ministry of Education and Research, 3 Years, 2023-26, Rs 31,00,000
4. Calcium permeable ion channels as therapeutic targets to manage chronic pain, Dr Jyotirmoy Banerjee, DBT, 3 Years, 2024-26, Rs 40,00,000
5. Clinical significance of proteomics in liquid biopsy for Indian breast cancer women: An exploratory study, Professor. Savita Yadav, Interdisciplinary collaborative intramural research project, 2 Years, 2022-24, Rs 10,00,000
6. Connecting pathogenesis to Calcium signalling in protozoan parasite E. histolytica, Dr Krishna K Inampudi, DBT, 3 Years, 2023-26, Rs 82,00,000
7. Deciphering alterations in synaptic and extra-synaptic GABAA receptor configuration and their role in modulation of GABAergic activity in Focal Cortical Dysplasia (FCD, Dr Jyotirmoy Banerjee, Early Career Institute Research Grant, All India Institute of Medical Sciences (AIIMS), New Delhi, 2 Years, 2024-26, Rs 10,00,000
8. Deciphering the role of Fibroblast growth factor 8 (FGF 8) in the progression of ovarian cancer, Professor Savita Yadav, SERB-POWER Fellowship, 3 Years, 2021-24, Rs 30,00,000
9. Deciphering the role of platelets in drug-resistant epilepsy, Dr Jyotirmoy Banerjee, ICMR, 3 Years, 2023-26, Rs 43,00,000
10. Design, synthesis, and biological evaluation of mechanism-based novel theranostic agents for Alzheimer's disease, Dr Saroj Kumar, SERB/DST, 3 Years, 2023-26, Rs 44,22,240
11. Designing novel inhibitory molecules to quench quorum sensing in Gram-negative bacteria, Professor Punit Kaur, ICMR, 3 Years, 2023-26, Rs 49,08,000
12. Development of exosome-based drug delivery system for naturally inspired novel multifunctional neuroprotective molecules and their biological evaluation in Alzheimer's disease models, Dr Saroj Kumar, ICMR, 3 Years, 2023-26, Rs 55,59,246

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13. Discovery of lead compounds among natural products to target isocitrate lyase of Mycobacterium tuberculosis, Dr Manoj Kumar, AIIMS, 2 Years, 2024-26, Rs 10,00,000
14. Dissecting the potential molecular signature by proteomics and metabolomics in predicting the clinico-radiological course of cerebral edema following traumatic brain injury, Dr Krishna K Inampudi (Department-PI with funding), ICMR, 3 Years, 2024-27, Rs 85,00,000
15. ECM proteins as blood-based biomarkers and therapeutic target for Alzheimer's disease, Professor Sharmistha Dey, ICMR, 3 Years, 2023-26, Rs 58,00,000
16. Exploring the action of a potent antifungal protein lactoferrin and its derived functional fragments for the therapeutics of mucormycosis, Professor Sujata Sharma, SERB, 3 Years, 2021-24, Rs 38,10,000
17. Exploring the potential of exosomal miRNA as novel biomarker targets of Parkinson's disease, Dr Saroj Kumar, AIIMS New Delhi (Early Career Intramural Research Grant), 2 Years, 2023-25, Rs 10,00,000
18. Exploring the Structure-function Interrelationships of Type-1 and Type-2 Ribosome Inactivating Proteins (RIPs) from Iris Bulbs for Anti-tumor Activity, Professor Sujata Sharma, ICMR, 3 Years, 2023-26, Rs 35,64,839
19. G-Quadruplex forming DNA Aptamers against human EGFR as an alternative therapeutic approach for epidermal carcinomas, Dr Krishna K Inampudi, DST-SERB, 3 Years, 2023-26, Rs 40,00,000
20. Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Aging Study of India (LASI). Wave2, Professor Sharmistha Dey, NIH(RO1), 4 Years, 2022-26, Rs 2,86,02,800
21. Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Aging Study of India (LASI). Wave1, Professor Sharmistha Dey, NIH(RO1), 4 Years, 2021-25, Rs 3,86,02,800
22. Identification of mitochondria-related proteins as plausible biomarkers and therapeutic targets in Alzheimer's disease, Professor Sharmistha Dey, DHR, 3 Years, 2023-26, Rs 84,00,000
23. Identification of novel drug molecules against a lethal angioinvasive disease, mucormycosis, Dr Pradeep Sharma, ICMR, 3 Years, 2023-26, Rs 30,10,000
24. Identification of the early candidate biomarkers of oral cancer from the saliva exosomal proteome, Dr Krishna K Inampudi, PI Mentor, AIIMS UG Mentorship Research Grant, 2 Years, 2022-24, Rs 2,00,000
25. In silico screening of potential antiviral drug from FDA-approved drugs and Selenium compounds against SARS-CoV-2 main protease, Dr Ethayathulla, AIIMS-COVID, 3 Years, 2020-23, Rs 4,80,000
26. Integrative Proteomics and Metabolomics Analysis of Plasma and Exosomes for Early Diagnosis of Non-Small Cell Lung Cancer, Dr Krishna K Inampudi, ICMR, 3 Years, 2024-27, Rs 85,25,147
27. Investigating altered subunit configuration of glutamate receptors in Focal Cortical Dysplasia, Dr Jyotirmoy Banerjee, Post Graduate Thesis Scheme All India Institute of Medical Sciences (AIIMS), New Delhi, 2 Years, 2024-26, Rs 2,00,000
28. Modulators of α4-containing GABAA receptors: Potential therapy for focal cortical dysplasia (FCD, Dr Jyotirmoy Banerjee, ICMR, 3 Years, 2024-27, Rs 93,50,000
29. National Network Project of Department of Biotechnology, IIT Roorkee, Dr Pradeep Sharma, DBT, 3 Years, 2023-28, Rs 55,00,000
30. Preclinical Assessment of a novel Tyrosine Kinase Inhibitor, KKI04 as a Promising Therapeutic Agent for Non-Small Cell Lung Cancer (NSCLC) using Mice xenograft model, Dr Krishna K Inampudi, ICMR, 3 Years, 2024-27, Rs 62,67,675
31. Proteomic analysis of p53Y220C mutant with potential ligand curcumin and its analogs in Non-Small-Cell Lung/ adenocarcinoma, Dr Ethayathulla, AIIMS-Intramural, 2 Years, 2022-24, Rs 9,80,000
32. Rational structure-based ligand design for developing the antibacterial agent against the CoA synthetic pathway in drug resistance bacteria, Acinetobacter baumannii, Professor Sujata Sharma, ICMR, 3 Years, 2021-24, Rs 45,84,220
33. Rational structure-based ligand design for developing the novel antibacterial agents against proteins involved in the Histidine biosynthesis pathway in Acinetobacter baumannii, Dr Pradeep Sharma, ICMR, 3 Years, 2021-24, Rs 29,47,830
34. Reverse pharmacology and multi-target approach for designing novel therapeutics and candidates for COVID-19, Professor. Punit Kaur, ICMR, 2 Years, 2022-24, Rs 66,80,000

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35. Screening of green tea antioxidants to reactivate anti-cancer activity of mutant p53 in breast cancer cell lines, Dr Ethayathulla, ICMR, 3 Years, 2023-2025, Rs 33,43,304
36. Screening of therapeutic p53 activator molecules to restore the function of p53 oligomerization domain mutants in breast cancer, Dr Ethayathulla, DHR, 2 Years, 2020-23, Rs 31,70,354
37. Serum proteomics for the identification of biomarkers to flag predilection of COVID-19 patients to various organ morbidities, Professor Hariprasad. G, ICMR, 3 Years, 2022-25, Rs 35,00,000
38. Single cell-type RNA Sequencing to delineate astrocyte and neuronal specific alterations in patients with Focal Cortical Dysplasia (FCD) and Temporal Lobe Epilepsy (TLE), Dr Jyotirmoy Banerjee, AIIMS Interdisciplinary Collaborative Intramural Research Project, AIIMS, New Delhi, 2 Years, 2023-25, Rs 20,00,000
39. Structural and functional studies of Mycobacterium toxin-antitoxin systems, Dr Uddipan Das, SERB, 3 Years, 2021-24, Rs 5,60,0000
40. Structure and function studies of peptidoglycan recognition and lactoperoxidase proteins from the innate immune system, Professor TP Singh, SERB, 5 Years, 2019-24, Rs 84,60,000
41. Structure-based Drug-design: In silico screening of inhibitors for cell division protein drug target FtsZ to develop antimicrobial agent against drug-resistant Acinetobacter baumannii, Dr Ethayathulla, ICMR, 3 Years, 2020-23, Rs 24,54,060
42. Structure-based design of lead compounds against a novel drug target for the treatment of multi-drug resistant Tuberculosis, Dr Manoj Kumar, ICMR, 3 Years, 2021-24, Rs 24,00,000
43. Structure-based design of lead compounds targeting persistent Mycobacterium tuberculosis to shorten the treatment duration, Dr Manoj Kumar, ICMR, 3 Years, 2022-25, Rs 26,00,000
44. Study of circulatory level of serum proteins in inflammatory and anti-oxidative pathways in Alzheimer's disease for the establishment of potential biomarker and therapeutic target, Professor Sharmistha Dey, ICMR, 3 Years, 2021-24, Rs 84,00,000

Completed

1. Deciphering the role of Fibroblast growth factor 8 (FGF 8) in the progression of ovarian cancer, Dr Savita Yadav, SERB-POWER Fellowship, 3 Years, 2021-24, Rs 30,00,000
2. Development of a non-invasive novel method for early detection of cognitive impairment, Dr Saroj Kumar**,** ICMR, 3 Years, 2021-24, Rs 47,58,432
3. Development Of Anti-Mycobacterial Inhibitors: In Silico And Experimental Evaluations Of Lead Compounds Against Trehalose Binding Protein From Mycobacterium Tuberculosis, Dr Uddipan Das, ICMR, 3 Years, 2020-23, Rs 22,00,000
4. 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., Dr Jyotirmoy Banerjee**,** DBT, 5 Years 6 months (with extension), 2018-23, Rs 1,68,00,000
5. Structural and functional studies of *Mycobacterium tuberculosis* peptidyl-tRNA hydrolase: A novel drug target of multidrug-resistant tuberculosis, Dr Krishna K Inampudi, DBT, 3 Years, 2021-24, Rs 68,00,000
6. Structure-based *In Silico* Identification, Chemical Synthesis and Biological Evaluation for inhibitors against DNA Gyrase from *Salmonella* Typhi, Dr Punit Kaur, ICMR, 3 Years, 2019-22, Rs 56,50,000

Departmental projects (including thesis/dissertations)

Ongoing

1. Analysis of Anti-neurotoxicity of Amyloid Beta (Aβ) in Alzheimer's disease (AD) pathology targeting Lipoxygenases (ongoing)
2. Atherosclerotic Cardiovascular disease: unravelling the early biomarkers from biofluid exosomes by iTRAQ-based quantitative proteomics
3. Characterization and sequencing analysis of exosomes miRNA from biofluids of Coronary Artery Disease
4. Cryo-electron microscopy of Protein complexes

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5. Design and evaluation of anti-microbial agents at novel target sites in DNA Gyrase from S Typhi
6. Development of potent inhibitors against drug-resistant EGFR kinase for the treatment of EGFR-positive tumors
7. Development of potent inhibitors for RdRP and PLprotease from SARS-CoV2
8. Development of screening methods & evaluate the efficacy of novel drugs for Alzheimer's Disease
9. Discovery of potent inhibitors of *Mycobacterium tuberculosis* Isocitrate lyase
10. Discovery of potential lead compounds targeting *Mycobacterium tuberculosis* Shikimate kinase to combat multi-drug resistant tuberculosis
11. Drug Discovery and antiviral inhibitors against viral non-structural proteins
12. Elucidating the role of Semaphorin in epileptogenesis and hyperexcitability associated with temporal lobe epilepsy
13. Exploring novel molecules as therapeutic targets for the prevention of Alzheimer's diseases
14. Expression analysis of selected miRNAs in idiopathic Recurrent Pregnancy Loss (iRPL)
15. Identification of DNA Aptamers against human sEGFR to treat lung cancer
16. Identification of potential biomarkers for NSCLC using genomic and proteomic approaches
17. Inhibiting invasion of Streptococcus pneumoniae using engineered peptides through mRNA display technology
18. Investigating altered subunit configuration of glutamate receptors in Focal Cortical Dysplasia
19. Investigating the Impact of Extracellular Matrix Proteins on Alzheimer's Disease Progression: From Diagnostic to Potential Therapeutic Targets"
20. Investigation on the role of astrocytic gap junctions in the pathogenesis of focal cortical dysplasia
21. Next-Generation Sequencing-based Identification of Novel Biomarkers and Potential Druggable Targets in Uterine Cancer and its Subtypes
22. Potential role of Klotho as a blood-based biomarker and its therapeutic importance in breast cancer by targeting miRNA
23. Structural and functional characterization of p53 tetramerization mutants
24. Structural and Functional Studies of FtsZ cell division protein as a potential drug target against Salmonella Typhi
25. Structural and functional studies of p53 oligomerization mutant R337 in human cancer
26. Structural and functional studies of Mycobacterium tuberculosis peptidyl-tRNA hydrolase: A novel drug target of multidrug-resistant Tuberculosis
27. Structural and functional study of Malate synthase of *Mycobacterium tuberculosis*
28. Structural insights of peptidoglycan pathway enzymes of Mycobacterium tuberculosis
29. Structural investigations of ABC transporters from Mycobacterium tuberculosis
30. Structure-based design and synthesis of anti-mitotic agents against aurira kinases
31. Structure-based design of nanobody inhibitors against EGFR: A Protein engineering approach to develop novel therapeutics for lung cancer
32. Structure-based in silico screening of potent inhibitors against SARS-Cov2 Main protease (Mpro)
33. Study of exosomal lipid content in Parkinson's disease and Amyloid beta association with exosomes
34. Study to evaluate the potential of small non-coding RNAs as biomarker targets for Parkinson's disease
35. Understanding age-dependent dysmaturity of cerebral cortex in cortical dysplasia
36. Understanding of Parkinson's disease pathogenesis by using plasma-derived biomarkers
37. Unraveling the exosomal and infrared based biomarkers for early detection of breast cancer

Completed

1. Cryo-EM studies of Sulphate activation pathway enzyme complex from Mycobacterium tuberculosis.

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2. Design of inhibitors against MurB to develop drugs for MDR pathogens using *in silico* screening and structure-based approach
3. Discovery of potent inhibitors of Malate synthase of *Mycobacterium tuberculosis*
4. Exosome-isolation, Characterization and Loading of Drugs
5. *In silico* screening of Drug Bank against SARS-CoV-2 PLpro to identify potential repurposing agent for COVID-19
6. Inflammatory cytoskeleton signalling proteins as a plausible blood-based biomarker for diagnosis of metastatic breast cancer
7. Proteomics Study on COVID-19 – Investigation of Disease-Specific Signature Proteins
8. Structural and biophysical characterization of mutant P53 Y220N DBD
9. Structural and Functional studies of *Mycobacterium Tuberculosis* Peptidyl tRNA hydrolase – A Novel drug target of Multidrug Resistance Tuberculosis

Collaborative projects

Ongoing

1. A case-control study to investigate gut microbiota dysbiosis in drug-refractory epilepsy patients using whole-metagenomic shotgun sequencing, Department of Neurology, AIIMS, New Delhi, Funded by Department of Health Research (DHR), Ministry of Health and Family Welfare, Govt. of India
2. A comparative proteomics and metabolomics study of Idiopathic pulmonary fibrosis (IPF) and Post-COVID pulmonary fibrosis (pCPF) to identify new pathological and therapeutic pathways, Department of Pulmonary, Critical Care & Sleep Medicine, AIIMS
3. A comparative study to evaluate the alkaline phosphatase level and implant stability quotient in immediate implants placed by using socket shield technique and conventional technique in the maxillary anterior region- a randomized controlled trial, Department of Prosthodontics and Crown Bridge, Center for Dental Education & Research, AIIMS, New Delhi
4. A study to investigate the role of vitamin D supplementation on seizure control in persons with drug-resistant epilepsy and its correlation with biomarkers of epileptogenesis, Department of Pharmacology, AIIMS, New Delhi
5. An observational study to investigate the gut microbiota composition of patients with drug-resistant epilepsy, Department of Neurology, AIIMS, New Delhi Funded by AIIMS Interdisciplinary Collaborative Intramural Research Project, AIIMS, New Delhi.
6. Analysis of Fourier-transform Infrared Spectroscopy in Pancreatic Neuroendocrine Tumor Patients, Department of Anatomy, AIIMS, New Delhi
7. Blood plasma-derived exosomal profiling of cytokines and chemokines in frail elderly and assessment of the impact of Nordic walking intervention on exosomes, Department of Geriatric Medicine, AIIMS, New Delhi
8. Clinical significance of proteomics in liquid biopsy for Indian breast cancer women: An exploratory study, Department of Surgery, AIIMS, New Delhi
9. Comparative analysis of histone deacetylases mediated epileptogenesis in cortical dysplasia vs non-cortical dysplasia drug resistant pathologies, Dr BR Ambedkar Center for Biomedical Research, University of Delhi, Delhi
10. Connecting pathogenesis to Calcium signalling in protozoan parasite E. histolytica, Multidisciplinary Centre for Advanced Research and Studies, Jamia Millia Islamia, New Delhi-110025
11. CSF inflammatory markers in the diagnosis of autoimmune encephalitis, Department of Neurology, AIIMS, New Delhi Funded by Intramural Grant, Research Section, AIIMS, New Delhi
12. Delineating the co-evolution of HIV-I broadly neutralizing antibodies and circulating viruses in mono-zygotic twins pediatric elite-neutralizers, Department of Biochemistry, AIIMS
13. Development of screening method & evaluation the efficacy of novel drugs for Alzheimer's Disease, Department of Geriatric Medicine and Department of Neurology, AIIMS, New Delhi
14. Dissecting the potential molecular signature by proteomics and metabolomics in predicting the clinical-radiological course of cerebral edema following traumatic brain injury, 1. Department of Neurosurgery, 2. CSIR-IICT, Hyderabad, India

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15. Effect of ACE inhibitors and angiotensin receptor blockers on renin-angiotensin system markers in brain tissue of postmortem subjects with depression, Department of Pharmacology, AIIMS, New Delhi
16. Effect of probiotics and repetitive transcranial magnetic stimulation on cognitive and motor function in 6-hydroxy dopamine rat model of Parkinson's disease, Department of Physiology, AIIMS, New Delhi
17. Elucidating the meditation associated epigenetic modulation in persons with temporal and temporal plus epilepsy, Department of Neurology, AIIMS, New Delhi, Funded by Science and Technology of Yoga and Meditation (SATYAM), Department of Science & Technology (DST)
18. Elucidating the role of Fibronectin1 (FN1) in regulating the glutamatergic activity in the pathophysiology of Mesial temporal lobe epilepsy (MTLE), Dr BR Ambedkar Center for Biomedical Research, University of Delhi, Delhi. Funded by FRP Grant from Institute of Eminence, University of Delhi
19. Elucidating the role of Fibronectin-Integrin-Src mediated glutamatergic activity in mesial temporal lobe epilepsy, Dr BR Ambedkar Center for Biomedical Research, University of Delhi, Delhi
20. Elucidating the role of Proline-rich tyrosine kinase 2 (Pyk2) signalling in the pathophysiology of Temporal lobe epilepsy, Dr BR Ambedkar Center for Biomedical Research, University of Delhi, Delhi
21. Elucidation of role of steroidal and non-steroidal hormones on neuroinflammation in cortical dysplasia versus non-cortical dysplasia drug-resistant epilepsy, Dr BR Ambedkar Center for Biomedical Research, University of Delhi, Delhi. Funded by the Department of Health Research (DHR), Ministry of Health and Family Welfare, Govt. of India
22. Evaluation of salivary biomarkers as compared to established serum biomarkers in predicting pre-eclampsia: A nested case-control study, Department of Lab Medicine, AIIMS, New Delhi
23. Evaluation of therapeutic efficacy and mechanism of repetitive transcranial magnetic stimulation on the cognitive enhancement in hypobaric hypoxic environment, Department of Physiology, AIIMS, New Delhi Funded by Life Science Research Board (LSRB), DRDO, Govt. of India
24. External delivery of Cis-platin using HPV-16-based nanocarriers for the treatment of cervical cancer, Department of Anatomy, AIIMS, New Delhi
25. Genomic Analysis of ESKAPE pathogens, Department of Microbiology
26. Identification and evaluation of novel proteins, inhibitors of apoptotic proteins, and exosomes in cases of pancreatic neuroendocrine tumors, Department of Anatomy, AIIMS, New Delhi
27. Identification of pathological and disease activity markers in Primary CNS Vasculitis, Department of Neurology, AIIMS, New Delhi
28. Identification of the early candidate biomarkers of oral cancer from the saliva exosomal proteome, Department of Otolaryngology, AIIMS, New Delhi
29. Identify the role of inhibitors of apoptotic proteins in the respiratory neuroendocrine tumor, Department of Anatomy, AIIMS, New Delhi
30. IL6 biomarker level in sleep apnea patient after Mandibular advancement appliance and CPAP therapy, Department of Prosthodontics and Crown Bridge, Center for Dental Education & Research, AIIMS, New Delhi
31. Integrative Proteomics and Metabolomics Analysis of Plasma and Exosomes for Early Diagnosis of Non-Small Cell Lung Cancer, 1. Medical Oncology, AIIMS, New Delhi, 2. Pulmonary Medicine and Sleep Disorders, AIIMS, New Delhi, 3. CSIR-IICT, Hyderabad, India
32. Potential of quercetin as a diuretic agent at high altitude by targeting carbonic anhydrase II, DIPAS, DRDO
33. Potential of quercetin binding with angiotensin-converting enzyme (ACE2), DIPAS, DRDO
34. Preclinical Assessment of a novel Tyrosine Kinase Inhibitor, KKI04 as a Promising Therapeutic Agent for Non-Small Cell Lung Cancer (NSCLC) using Mice xenograft model, Life Sciences, Shiv Nadar University, Noida
35. Proteomic Profiling of Plasma-derived Exosomes of Pancreatic Neuroendocrine Tumor Patients, Department of Anatomy, AIIMS, New Delhi
36. Role of Casein Kinase 2 (CK2) signalling in mesial temporal lobe epilepsy, Dr BR Ambedkar Center for Biomedical Research, University of Delhi, Delhi
37. Role of genetic variants and non-coding RNAs in drug-resistant epilepsy, Department of Neurology, AIIMS, New Delhi

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38. Role of seipin protein in cholesterol transport, Department of Biotechnology, AIIMS, New Delhi
39. Screening of inhibitory molecules against KIFC1, KIF4A, KIF15 and KIF20A and evaluation of anticancer activity of the identified molecules on breast cancer cells, National Institute of Pathology
40. Study to evaluate the potential of small non-coding RNAs as biomarker targets for Parkinson's disease, Department of Neurology, AIIMS, New Delhi
41. Synthesis of novel MurB inhibitors, JMI, New Delhi
42. Understanding the QT prolongation risk of Imidacloprid and its metabolites using in vitro pharmacological studies, Department of Pharmacology, AIIMS, New Delhi Funded by Intramural Grant, Research Section, AIIMS, New Delhi
43. Unraveling the exosomal and infrared-based biomarker for early detection of breast cancer, Department of Pathology, Department of Surgical Disciplines, and Department of Medical Oncology BRA-IRCH, AIIMS, New Delhi
44. Validating Biomarker Panel in Five Different Cohorts to Define and Predict Biological Ageing, Disease Burden and Mortality in Human Subjects-A pilot Prospective Cohort Study, Department of Geriatric Medicine, AIIMS, New Delhi

Completed

1. Identification of MARK4 inhibitors from bioactive phytoconstituents of Bacopa monnieri (Brahmi): Therapeutic management of Alzheimer's disease and neuro-inflammation animal model, JMI, New Delhi
2. Structural and functional studies of Mycobacterium tuberculosis peptidyl-tRNA hydrolase: A novel drug target of multidrug-resistant Tuberculosis, 1. Department of Medicine, AIIMS, New Delhi, 2. Department of Biosciences, IIT Kharagpur, 3. Department of Chemistry, University of Hyderabad
3. Development of a non-invasive novel method for early detection of cognitive impairment, Department of Geriatric Medicine, and Department of Neurology, AIIMS, New Delhi
4. Role of Inhibitors of Apoptosis Proteins in
5. Gastroenteropancreatic Neuroendocrine Tumors, Department of Anatomy, AIIMS, New Delhi
6. Study of exosomes in saliva of pancreatic neuroendocrine tumor patients, Department of Anatomy, AIIMS, New Delhi
7. Role of mutation in EFEMP1 with juvenile-onset open angle glaucoma in a patient with concomitant COL11A1-related Stickler syndrome, RP Centre for Ophthalmic Sciences, AIIMS
8. Role of mutations in slc26A gene in cystic fibrosis conductance regulation in Indian patients, Department of Pediatrics, AIIMS
9. Role of mutations in STAMBP protein in severe microcephaly and multiple capillary haemangiomas in Indian children, Department of Pediatrics, AIIMS

Research over past 3 years

Research	2021–2022	2022–2023	2023–2024
Total funded projects	32	32	42
Total funding	Rs 145,421,570	Rs 145,586,029	Rs 134,239,773

PUBLICATIONS

Total Publications: 57

Journal articles: 50; Abstracts: 5; Chapters in Book: 2

Publications over past 3 years

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Item	2021-2022	2022-2023	2023-2024
Total	45	62	61
Journal articles	35	49	53
Abstracts	2	7	6
Chapters in book	2	3	2
Book	Nil	Nil	Nil

PATIENT CARE: NIL.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor TP Singh was Professor GN Ramachandran Chair Professor (SRM University, Chennai); Honorary Distinguished Professor (Maharaja Surajmal Brij University, Bharatpur); Visiting Professor Indian Institute of Technology, Roorkey.
Professor Punit Kaur was AMR-Educate: Indo-Norway Workshop on Integrated Research to combat anti-microbial resistance' 12-13 December 2023, New Delhi; Elected Executive Committee Member, Bioinformatics and Drug Discovery Society.

Professor Savita Yadav was Awarded the SERB-POWER Fellowship and Elected a Fellow of the Indian Academy of Biomedical Sciences, India.

Dr Krishna Kumar Inampudi was Long-term ICMR-DHR International Fellowship for Young Indian Biomedical Scientists 2023-24 to visit Stanford University, USA; Member of the National Academy of Medical Sciences (NAMS); Founding members of the Indian Extracellular. Vesicles Society; 7th International Conference on Translational Research as the treasurer, held from 15-18 October 2023, at AIIMS, New Delhi.

Dr Saroj Kumar was Awarded Membership of the National Academy of Medical Sciences (NAMS); ICMR-DHR International Short-Term Fellowship in Foreign Institutes, 2022-2023 awarded by ICMR-DHR, Ministry of Health & Social Welfare for 3 months (March-June 2023); Adjunct Professor (2021 – Present) at Lulea Institute of Technology, Sweden. Teaching and Scientific visit as a visiting faculty at Lulea University of Technology, Sweden, between March and June 2023.

Dr Jyotirmay Banerjee was AIIMS Oncology Research Award under Basic Science Category at the 3rd AIIMS Research Day held on 30 January 2024; Co-Editor for the Journal Neurology India.

VISITING SCIENTIST

Dr Rafi Ahmad, Norway; Dr Wenche Johansen, Norway; Dr Deanna Wolfson, Norway; Dr Jean-Claude Tinguely, Norway, Dr Marceline Côté, University of Ottawa, Canada; Dr Suresh Gadde, University of Ottawa, Canada; Dr Kiran Velpula, University of Illinois College of Medicine Peoria, USA; Dr Partho Pratim Dutta, IISER, Kolkata; Dr Somnath Dutta, IISC, Bangalore; Mohan B Appaiahgari, Yenepoya University, Mangalore; Dr Soumya De, IIT-Kharagpur; Dr Anurag Agrawal, Ashoka University; Dr Shekhar Mande, Vignana Bharti; Dr Swaroop Pandey, GLA University, Mathura; Dr Uma Dhawan, Delhi University, Delhi; Dr Sonu Gandhi, National Institute of Animal Biotechnology, Noida; Dr Sonika Bhatnagar, Netaji Subhash University of Technology, New Delhi; Dr Aditya Padhi, IIT (BHU), Varanasi; Dr Mohita Sharma, Tirupati Eye Centre, Noida.

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9.6 Biostatistics

Professor and Head

Maroof Ahmad Khan

Assistant Professor

M Kalaivani

Scientists-I

Shivam Pandey Nilima Sumit Kumar Das

HIGHLIGHTS

The Department is currently engaged in two extramural-funded research projects. Additionally, it collaborates on research projects with various Centers/Departments within the Institute, including 166 ongoing and 9 completed research projects. Furthermore, Faculty and Scientists in the department have contributed to 103 research publications in diverse peer-reviewed medical journals. The faculty of the department served as the selection committee member of the other institutes and universities. The faculty of the department holds editorial/scientific reviewer roles in national medical journals as well as international medical journals from various medical specialties. Moreover, they have served on various administrative and scientific committees in the Institute have been invited members of various scientific committees of the ICMR and have lent their expertise on Data Safety Monitoring Boards (DSMB) of national clinical trials.

EDUCATION

The educational activity of the Department encompasses a wide spectrum including undergraduate, paramedical and postgraduate courses, viz. MBBS, B.Sc.(Hons.) in Medical Technology in Radiology, M. Biotech, B.Sc. & M.Sc. Nursing, and MD Community Medicine. Faculty members and scientists collaborate as Co-Guides and DC Members across various departments within the Institute offering guidance to students pursuing PhD, DM, MCH, MD/MS/MHA/MDS courses. The primary activities of the department involve both teaching and offering scientific statistical guidance. This guidance is extended to faculty, scientists conducting research (both funded and non-funded), as well as all medical and paramedical students working on their thesis/dissertation. The department provides support from the initial planning stages through to the completion of report writing.

Events organized by the Department Nil

Lectures delivered at CMEs, National and International Conferences

Lectures Delivered: 16

Maroof Ahmad Khan: 1 **M Kalaivani: 15**

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
11	3	16

Oral papers/posters presented: 3

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
1	2	3

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RESEARCH

Funded projects

Ongoing

1. Development of longitudinal growth reference and assessment of growth velocity, cardio-metabolic measures and its correlation among children in India– A prospective study, Dr M Kalaivani, ICMR, 3 Years, 2021-24, Rs 93.4 Lakhs
2. Strategic Multimodal Intervention in at-risk Elderly Indians for Prevention of Dementia (SMRUTHI INDIA): A cohort multiple randomized controlled trial (cmRCT), Dr MA Khan, ICMR, 3 Years, 2022-24, Rs 10 Lakhs

Completed

NIL

Departmental projects (including thesis/dissertations)

Ongoing

NIL

Completed

NIL

Collaborative Projects

Ongoing

1. A comparative proteomics and metabolomics study of Idiopathic pulmonary fibrosis (IPF) and Post-COVID pulmonary fibrosis (pCPF) to identify new pathological and therapeutic pathways, Department of Pulmonary, Critical Care and Sleep Medicine
2. A comparison of the effect of desflurane vs sevoflurane on arterial oxygenation during one-lung ventilation for thoracotomies in onco-surgical patients: a randomized control trial, Department of Onco-anesthesia
3. A comparison of modulating effect of cTBS and low-frequency rTMS on cortical excitability in children and adolescents aged 5-14 years with Lesional Drug refractory Epilepsy (Focal epilepsy or electrical status epilepticus in sleep): An open-label randomized non-inferiority crossover study, Department of Pediatrics
4. A cross-sectional study to assess the quality-of-life impairment in children and adolescents with vitiligo and their primary caregivers and comparison of prevalence of depression, anxiety and low self-esteem in children and adolescents with vitiligo as compared to age and sex-matched healthy controls, Department of Dermatology & Venereology
5. A cross-sectional study to assess the severity of neurogenic bowel dysfunction, quality of life, functional status and whole bowel transit in spinal cord injury, Department of Physical Medicine and Rehabilitation
6. A cross-sectional study to assess the functional status in post covid infected persons and symptoms in long covid patients, Department of Medicine
7. A phase II Randomized controlled trial comparing pulmonary complications in retrosternal vs posterior mediastinal gastric conduit placement in patients undergoing Esophagectomy, Department of Surgical Oncology
8. A preliminary study to validate BM-AspICU algorithm for diagnosing invasive pulmonary aspergillosis in critically ill mechanically ventilated patients using post-mortem minimally invasive tissue sampling, Department of Medicine
9. A prospective cohort study to evaluate the feasibility and accuracy of fetal Vibroacoustic stimulation as a tool for prenatal hearing screening, Department of ENT
10. A randomized controlled trial to assess the use of antibiotic prophylaxis for non-hysterectomy gynecological laparoscopic surgeries, Department of Obstetrics & Gynecology
11. A randomized placebo-controlled trial to assess efficacy of Vitamin D supplementation in non-cystic fibrosis bronchiectasis patients, Department of Medicine

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12. A study of central pain modulation in chronic pancreatitis, Department of Medicine
13. A study of immune responses in the pathophysiology of human chronic pancreatitis, Department of Biochemistry
14. A study on cellular physiology of endometriosis-associated estrogenic action in endometrial stromal cells, Department of Physiology
15. Addition of low-dose pembrolizumab to capecitabine for residual triple negative breast cancer post neoadjuvant chemotherapy: A phase III randomized double-blinded placebo-controlled clinical trial, Dr B. R. Ambedkar Institute Rotary Cancer Hospital
16. Adherence Need Assessment Tool development and validation among PLHIV to improve adherence to Anti-retroviral therapy, Department of Medicine
17. Agreement between home-based videos and in-clinic videos for general movement assessment in high-risk infants for predicting occurrence of Cerebral Palsy and risk of autism spectrum disorder at 12 month age: A longitudinal observational study, Department of Pediatric
18. Ambient air pollution, lung functions and cognitive impairment vis-à-vis micronutrient deficiencies: A longitudinal multi-centric cohort study among adolescents, Department of Pulmonary, Critical Care and Sleep Medicine
19. An investigation into the impact of particulate matter exposure on placental inflammatory response and fetal development, Department of Biochemistry
20. An open-label randomized controlled trial to compare the outcome with and without preoperative splenic artery embolization (SAE) in patients with moderate splenomegaly undergoing elective laparoscopic splenectomy, Department of Surgical disciplines
21. Analysis of Clinical and environmental fungal isolates in medical ward and Intensive care unit – A tool for hospital infection surveillance, Department of Medicine
22. Analysis of symptom burden and quality of life in patients undergoing hemodialysis at tertiary care centre: a prospective observational study, Department of Medicine
23. Anemia: Exploring the role of vitamin D, essential elements and lifestyle in the Indian population, Department of Pharmacology
24. App-assisted diagnosis of patients presenting with dizziness based on patient's symptomatology, elaborative clinical testing and basic investigations, Department of ENT
25. Artificial intelligence-based decision Support System for Diagnosing Ventilator-Associated Pneumonia, Department of Medicine
26. Assessment of adreno-cortical function and its clinico-metabolic implications in PLWHIV population, Department of Medicine
27. Assessment of adreno-cortical function and its implications in PLHIV population, Department of Medicine
28. Assessment of post cholecystectomy symptoms and quality of life evaluation: a prospective cohort study, Department of Surgical discipline
29. Assessment of risk status of diabetes-related foot disease among people with diabetes residing in an urban resettlement colony in Delhi: A cross-sectional study, Centre for Community Medicine
30. Assessment of self-reported sleep duration and quality in relation to the cognitive status of older adults, Department of Geriatric Medicine
31. Assessment of the analgesic efficacy of bilateral pecto-intercostal fascial block and intermediate cervical plexus block in patients undergoing bilateral axillo-breast approach (BABA) endoscopic thyroidectomy under general anesthesia: a randomized controlled trial, Department of Anesthesiology
32. Association of hypocalcemia in dengue fever presented to ED, Department of Medicine
33. Bimolecular analysis of neuro-protective effect of intervention in older adults with mild cognitive impairment, Department of Geriatric Medicine
34. Burden of cardiometabolic disorders in PLHIV on ART, Department of Medicine
35. Central line-associated bloodstream infections and bacterial contamination among health care workers in medical ICU: a prospective observational study, Department of Medicine

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36. Centre for Advanced Research and Excellence (CARE) in Young Diabetes, Department of Endocrinology and Metabolism, Department of Endocrinology and Metabolism
37. Combination of tofacitinib with transplantation of non-cultured epidermal cell suspension vs non-cultured epidermal cell suspension alone in non-segmental vitiligo patches clinically stable for <1 year: a randomized controlled trial, Department of Dermatology & Venerology
38. Comparison of overall response to neoadjuvant short-course radiotherapy followed by consolidation chemotherapy with conventional long course chemoradiotherapy in locally advanced rectal cancer, Department of Radiation Oncology
39. Comparison of Re-188-HDD Lipiodol Trans Arterial Radionuclide Therapy (TART) with Re-188-DEDC Lipiodol TART in the management of advanced Hepatocellular Carcinoma: A Randomized Control Trial, Department of Nuclear Medicine
40. Comparison of whole-body MRI with 18 f-fdg PET/CT in pediatric lymphohistiocytic neoplasms, Department of Radiodiagnosis
41. Contrast-Enhanced Ultrasound guided Celiac Plexus Nerve Block in Upper abdominal cancer pain, Department of ENT
42. Control of HbA1c, Blood Pressure and Cholesterol (ABC) among adults with diabetes in an urban resettlement colony, Centre for Community Medicine
43. Correlation of Pre and Post Surgical findings with clinical course in patients undergoing early Laparoscopic Cholecystectomy for Asymptomatic gall stone disease: A Prospective study, Department of Surgical disciplines
44. Coverage and delivery of maternal nutrition services in primary health care settings in a rural area of Ballabgarh, Haryana, Centre for Community Medicine
45. Deciphering the synergism between IGF2BPs and m6A machinery in B-cell Acute Lymphoblastic Leukemia, Department of Biochemistry
46. Design and development of a safe portable, economical, non-invasive, point-of-care digital infrared imaging system for screening and early detection of oral cancer-an exploratory pilot study, Centre for Dental Education & Research
47. Developing a stepwise approach to diagnose pediatric sleep disorders: A Questionnaire, actigraphy and polysomnography based observational study, Department of Pediatric Neurology
48. Development and Evaluation of an Individualized Weight Management Module for Young Adults, Department of Medicine
49. Development and validation of a comprehensive module for management of sleep disorders in children with autism spectrum disorder aged 4-10 years: a pre and post-intervention study, Department of Pediatric
50. Development and validation of Immunoassays aid in Diagnosing and assessing treatment response in chronic pulmonary aspergillosis, Department of Medicine
51. Development of neuro-vascular coupled computational modelling in stroke using multimodal imaging, Department of NMR & MRI facility
52. Diagnostic accuracy of Gene Xpert Ultra in Tuberculosis pleural effusion, Department of Medicine
53. Diagnostic Utility of Bronchoalveolar Lavage & Computerized Tomography in Diagnosis of Recurrence Among Sputum Scarce & Sputum Negative Treated Pulmonary Tuberculosis Suspects, Department of Medicine
54. Diagnostic validation of first episode and chronic neurobehavioral outcome in pediatric-onset central nervous system acquired demyelination syndrome: an ambispective observational study, Department of Pediatrics
55. Dietary practices and nutritional status of children aged 6-23 months in an urban resettlement colony of Delhi, Centre for Community Medicine
56. Drivers of reduction in anaemia in India: Insights from sub-national exemplars. COVID-19 in Indian Population: A prospective multi-centric study, Department of Community Medicine
57. Drug Intervention for prevention of type 2 diabetes among women with prior gestational diabetes mellitus and pre-diabetes in South Asia (DIVINE): A Randomized control trial, Department of Endocrinology and Metabolism, Department of Endocrinology and Metabolism
58. Early integration of Point Of Care Ultrasound (POCUS) in Oncopalliative care, Department of Onco-anesthesia

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59. Effect of comprehensive sleep program on sleep quality and glycemic/metabolic control in patients with diabetes mellitus: A randomized controlled trial, Department of Endocrinology and Metabolism
60. Effect of educational intervention on antifungal use in medicine wards and ICU, Department of Medicine
61. Effect of Exercise on the Functional Status and Mental Well-Being in Patients with Chronic Low Back Pain: A Pre-post Interventional Study, Department of PMR
62. Effect of Remote Ischemic Post-conditioning on inflammatory markers and myocardial injury during thrombolysis in normal and vitamin D deficient patients suffering from acute coronary syndrome, Department of Pharmacology
63. Effect of sugammadex versus Neostigmine reversal on lung aeration score after operative fixation of cervical spine: A prospective, double-blinded, randomized control trial, Department of Neuroanaesthediology and Critical Care
64. Efficacy and safety of intramuscular haloperidol and olanzapine in management of acutely agitated patients in emergency department, Department of Emergency Medicine
65. Efficacy of Eliglustat monotherapy in ERT-naïve children (6-17 years) with Gaucher Disease type I and type 3: An open-label single-arm phase 3 intervention trial, Department of Pediatrics
66. Efficacy of IV rituximab *versus* oral mycophenolate mofetil in sustaining remission in steroid-resistant nephrotic syndrome maintained on calcineurin inhibitors for more than two years: An open-label randomized controlled trial, Department of Pediatrics
67. Efficacy of Pre-operative Trans-catheter Embolization of Borderline Systemic to Pulmonary Artery Collaterals in Tetralogy of Fallot Repair, Department of Onco-anesthesia
68. Enhancing mental health and substance use literacy among college-going students in the national capital territory of Delhi, Centre for Community Medicine
69. Enteral feeding practices and their outcomes in advanced aerodigestive malignancies: an ambispective observational study, Department Palliative Medicine
70. Epidemiologic and Genetic study of anterior segment developmental corneal opacification in Asian Indian Population, Department of Ophthalmology
71. Epidemiological assessment of oral disease burden and oral health-related quality of life of geriatric population and service availability and readiness assessment of oral health services in India- An ICMR Multi-centric Task Force, Centre of Dental Education & Research
72. Etiology and outcome of lung cavity in hospitalized patients, Department of Medicine
73. Evaluating the synergy of metformin combined with PD1 blockade in modulating tumour immune microenvironment and metabolism in lung cancer, Department of Pharmacology
74. Evaluation of Artificial neural network for differentiating Iron deficiency anaemia and β-thalassemia trait in comparison to the conventional methods, Department of Laboratory Medicine
75. Evaluation of dual dye technique for sentinel lymph node biopsy in breast cancer: two arm open label parallel design non-inferiority randomized controlled trial, Department of Surgical Oncology
76. Evaluation of kit-based loop-mediated isothermal amplification (TB-LAMP) assay in the diagnosis of tubercular lymphadenitis, Department of Medicine
77. Evaluation of maternal and fetal outcomes in women diagnosed with GDM or normoglycemia using IADPSG criteria, among women diagnosed with normoglycemia by DIPSI criteria: Prospective multicentre observational cohort study, Department of Endocrinology and Metabolism, Department of Endocrinology and Metabolism
78. Evaluation of non-invasive adjuncts in OPMDs for early detection of oral cancer and development of risk-based OPMD management protocol in a primary health care setting, Centre for Dental Education & Research
79. Evaluation of Novel Hematological Extended inflammatory Parameters (EIP) in the prediction of post-Injury Sepsis in patients at Level 1 Trauma Centre in tertiary care hospital, Department of Laboratory Medicine
80. Evaluation of short-term and long-term effects of cochlear implantation on vestibular function, Department of Surgical discipline
81. Evaluation of the effect of prior exposure to laparoscopic surgery on acquisition of robotic surgical skills in a simulated environment, Department of Surgical disciplines
82. Evaluation of the expression, regulation, and clinical relevance of APOBEC3B in non-small cell lung cancer, Dr B. R. A Institute of Rotary Cancer Hospital

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83. Exploring neuroimaging and metabolomic markers associated with opioid-dependent subjects on buprenorphine maintenance treatment, Department of NMR
84. Exploring the link between fatty acid metabolism and bioenergetics in paediatric B-cell leukaemia: implications for tumour survival and treatment response, Department of Biochemistry
85. Factors affecting treatment outcome in advanced HIV disease, Department of Medicine
86. Frequency and Risk factors for Latent Tuberculosis Infection among Type 2 Diabetes Mellitus Patients, Department of Medicine
87. Genotype-phenotype correlation in Indian children with Morquio syndrome, Department of Pediatrics
88. Host and environmental factors in the acute exacerbations of childhood interstitial lung disease, Department of Pediatrics
89. ICMR's Network of Pulmonary Fibrosis (INPF), Department of Pulmonary, critical care and sleep medicine
90. Identification of biomarkers, development of predictive equations and risk scores for dynapenia/Sarcopenia in obese Indian adults with and without type 2 diabetes mellitus, Department of Medicine
91. Identification of factors predictive for weight loss after Bariatric Surgery: Building a model for improving outcomes and maintaining weight loss, Department of Surgical Disciplines
92. Identification of metabolic biomarkers by using metabolomics and meta-genomics of prostate cancer associated micro-biome to distinguish aggressive prostate cancer, Department of NMR
93. Impact of Indian Adaptation of Mediterranean Diet versus Low-fat diet on Dietary Inflammatory Index in patients with coronary artery disease, Department of Cardiology
94. Impact of intraoperative micro breaks on musculoskeletal symptoms and performance of surgical residents during minimal access surgical tasks in a simulated setting, Department of Surgical disciplines
95. Incidence and Clinico-Microbiological Profile of Surgical Site Infections in a Surgery ward in a tertiary care hospital, Department of Medicine
96. Incidence and severity of psychosocial and somatic disorders in survivors of childhood solid malignant tumours, Department of Pediatric Surgery
97. Knowledge, Attitude and practice of travel medicine among medicine and ID residents in AIIMS, New Delhi-A Quasi interventional study, Department of Medicine
98. Long COVID and coagulopathy among patients recovered from COVID-19: a prospective observational study, Department of Medicine
99. Long term exposure to air pollution and their correlation with disease severity and outcomes in patients with influenza-like illness and COVID-19 in Indian Population: A prospective multi-centric study, Department of Pulmonary Medicine and Sleep Disorder
100. Midline vs triangular port placement in total extraperitoneal mesh repair in uncomplicated inguinal hernia: A randomized controlled trial, Department of Surgical disciplines
101. Molecular characterization and antimicrobial resistance profile of Uropathogenic Escherichia coli (UPEC) from patients with UTI in India: A cross-sectional study, Department of Microbiology
102. Multi-analytes lateral flow immune assay for the detection of sepsis and multi-organ dysfunction syndrome in post-trauma patients, Department of Laboratory Medicine
103. Multimodality imaging of parotid and submandibular glands in Primary Sjogren's syndrome, Department of Radiodiagnosis
104. Neurofilaments and Creatinine as Biomarkers in Spinal Muscular Atrophy: An Observational Study, Department of Pediatrics
105. Neurological outcomes and Quality of life following minimally invasive thymectomy in Thymomatous and Non-Thymomatous Myasthenia Gravis, Department of Surgical disciplines
106. Newborn screening for spinal muscular atrophy-A pilot study, Department of Pediatrics
107. Nutritional risk assessment of pregnant women- A community-based study in rural Ballabgarh, Centre for Community Medicine

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108. Ocimum sanctum extract as adjuvant therapy in persons with drug-resistant epilepsy: A double-blind, randomized, placebo-controlled trial, Department of Pharmacology

109. Opioid sparing Anesthesia Technique for supratentorial craniotomy in geriatric patients [OPIATE]: a randomized open labelled study, Department of Neuroanaesthesia

110. Out-of-pocket expenditure among patients with diabetes mellitus attending a tertiary care hospital in North India; a facility-based cross-sectional study, Department of Medicine

111. Pattern of care and outcome in triple-negative breast cancer-a retrospective study, Department of Surgical disciplines

112. Plasma Biomarkers by Mass Spectrometry in Sphingolipidoses: Correlation with disease severity and Genotype, Department of Pediatrics

113. Post Sepsis syndrome: A prospective Observational study, Department of Medicine and Microbiology

114. Predictors of adverse outcomes in treatment of TB, Department of Medicine

115. Prevalence and Risk Factors for Sarcopenia in Type 1 Diabetes Mellitus: A Case-Control Study, Department of Endocrinology & Metabolism

116. Prevalence of anxiety and depression in patients with chronic pancreatitis and its effect on pain and quality of life, Department of Gastroenterology & Human Nutrition

117. Prevalence of dynapenia/sarcopenia and its association with metabolic parameters, body composition and bone mineral density in postmenopausal women: A cross-sectional study, Department of Medicine

118. Prevalence of Strongyloides infection among immune-compromised patients at a tertiary care hospital, Department of Microbiology

119. Prevalence, Risk Factors and Outcome of Undiagnosed Heart Failure with Preserved Ejection Fraction (HFpEF) Among Patients Admitted with Dyspnea, Department of Medicine

120. Procalcitonin as a biomarker of bacterial sepsis patients with acute kidney injury, Department of Medicine

121. Role of a protocolized pulmonary rehabilitation programme in improving performance status and quality of life in patients with end-stage lung disease eligible for lung transplant, Department of Pulmonary, Critical Care and sleep medicine

122. Role of CSF lactate and chloride in identifying the etiology of meningitis, Department of Medicine

123. Role of Demographic Surveillance Sites (DSS) in generation of mortality statistics in India: Situation analysis, feasibility of digital solutions and usefulness in estimation of national mortality statistics, Centre for Community Medicine

124. Role of multi-parametric ultrasound and dual energy-computed tomography (DECT) to differentiate malignant from benign gall bladder pathologies, Department of Radiodiagnosis and Interventional Radiology

125. Role of PET brain in PLHIV with cognitive impairment, Department of Nuclear Medicine

126. Should Colorectal Cancer screening be done in Asymptomatic Indians: A Pan-India multicentre study, Department of Gastroenterology & Human Nutrition

127. Sleep quality in patients with diabetes and its correlation with duration of diabetes, glycemic and metabolic control and NAFLD: a cross-sectional study, Department of Endocrinology & Metabolism

128. Smartphone app for management of gestational diabetes mellitus in urban-rural settings in India: A randomized controlled trial, Department of Obstetrics & Gynecology

129. Statistical modelling to assess the determinants of HIV risk behavior among the Hijra and Transgender population using Integrated Biological and Behavioral Surveillance Survey 2014-15 in India, Centre for Community Medicine

130. Strategic Multimodal Intervention in at-risk Elderly Indians for Prevention of Dementia (SMRUTHI INDIA): A cohort multiple randomised controlled trial (cmRCT), Department of Neurology

131. Strengthening Ambulatory care for Non-communicable disease in North India Star NCD, Centre for Community Medicine

132. Study of Fibrosis in Cardiovascular Disease: FIBICAR Study, Department of Cardiology

133. Study of osteosarcopenia in obese adults, Department of Medicine

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134. Study of prevalence of concomitant transthyretin amyloidosis in elderly patients with severe aortic stenosis by PYP scan, Department of Cardiology

135. Study on the effect of a structured training program and micro-breaks on workload amongst surgeons during open thyroidectomy and modified radical mastectomy: A Quasi Experimental study, Department of Surgical disciplines

136. Study on the impact of continuous glucose monitoring system on achievement of glycemic and clinical outcomes in critically ill patients, Department of Medicine

137. Therapeutic potential of extracellular vesicles (EVs) derived from endothelial colony forming cell (ECFC) indirectly primed with mesenchymal stem cell (MSC) in a mouse model of hind limb ischemia, Department of Cardiac Biochemistry

138. To assess the impact of percutaneous transhepatic biliary drainage on the quality of life of patients suffering from carcinoma of the gall bladder, Department of Radiodiagnosis and Interventional Radiology

139. To compare the effectiveness of mobile App vs conventional prescription of analgesics and adjuvants containing AI-based educational intervention on compliance, knowledge and satisfaction among advanced cancer patients receiving palliative care at a tertiary care centre – A Randomized control trial, College of Nursing

140. To develop and evaluate the effectiveness of a multidisciplinary education and care model for individuals with diabetes affected by COVID-19: A two-arm parallel Randomized Control Trial, Department of Endocrinology and Metabolism, Department of Endocrinology and Metabolism

141. To Establish an Algorithm for the Management of Axilla in Patients of Early operable breast cancer with clinically negative axilla, Department of Surgical Oncology

142. To evaluate the benefit of magnetic stimulation of the pelvic floor in older females with urinary incontinence-a single centre randomized controlled trial, Department of Geriatric Medicine

143. To evaluate the effectiveness of enhanced behavioural intervention and use of technology (Continuous glucose monitoring) for improving pregnancy outcomes in women with type 2 Diabetes mellitus: A three-arm parallel randomized controlled trial, Department of Medicine

144. To evaluate the performance of MorphX1 (A New Automated Digital Imaging Platform) with respect to conventional microscopy in peripheral blood smear,

145. To evaluate the performance of Shonit (A new Automated Digital Imaging Platform) with respect to conventional microscopy for peripheral blood smear, Department of Laboratory Medicine

146. To evaluate the safety and efficacy of hepatic hilar plexus block in patients undergoing percutaneous trans-hepatic biliary drainage, Department of Radiodiagnosis Interventional Radiology

147. To generate normative data using a continuous glucose monitoring system for glycemia in pregnancy at 24 to 32 weeks of gestation in women defined as normal by IADPSG criteria, the Department of Endocrinology and Metabolism

148. To study and evaluate the interaction between endothelial progenitor Cells and platelet function in cardiac patients, the Department of Laboratory Medicine

149. To study the adjunctive effect of Photobiomodulation Therapy using a Diode laser of 940nm wavelength on Clinical, Functional, Molecular characteristics and Oral Health Quality of life in moderate Oral Submucous Fibrosis, Centre for Dental & Research

150. To study the effect of diesel exhaust exposure on male reproduction in laboratory rat, the Department of Physiology

151. To study the effect of intermittent theta burst stimulation (iTBS) repetitive Transcranial Magnetic Stimulation (rTMS) in predominantly negative symptoms and cognitive function in a person suffering from schizophrenia (> 2 years duration) in a randomized sham-controlled double-blind trial, the Department of Psychiatry

152. To study the effect of small bore size chest tube on pain in patients with thoracic trauma: A Randomized Controlled Trial, Department of Trauma Surgery & Critical Care, JPN Apex Trauma Centre

153. To study the outcomes in patients with cholelithiasis following subtotal Cholecystectomy, the Department of Surgical disciplines

154. To study the role of serum proteomics profiles in subjects with metabolic syndrome, Department of Medicine

155. Use of Prophylactic Steroid to Prevent Hypocalcemia In Patient Undergoing Thyroidectomy: Randomized Controlled Trial, Department of ENT

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156. Utility of pre-operative shear wave elastography of the abdominal wall and muscles in detecting weak areas near hernia along with predicting successful repair of ventral abdominal hernia a prospective comparative interventional study, Department of Surgical disciplines

157. Validating Biomarker Panel in Five Different Cohorts to Define and Predict Biological Ageing, Disease Burden and Mortality in Human Subjects-A Pilot Prospective Cohort Study, Department of Geriatric Medicine

158. Validation of "Primary Care Team dynamics survey" tool to measure teamwork in primary healthcare settings in Faridabad and Palwal district, Haryana, Centre for Community Medicine

159. Whole Body Magnetic Resonance Imaging in assessment of disease activity and damage in children with Juvenile Idiopathic Arthritis, Department of Radiodiagnosis

160. Whole Exome Sequencing of Hypospadias Patients Family Trios for Identification & Validation of Genetic Markers and Development of a Genetic Panel for Hypospadias Risk Assessment, Department of Pediatric Surgery

161. Young onset Lung cancer: Clinicopathologic and molecular profile and treatment outcomes, Department of Medicine

Completed

1. A randomized controlled trial comparing intralesional triamcinolone acetonide alone versus fractional electrolysis with topical application of triamcinolone acetonide in the treatment of keloids, Department of Dermatology & Venereology
2. A randomized controlled trial of the effect of cosmetic camouflage on quality of life and patient-perceived stigma in patients with predominantly acrofacial vitiligo as compared to controls, Department of Dermatology & Venerology
3. Advanced MR imaging of pancreas in patients with a prior history of Gestational Diabetes Mellitus, Department of Radiodiagnosis and Intervention Radiology
4. An OMICS approach to understand the molecular heterogeneity of Breast cancer among Indian females, Department of Biochemistry
5. Comparison of outcomes of Trans-oral vestibular and Axillo-breast approach for endoscopic hemithyroidectomy in patients with benign and indeterminate thyroid lesions-A randomized controlled trial, Department of Surgical Disciplines
6. Indications and Outcomes of Rigid Bronchoscopy and Therapeutic Airway Interventions performed under General Anesthesia, Department of Pulmonary, Critical Care and Sleep Medicine
7. Multi-parametric MRI of Non-alcoholic fatty liver disease, Department of Radiodiagnosis and Intervention Radiology
8. Nutritional status of Women Aged 15-24 years in a rural area of Haryana, Centre for Community Medicine
9. Role of indocyanine green in predicting limb perfusion in comparison to standard methods in cases of chronic limb threatening ischemia in correlation with clinical progression, Department of Surgical Disciplines

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	2	2	2
Total funding	Rs 103.4 Lakhs	Rs 103.4 Lakhs	Rs 103.4 Lakhs

PUBLICATIONS

Total Publications: 85;

Journal Articles: 79 Abstracts: 5; Chapters in Book: 2

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Publications over past 3 years

Item	2021-2022	2022–2023	2023–2024
Total	114	77	85
Journal articles	114	77	79
Abstracts	0	0	6
Chapters in books	0	0	0
Books	0	0	0

PATIENT CARE

Not Applicable

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Maroof Ahmad Khan is a member of the selection committee in the various institutes of national importance and universities. Editorial board member (biostatistics) of the Indian Journal of Ophthalmology and International Journal of Scientific Reports. Scientific reviewer of The Lancet Journal, Aligarh Journal of Statistics, American Journal of Public Health Research, Journal of Obesity, British Journal of Visual Impairment and various journals of British Medical Journal Group.

Dr M Kalaivani is a Data and Safety Monitoring Board member of ICMR VPM Vaccine trial: A Phase III, Randomized, Double-blind, three-arm placebo-controlled trial to evaluate the efficacy and safety of two vaccines VPM1002 and Immuvac (Mw) in preventing Tuberculosis (TB) in healthy household contacts of newly diagnosed sputum positive pulmonary TB patients; Working Committee Member of Clinical Research Unit; Selection Committee Member for project staff; Life member of Indian Society for Medical Statistics; Member of International Society for Clinical Biostatistics, Life member of the Indian Association for the Study of Population and Member of Epidemiological Foundation of India. Editor of Indian Journal of Anesthesia and Scientific Reviewer of Annals of Pediatric Cardiology.

VISITING SCIENTIST

None

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9.7 Biotechnology

Professor and Head

Shyam S Chauhan

(up to 30 November 2023)

Additional Professor and Head

Anushree Gupta

Associate Professors

Sirish Kumar Ippagunta	Rupesh Kumar Srivastava	Vikram Saini
Bhupendra Kumar Verma		Sumit Rathore
Vineet Choudhary		Mahendra Seervi

Assistant Professor

Avtar Singh Meena

Scientist

Shrabani Saugandhika

HIGHLIGHTS

- Department of Biotechnology runs a well-rated Masters in Biotechnology course with specialization in Medical Biotechnology admitting 18 students per batch. The Department also runs a Ph.D. program. The total strength of MSc and PhD students is about 60.
- Departmental faculty have mentored about 4 postdoctoral scientists last year.
- The department runs a student mentorship and career awareness program, to cater for the needs of students from diverse backgrounds.
- Departmental faculty have obtained a large number of extramural grants from various funding agencies including the prestigious Welcome Trust-DBT India Alliance Intermediate Fellowship Grant.
- Departmental faculty have received national-level honours/awards from various scientific organizations in recognition of their outstanding contributions to the field of biotechnology.
- Departmental faculty have served as experts in several scientific committees organized by various institutes and universities of the Government of India.
- Departmental faculty have published a large number of peer review research articles in, various national and international, high-impact factor journals.
- The department has five senior demonstrators (Dr Ravinder Kumar, Dr Pooja Kumari, Dr Anuj Kumar Tomer, Dr Kiran Kumari and Dr Chenole Keppen) who participate in the teaching and research activities of the department.
- PhD scholar Ms Leena Sapra is the recipient of the Travel Award for participation in the 11th International Symposium on Nutritional Aspects of Musculoskeletal Health in San Diego, Sun Pharma Science Scholar Award-2023 under Biomedical Category by Sun Pharma Science Foundation, India, Second Prize for Oral presentation at "IMMUNOCON-2023", 5-8 October 2023, AIIMS, New Delhi, India.
- PhD scholar Ms Kriti Negi received the Best Poster Presentation prize on "Advancing One Health through Antimicrobial Textiles: A Strategy to Mitigate Zoonotic Risks in Healthcare Environments" at the National Public Health India Conference (NPHICON 2024) organized by the National Centre for Disease Control during 23-25 February 2024.

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- **Activities/steps taken to improve patient care services, education and research:** The Department is known for its commitment to biomedical research and the continuous efforts of the faculty has established a name for the Department in the areas of Leprosy, TB, Malaria and Cancer. New fields of research initiated in the Department include Cardiogenomics, Bioinformatics, Osteoimmunology, Virology, Metabolism and bioenergetics of Infectious diseases, Innate immunity, Inflammation, Drug development, Molecular parasitology, Lipid droplet biogenesis, Cell death and its regulation and molecular cancer therapeutics, Intestinal Biology and Liver Diseases.
- **Action plan for the coming year:** To continue making significant contributions to research in the areas of Cancer biology, Endothelin biology, Immunology, Virology, Infectious diseases, Molecular parasitology, Lipid metabolism, Intestinal Biology and liver diseases. Also, the departmental faculty are committed to contribute to the development of technologies, diagnostics and therapeutic assays especially for Class II and Class III infections such as tuberculosis, which is a National Health Priority. Further taking products developed by faculty of the department to the market and commercialize will also be a top-priority.



1. Dr Rupesh Srivastava received Prof GP Talwar Gold Medal Oration Award, by the Indian Society for the Study of Reproduction & Fertility (ISSRF), on 24 February 2024 at CSIR-IICT, Hyderabad, India
2. Dr Rupesh Srivastava received AIIMS Research Excellence Award at 3rd Annual Research Day celebration of AIIMS on 30 January 2024
3. Ms Kanchan Saini and Ms Kriti Negi (PhD students) received Commendation prize and 3rd Prize Popular Choice Award respectively in Poster presentation at at 3rd Annual Research Day celebration of AIIMS on 30 January 2024
4. Ms Leena Sapra (PhD student), received the First Prize for Oral presentation at "TCS-2023", 26-29 October 2023, AIIMS, New Delhi, India

EDUCATION

Post Graduate Teaching

- The Department conducts 2 years postgraduate course in Biotechnology with an emphasis on Medical Biotechnology leading to an M Biotech degree. The teaching program covers 16 subjects, namely, Cell and Developmental Biology, Genetics, Human Biochemistry, Medical Microbiology, Immunology & Immunotechnology, Molecular Biology, Infectious Disease Biology, Genetic Engineering & Genome Technology, Biophysics: Principles, Techniques & Applications in Medicine, Bioinformatics, OMICS (Genomics, Transcriptomics, Proteomics & Metabolomics), Biostatistics, Seminars in Laboratory Techniques (Principles & Instrumentation), Medical Biotechnology (Journal Club & Communication Skills), Seminars in Molecular Medicine & Biotechnology and Dissertation in frontier areas of medical research.
- Students are given individual attention and extensive hands-on training in Practical classes.

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- Experts are invited from PGIMER, 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.
- The Department conducts a PhD program in the area of Medical Biotechnology.
- The Department mentors and supports young Scientists having DBT and DST National Post-Doctoral and Young Scientist awards.

Year	Number of students registered in the department
2021-2022	41
2022-2023	50
2023-2024	58

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered: 28

Shyam S Chauhan: 2 **Sirish Kumar Ippagunta: 1** **Rupesh Kumar Srivastava: 9**

Vikram Saini: 5 **Bhupendra Kumar Verma: 3** **Sumit Rathore: 1**

Vineet Choudhary: 3 **Avtar Singh Meena: 4**

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
284	222	28

Oral papers/posters presented: 49

Oral/poster presented over past 3 years

2021–2022	2022–2023	2023–2024
10	20	49

RESEARCH

Funded projects

Ongoing

1. A comparative study to evaluate the effect of first-line therapies in Osteoporotic patients, Dr Rupesh K Srivastava, AIIMS, 2 Years, 2023-25, Rs 20 lakhs
2. A longitudinal study to assess the incidence of chronic pulmonary aspergillosis in pulmonary tuberculosis patients and identification of Aspergillus immunodiagnostic antigens, Dr Sumit Rathore, AIIMS, 2 Years, 2023-25, Rs 10 lakhs
3. Center of Excellence and Regional Center for One Health Program, supported by NCDC and Ministry of Health, Dr Vikram Saini, NCDC, MHFW, 5 Years, 2023-28, Rs 350 lakhs
4. Comparative evaluation of nuclear pore complex (NPCs) and nucleoporins in untreated versus anastatic cancer cells, Dr Mahendra Seervi, AIIMS, 2 Years, 2023-25, Rs 10 lakhs
5. Cytoplasmic stress granules: dynamic regulators of anastasis in cancer cells? Dr Mahendra Seervi, SERB, 3 Years, 2021- 2024, Rs 64 lakhs

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6. Deciphering the functions of the conserved fat storage-inducing transmembrane (FITM2) protein in lipodystrophy and insulin resistance through systems approaches, Dr Vineet Choudhary, Department of Biotechnology (DBT); Bilateral programme (Indo-Swiss Joint Research Programme (ISJRP), 4 Years, 2021-25, Rs 250 lakhs
7. Decoding the miRNAs-RBPs nexus in DENV pathogenesis, Dr Bhupendra K. Verma, AIIMS, 2 Years 2022-24, Rs 10 lakhs
8. Discovering the anti-inflammatory effects of novel Toll-like receptor signaling inhibitors on rheumatoid arthritis mononuclear cells and synovial fibroblasts: An in vitro study to identify TLR signaling inhibition as a future potential strategy to control inflammation in rheumatoid arthritis, Dr Sirish Kumar Ippagunta, ICMR, 3 Years, 2021-24, Rs 81.81 lakhs
9. Elucidating the Molecular Mechanisms of Host-Pathogen Interactions in Individuals with Tuberculosis and Diabetes Mellitus, Dr Vikram Saini, AIIMS, 2 Years, 2024-26, Rs 10 lakhs
10. Establishment of Intestinal Organoids to Investigate the Crosstalk between Probiotics and Intestinal Cells under Ethanol Exposure, Dr Avtar Singh Meena, AIIMS Intramural Grant, 2 Years, 2023-25, Rs 10 lakhs
11. Examining the Role of the TRPV6 Channel in the Development of Alcohol-Induced Colorectal Cancer, Dr Avtar Singh Meena, SERB, 3 Years, 2023-26, Rs 50 lakhs
12. Exploring the immunomodulatory activities of novel Toll-like receptor-signaling inhibitors in peripheral blood mononuclear cells from lupus patients: A study to identify TLRs as drug targets for lupus, Dr Sirish Kumar Ippagunta, SERB, 4 Years, 2020-24, Rs 68.01 lakhs
13. Generation of Molecular Tools for functional Characterization of Silent Genetic Variants of Endothelin Receptor Genes, Dr Anushree Gupta, AIIMS, 2 Years, 2022-24, Rs 10 lakhs
14. Identification of key ligands/ligand complexes on Plasmodium falciparum merozoite using Cryo-EM, proteome and immunological approaches-A step towards the development of an efficacious malaria blood stage vaccine, Dr Sumit Rathore, DBT/Welcome Trust India Alliance's, 5 Years, 2024-29, Rs 165 lakhs
15. Investigate the role of fat storage-inducing transmembrane (FITM2) protein in organizing ER subdomains for lipid droplet biogenesis, Dr Vineet Choudhary, AIIMS, 2 Years, 2024-26, Rs 10 lakhs
16. Investigation of key splicing events modulated in DENV infection, Dr Bhupendra K Verma, DBT, 3 Years, 2021-24, Rs 55.5 lakhs
17. Mechanistic analysis of tRNA-derived RNA fragments in DENV pathogenesis, Dr Bhupendra K Verma, SERB, 3 Years, 2023-26, Rs 50 lakhs
18. Molecular Characterization of 5'UTR Of EDN1 gene containing single +139'A' Insertion Mutation, Dr Anushree Gupta, ICMR, 3 Years, 2022-25, Rs 84.51 lakhs
19. Molecular Mechanisms of Lipid Droplet Biogenesis, Dr Vineet Choudhary, Welcome Trust/DBT India Alliance. Scheme: Intermediate Fellowship Grant in the field of Basic Biomedical Research, 5 Years, 2021-26, Rs 359 lakhs
20. National Consortium for One Health to address Zoonotic and Transboundary Diseases in India, including the Northeast Region, Dr Vikram Saini (PI at AIIMS), DBT, 3 Years, 2021-24, Rs 57.12 lakhs
21. Probiotics mediated bioenergetics health modulation as a novel approach to the management of microbial infections, Dr Vikram Saini, DRDO, 3 Years, 2021-24, Rs 75.50 lakhs
22. Selenium supplementation as an adjunct therapy against tuberculosis, Dr Vikram Saini, ICMR, 3 Years, 2024-27, Rs 68.80
23. Single-cell quantitation of mRNA and protein expression of antigenic variation genes and tissue tropism characterization in Plasmodium falciparum, Dr Sumit Rathore, MHRD, 3 Years, 2023-26, Rs 40 lakhs
24. The Role of Lactiplantibacillus Pentosus in Mitigating Alcoholic Liver Disease through Modulation of the Gut-Liver Axis, Dr Avtar Singh Meena, SERB, 2 Years, 2023-25, Rs 30 lakhs
25. To dissect the Immunomodulatory potential of Probiotics in ameliorating acute respiratory distress syndrome (ARDS), Dr Rupesh K. Srivastava, Unique Biotech, 2 Years, 2022-24, Rs 10 lakhs
26. To elucidate the immunomodulatory role of probiotics in modulating bone health in post-menopausal osteoporosis via its effect on ILC3-ILCreg cell axis, Dr Rupesh K Srivastava, DBT, 3 Years, 2021-24, Rs 82 lakhs
27. To establish the role of Th9 cells in the pathophysiology of Osteoporosis, Dr Rupesh K Srivastava, AIIMS, 2 Years, 2022-24, Rs 10 lakhs

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28. To investigate the bone protective potential of selected homeopathic formulations (SHFs) in osteoporotic conditions, Dr Rupesh K Srivastava, CCRH-AYUSH, 3 Years, 2022-25, Rs 70 lakhs
29. To investigate the therapeutic potential of probiotics in the treatment and management of osteoporosis: "Role of regulatory B cells (Bregs), Dr Rupesh K Srivastava, ICMR, 3 Years, 2023-26, Rs 73 lakhs
30. Understanding key regulators of Mitochondrial dynamics and hemostasis in human malaria parasite Plasmodium falciparum, Dr Sumit Rathore, DST, 3 Years, 2023-26, Rs 67 lakhs
31. Understanding the role of Lipid-Protein interactions during the life cycle of Plasmodium vivax, Dr Sumit Rathore, SERB, 3 Years, 2024-27, Rs 55 lakhs

Completed

1. "To investigate the therapeutic potential of extracellular vesicles (EV) released by human induced pluripotent stem cell (hiPSC)-derived mesenchymal stem cells (iMSCs) to counteract oestrogen deficiency-induced bone deterioration", Dr Rupesh K Srivastava, AIIMS-University College London Collaborative Research Grant, 1 year, 2022-23, Rs 10.00
2. "To dissect the Immunomodulatory potential of Probiotics in ameliorating acute respiratory distress syndrome (ARDS)", Dr Rupesh K Srivastava, CSR funding from Unique Biotech, Hyderabad, 1 year, 2022-23, Rs 5.00 lakhs
3. "To investigate the regulatory potential of Estrogen in modulating differentiation and function of regulatory B cells: Implications in bone remodeling", Dr Rupesh K Srivastava, AIIMS, 2 Years, 2021-23, Rs 20.00 lakhs
4. Cellular and Immunomodulatory Functions of Dipeptidyl peptidase III in Esophageal Cancer, Dr Shyam S Chauhan, ICMR, 3 Years, 2019-22, Rs 35.00 lakhs
5. Characterization of immunomodulatory proteins of MIP, Dr Vikram Saini, AIIMS, 2 Years, 2021-23, Rs 10 lakhs
6. Characterization of L, D-transpeptidases from Mycobacterium abscessus: An Emerging Opportunist Pathogen, Dr Vikram Saini (Mentor to Dr Namrata Kushwaha Woman Scientist), DHR, 3 Years, 2020-23, Rs 30.9 lakhs
7. Combating the challenge of antibiotic tolerance: Combining conventional anti-tubercular drugs with DevR dormancy regulator-targeted approaches for improving M. tuberculosis clearance, Dr Vikram Saini, DBT, 3 Years, 2019-22, Rs 59.3 lakhs
8. Cysteine Cathepsins in Acute Lymphoblastic Leukemia: Implication(s) in Prognosis and Therapeutics, Dr Shyam S Chauhan, ICMR, 3 Years, 2020-23, Rs 21.93 lakhs
9. Dysregulation of Zinc homeostasis as a major contributing factor to Mucormycosis infection, Dr Vikram Saini, AIIMS COVID-19, 2 Years, 2021-23, Rs 5.0 lakhs
10. Elucidation of Cellular mechanisms involving GUT resident regulatory T cells in Probiotics mediated inhibition of Osteoporosis, Dr Rupesh K. Srivastava, DST-SERB, 3 Years, 2019-22, Rs 65.00 lakhs
11. Evaluation of endothelin and retinal renin-angiotensin system (RRAS) in glaucoma, Dr Anushree Gupta, AIIMS, 2 Years, 2021-23, Rs 10.00 lakhs
12. Exome sequencing and molecular characterization in Juvenile nasopharyngeal angiofibroma, Dr Bhupendra K Verma, AIIMS, 2 Years, 2021-23, Rs 10 lakhs
13. Host transcriptomic profiling in mildly symptomatic, sick and sicker COVID-19 patients, Dr Vikram Saini, AIIMS COVID-19, 2 Years, 2021-23, Rs 10.0 lakhs
14. Identification and functional characterization of tRNA derived RNA fragments in DENV pathogenesis, Dr Bhupendra K Verma, SERB, 3 Years, 2019-22, Rs 39.41 lakhs
15. Identifying the bioenergetics mechanisms of dysregulation of immune cells during SARS-CoV-2 infections, Dr Vikram Saini, AIIMS, 2 Years, 2021-23, Rs 20 lakhs
16. Investigate the role of seipin protein in ectopic lipid droplet formation, Dr Vineet Choudhary, AIIMS, 2 Years, 2021-23, Rs 10.00 lakhs
17. Modulation of host bioenergetics health and redox function via Selenium supplementation as a novel approach to tuberculosis management, Dr Vikram Saini, SERB, 3 Years, 2020-23, Rs 53.5 lakhs
18. Probiotics mediated bioenergetics health modulation as a novel approach to the management of microbial infections, Dr Vikram Saini, DRDO, 3 Years, 2020-23, Rs 75.50 lakhs

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19. Role of ALDH1A3 in anastasis and associated cancer stem cells-like cellular transformation in breast cancer cells, Dr Mahendra Seervi, AIIMS, 2 Years, 2021-23, Rs 10 lakhs
20. Role of Hydrogen Sulfide in mycobacterial infections, Dr Vikram Saini, DBT, 3 Years, 2019-23, Rs 59.06 lakhs
21. To establish the role of regulatory B cells (Bregs) in post-menopausal Osteoporosis, Dr Rupesh K Srivastava, AIIMS, 2 Years, 2020-22, Rs 10.00 lakhs

Departmental projects

Ongoing

1. "Characterization of PvTRAg specific aptamer for development of a diagnostic platform for P. vivax infection"
2. "Deciphering the functions of the conserved fat storage-inducing transmembrane (FITM2) protein in the assembly of lipid droplets"
3. "Functional characterization of ER subdomains engaged in lipid droplet biogenesis"
4. "Investigate the role of lipid droplet assembly factors in the regulation of lipid droplet biogenesis"
5. Characterization of aldehyde dehydrogenase (ALDH) activity in anastatic cancer cells
6. Characterization of immunomodulator proteins of MIP
7. Cloning and Expression of Endothelin Receptor 'A' Gene Carrying SNPs Observed in Indian Patients Suffering From Coronary Artery Disease
8. COVID-19 coinfections and metabolic basis of immune response
9. Cysteine cathepsins in Acute Lymphoblastic Leukemia: Implication(s) in Prognosis and Therapeutics
10. Deciphering the correlation between XPO1 and nuclear pore complex number in cancer cells
11. Decoding miRNA-RBP nexus during Dengue virus pathophysiology
12. Development of antimicrobial clothing to combat hospital-acquired infections
13. Establishing the Immunoporotic role of the "Breg-Treg-Th17" cell axis in Probiotics mediated modulation of Bone Health
14. Establishing the Osteoprotective role of GUT-Associated Metabolites (GAMs) in Bone Pathologies
15. Evaluation of immunomodulatory activities of Toll-like receptor signaling inhibitors in lupus peripheral blood mononuclear cells
16. Generation of molecular tools for CRISPR-mediated knock-in of an 'A' in 5'- UTR region of ET-1 gene
17. Identification and functional characterization of tRNA derived RNA fragments in DENV pathogenesis
18. Investigation of the protective potential of Lactobacillus pentosus in the mitigation of intestinal injury
19. Molecular basis of severity of mucormycosis infection
20. Nutritional factors, micronutrient supplementation and tuberculosis infection
21. One health approach of combating zoonotic infections
22. Role of intracellular gases in bacterial infections
23. Role of probiotics in immunomodulation and microbial infections
24. Screening and identification of specific inhibitors against PfHtrA2 as a novel drug candidate.
25. Screening of selective pyrazole derivatives for identification of TLR2 inhibitors
26. Spliceosomal regulation in Dengue pathophysiology
27. Studies on anti-inflammatory activity of TLR antagonists in mononuclear cells of rheumatoid arthritis patients.
28. To delineate the immunoporotic role of B cell subsets in the pathophysiology of Osteoporosis
29. To delineate the immunoporotic role of regulatory and effector B-cell axis in the pathophysiology of Osteoporosis
30. To dissect the role of GUT resident Treg-Th17 cell axis in post-menopausal osteoporosis

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31. To elucidate the immunomodulatory role of probiotics in modulating bone health in post-menopausal osteoporosis via its effect on the ILC3-ILCreg cell axis
32. To investigate the bone protective potential of selected homeopathic formulations (SHFs) in osteoporotic conditions
33. To investigate the Cytotoxic T-Lymphocyte mediated immunotherapeutic potential of Indole-3-Lactic Acid (ILA) on Osteosarcoma
34. Toll-like receptors in in-active systemic lupus erythematosus
35. Understanding the basis of drug tolerance in mycobacterial infections

Completed

1. Characterization of functional interaction between minor spliceosome and polyadenylation machinery
2. Characterizing pre-mRNA splicing in the context of Dengue virus
3. Cloning and Expression of Endothelin Receptor B Gene Carrying SNPs Observed in Indian Patients Suffering From Coronary Artery Disease
4. Construction of a dual selection plasmid for efficient genome editing in mammalian cells
5. Development of Aptamer Based Assay for detection of Plasmodium Infection
6. Functional characterization of yeast triacylglycerol synthesizing enzyme Lro1
7. Generation of Bcl-2/Bcl-xl mediated drug-resistant cell models for anticancer agents screening.
8. Identification of interacting proteins of Plasmodium vivax Tryptophan Rich Antigen 26.3 (PvTRAg26.3) with erythrocyte surface
9. Investigate the consequences of ectopic lipid droplets in cells lacking seipin function
10. Investigation of the role of tRNA derived non-coding RNAs in EMT and its relevance to malignancies
11. Micro-nutrient supplementation in mycobacterial infections
12. Novel role of phytoconstituents in regulating bone health via modulating host osteoimmune system
13. Role of metals in regulation of Hydrogen sulfide production
14. Role of negative regulators of EGFR in malignant transformation of oral dysplasia
15. Role of Prothymosin- α in Glial Tumorigenesis
16. Role of transpeptidase enzymes in M abscessus drug tolerance
17. Role of Zinc in mucormycosis
18. Studies on the effect of Insertion of a single 'A' at +139 position in 5'UTR of Edn-1 gene on its expression via reporter gene assays
19. Study of apoptosis and its signaling induced by a novel mitocan ONC212 in cancer cells
20. Subcellular Localization of Mitochondrial Carrier Protein of Plasmodium falciparum
21. Sulfur metabolism for mycobacterial drug targeting
22. Surface Proteomics of reticulocytes in Plasmodium vivax severe malaria patients
23. Targeting TLR3 using pyrazole based small molecule
24. To characterize the role of Spo7 in neutral lipid homeostasis
25. To dissect the immunomodulatory potential of probiotics in ameliorating acute respiratory distress syndrome (ARDS)
26. To investigate protein targeting onto ectopic lipid droplets in seipin mutants
27. To investigate the immunoporotic role of innate lymphoid cells (ILC3) in osteoporosis
28. To investigate the role of Fat Storage-Inducing Transmembrane protein (FITM2) in lipid metabolism

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Collaborative projects

Ongoing

1. A comparative study to evaluate the effect of first-line therapies in Osteoporotic patients, Department of Orthopaedics, AIIMS, New Delhi
2. Adaptive Immune Responses to Covaxin and Covishield: A comparative study, Department of Biochemistry, AIIMS, New Delhi
3. Antisense oligo mediated therapies in Ataxia Talengiectasia, Paediatrics, AIIMS, New Delhi
4. Correlation between TRAP 5b and bone involvement in children and adolescents with Gaucher disease, Department of Pediatrics, AIIMS, New Delhi
5. Deciphering the functions of the conserved fat storage-inducing transmembrane (FITM2) protein in lipodystrophy and insulin resistance through systems approaches, Department of Biology, University of Fribourg, Fribourg, Switzerland
6. Dengue pathogenesis & host spliceosome, THSTI
7. Elucidation of cellular mechanisms involving regulatory T cells (Tregs) in Probiotics mediated inhibition of Osteoporosis, Department of Gastroenterology, AIIMS, New Delhi
8. Evaluation of endothelin and retinal renin-angiotensin system (RRAS) in glaucoma, Department Of Ocular Pharmacology, Dr RP Centre for Ophthalmic Sciences, AIIMS, New Delhi
9. Exome sequencing and molecular characeterization in Juvenile nasopharyngeal angiofibroma, ENT, AIIMS, New Delhi
10. Identification of key ligands/ligand complexes on Plasmodium falciparum merozoite using Cryo-EM, proteome and immunological approaches step towards the development of an efficacious malaria blood-stage vaccine, AIIMS, ICGEB New Delhi, IIT Delhi, and University of California Los Angeles, USA
11. Investigate the Immunoporotic role of Bisphosphonates in treating postmenopausal osteoporosis, Department of Orthopaedics, AIIMS, New Delhi
12. Mapping of air microbiome for virulence genes and resistome at various sites of the hospital through metagenomics approach, AIIMS Biotechnology, Hospital Administration and Delhi University
13. Molecular severity of Mucormycosis and mechanisms thereof, AIIMS ENT, Microbiology and Biotechnology
14. Single-cell quantitation of mRNA and protein expression of antigenic variation genes and tissue tropism characterization in Plasmodium falciparum, AIIMS New Delhi, IISER Pune, India
15. To investigate the Cytotoxic T-lymphocyte mediated immunotherapeutic potential of Indole-3-Lactic acid on Osteosarcoma, Department of Orthopaedics, AIIMS, New Delhi
16. To investigate the therapeutic potential of extracellular vesicles (EV) released by human induced pluripotent stem cell (hiPSC)-derived mesenchymal stem cells (iMSCs) to counteract oestrogen deficiency-induced bone deterioration, Institute for Women's Health, University College London, London
17. To study the role of iPSC-derived hematopoietic progenitor cells for hematopoietic failure among trauma Hemorrhagic shock using animal model, AIIMS Emergency Medicine and AIIMS Biotechnology

Completed

1. Clinical significance of cancer stem cells markers and its proteins in different grades astrocytomas, AIIMS Biotechnology and RP Center, AIIMS
2. Establishing the role of Th17/Treg cell axis in pathophysiology of Uveitis, Department of Ophthalmology (Dr RP Centre for Ophthalmic Sciences), AIIMS, New Delhi
3. 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, AIIMS Biotechnology and RP Center, AIIMS
4. miRNA as evaluation Biomarker for tuberculosis treatment response, ICGEB New Delhi, and In Stem Bangalore
5. To dissect the immunomodulatory potential of probiotics in ameliorating acute respiratory distress syndrome (ARDS), Department of Pathology, AIIMS, New Delhi

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6. To investigate the regulatory potential of Estrogen in modulating differentiation and function of regulatory B cells: Implications in bone remodelling, Department of Orthopaedics, AIIMS, New Delhi

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	27	30	31
Total funding (INR)	Rs 2306.25 Lakhs		

PUBLICATIONS

Total Publications: 24

Journal articles: 17; Abstracts: 5; Chapters in books: 2

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**66**	**44**	**24**
Journal articles	53	34	17
Abstracts	6	7	5
Chapters in books	7	3	2
Books	0	0	0

PATIENT CARE

Not applicable

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shyam S Chauhan served as Professor in charge of the Experimental Animal facility of the Institute and Professor and Head of the Department of Biochemistry; he is also the Chairman of Centralized Core Research Facility, AIIMS, New Delhi, AIIMS Intramural Project Committee, Institutional Biosafety Committee, AIIMS, New Delhi. Animal Ethics Committee, AIIMS, New Delhi and Ph.D. Grievance Committee, AIIMS, New Delhi; he also served as Member-PhD Counselling Committee, AIIMS, New Delhi, National Coordinator of Biochemistry- National Board of Examinations, ICMR Emeritus Professor Selection Committee and ICMR PDF Selection Committee; served as-Fellow of the National Academy of Medical Sciences, a Fellow of the National Academy of Sciences and a Fellow of the Indian Academy of Biomedical Sciences; recipient of the Awadhesh Saran Oration Award of the Association of Clinical Biochemists of India, 2023.

Dr Anushree Gupta served as Central Public Information Officer for the Department of Biotechnology; Member Institute Ethics Committee for PG Research (Basic Science) at AIIMS, New Delhi; Co-ordinator of Bioinformatics course module for M Biotech. students; Internal Examiner for final exams of M. Biotech. students.

Dr Rupesh Kumar Srivastava is the recipient of Professor GP Talwar Gold Medal Oration Award", from the Indian Society for the Study of Reproduction & Fertility (ISSRF), on 24 February 2024 at CSIR-IICT, Hyderabad, India, AIIMS Research Excellence Award at "3rd AIIMS Research Day, Certificate of Appreciation-2023 for the "ESCEO-Islene Araujo de Carvalho Prize" at World Congress on Osteoporosis (WCO)-2023 on 4 May 2023 in Barcelona, Spain, BEST Published Paper Award (Research)-2023 at "24th Indo-US Flow Cytometry Workshop" on 1 February 2023 at IIT-Gandhinagar by TETC.

Dr Vikram Saini is a recognized expert in infectious disease biology, biosafety, and biosecurity, with a special emphasis on One Health and mycobacterial infections. He served as the regional Co-ordinator for the NCDC-supported Center of One Health at AIIMS New Delhi, and an expert member and consultant for the National Biodefense Programme, Department of Defense, Govt of India; Expert Technical Advisory Committee, Director General of Health (DGHS) to set up Network of High containment Biosafety Level-3 (BSL-3) facilities in Various states of India under National Centre

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for Disease Control (NCDC), Govt. of India; and National Institute of Biologicals, Ministry of Health, and technical evaluation of the development of the priority-pathogen containment facilities, for DRDO, India. He also served as the nominee of the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA), Department of Animal Husbandry and Dairying, GOI; and a principal investigator (at AIIMS) in the National Consortium for One Health to address Zoonotic and Transboundary Diseases in India, including the Northeast Region. Additionally, Dr Saini is involved in several initiatives at AIIMS including being the principal investigator in the CRA between AIIMS-IIT start-up for development of medicated and anti-microbial clothing in India as per the Govt of India's Make in India Policy. Further, Dr Saini is a member/special invitee to various institutional bodies/committees including the Institutional Biosafety Committee (IBSC), Institutional Animal Ethics Committee (IAEC), Committee for nude-mice/Transgenic mice facility; member CCRF- BSL-3 laboratory, AIIMS; and Member-Secretary for the establishment of A-BSL3 facility at Central Animal Facility, AIIMS. He also served as the examiner/evaluator for PhD degree (JNU, New Delhi), and various examinations conducted by the National Testing Agency, Ministry of Education, Govt of India for All India Entrance examination in different areas including the DBT JRF examination and Masters examination in various subjects including Biotechnology, Public Health and Social Medicine. In addition, Dr Saini served as the review editor at the journal Frontiers in Microbiology, Frontiers in Immunology, Frontiers in Redox Biology and Physiology and reviewer for various journals and funding agencies DBT, DST-SERB, Swiss National Science Foundation (SNF), etc. He is also the recipient of the Young Investigator Award, at the Society for Free Radical Research International's (SFRRI) and SFRBMs 21st Biennial Congress, Punta del Este, Uruguay (November 2023).

Dr Bhupendra Kumar Verma is M Biotech Program Coordinator; Nodal officer for COVID-19 management, AIIMS; Co-ordinator, Departmental Infection Control Committee for COVID-19

Dr Vineet Choudhary is a recipient of the prestigious Welcome Trust/DBT India Alliance Intermediate Fellowship Grant. This is the first time someone from AIIMS, New Delhi has been awarded such a prestigious Grant in the field of Basic Biomedical Research. Dr Choudhary is participating at the departmental level as Course Coordinator for Biophysics: Principles Techniques and Applications in Medicine (BPT), and Cell & Developmental Biology (CDB). Dr Choudhary serves as a reviewer for various national and international scientific journals; a member of the American Society for Cell Biology and the American Society for Biochemistry and Molecular Biology. He was an invited speaker at the Organellar Biology and Membrane Trafficking Conference held at the National Brain Research Center (NBRC), Manesar, Haryana; delivered an invited talk at the Department of Microbiology, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi. Dr Choudhary gave an invited lecture on the topic of High-Pressure Freezing at the 2nd National Workshop on "Electron Tomography of Biological Samples" conducted by Electron Microscope Facility, AIIMS, New Delhi.

VISITING SCIENTISTS

Nil

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9.8 Centre for Community Medicine

Professor and Head

Kiran Goswami

Professors

Anand Krishnan	Baridalyne Nongkynrih	Puneet Misra
Sanjay Kumar Rai	YS Kusuma Kumari	Kapil Yadav
	Sumit Malhotra	

Additional Professors

Ravneet Kaur	Harshal Ramesh Salve	Rakesh Kumar
	Partha Haldar	

Associate Professor

Mohan Lal Bairwa

HIGHLIGHTS

The community-based teaching of undergraduate and postgraduate students, research and service provision is restored to pre-pandemic levels after the decline of COVID-19. Faculty members continue to provide technical inputs to national health programmes of the Government of India.

The department contributes to several national health priority implementation research projects commissioned by Indian Council of Medical Research on comprehensive primary health care, communicable and non-communicable diseases. The department is ensuring evidence based decision making for HIV programme of the National AIDS Control Organization (NACO), Government of India via National Institute for HIV Surveillance; framing up the comprehensive health sector priorities for Non-Communicable Diseases by being the WHO collaborating center for Research and Capacity Building on Community-based Non Communicable Diseases (NCD) Prevention and Control, and helping steer the anemia control in country through the National Centre of Excellence and Advanced Research on Anemia Control (NCEAR-A). In addition, through its presence in technical resource groups of Government of India, the Department is actively contributing for strategy framework, and strategic information management of National Viral Hepatitis Control Programme, pollution and its effect on health, National Tuberculosis Elimination Program, Adolescent Health, and Health Sector Strategy frameworks. The Department also houses the Technical Support unit for SRS-based Verbal Autopsy System of the Office of Registrar General of India and WHO supported SEAR NCD service delivery network.

EDUCATION

The teaching and training challenges due to posting of more than one batch were successfully met for departmental postings. The undergraduate research programme, as a part community medicine training, again resumed back to physical mode based on field exercise. Postgraduate classes, seminars, and journal clubs started completely in physical mode.

1. Undergraduate MBBS students

MBBS students are posted for a clinical posting in Department (urban health posting) for 5 weeks in 5 batches by rotation. The posting continues till end of 5th semester. They learn management of common conditions at primary level. They are oriented to concept of multiple non health sector factors important for health care. They are provided with hands-on experience in health research through participation in field based study. Communication skills at individual, family and community level are developed in interaction with cases, families and group health talks. In addition they are posted under Family Health Advisory Services in 4-5th semester once a week. In 7th semester, they are posted

at CRHSP Ballabgarh, in 4 batches for 6 weeks each. During this posting, students learn concepts of epidemiology through practice of exercises, have orientation to community health including social determinants of health, community aspects of maternal and child health and mental health, orientation of health systems functioning at community level, and national health programmes.

There are special modules to train on Integrated Management of Neonatal and Childhood Illness (IMNCI) and epidemiology. The students also undertake a brief qualitative method-based research project known as Orientation of Undergraduates to Community Health (OUCH) during this posting. Each posting of six weeks is concluded by an internal assessment. Two skill modules namely, Glucometer use, and gloving and gowning were covered during residential posting at CRHSP Ballabgarh.

2. Interns

The interns are posted for a total duration of three months at the CRHSP Ballabgarh. This period is divided into 6 weeks at sub-district hospital (SDH), and 3 weeks at each of the PHCs located at Dayalpur and Chhainsa. The entire posting is residential. At 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 Senior Residents (SR). During PHC posting, interns participate in health care delivery at the clinics of PHC, sub-centres, and extension clinics at other villages. They are also posted at the delivery hut at each PHC under supervision of SR of Community Medicine. They get first-hand experience in community level activities such as supervision of health workers, follow-up of patients that have defaulted on anti-tuberculosis treatment, supervision of sub-centres, undertaking outreach activities, immunization, and other ongoing activities at the PHC. Interns are also involved in special activities at PHCs such as Kayakalp assessment, annual census, public awareness generation and school health-related activities. At the end of the rural posting at CRHSP Ballabgarh, interns submit their logbook duly signed by respective SRs under whom they were posted for end posting assessment.

3. Postgraduate students of Community Medicine

The postgraduate students of Community Medicine are posted at Centre for Community Medicine and CRHSP Ballabgarh for 18 months each. Urban health posting is time for becoming familiar with Departments at AIIMS including EHS and Casualty. They are involved in service delivery in Urban Health Centre OPD services, are trained in basic modules of research and epidemiology to help protocol development and oriented to national programmes including field visits to important Institutions and organisations. In collaboration with Department of Biostatistics, foundation of research is strengthened. They are involved in all the teaching activities of undergraduates as a guide and supervisor. They participate in weekly journal club presentations.

Rural posting is residential. Out of the total duration, they are 8 months each, at the sub-district hospital and one of the PHCs by rotation. This gives them adequate opportunity to gain the necessary skills and experiences both at the SDH and PHC. They are encouraged to actively participate in decision-making and administration at the PHC. The teaching programme includes seminars, family and clinical case presentations, operational research and problem-solving exercises based on Health Management Information System and field data. Residents also participate in various activities conducted at the PHCs and in the villages under various National health programmes.

4. BSc (Hons.) and Post basic Nursing Students

BSc (Hons.) and post-basic nursing students are posted for one and a half months at CRHSP Ballabgarh. This posting is residential in nature. They spend 1 month at SDH and 2 weeks in either of the 2 PHCs. They are provided training in antenatal care, management of ward, and immunization. They are posted both in OPD and in ward. They provide health talks, and IEC in OPD, and ward. Training of nursing students is supervised by a Faculty Member from the College of Nursing, AIIMS, New Delhi.

5. In-service Training

In addition to teaching of students, periodic in-service trainings was conducted for different cadres of staff working at the CRHSP Ballabgarh. The trainings conducted during 2023-24 were as following:

A total of 50 hours of in-service training for Health Workers and ASHA workers (45*2=90) were conducted at PHC Dayalpur and Chhainsa (figures are inclusive). These are conducted during the meetings, each month. Topics were decided based on the training needs identified during field supervision; for the reporting period, these were as follows: identification of JSY beneficiaries and facilitating them to avail benefit, management of animal bite cases, management of LBW babies, family planning - methods, importance and how to improve coverage, management of biomedical waste management, Tracking of High-Risk Pregnancy and management, post-natal care for mother and newborn including

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complication management and kangaroo mother care, IMNCI-Identification and management of sick baby, identification, care and management of malnutrition at field level, Training on cold chain management PHC to immunization site and back to PHC, Diagnosis and management of TB cases

Training activities

a. Training of IMNCI, high-risk pregnancy, high-risk infant, NCDs on multiple occasions to HW
b. Training of anaemia prophylaxis, diagnosis and treatment to HW
c. Training of staff nurses for infection prevention
d. Training of ASHA workers on leprosy, Deworming, polio
e. Training of DTS workers for biomedical waste management and infection prevention
f. Fire safety training of all PHC workers
g. Training of PHC staff on NQAS preparedness

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop on Quality Improvement in Healthcare in collaboration with Delhi branch of Indian Association of Preventive and Social Medicine (IAPSM) on 24 November 2023 at Maulana Azad Medical College, New Delhi
2. National Consultation Air pollution and Health in India: Actions for moving forward on Science, Policy, Programme and Community Engagement by CAPHER India – 17 November 2023
3. Consultation-cum-workshop on Air pollution and Health in India: Current evidence to inform the India NAAQS revision process – 29 May 2023 by CAPHER India
4. Workshop for Delhi State for Mental Health System Assessment under National Mental Megacity Survey from 27 February-2 March 2024
5. AIIMS - PGIMER Chandigarh Course on Public Health Approached for Non-Communicable Diseases from 27 February-2 March 2024
6. Review of National Ambient Air Quality Standard in India for Central Pollution Control Board, Ministry of Environment, Forest and Climate Change, Government of India.
7. Cohort study – Design and Method workshop by CEU, AIIMS, New Delhi
8. Capacity building initiatives – Capher India Webinar series for early career researchers, NMO Webinar series for public health professionals
9. Pre-Surveillance Orientation and Planning Workshop for HRG & Bridge population under Integrated and Enhanced Surveillance and Epidemiology 2023-24 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 the Executive Club Resort, 439, Shahoorpur, Fatehpurberi, New Delhi - 110074 from 6-8 November 2023
10. District Comprehensive Primary Health Care (CPHC) Strengthening, 25 August 2023, Kalahandi, Odisha
11. District Comprehensive Primary Health Care (CPHC) Strengthening, 1 September 2023, West Garo Hills, Meghalaya
12. District Comprehensive Primary Health Care (CPHC) Strengthening, 21 September 2023, Bhavnagar, Gujarat

Lectures delivered: 148

Kiran Goswami: 2	**Anand Krishnan: 18**	**Baridalyne Nongkynrih: 8**
Puneet Misra: 7	**Sanjay Kumar Rai: 5**	**Kapil Yadav: 5**
Sumit Malhotra: 23	**Ravneet Kaur: 8**	**Harshal Ramesh Salve: 35**
Rakesh Kumar: 6	**Partha Haldar: 23**	**Mohan Lal Bairwa: 8**

Lectures delivered over past 3 years

2021-22	2022-23	2023-2024
75	126	143

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Oral papers/posters presented : 22

Oral/poster presentations over past 3 years

2021-22	2022-23	2023-2024
13	20	22

RESEARCH

Funded projects

Ongoing

1. "A Phase III, Randomized Double-Blind, Three-arm Placebo-Controlled Trial To Evaluate The Efficacy and Safety of 2 vaccines VPM1002 and Immuvac (Mw) in Preventing TB in HHCs of Newly Diagnosed S+ Pulmonary TB patients. mw (MIP) Vaccines In preventing TB In Healthy Household Contacts of New Pulmonary TB Patients I-1060, Anand Krishnan Co-PI, ICMR, 5 Years, 2019-24, Rs 65,39,814
2. A quality improvement initiative for strengthening NCD care in a primary care facility of an urban Delhi, Baridalyne Nongkynrih, WHO, 11 months, 2022-23, Rs 19,56,780
3. Air Pollution Impact on Preganancy and Early Childhood Development in India-Cohort Study (APiPED Cohort), Harshal Ramesh Salve, ICMR, 4 Years, 2024-28, Rs 440, 00, 000
4. Assessment of work performance of ASHA in Population based Screening of Non-Communicable diseases (NCDs)-A multi-site study, Harshal Ramesh Salve, WHO-Country office for India, 0.9 year, 2023-23, Rs 15,38,250
5. AYUSH trial of cognitive function in elderly, Puneet Misra, AYUSH, 3 Years, 2023, ongoing, Rs 1 Crore
6. Burden and Sequelae of Influenza and SARS-CoV2 associated SARI among adult Indian population (18-60 Years)" (N-2380), Anand Krishnan, CDC Atlanta, 5 Years, 2023-28, 1 million USD
7. Burden and Sequelae of Influenza and SARS-CoV2 associated SARI among adult Indian population (18-60 Years)" (N-2380), Anand Krishnan, CDC Atlanta, 5 Years, 2023-28, 1 million USD
8. CAPHER-Collaborative on Air Pollution and Health Effects Research, India, Harshal Ramesh Salve, Health Effects Institute, Boston USA, 2.5 Years, 2021-25, Rs 63,74,720
9. Comprehensive Anemia Control Initiative: Enhancing IFA supplementation strategy and prioritization of private school, Kapil Yadav, Evidence Action, 2 Years, 2024-25, Rs 33 lakhs
10. COVID-19 vaccine acceptance and uptake: an implementation research among tribal, rural and urban communities in selected districts of four Indian states, YS Kusuma, ICMR, 1 year 9 months, 2022-23, Rs 139.74 Lakhs
11. Delhi Air Pollution health aND effects (DAPHNE)-Human real life trial-Stratification of AAP subjects based on sensitivity to air pollution and the interaction of exercise with air pollution-A follow u study (CO-PI), Harshal Ramesh Salve, DRIIV, 1.5 year, 2023-25, Rs 10,00,000
12. Development and validation of a novel tool to measure medication adherence for select NCDs in the Indian population-An Exploratory sequential mixed method multicentric study, Mohan Bairwa, ICMR, 3 Years, 2023-25, Rs 6.2 Lakh
13. Drivers of reduction in anemia in India: Insights from subnational exemplars, Kapil Yadav, IAVI, 2 Years, 2023-25, Rs 1.5 Crores
14. Early marriage and teenage pregnancy: intersectionality of gender, poverty and social norms in decision making, and access to healthcare services-A case study of Visakhapatnam district of Andhra Pradesh, YS Kusuma, ICMR, 2 Years, 2022-24, Rs 50.71 Lakhs
15. Effectiveness of Home-Based Self-Monitoring of Blood Pressure (EASE-BP Trial) Co-Pi, Partha Haldar, WHO SEARO, 2023-24, Rs 12,58,660
16. Epidemiology of Pancreatitis and major Gastro intestinal Diseases-A multicentre study across India (I1425), Anand Krishnan (Co-PI), ICMR, 2 Years, 2022-24, Rs 50 Lakhs
17. Establishing a Technical Support Unit for Verbal Autopsy Based Cause Of Death ascertainment In The Sample Registration System, Registrar General Of India N-1725, Anand Krishnan, Ministry of Home Affairs (RGI), 5 Years, 2020-25, Rs 3 Crores Annually

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18. HIV sentinel surveillance for India, Sanjay K Rai, NACO, MOHFW, 1 year, 2023-24, Rs 2.65 Crores
19. ICMR's National Health Research Priority Project "Equitable, Quality Universal health coverage Implementation research Project for optimizing comprehensive primary health care through Health and Wellness Centres in Alluri Sitharama Raju tribal district of Andhra Pradesh-EQUIP-HWCs, YS Kusuma, ICMR, 3 Years, 2023-26, Rs 587.36 Lakhs
20. Implementation of an Evaluation and Treatment Package for Uniform Stroke Care and outcomes in the Medical Colleges. An Implementation Research Study. (Co-PI), Partha Haldar, ICMR-DHR, 3 Years, extended, 2021-24, Rs 5.22 Crores
21. India Primary Health Care Support Initiative. (N-2190), Anand Krishnan, JHU, 3 Years, 2021-24, Rs 60 Lacs, Strengthening the Medical Certification of Causes of Death Practices in Public and Private Health care facilities in India (I-1402), Anand Krishnan, ICMR-NCDIR, 2 Years, 2022-24, Rs 86 Lacs
22. Indian Multiple Sclerosis and Allied Demyelinating Disorders Registry and Research Network (Co-PI), Partha Haldar, ICMR-DHR, 2021-24, Rs 4,45,79,490
23. Innovation Learning Centre for supporting implementation of Comprehensive Primary Health Care in Nuh (Mewat), Sumit Malhotra, National Health Systems Resource Centre, Ministry of Health and Family Welfare, Government of India, 6 Years, 2018-24, Rs 1,08,57,625
24. Local governance and the pandemic: role of village/urban ward secretariats in the management of COVID-19-A case study of Visakhapatnam district of Andhra Pradesh, YS Kusuma, ICMR, 1 year 7 months, 2022-23, Rs 16.85 Lakhs
25. Mental Health Promotion for college and school going young people through lay health counsellors and mid-level health care providers model in Haryana-feasibility, acceptability, and pilot effectiveness study, Sumit Malhotra, AIIMS Intramural Collaborative, 2 Years, 2023-25, Rs 10 Lakhs
26. National Centre of Excellence and Advanced Research on Anemia Control (NCEAR-A) 2018, Kapil Yadav, UNICEF, 7 Years, 2018-25, Rs 1.5 Crores
27. Prevalence and causes of anemia among tribal women of reproductive age group (15-49 years) residing in district of Lahaul-Spiti, Himachal Pradesh, India, Ravneet Kaur, ICMR, 1 year, 2023-24, Rs 31,89,250
28. Review of National Air Quality Standards and Proposed Revisions (Co-PI), Harshal Ramesh Salve, CPCB, 1 year, 2023-24, Rs 24,00,000
29. Situational Analysis of GDM, Puneet Misra, ICMR, 3 Years, 2022, ongoing, Rs 20 Lacs
30. Strengthening ambulatory care for common NCDs in north India (STAR NCD)-An Implementation Research National Health Priority Project, Sumit Malhotra, Indian Council of Medical Research, 3 Years, 2024-27, Rs 4,70,16,807
31. The direct and indirect protection derived by vaccinating children against COVID-19: An ambispective cohort study, Sanjay K Rai, Bharat Biotech, 3 Years, 2022-24, Rs 1.5 Crores
32. Validation and feasibility of Swaasa AI platform at a Primary Health Setting for lung health assessment, Harshal Ramesh Salve, Zensark technologies Pvt Limited), 1.5 year, 2023-24, Rs 8,87,740
33. Validation and operational feasibility study of Swaasa AI platform for detecting likely presence of Pulmonary Tuberculosis (PTB) among patients presenting with cough in India, Rakesh Kumar, Salcit Technologies Pvt Ltd, 8 months, 2023-24, Rs 27,18,749
34. Yoga and diabetes in rural and tribal areas, Puneet Misra, ICMR, 2 Years, 2023, ongoing, Rs 80 Lacs
35. Yoga and inflammatory markers, Puneet Misra, DST, 2 Years, 2022, ongoing, Rs 46 Lakhs

Completed

1. A Phase III randomized, modified double-blind, multi-centric, comparative study, to evaluate the noninferiority of immunogenicity and safety of single strain oral cholera vaccine Hillchol® (BBV131) to the comparator vaccine Shanchol™ along with lot-to-lot consistency of Hillchol® (BBV131), Sanjay K Rai, Bharat Biotech, 1 year, 2022-23, Rs 3 Lakhs
2. Assessment of burden, pattern and determinants of Long COVID in patients attending secondary care hospital in Ballabgarh, Haryana, Harshal Ramesh Salve, AIIMS Intra-mural grant, 1 year, 2022-23, Rs 2,75,000/-
3. Delhi Cluster-Delhi Research Implementation and Innovation (DRIIV):Tackling air pollution in Delhi NCR, Harshal Ramesh Salve, Office of Scientific Advisor, GoI, 1 year, 2021-22, Rs 8 Lakhs

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4. Efficacy of Energy Dense Nutritional Supplement (EDNS) as adjunct to standard DOTS therapy in improving treatment outcomes in malnourished newly diagnosed sputum positive pulmonary tuberculosis adult patients, Rakesh Kumar, Indian Council of Medical Research, 3 Years, 2020-23, Rs 90,78,258
5. Evaluation of Anemia Mukt Bharat strategy in Intensive Field Practice Area of Comprehensive Rural Health Services Project (CRHSP) at Ballabgarh, Kapil Yadav, N/A, 1 Year, 2022-23, Non-funded
6. HIV sentinel surveillance for India project, Sanjay K Rai, NACO, MoHFW, GoI, 2 Years, 2021-23, Rs 23444929
7. Local governance and the pandemic: role of village/ urban ward secretariats in the management of COVID-19-A case study of Visakhapatnam district of Andhra Pradesh, YS Kusuma, ICMR, 1 year 7 months, 2022-23, Rs 16.85 Lakhs
8. National Mental Health Survey Phase 2-Mega City Survey (N-2263), Anand Krishnan, NIMHANS, 1 year, 2022-23, Rs 23 Lakhs
9. Nutritional status of pregnant women as assessed by nutrient intake, anthropometry and selected serum biomarkers in an urban area of Delhi-A community-based study, Ravneet Kaur, AIIMS Intramural, 2 Years, 2021-23, Rs 8,25,000/-
10. Preparing NCD Health Emergency Framework and documenting best practices adopted by States/UT for continuing NCD services during COVID 19 Pandemic, Harshal Ramesh Salve, WHO-Country office for India, 1 year, 2021-22, Rs 27,72,000/-
11. Revision of training manuals for Program Managers on effective implementation of NPCDCS, Mohan Bairwa, WHO, 1 year, 2023, Rs 13 Lakhs
12. Seroepidemiology of COVID 19, Puneet Misra, WHO, 3 Years, 2022-23, Rs 1 Crore
13. Strengthening evidence-based advocacy for influenza prevention and control in India N-1814, Anand Krishnan, CDC, Atlanta, 6 Years, September 2017, September 2023, US $ 1250, 000
14. Technical Support to India, Nepal, Bhutan, Sri Lanka, Maldives, Bangladesh, and Thailand for Strengthening People-Centred NCD Service Delivery through SEAR NCD Service Delivery Network, Baridalyne Nongkynrih, WHO, May-2022, March-2023, Rs 18,65,000
15. The direct and indirect protection derived by vaccinating children against COVID-19: An ambispective cohort study, Sanjay K Rai, Bharat Biotech, 2 Years, 2022-23, Rs 15000000

Research over past 3 years

Research projects	2021-22	2022-23	2023-24
Total funded projects*	33	28	48
Total funding (INR)	Rs 14.7 Crores	Rs 18.5 Crores	Rs 25.1 Crores

* Conducted in the particular years

Departmental projects (including thesis/dissertations)

Ongoing

1. An open-label randomized controlled trial to compare the efficacy of daily supplementation of oral small quantity lipid-based nutrient supplements (SQLNS) with oral iron and folic acid(IFA) syrup, for anaemia prophylaxis among children aged 6 months to 24 months, in rural population of Haryana, India" 2023-2025, AIIMS
2. An open-labelled randomized controlled trial to compare the efficacy of oral Multiple Micronutrient Powder (MMP) vs. oral Iron and Folic Acid syrup (IFAS) given daily, for anaemia prophylaxis among non-anaemic children aged 6 to 24 months, in a rural population of Haryana, India
3. Assessment of health promotion and wellness activities under Comprehensive Primary Health Care Packages in Faridabad, Palwal and Mewat districts of Haryana
4. Assessment of risk status of diabetes-related foot disease among people with diabetes residing in an urban resettlement colony in Delhi: A cross-sectional study
5. Assessment of the implementation of tobacco-free educational institution guidelines in schools of Faridabad district, Haryana

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6. Chronic morbidity in adolescents residing in Intensive Field Practice Area, Ballabgarh
7. Chronic morbidity in adolescents residing in Intensive Field Practice Area, Ballabgarh
8. Control of HbA1c, Blood pressure and cholesterol among adults with diabetes in UFPA Dakshinpuri
9. Coverage and Delivery of maternal nutrition services in primary health care settings in a rural area of Ballabgarh, Haryana.
10. Depression and anxiety among transgender persons who are enrolled with targeted intervention sites of HIV in Delhi
11. Developing an Integrated Mortality Information System at district level in selected states of north India
12. Diabetes distress and associated factors among adult patients residing in an urban resettlement colony in New Delhi
13. Duration and Pattern of Screen Time and Its Associated Factors among Pregnant Women of Rural Ballabgarh
14. Enhancing mental health literacy and reducing stigma for mental illness among college-going students in National Capital Territory of Delhi: An interventional study
15. HIV Self-Testing as a Mechanism to Increase the Uptake of HIV Test Among MSM: A Mixed Methods Study
16. Knowledge and acceptability of pre-exposure prophylaxis for HIV among men who have sex with men and transgender persons at select targeted intervention sites in Delhi
17. Management of Type 2 diabetes mellitus in the healthcare facilities of Faridabad district, Haryana: Physician perspective
18. Perception of caregivers and use of air purifiers among children with asthma attending OPD at tertiary care hospitals in Delhi
19. Prevalence of bullying victimization, perpetration, and their determinants among community-dwelling adolescents in Ballabgarh, Haryana
20. Prevalence, pattern and determinants of antibiotic use among the residents of Ballabgarh block of Faridabad District, Haryana
21. Quality assessment of adolescent health-friendly clinics in Palwal district-a mixed methods study
22. Relevance and capture of narratives in verbal autopsies for cause of death
23. Role of Demographic Surveillance Sites (DSS) in generation of mortality statistics in India: Situation analysis, feasibility of digital solutions and usefulness in estimation of national mortality statistics.
24. Statistical modelling to assess the determinants of HIV risk behaviour among the Hijra and Transgender population using Integrated Biological and Behavioural Surveillance Survey 2014-15 in India
25. Study of Common Mental Disorders in adolescent living with HIV (ALHIV) attending the paediatric HIV services at AIIMS, New Delhi: A Case-Control Study
26. Use of Energy Dense Food (EDF)/ Locally prepared therapeutic food for community-based management in children aged 6-59 months with Severe Acute Malnutrition 2023-2025 AIIMS
27. Validation of “Primary Care Team dynamics survey” tool to measure teamwork in primary healthcare settings in Faridabad and Palwal district, Haryana
28. Validation of “Primary Care Team dynamics survey” tool to measure teamwork in primary healthcare settings in Faridabad and Palwal district, Haryana

Completed

1. A Double-Blinded Randomized Controlled Trial To Compare The Effectiveness Of Oral Multiple Micronutrient Supplement (MMS) Vs Oral Iron And Folic-acid, for Anemia Prophylaxis Among Non-anemic Pregnant Women In Rural Haryana
2. Diagnostic and treatment delays among patients with drug-resistant tuberculosis registered under the National Tuberculosis Elimination Programme at selected district tuberculosis centres in Delhi and Faridabad
3. Estimation of cardiovascular risk among adults aged 30-59 years using updated WHO CVD risk charts in the rural population of Ballabgarh, Haryana

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4. Knowledge and acceptability of pre-exposure prophylaxis for HIV among men who have sex with men and transgender persons at select targeted intervention sites in Delhi
5. Knowledge and Practices related to Ambient Air Pollution and App-based Air Quality Alert System in an Urban Population in Delhi
6. Management of Headache Disorders in adults residing in Rural Ballabgarh: Patient and Healthcare Provider perspective
7. Nutritional status of women aged 15-24 years in a rural area of Haryana
8. Patient engagement in disease management in persons with diabetes mellitus or hypertension and its association with outcomes in rural Faridabad
9. Prevalence of excessive screen time and factors associated with it among children aged 2 to 4 years in rural Ballabgarh

Collaborative projects

Ongoing

1. "Evolving Epidemiology of Long COVID in Rajasthan-A Retrospective Study", Government of Rajasthan, India, All India Institute of Medical Sciences, Delhi, India, World Health Organization, India
2. A Study on Evaluation of Municipal Solid Waste Management and Effectiveness of developed Tailor-Made Digital Programme for Improving Household Waste Segregation in Raipur City of Chhattisgarh: A Mixed-Method Approach, AIIMS Raipur
3. Celiac Disease prevalence in native South versus North Indians-A migrant study to assess reasons for difference, Department of Gastroenterology and Parenteral Nutrition
4. Development of longitudinal growth reference and assessment of growth velocity, cardio-metabolic measures and its correlates among children in India prospective study, Biostatistics
5. Epidemiological investigation of suicide deaths during the COVID-19 pandemic in south and south-west districts of Delhi, Department of Forensic Medicine and Toxicology
6. ICMR National Registry on Venous Thrombo-Embolic Disorders (I-Reg VED), Cardiology
7. Multistate Implementation Research Study on Integration of Screening and Management of Mental and Substance Use Disorders with Other Non-Communicable Diseases (ICMR-MINDS), National Drug Deaddiction and Treatment Centre
8. Validation of POCT for serum ferritin estimation among outpatients in a facility setting, Department of Biochemistry

Completed

1. A Phase III, Randomized, Double-blind, Three-arm Placebo-controlled Trial to evaluate the efficacy and safety of two vaccines VPM1002 and Immuvac(Mw) in preventing tuberculosis (TB) in healthy household contacts of newly diagnosed sputum-positive pulmonary TB patients, Department of Pulmonary, Critical Care, and Sleep Medicine
2. Assessment of the prevalence and pattern of traumatic dental injuries in Kabaddi players of the Delhi-NCR region, CDER
3. Combined Trans Muscular Qudratus Lumborum Block and Sacral Erector Spinae block versus intrathecal morphine for perioperative analgesics in patients undergoing open gynaecological oncological surgery: an open labelled prospective randomized non-inferiority trail, Pain Medicine and Anesthesia
4. Community-based assessment of disability among adult population in Delhi using WHO International Classification of Functioning, Community Ophthalmology
5. Documenting the National and Sub-national COVID-19 Pandemic Response in India, INCLEN, MoHFW, World Bank
6. Emerging drug resistance in community-acquired urinary tract infection and molecular insights into dynamics of resistance traits in Indian isolates-A multi-centric cross-sectional study, Microbiology
7. ICMR Task Force Centre on Rational use of drugs, Pharmacology

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8. Randomised Trial To Assess The Efficacy Of Add Therapy With Aspirin Or Clopidogrel To The Standard Medical Therapy Alone In Patients With Tubercular Meningitis, Neurology
9. SARSCo-V2 infection-related clinical outcomes among people with and without diabetes and/or hypertension in India-A hospital-based observational study, Department of Endocrinology and Metabolism
10. The effect of probiotic formulation on iron absorption in iron deficient women of reproductive age-A double-blinded randomized placebo-controlled trial, Department of Cardiac Biochemistry
11. Validation of invasive digital hemoglobinometer for haemoglobin estimation among pregnant women in health facility India, Department of Biochemistry

PUBLICATIONS

2024	888-892

Total Publications: 96

Journal articles: 84 Abstracts: 4 Chapter in Books: 8

Publications over past 3 years

Item	2020-21	2021-22	2022-23	2023-24
Total	87	108	119	96
Journal articles	84	96	113	84
Abstracts	0	0	2	4
Chapter in books	3	12	4	8
Books	0	0	0	0

Patient Care

Comprehensive Rural Health Services Project (CRHSP), Ballabgarh

Comprehensive Rural Health Services Project (CRHSP), Ballabgarh is the rural program of the Centre for Community Medicine of the All India Institute of Medical Sciences, New Delhi. It comprises a sub-district hospital (SDH), and two Primary Health Centres (PHCs) at Dayalpur, and at Chhainsa. The Intensive Field Practice area of CRHSP, as of 31 March 2024 consisted of a total population of **1,04, 053.** The public health care infrastructure at the Intensive Field Practice area of CRHSP is set up through a network of 12 sub-centres associated with the two aforementioned PHCs. The mission of CRHSP Ballabgarh is to achieve excellence in public health by undertaking teaching, research and patient care in rural settings.

CRHSP Ballabgarh is involved in patient care, teaching, training and research activities. MBBS 7th semester students, Interns, postgraduate students and Senior Residents of various disciplines, and Nursing students, are posted at CRHSP Ballabgarh for their training through exposure to health care provision at a sub-district facility, and at PHC level. The students are also sensitized to the social determinants of health, through their residential teachings at these PHCs, wherein they interact with the community members.

Healthcare provision statistics at CRHSP Ballabgarh (1 April 2023 to 31 March 2024)

- OPD services – **2, 89, 066** patients,
- In-patient services – **7, 394** patients,
- Emergency services – **72, 591** patients
- A total of **2, 842** deliveries were conducted for pregnant women
- Total number of surgeries – **1, 110** (only at the SDH Ballabgarh)

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

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A. Patient care services provided at the Sub-district Hospital (SDH), Ballabgarh
B. Patient care services provided at the Primary Health Centres

A. Patient care services provided at SDH Ballabgarh:

Due to proposed construction of new ward block at SDH Ballabgarh, IPD services are shifted to OPD Block. Hence, both OPD and IPD services at SDH Ballabgarh are restricted. Current bed strength in the ward is 24. (Original bed strength was 50).

Outpatient Departments:

Daily	Once weekly
• General Medicine	• Non-Communicable Disease Clinic
• General Surgery	• Physical Medicine and Rehabilitation (PMR)
• Pediatric	• Pediatric Surgery
• Obstetrics and Gynecology	• Nutrition OPD
• Ophthalmology	
• Psychiatry	**Thrice weekly**
• Dental	• Ante-natal clinic
• AYUSH(Homeopathy)	
• AYUSH(Ayurveda)	**Twice weekly**
	• Dermatology
	• Ear, Nose and Throat
	• Orthopedics

1. Total Outdoor Patients

Services	2021-22	2022-23	2023-24
• Out Patient Department (OPD) Total (New +Old)	1, 70, 237	3, 02, 362	2, 89, 066
• New OPD patients (%)	94, 958 (55.8%)	1, 58, 889 (52.5%)	1, 39, 549 (48.3%)
• Medicine (New + Old)	59, 675	90, 532	1, 03, 247
• Paediatrics (New + Old)	28, 332	56, 232	46, 756
• Obstetrics and Gynaecology (New + Old)	20, 621	22, 310	23, 173
• Antenatal care Clinic registrations, Total visits, (New+Old)	13, 137	22, 547	21, 805
• Ophthalmology (New + Old)	9, 192	16, 238	14, 544
• Surgery (New + Old)	3, 430	14, 175	12, 727
• ENT (New + Old)	1, 291	8, 370	6, 219
• Dental	3, 978	8, 894	11, 007
• Physical Medicine & Rehabilitation (New + Old)	179	2, 310	2, 671

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• Non-Communicable Ds clinic, Total (New + Old)	1, 715	3, 202	3, 296
• Dermatology (New + Old)	566	7, 668	6, 113
• AYUSH (Homeopathy + Ayurveda)	9, 361	11, 629	10, 251
• Orthopaedic (New + Old)	12, 334	25, 095	15, 412
• Psychiatry	6, 330	9, 187	10, 601
• Nutrition OPD	79	305	408
• Plastic Surgery	5	0	0
• Neurology	0	0	0
• Pediatric surgery	12	1, 668	836

2. In-patient services

- **Total no. of beds: 50**

Services	2021-22	2022-23	2023-24
b. Total Admissions (including births)	**9, 183**	**9, 966**	**7, 394**
• Admission through casualty	4, 864	3, 961	3, 546
• Admission through OPD	1, 611	2, 846	1, 024
• Admission of New Born (births)	2, 708	3, 159	2, 824
b. Disaggregation of admissions, by specialty (N=7, 394)			
• Obstetrics and Gynaecology	5, 769	4, 690	3, 856
• Paediatrics	85	378	198
• Ophthalmology	423	816	255
• Surgery	99	721	185
• Medicine	86	29	19
• ENT	13	171	57
• Physical Medicine and Rehabilitation (PMR)	0	2	0
• New Born	-	3, 159	2, 824
c. Average Bed Occupancy Rate (%) (Including NB)	82.96	107.9	121.7
d. Average duration of stay for all patients (in days)	1.72	2.08	1.99
e. Total Deliveries Conducted (including IUD)	2, 723	3, 191	2, 842

3. Casualty services

Total no. of beds – 10

Casualty Services	2021-22	2022-23	2023-24
• Patients registered	43, 276	68, 427	72, 591
• Medico-legal cases	4, 415	5, 790	5, 724
• Emergency admissions	308	2, 934	2, 295

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4. Surgical Procedures

Total Surgical Procedures at SDH Ballabgarh	2021-22	2022-23	2023-24
1. Ophthalmology	385	775	239
2. Obstetrics and Gynaecology	472	668	596
3. General Surgery	94	603	166
4. Paediatrics Surgery	3	135	56
5. ENT	18	140	53
6. PMR	0	0	0
Total	**972**	**2, 321**	**1, 110**

5. Laboratory and Diagnostic Services	2021-22	2022-23	2023-24
a. Laboratory investigations (biochemical and haematological)	1, 30, 109	3, 05, 727	3, 10, 225
b. X Ray	12, 181	32, 114	24, 921
c. USG	6, 858	9, 728	8, 969
d. Malaria Slides	1, 292	8, 393	6, 818
• P.vivax	NIL	0	0
• P. falciparum	NIL	0	0
e. Counselling and testing services provided for HIV	9068	11208 & 11192	8502& 8486

National Tuberculosis Elimination Programme:

SDH Ballabgarh is a Tuberculosis Unit (TU) under the National Tuberculosis Elimination Programme (NTEP). Three designated microscopy centres (DMCs) are attached to this unit. Total tuberculosis cases treated at Ballabgarh Hospital for last 3 years are as follows:

Total cases started on treatment	2021-22	2022-23	2023-24
a. New case	740	1161	1, 122
b. Previously treated case	29	0	0

B. Community Health Services

CRHSP, Ballabgarh provides community health services in Intensive Field Practice Area (IFPA) of 28 villages through a network of two Primary Health Centres (Dayalpur and Chhainsa), and 12 sub centres. Domiciliary, outpatient, inpatient, and referral services are provided in the IFPA. Important demographic indicators for the IFPA for year (2023-24) were as follows:

Indicator	2021-22	2022-23	2023-24
Population	1, 04, 699	106, 646	1, 04, 053
Birth Rate per 1, 000 population	17.4	18.5	16.4
Death Rate per 1, 000 population	5.9	6.7	6.1
Sex ratio at Birth (females per 1, 000 males)	939	832	887.8

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Infant mortality rate per 1, 000 live births	22.8	28.8	20.6
Under 5 mortality rate per 1, 000 live births	29.1	32.7	25.7

1. **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 of IPHA

PHC Chhainsa			
OPD services	**2021-22**	**2022-23**	**2023-24**
New Cases	13, 910	19164	20609
Repeat Visits	15, 106	15564	13805
Total	29, 016	38333	34414

PHC Dayalpur			
OPD services	**2021-22**	**2022-23**	**2023-24**
New Cases	12, 909	23697	23119
Repeat Visits	15, 210	22769	18290
Total	28, 119	46466	41409

Total No. of AYUSH OPD Patients registered at PHC Dayalpur: 13, 752
(There is no AYUSH OPD at PHC Chhainsa)

2. **Inpatient Services provided at the PHCs:**

PHC	2021-22	2022-23	2023-24
Dayalpur	323	489	448
Chhainsa	333	782	470
Total	**656**	**1271**	**918**

3. **Emergency Services at PHCs:**

PHC	2021-22	2022-23	2023-24
Dayalpur	9, 477	12, 178	15254
Chhainsa	2, 948	3, 724	5084
Total	**12, 425**	**15, 902**	**20338**

4. **Family Welfare and Maternal Child Health**

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

Indicator	2021-22	2022-23	2023-24
Total antenatal registration	2, 226	2, 218	1965
Complete TT coverage of registered cases (%)	90.2	90.5	91.7

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Percentage of Institutional delivery in IFPA	98.4	98.6	90.2
PHC Chhainsa (%)	98.7	99.2	98.9
PHC Dayalpur (%)	98.0	98.0	96.9
Total deliveries in delivery huts at the PHCs	**656**	**576**	**459**
PHC Chhainsa	333	312	235
PHC Dayalpur	323	264	224

5. 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.

PHC Chhainsa			
Indicator	**2021-22**	**2022-23**	**2023-24**
Total number of malaria slides tested	881	5701	4885
Total number of positive cases	0	0	0
Annual Parasite Incidence (per 1, 000 population)	0	0	0
Annual Blood Examination rate (%)	1.7	10.9	9.39
Slide Positivity Rate (%)	0	0	0

PHC Dayalpur			
Indicator	**2021-22**	**2022-23**	**2023-24**
Total number of malaria slides tested	1, 564	3744	3040
Total number of positive cases	0	0	0
Annual Parasite Incidence (per 1, 000 population)	0	0	0
Annual Blood Examination rate (%)	2.9	6.86	5.9
Slide Positivity Rate (%)	0	0	0

National Tuberculosis Elimination Programme: The National Tuberculosis Elimination 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:

PHC Chhainsa			
Indicator	**2021-22**	**2022-23**	**2023-24**
Total number of patients started on treatment	79	172	117
New Cases	78	121	97

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PHC Dayalpur			
Indicator	**2021-22**	**2022-23**	**2023-24**
Total number of patients started on treatment	80	160	91
New Cases	80	137	67

National Programme for prevention & Control of Non-Communicable Diseases (*NPNCD*): Under this programme, opportunistic screening of patients in the OPD is done

PHC Chhainsa			
Indicator	**2021-22**	**2022-23**	**2023-24**
Total NCD screening done	-	637	3759
Total diabetes diagnosed	-	125	237
Total Hypertensive diagnosed	-	321	411

PHC Dayalpur			
Indicator	**2021-22**	**2022-23**	**2023-24**
Total NCD screening done	-	4577	3288
Total diabetes diagnosed	-	86	549
Total Hypertensive diagnosed	-	266	632

6. **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 2023 to 31 March 2024, the cases attended to at each PHC were as follows:

PHC Chhainsa			
Services	**2021-22**	**2022-23**	**2023-24**
Gynaecology	45	487	176
Paediatrics	34	194	48
Ophthalmology	38	251	281
Psychiatry	45	91	90
Out Reach Speciality OPD (ORSO)* (Total)	**958**	**1023**	**595**

PHC Dayalpur			
Services	**2021-22**	**2022-23**	**2023-24**
Gynaecology		500	284
Paediatrics	68	292	202
Ophthalmology	94	575	467
Psychiatry	25	206	88
Out Reach Speciality OPD (ORSO)* (Total)	**2130**	**1573**	**1041**

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7. Animal Bite Management Clinic

PHC	2021-22	2022-23	2023-24
Dayalpur	452	362	512
Chhainsa	818	579	560
Total	**1270**	**941**	**1072**

8. Special services to pregnant women

PHC Chhainsa			
Special services	**2021-22**	**2022-23**	**2023-24**
Pregnancy received IVIS	107	24	38
PPIUCD	62	27	17
High Risk Pregnancy Consultation (%)	-	40.2	39.1

PHC Dayalpur			
Special services	**2021-22**	**2022-23**	**2023-24**
Pregnancy received IVIS	198	6	72
PPIUCD	108	80	13
High Risk Pregnancy Consultation (%)	-	38.4	36.6

9. IEC Activities

Health Talks: A total of 312 and 512 health talks were conducted in PHC Chhainsa and Dayalpur respectively. These health talks delivered by the nursing students, interns, resident doctors in the subcentres, PHC and in the community. The topics include Neonatal care and kangaroo mother care, Breast feeding and weaning, Antenatal care, high risk pregnancy, anaemia in pregnancy, importance of institutional delivery, Immunization, Malaria and Dengue, Tuberculosis, anaemia in children, deworming, malnutrition in children, Vitamin-A deficiency, Diabetes, Hypertension, HIV/AIDS, accidents in children, personal hygiene, family planning methods, postnatal care and diet, care of newborn, COVID-19, geriatric care, Mental health programme, etc.

10. Special activities during financial year at PHCs

a. Screening for high-risk infants
b. Community based camp for malnourished children
c. T3 anemia camp at all sub-centre and PHC to screen around 3000 beneficiaries
d. IPPI on 2 occasions
e. Special immunization week celebration at HRA, brick kiln on 4 occasions
f. Malnutrition screening drive done among all under-five children at all villages of PHC Chhainsa and PHC Dayalpur
g. Anaemia elimination week
h. Plantation drive (50 plants) by PHC and subcentre all staff
i. Short film shows at PHC campus on the diet and sanitation targeting young child and adolescent
j. Two Dental camp conducted in school

III. New initiative and Accolades

A. Newer initiative

- High risk infant data base: identification, follow up and intervention

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- Dietary supplement in terms of food packet (250gm Jaggery + 200gm chana) once in a month to all ANCs and once in a week to all malnourished ANC
- Dietary supplement in terms of food packet (250gm Jaggery + 200gm chana) once in a month to all children who are in severe undernutrition
- Tricog based ECG – Pilot proposal to develop a model for comprehensive management of cardiovascular diseases at Primary Health Care setting using Artificial Intelligence (AI)
- SWASSA app – Cough sounds based diagnosis of COPD using Artificial Intelligence (AI)
- Ayurvedic treatment in collaboration with AYUSH for cognitive disorders in elderly
- Providing AYUSH formulations f to non-pregnant females for prevention of anemia
- Integrating Yoga with at Health and Wellness Centre for management of Diabetes and other NCD
- Development of new ward complex at SDH Ballabgarh is in progress
- Development of 15 bedded Community health Centre at Fatepur billoch village has been sanctioned

B. Accolades

- **Kayakalp:** Both PHC Chhainsa and PHC Dayalpur received Kayakalp certification
- **National Quality Assurance Standards:** Both PHC Chhainsa and PHC Dayalpur are NQAS certified

2. 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, Dakhshinpuri catering to a population of around 38, 475. Patient care services are provided at the Urban Health Centre

- **Clinical Services**

	Activities	Number
OPD	Total no of patients seen (including immunization)	23039
Laboratory services	Total Lab Tests	9057
	No. of Hb. Test Conducted	2735
	Of which numbers having Hb.<7 gm%	67
	Of which numbers having Hb.<11gm%	1024
	Blood Sugar-FBS, RBS, PPS	6040
	Urine albumin and sugar tested	66
	UPT	73
	RDT for Malaria	6
	Blood group	66

- **Child Health services**

Number of immunization sessions held – 101 days

Vaccine/Supplement		Number of children
BCG		44
DPT 1 = 0	/pentavalent 1	235
DPT 2 = 3	/pentavalent1 2	209
DPT 3 = 2	/pentavalent 3	233

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OPV 0 dose(birth dose)	20
OPV1	235
OPV2	212
OPV3	235
Hepatitis-B 1	0
Hepatitis-B 2	0
Hepatitis-B 3	0
Injectable IPV Fractional 1	235
Injectable IPV Fractional 2	233
Injectable IPV Fractional 3	266
Rotavirus 1	235
Rotavirus 2	209
Rotavirus 3	233
PCV 1	235
PCV 2	233
PCV Booster	266
MR-1	276
MR-2(16-24 months)	47
MMR	242
DPT/OPV Booster 1	275
DPT/OPV Booster 2	262
Typhoid Vaccine	268
Td-10 years	300
Td- 16 years	150
Vitamin A administered between 9 months and 5 years	1025
Albendazole under 5 children	282

o Number of severely underweight provided health checkup (0-5 year) - 34

- **Maternal Health Services**

Antenatal Care	Total number of pregnant women seen in the Urban Health Centre (new cases(within 12 weeks) = 63)	319
	Number of pregnant women given Td1	65
	Number of pregnant women given Td- 2. 56 + Td Booster -2	56+2=58
	Total number of pregnant women given 180 IFA tablets	49
Family Planning	No Condoms distributed	NA
	No Oral contraceptive pill cycles distributed	NA
	New RTI/ STI Cases Identified	52

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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Kiran Goswami was Member NTA UGC-NET Expert Committee Social Medicine and Community Health, Subject Expert NBE for FMGE; MD Thesis evaluation BFUHS Faridkot. MPH Thesis evaluation AIIMS Rishikesh. MD Examiner –BFUHS, Delhi University, Tripura University, AFMC, NIHFW. Faculty Selection Committee AIIMS. Bhubaneshwar, AIIMS Kalyani, Delhi University. Central Coordinating Team member INCLEN, Judged Poster presentation at FRICON 23 (Faimer) CMCL; chaired Field Presentations of 'Field Training Program for GDMOs of CHS Cadre' at NIHFW 2023, EFICON2023, ICMR-NIV Workshop on viral disease and research prioritization, North Zone; Member Expert Committee to revise ToRs for the post of Public Health Specialist DGHS, MoHFW: Subject Expert for Project Review, Div. of Reproductive, Child-health & Nutrition (RCN), ICMR Coordinator NSS Unit (Has student enrolment over 600 including MBBS UG and BSc Nursing students; Regular activities on awareness generation in field practice area and welfare of disadvantaged groups.). Member Institute Ethics Committee. Won consolation Prize in Hindi Essay Competition in Hindi Month at AIIMS, New Delhi, 2023.

Professor Anand Krishnan was Professor-in-charge Clinical Epidemiology Unit; Head, WHO Collaborating Centre on Research and Capacity Building on Community-based NCD Prevention and Control; Head, AIIMS technical Support Unit for SRS-VA and the MINErVA Network; Chair, Scientific Advisory Committee of ICMR-NIREH Bhopal; Co-chairperson, Local Research Advisory Committee, MRU AIIMS Gorakhpur; Consulting Editor, WHO SE Asia Journal of Public Health; Medical Sciences Editor, Current Sciences; Editor, Frontiers in Public Health; Chairperson, Institutional Ethics Committee, HRIDAY; Member, UNDESA/WHO Technical Advisory Group (TAG) on COVID-19 Mortality Assessment; Member, WHO Working Group in Influenza Burden of Disease; Member, School Board, School of Health Sciences, IGNOU; Member School Board, School of Medical Sciences, Hyderabad University; Member, Centre Committee for Centre for Social Medicine and Community Health, JNU; Member ICMR- Scientific Advisory Group, NCD Division, and National Health Research Priorities; Member Advisory Committee, CAPHER; Undertook assignment with WHO to Assess the capacity for research for health in seven Member States write it into a regional report; reviewed project proposals for Fellowships under ICSSR and UGC.

Professor Baridalyne Nongkynrih was Published nine papers in indexed medical journals; Reviewer for the BMJ Open, Bulletin of WHO, Lancet Southeast Asia, Indian Journal of Community Medicine, Global Health Action, Indian Journal of Maternal & Child Health and Journal of Health, Population and Nutrition, ICDDR Bangladesh, International Journal of Medicine and Public Health, International Journal of Advanced Medical Research, WHO South-East Asia Journal of Public Health, Cancer Biology & Medicine; Member of core team and National trainer for MINerVA Network for SRS by RGI – AIIMS New Delhi. Faculty in a workshop on Primary Health Care jointly organized by AIIMS & Johns Hopkins University; External examiner for universities in Manipur, Tripura, West Bengal and Delhi. PHD examiner for JIPMER Puducherry; Member of selection committee for faculty recruitment, NIMHANS; Member of Delphi survey Purchasing Quality Chronic care, 2023 WHO Geneva; Member of expert group for a survey "Assessment of continuum of care for Hypertension & Diabetes in India" conducted by ICMR NCDIR, Bengaluru. Member of the National Consultation on HIV-NCD program integration among PLHIV under the National AIDS Control Programme (NACP).

Professor Puneet Misra is a member of various task force studies of ICMR, including GDM, PCOS evaluation of community-level acceptability, scalability and linkage within the health system besides many other committees and scientific reviewers for various programs and Journals. He is helping DST and Govt of India on AYUSH research as a Program Advisory Committee member**.** He has been a member of Faculty selection committee at various AIIMS besides MBBS and MD examiners. He has been Keynote speaker at many programs and conferences including keynote address at ***the*** United Nations on Holistic Health. He appeared on various talks shows and interviews for various TV channels to discuss COVID and other Health issues. He has organized two WHO Unity protocol meetings with various stakeholders and specialists all across the country which were well attended by WR and Deputy WR. He maintains the biggest sera bank for COVID epidemiology before and after vaccination of more than 10, 000 samples on seven occasions for WHO. He received the prestigious Bharat Gaurav Samman for his keynote address on Holistic Health at UN-HQ New York given by ***the*** Consulate General of India in NY at Times Square in a function. He is also member of SAC, ICMR NIRTH Jabalpur.

Professor Sanjay Kumar Rai was delivered more than 10 guest lectures for different professional organizations, institutions and conferences during 2023-2024. He has been appointed by the Director of AIIMS New Delhi as Hostel Superintendent. Nominated by Pandit BD Sharma University of Health Sciences Rohatak, as a member of the Board of Examiners for MD Community Medicine. As an external examiner conducted MD Community Medicine examination at Pt. BD Sharma PGIMS Rohtak from 12-13 June 2023. As a subject expert, assisted the Standing Selection Committees of Department of Public Health, KSSSCI, Lucknow, North Eastern Indira Gandhi Institute of Medical Sciences (NEIGRIHMS), Shillong, Jammu & Kashmir Public Service Commission office Srinagar, NIMHANS, Bangalore, and

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IGIMS Patna for recruitment of faculty positions on 1 June 2023, 21-22 June 2023, 6-19 July 2023, 12 December 2023. Delivered Dr Rama Murthy Memorial Oration during 28th AP State Joint Conference of IPHA & IAPSM be held from 2-3 September 2023, at GITAM Institute of Medical Sciences & Research, GITAM (Deemed to be University), Visakhapatnam, Andhra Pradesh. Participated as a sensor board member for the technical evaluation of film "Vaccine War" at Film Division Complex, Peddar Road Mumbai on 9 August 2023. Nominated by the 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 numerous visits to several districts of Uttar Pradesh, Bihar, and Jharkhand, to support the ongoing HSS in these states. As a member of AIIMS Engineering Advisory Committee (EAC) participated in several engineering advisory committee meetings to streamline the working of engineering services. Member of the Technical Resource Group (TRG) of NACO, MoHFW, GoI on HIV Estimations in India and participated in several TRG meetings during 2023-2024. Nominated by the Ministry of Health and Family Welfare, GOI as a non-official member of Empowered Programme Committee (EPC) which is an Executive Committee under the National Health Mission (NHM).

Professor YS Kusuma Kumari was Member of the Scientific Advisory Committee (SAC) of ICMR-National Institute of Implementation Research on NCDs (ICMR-NIIRNCD). Expert member of the ICMR's National Health Research Priority Project 'Multidistrict Implementation Research Study on Accelerating Reduction of the Preventable Neonatal Mortality'. Member of the "NCD Risk Factor Collaboration (NCD-RisC)", a network of scientists worldwide that provides rigorous and timely data on risk factors for non-communicable diseases (NCDs). Member of MiHSA (Migration Health South Asia) Net Work - an evolving network involving key scholars and practitioners in research and policy institutions in South Asia and the UK. Served as PhD and MD theses adjudicator to Jawaharlal Nehru University, New Delhi, and BP Koirala Institute of Health Sciences, Dharan, Nepal; served as a reviewer to journals, namely, American Journal of Human Biology, Biodemography and Social Biology, Health Science Reports, Journal of the National Medical Association, Journal of Migration and Health, Psychology in the Schools (PITS), Vaccines, WHO-SEARO Journal of Public Health, etc.

Professor Kapil Yadav was Member of "Test and Treat" technical sub-group constituted for formulation operational guidelines for "Anemia Mukt. Bharat" by Ministry of Health and Family Welfare, GoI. Focal Point for "National Centre of Excellence and Advanced Research on Anemia Control (NCEAR-A)", Ministry of Health and Family Welfare, GoI. Visiting scientist -Provide the name, activity, institutional affiliation, city and country of person visiting.

Professor Sumit Malhotra was Member of working committee of Clinical Research Unit (CRU) under Research Section, AIIMS, New Delhi; member of affiliate centre of Cochrane India Network at AIIMS; member of ICMR advanced centre for clinical trials; teaching member of fellowship programme for AIIMS faculty on clinical research methodology and evidence-based medicine, member of Clinical Epidemiology Unit (CEU) at AIIMS, Delhi. Member of AIIMS technical Support Unit for SRS-VA and the MINErVA Network. Resource person for the Operational and Health Systems Research module of IAPSM (Indian Association of Preventive and Social Medicine) research methodology course. Was invited as a judge for the research day AIIMS, Patna celebrations (17 December 2023). Nominated member from the department to be part of elimination of lymphatic filariasis group under NVBDCP (National Vector Borne Disease Control Programme). Expert member for developing ICMR simplified workflows for community health officers in primary care in the field of adolescent health. Expert member for developing evidence-based guidelines on lung cancer, constituted by the Department of Health Research (DHR) and Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India. Was a member of committee to review intramural research proposals for AIIMS nursing faculty.

Dr Ravneet Kaur was Empaneled as an expert member in the selection board for recruitment of Assistant Professors in Employees' State Insurance Corporation (ESIC). Appointed as subject matter expert for Item writing and validation of MCQs at the National Board of Examinations in Medical Studies (NBEMS). Member of the expert group of the ICMR for developing workflows for Community Health Officers (CHOs) for pregnancy and childbirth. Member of project review committee for supporting research activities in Multidisciplinary Research Units in Government Medical Colleges (MRUs) and Model Rural Health Research Units (MRHRUs) in States" under the PM-ABHIM scheme of the ICMR. Faculty for SET (Skill, e-learning and Telemedicine) facility of AIIMS. Developed skill-based modules for undergraduates and interns.

Dr Harshal Ramesh Salve was Elected as a Fellow of the Indian Public Health Association (IPHA). Received Presidential Appreciation Award - 2023 for contribution in the field of Community Medicine by IAPSM Travel Award for Scientific Presentation by International Society of Environmental Epidemiology (ISEE -2023)at 35th ISEE conference in Kaohsiung, Taiwan. 2nd Best Scientific Research Paper Presentation Award at 3rd Annual conference of Epidemiology Foundation of India Conference (EFICON – 2023) at Goa. Part of team reviewing National Ambient Air Quality Standard in India for Central Pollution Control Board, Ministry of Environment, Forest and Climate Change, Government of India. Co-

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ordinator for Collaborative for Air Pollution and Health Effects Research in India (CAPHER – India), Supported by Health Effects Institute (HEI), Boston, USA. Course coordinator - AIIMS – PGIMER Course on Public health approaches for non-communicable diseases. Cohort study - design methods and analysis by Clinical Epidemiology Unit of AIIMS. Member - International Society for Environmental Epidemiology (ISEE), Epidemiology Foundation of India, Indian association of Preventive and Social Medicine (IAPSM). Nominated for election of Council member of Asia West Pacific Chapter of ISEE. General Secretary of Faculty Association of AIIMS (2020-24); Managing editor of Air Health Bulletin by CAPHER India. Guest Editor of Atmospheric Environment X: Special issue on India. Section editor (Environment Health) – Preventive Medicine, Research and Review.

Dr Rakesh Kumar was a member of the Project Review Committee of the Indian Council of Medical Research for extramural adhoc research in Urology. He Was an expert for the Indian Association of Preventive and Social Medicine (IAPSM) e-connect Post Graduate Journal Club. He is reviewer for American Journal of Tropical Medicine and Hygiene, Transactions of the Royal Society of Tropical Medicine and Health, Tropical Medicine and International Health, Indian Journal of Public Health, and The Journal of Obstetrics and Gynaecology of India. Member of the Tuberculosis Core Committee at AIIMS, New Delhi.

Dr Partha Haldar continues to be a member of the Technical Resource Group (TRG) for Viral Hepatitis Surveillance in India, constituted by the National Center for Disease Control (NCDC), Ministry of Health and Family Welfare, Government of India. Dr Partha Haldar conducted the Health Economics and Epidemiology module for MD students of the Centre for Community Medicine. Dr Partha Haldar is also a Member of the 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. He is a member of the Clinical Epidemiology Unit of the AIIMS New Delhi, a Member of the Research Committee of the Centre for Integrative Medicine and Research, AIIMS, New Delhi, Member of the ICMR-DHR Committee Constituted to provide advice on ICMR-DHR Data Sharing and Access Policy; He also participated as a subject matter expert for Faculty Interviews for ESIC Medical Colleges.

Dr Mohan Lal Bairwa was Editorial Board Member, Frontiers in Public Health and BMC Public Health. Faculty member of WHO Collaborating Centre for Non -Non-Communicable Diseases for WHO Collaborating Centre for Capacity Building and Research in Community-based Noncommunicable Disease Prevention and Control at AIIMS. A faculty member of AIIMS Technical Support Unit of MINERVA supported by the Ministry of Home Affairs, Government of India. Member of Board of Studies, IIHMR University. Adaptation Community Medicine curriculum for implementation of Competency-based medical education. Member of Institutional Committee to suggest reforms in the pattern of teaching, training, and evaluation of final year MBBS students in lieu of change in PG entrance examination.

VISITING SCIENTISTS

8-9 August 2023 NIHFW MD CHA, DHA Students: Orientation to Field Practice Area

3-14 August 2023 Faculty CFM AIIMS Jammu: Interaction with Faculty for Development of Department

20 January 2024 AFMC MD Community Medicine students Team

29 January to 10 February 2024 Faculty CFM AIIMS Jammu: Interaction with Faculty for Development of Department

1 February 2024- MPH students from the School of Global Affairs, Ambedkar University Delhi

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9.9 Dermatology and Venereology

Professor & Head, Dean (Academic)

Kaushal K Verma

Professors

M Ramam | Sujay Khandpur | G Sethuraman

Somesh Gupta

Additional Professors

Kanika Sahni | Neetu Bhari

Associate Professor

Vishal Gupta

HIGHLIGHTS

Prof Kaushal Verma, Head, the Department of Dermatology held the position of Dean (Research) at the Institute till October 2023 following which he took over as Dean (Academic) of the AIIMS. Under his able leadership, the department initiated a Reciprocal Student Exchange Program with the University of Michigan, Detroit whereby one resident from each institute will get the opportunity to visit the other institute and gain a wider exposure during their training period.

Patient care:

Department runs an OPD for patients with skin diseases, STIs & leprosy, performs dermatosurgical procedures & reviews of skin biopsies daily. In addition, we run 8 speciality clinics, 4 laser clinics & daily minor operation theatre procedures including excisions, radiofrequency, cryotherapy, grafting, fat transfer procedures and vitiligo surgery. We have continued to provide teleconsultations services. We have a 29-bed ward, with almost 100% occupancy, & 6 bedded daycare centre where we admit patients to administer intravenous steroid pulse & biological drugs for serious illnesses like pemphigus.

***Education and training*:**

Department is training 28 junior residents, 10 senior residents, 3 PhD candidates & undergraduate students and training residents from the Department of Medicine, Emergency Medicine, Infectious Diseases & Paediatrics.

New facility and conferences:

The Department set up the facility for Mohs Micrographic Surgery for skin cancer which was inaugurated by the Hon'ble Director and Dean (Acad) in the Dermatology OPD. This will provide the global standard of care for patients with skin cancers visiting AIIMS, New Delhi and is one of the first facilities of its kind in India. Dr Kanika Sahni, Additional Professor underwent training and observership in the technique of Mohs micrographic surgery in Sydney and Melbourne, Australia. This was followed by a visit by a group of 8 faculty from the USA and Canada who conducted a 5-day live surgery workshop on Mohs surgery and advanced reconstructive surgery at the Department in February 2024 which enabled setting up the facility.

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***Research*:**

The Department faculty has received several extramural and intramural grants for research and published more than 100 papers in high-index, peer-reviewed journals, and delivered more than 80 lectures including orations & guest lectures at national & international conferences. The faculty also edited several textbooks including the IADVL Textbook of Dermatopathology and IADVL Textbook of Immunobullous Diseases.

***Community activities*:**

- Department faculty have participated in various social media programs on radio & television. Faculty also participated in a Charitable Medical Camp at Leh, Ladakh, 17-24 September 2023.
- A Public Lecture on "Understanding and Managing Psoriasis" was organized by the Department at JL Auditorium on 31 October 2023 to spread awareness to general public.
- The Department continues to provide outreach Dermatology services to both CRHSP Ballabgarh and NCI Jhajjar.

EDUCATION:

Number of students/trainees registered in the department:

	2021-22	2022-23	2023-24
No. of Senior Residents	10	10	10
No. of Postgraduates	25	25	28
No. of PhD Students	3	3	3
No. of Short-Term Trainees	-	1	3

CMEs/Workshops/Symposia/National and International Conferences

- The Department hosted the Blade and Light workshop in Mohs micrographic surgery and Advanced reconstructive surgery in February 2024 which was widely attended as a hybrid event by delegates from all over the country. This was also combined with a one-day live Aesthetics Workshop which was hugely appreciated.
- The Department also hosted the very successful hybrid AIIMS Procedural Dermatology Workshop and CME in August 2023 at AIIMS in which eminent faculty from all over the country demonstrated numerous live dermatosurgical procedures in two parallel halls.
- As a part of Vitiligo Day celebrations, the Department hosted the Vitiligo Vision CME in June 2023 in association with IADVL Delhi State Branch.

Lectures delivered: 72

Kaushal K Verma: 14 **M Ramam: 7** **Sujay Khandpur: 14**

G Sethuraman: 1 **Kanika Sahni: 12** **Neetu Bhari: 12**

Vishal Gupta: 12

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
42	71	72

Oral papers/posters presented: 7

Oral/ poster presentations over past 3 years

2021-22	2022-23	2023-24
6	5	7

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RESEARCH

Ongoing

1. A randomized open-label, parallel-group study to evaluate the safety and efficacy of abrocitinib 100mg and 200mg tablets in participants aged 12 years and older with moderate to severe atopic dermatitis in India, Dr Somesh Gupta, Pfizer, 2 Years, 2022-24, Rs 45 Lakhs
2. Aptamer-based diagnostic test for vulvovaginal candidiasis, Dr Somesh Gupta, Indian Council of Medical Research, 2.5 Years, 2023-26, Rs 43 Lakhs
3. Clinical and immunological factors predicting relapse in patients with pemphigus treated with rituximab: a prospective cohort study, Vishal Gupta, AIIMS Intramural grant, 2 Years, 2021-24, Rs 98 Lakhs
4. Defining the role of skin microbiome in modulating the skin microenvironment in children with atopic dermatitis, Neetu Bhari, IADVL, 2 Years, 2022-24, Rs 7.7 Lakhs
5. Development of a metabolite-based point-of-care test for diagnosis of bacterial vaginosis in Indian women, Dr Somesh Gupta, Indian Council of Medical Research, 3 Years, 2023-26, Rs 77 Lakhs
6. Morphological pattern of skin lesions in different complementation groups in children with xeroderma pigmentosum and its correlation with various cutaneous and extra-cutaneous cancers and photoaging, Neetu Bhari, ICMR, 3 Years, 2023-26, Rs 45.9 Lakhs

Completed

1. 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, Dr G Sethuraman, Department of Science & Technology, 3 Years, 2018-21, Rs 46 Lakhs
2. Analysis of the diagnostic and/or predictive potential of metabolomics in bacterial vaginosis, its treatment failure, relapse and susceptibilities to other sexually transmitted infections, Dr Somesh Gupta, AIIMS, New Delhi, 4 Years, 2018-22, Rs 16 Lakhs
3. Comparison of apremilast vs betamethasone OMP in the treatment of progressive non-segmental vitiligo: an open-label non-inferiority randomized trial, Vishal Gupta, IADVL, 2 Years, 2020-23, Rs 3.65 Lakhs
4. Double blinded randomized controlled trial to study repigmentation in non-segmental vitiligo using 0.1% tacrolimus/0.2% tacrolimus/placebo in combination with an excimer lamp
5. Evaluation of Mental Health in patients with Chronic skin diseases
6. Evaluation of Patch Test in diagnosis of adverse cutaneous drug reactions and its correlation with oral drug provocation
7. Role of BAFF and APRIL ligands and their receptors, CD4 and regulatory B-and T cells in predicting disease relapse in pemphigus vulgaris patients receiving conventional Dexamethasone pulse and newer biological rituximab therapy, Dr Sujay Khandpur, ICMR, 3 Years, 2021-24, Rs 25 Lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. A cross-sectional descriptive study to evaluate extracutaneous and systemic involvement in children and adults with inherited epidermolysis bullosa
2. A cross-sectional study to assess the quality of life impairment in children and adolescents with vitiligo and their primary caregivers and comparison of prevalence of depression, anxiety and low self-esteem in children and adolescents with vitiligo as compared to age and sex-matched healthy controls
3. A cross-sectional descriptive study of clinical, dermoscopic and histopathological features of granulomatous skin lesions and their clinical mimics
4. A randomized controlled trial comparing intralesional triamcinolone acetonide with 5-Fluorouracil alone versus in combination with intralesional radiofrequency ablation in the treatment of keloids

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5. A randomized controlled trial to assess the effect of adding hypoanaesthesia to existing standard anaesthetic technique in reducing pain and anxiety in children undergoing minor dermatosurgical procedures, as compared to standard anaesthetic technique alone
6. A Retrospective analysis of the clinical spectrum of SLE (IEC-45/8 January 2021)
7. A Retrospective analysis of the clinical, biochemical, immunological and radiological spectrum of systemic sclerosis from a tertiary care centre in northern India (IEC-70/5 February 2021)
8. An ambispective study to describe the clinical profile and treatment outcomes of Patients with Basal Cell Carcinoma presenting to a Tertiary care centre in North India
9. An open-label non-randomized preliminary study comparing two targeted phototherapy devices i.e. hand-held Narrow Band UVB device with monochromatic excimer laser (MEL) therapy in treatment of localized vitiligo
10. An open-label, prospective, non-randomized, non-inferiority study to compare the efficacy of twice weekly administered home-based PUVAsol soak therapy versus twice weekly administered hospital-based PUVA soak therapy in palmoplantar psoriasis
11. Evaluation Of Effectiveness and Safety of Oral Tofacitinib in Patients with Parthenium Dermatitis: A Prospective Interventional Open-Label Study
12. Evaluation of role of cyclophosphamide pulse therapy in maintaining remission following rituximab in patient with pemphigus vulgaris: a prospective observational study
13. Prospective randomized trial to compare efficacy and cost-effectiveness between rituximab therapy and dexamethasone pulse in pemphigus vulgaris
14. Randomised controlled assessor-blind trial to compare the efficacy of tofacitinib v/s methotrexate in patients with moderate to severe atopic dermatitis
15. Safety and efficacy of oral tofacitinib versus oral betamethasone oral mini-pulse therapy in the treatment of progressive non-segmental vitiligo: a pilotrandomized clinical trial
16. To evaluate patch test and skin prick test to elucidate the role of allergens in the occurrence of endogenous dermatitis: a prospective cohort study.
17. Utility of excimer light therapy in residual vitiligo lesions following NBUVB therapy

Completed

1. A randomized controlled trial of the effect of cosmetic camouflage on quality of life and participant perceived stigma in participants with predominantly acrofacial vitiligo, as compared to controls
2. Clinico-histopathological correlation of sarcoidal tissue reaction
3. Comparison of hand and foot PUVA versus excimer light in palmoplantar psoriasis
4. Dermoscopy of facial hyper pigmentary skin conditions
5. Double-blinded randomised controlled trial to study repigmentation in non-segmental vitiligo using 0.1% tacrolimus/0.2% tacrolimus/placebo in combination with excimer lamp
6. Evaluation of Mental Health in patients with Chronic skin diseases
7. Evaluation of Patch Test in diagnosis of adverse cutaneous drug reactions and its correlation with oral drug provocation
8. Study of vaginal microbiome and metabolome in women with bacterial vaginosis and healthy controls

Collaborative projects

Ongoing

1. An ambispective descriptive study of the histopathological spectrum of inflammatory linear verrucous epidermal nevus (ILVEN), Pathology
2. Evaluation of effectiveness of radioactive skin patches for treatment of hidradenitis suppurativa, Departments of Nuclear Medicine and Dermatology & Venereology at AIIMS

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3. Evaluation of therapeutic efficacy of radioactive skin patches for treatment of basal cell carcinoma, Departments of Nuclear Medicine and Dermatology & Venereology at AIIMS
4. Evaluation of therapeutic efficacy of radioactive skin patches for treatment of keloids, Departments of Nuclear Medicine and Dermatology & Venereology at AIIMS
5. Exploring the role of innate immunity in immunopathogenesis of pemphigus vulgaris, Biochemistry
6. Patch testing with petrolatum preparations with Hydroperoxides of linalool (1.0% in petrolatum) and hydroperoxides of limonene (0.3% in petrolatum), International Contact Dermatitis Research Group (ICDRG) and Department of Occupational and Environmental Dermatology, Skåne University Hospital, Malmö, Sweden, Departments of Nuclear Medicine and Dermatology & Venereology at AIIMS
7. Qualitative study on how patients with skin diseases are managed in non-dermatology settings, Psychiatry, Biostatistics

Completed

1. Distorted frequency of dendritic cells and their associated stimulatory and inhibitory markers augment the pathogenesis of pemphigus vulgaris, Biochemistry
2. Exploring the role of gamma-delta T-cells in immunopathogenesis of pemphigus vulgaris, Biochemistry
3. Patch testing with a textile dye mix without Disperse Orange 3 in the baseline series, International Contact Dermatitis Research Group (ICDRG) and Department of Occupational and Environmental Dermatology, Skåne University Hospital, Malmö, Sweden, Departments of Nuclear Medicine and Dermatology &Venereology at AIIMS
4. Qualitative study on perception of treatment response in vitiligo patients, Psychiatry, Biostatistics

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	12	13	10
Total funding	Rs 25,800,000	Rs 38,445,000	Rs 2,57,09,000

Publications

Total Publications: 84

Journal articles: 64; Articles: 0; Chapters in Books:20; Books: 0

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	74	88	84
Journal articles	56	67	64
Chapters in books	18	21	20
Books	0	-	0

PATIENT CARE

Facilities available in the department:

a. *Out-patient services*: The Department runs an OPD for patients with skin diseases & STIs & HIV, performs dermatosurgery procedures & dermatopathology review of skin biopsies daily

b. *Teledermatology:* We have continued to provide teleconsultations daily to about 70 patients, even after the physical OPD has become fully functional

c. *Special clinics*: Leprosy, photo dermatology & phototherapy, dermatosurgery, STDs, pigmentary disorders, psoriasis, pediatric dermatology, allergy clinic

d. *Side- lab:* KOH, gram stain, slit skin smear, Tzanck smear, patch & photo patch testing

e. *Surgical procedures*: Diagnostic & therapeutic biopsies, excisions, scar revision, excision of malignancies, vitiligo surgery

f. *Aesthetic procedures:* Peeling, PRP, fat transplantation, fillers, radiofrequency ablation, micro-needling radiofrequency

g. *Lasers*: Hair removal laser (1 diode, & 1 with diode, Nd-YAG, Alexandrite heads), pigment (Nd: YAG) laser, vascular (PDL) laser, ablative (2 fractional CO2) lasers

h. *Phototherapy*: UVA & NB-UVB chambers

i. *In-patient services*: We have a 29 bedded ward, with almost 100% occupancy

j. *Day care facility*: We have 6-bedded day-care facility for administration of biologicals & steroid/cyclophospahsamide pulse therapy, & keeping postop patients under observation

	2022-2023	**2021-2022**	2023-2024
OPD patients: new	39, 067	24788	43395
OPD patients: follow up	565789	30579	79582
Inpatients (long admissions)	697	521	995
Inpatients (short admissions)	2199	1589	1594

AWARDS, HONOURS AND SIGNIFICANT EVENTS

The department faculty and residents made the department proud by being recipient of numerous awards and honors at national and international level including the LK Bhutani Memorial Award to Dr Sujay Khandpur at Dermacon 2024. The Department hosted the Blade and Light workshop in Mohs micrographic surgery and Advanced reconstructive surgery in February 2024, the AIIMS Procedural Dermatology Workshop and CME in August 2023 at AIIMS and the Vitiligo Vision CME in June 2023 in association with IADVL Delhi State Branch.

Our senior residents including Dr Rajat Chaudhary, Dr Nikhil Mehta, Dr Ankur Lal, Dr Ananya Sharma and Dr Rhea Ahuja have been recipient of numerous national and international travel scholarships including AAD, WCD, IADVL SARCD. Dr Rhea Ahuja received the Alexander Fisher Award- American Contact Dermatitis Annual Meeting and IADVL International Dermatopathology Observership Grant, 2024. Our residents, Dr Ayush Jain and Dr Ritu Sharma won the first prize at AIIMS Procedural Dermatology Quiz, New Delhi 2023, and 2nd place at ACSICON quiz, Nagpur. Dr Ayush and Dr Keepa won the 2nd prize at IAL Biennial National Conference Leprosy quiz while Dr Sree Parvathy and Dr Ritu Sharma won the 1st prize at Annual CUTICON quiz, New Delhi and 2nd prize at AIIMS-PGI 3rd meeting quiz Chandigarh, 2024. Dr Aysha and Dr Sree won the 2nd prize in Peddermacon Quiz 2023, Chandigarh. Dr Sushant Agarwal won the 1st Prize in Melanin Matters Quiz and Best Paper Award at DAAS Summit and PG Update 2024. Dr Ananya, Dr Nikhil, Dr Japnoor and Dr Keepa won Award papers/ best poster prize at various conferences in the last year.

Professor Kaushal K Verma was Regional Chair of the International Union against Sexually Transmitted Infections Asia-Pacific (IUSTI-AP) Region; Member - International Contact Dermatitis Research Group (ICDRG); Organizing Co-Chairman of the 3rd Joint AIIMS (Delhi)- PGIMER (Chandigarh) Dermatology Conference at Chandigarh on 28 January 2024; Participated in the International Union against Sexually Transmitted Infections (IUSTI)- World Executive Committee meeting as Regional Chair of the IUSTI Asia- Pacific Region representing the Region, 23 July 2023, Chicago USA; Participated in the International Union Against Sexually Transmitted Infections World General Assembly Meeting on 27 July 2023 at Chicago, USA; Expert for Selection of Deans and Associate Deans at AIIMS, Bilaspur; Track Expert to review abstracts for STI/HIV World Congress 2023 held at Chicago, USA; Expert Selection Committee for selection of Director, Institute of Medical Sciences, BHU on 31 August 2023; Inaugurated 7th World Congress of Face Aesthetics Dermatologists Society as Chief Guest on 30 September 2023; Inaugurated the 28th Annual Conference of Sri Lanka College of Sexual Health HIV Medicine & IUSTI-AP Symposium on 13 October 2023 at Colombo, Sri Lanka; Headed the Division of Research as Dean (Research), AIIMS, till October 2023; Appointed to the position of Dean (Academics) in October 2023 to Head the Academic Division of the Institute; Participated in Charitable Medical Camp at Leh, Ladakh on 17-24 September 2023.

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Professor M Ramam was Visiting Professor in Department of Dermatology, University of California, San Francisco from 17-29 April 2023; Ombudsman for Indian Dermatology Online Journal; Member, International Advisory Committee of JAMA Dermatology.

Professor Sujay Khandpur was Awarded Dr LK Bhutani Memorial Award 2023 at National Conference of Indian Association of Dermatologists, Venereologists and Leprologists (IADVL) at Hyderabad, February 2024; Editor-in-Chief of IADVL Textbook of Pemphigus and other autoimmune bullous diseases; Associate Editor of IADVL Textbook of Dermatopathology; Guest faculty, Department of Dermatology, Cardiff, Wales, UK; Member Education committee and executive committee of Asian Society of Dermatopathology; Executive committee member of the Dermatopathology Society of India.

Dr Kanika Sahni was Content Editor for the Indian Journal of Dermatology Venereology and Leprology; Member of IADVL Academy 2023-2025; Member of the MBBS Reform Committee at AIIMS constituted by Director AIIMS, to suggest reforms in undergraduate teaching at AIIMS; Member of the Committee for the drafting of the Minimum standards of Cosmetology Clinics in India, constituted by the Directorate General of Health Services; Trained at Skin Health Institute, Melbourne and The Skin Hospital, Sydney as an observer in Mohs micrographic surgery in October-November 2023; Conducted the Blade and Light Mohs Micrographic surgery and Advanced Reconstructive Surgery Workshop at AIIMS, New Delhi and helped in the set up of Mohs micrographic surgery facility for skin cancers at Dermatology OPD; Conducted the AIIMS Procedural Dermatology workshop and CME in August 2023 at AIIMS.

Dr Vishal Gupta was ISD Mentorship Award, 2023.

VISITING SCIENTISTS

The below-mentioned senior faculty visited the Department in February 2024 for a 5 days live surgery workshop and lectures on Mohs surgery, basic and advanced reconstruction and Aesthetics:
Dr Sheetal Mehta, Dr Joseph Sabanko, Dr Tri Hoaiduc Nguyen, Dr Shang I Brian Jiang, Dr Jennifer Thien Hau from USA and Dr Iren Kossintseva from Canada.

PHOTOGRAPHS

1. **Inauguration of the Mohs Micrographic Surgery Facility for Skin Cancers by Hon'ble Director Dr M Srinivas and Dean (Acad) Prof Kaushal Verma on 10 February 2024 in Dermatology and Venereology OPD, New RAK OPD.**



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9.10 Emergency Medicine

Professor and Head

Rakesh Yadav

Praveen Aggarwal

(Superannuated on 31 October 2023)

Professor

Sanjeev Kumar Bhoi (TC)

Additional Professors

Nayer Jamshed Meera Ekka

Akshay Kumar Tej Prakash Sinha (TC)

Associate Professor

Prakash Ranjan Mishra

Assistant Professor

Vineeth Chandran (TC)

HIGHLIGHTS

The Department of Emergency Medicine has been providing holistic, round-the-clock, world-class emergency care to patients with all types of medical, paediatric, surgical, trauma and mass casualty incidents. Nearly 1,23,962 patients visited the department in the year 2023-2024. The department has been providing structured training to its postgraduates in the speciality of Emergency Medicine and has graduated competent emergency physicians to disseminate the concept of emergency medicine in the nation. Students passing out from the department are well-placed both nationally and internationally. They have done high-quality thesis and research and also published their work internationally.

Various skill-based courses like 'Emergency ECG course', 'Emergency ultrasound course', 'Difficult airway course', 'Simulation-based training course', and 'Bedside procedural skill development course' have been conceptualized, designed, developed and are being conducted regularly and successfully for postgraduate students. The departmental faculty is also involved in teaching and training of postgraduates from other departments (including Medicine, Surgery, Geriatric Medicine, Anaesthesia and Critical Care Medicine, Dermatology, Psychiatry 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 speciality 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. The department is actively mentoring other emergency departments from various medical colleges including peripheral AIIMS for development of academic Emergency Department and postgraduation courses in Emergency Medicine. In collaboration with WHO, South East Asia Region, the department is also involved in formulating guidelines on road safety, injury prevention, as well as integration of emergency and trauma care in India and south Southeast Asia region. 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 stays for patients. At international level, the department has been actively collaborating with several universities from the USA, like the Florida State University, USA and SUNY Downstate New York, Osaka University Japan, WHO collaborating centre at Khon Kaen, Thailand with the aim of training doctors, nurses and paramedics.

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The faculty of the department has led the creation of national emergency life support course for paramedics under the aegis of Ministry of Health, Government of India. It conducted training in the trainer's program in Arunachal Pradesh. Faculty has also contributed immensely to creation of hospital preparedness for mass casualty incident modules, operational guidelines for strengthening emergency and trauma care in primary and secondary care level hospitals in India. During this year, as a part of G20 preparations, emergency wing of the department at Jai Prakash Narayan Apex Trauma Centre was designated as the centre for managing CBRNE disasters (chemical, biological, radiological, nuclear and explosive). There were multiple training sessions and mock drills conducted in the department to make the staff aware and prepared for managing CBRNE disasters. Also, an institutional protocol was formulated for managing such kinds of disasters. There were many structural changes made and new facilities built inside the emergency department and in the premises of ED for triaging, decontaminating and managing the patients involved in CBRNE disasters.

EDUCATION

The faculty from the department have organized life support courses for undergraduates, postgraduates and nurses posted in the department. These courses have also benefitted residents from other disciplines of the institute. It has conducted Emergency ECG and emergency sonography courses for postgraduates of the 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, panel discussions, POCUS grand rounds, quality improvement meetings) for around eleven hours a week. Education and skill are imparted to residents on life-saving interventions as part of emergency care of patients. Simulation-based teaching (both table-top and on simulator) is imparted to the residents. Live workshops, cadaver-based training and hands-on skill sessions have provided confidence to residents in managing their patients. The faculty from the department has been a part of development of e-modules for SET facility in the institute which helps in dissemination of medical knowledge to students in a standardized and practical format. In addition, the department faculty was involved in didactic teaching of undergraduates, postgraduates and nursing students through lectures and seminars, online as well as offline. The faculty from the department were part of many workshops and conferences, national as well as international during this period. The department has also produced high-quality research and has around 24 publications in peer-reviewed indexed journals during the period of this report.

CONTINUING MEDICAL EDUCATION

Conferences/seminars/workshops organized

1. Emergency ECG workshop - Organized and conducted by the Department of Emergency Medicine, AIIMS, New Delhi on 12 February 2024.
2. Triage Protocol Workshop-Organized and Conducted by the Department of Emergency Medicine at JPN Apex Trauma Centre, AIIMS, New Delhi on 29 June 2023, 15 July 2023, 12 and 26 August 2023, 16 and 23 September 2023, 19 December 2023 and 24 February' 2024.
3. Tactical Combat Casualty Care Course - Organized and Conducted by the Department of Emergency Medicine at JPN Apex Trauma Centre, AIIMS, New Delhi for ten batches of CRPF and BSF Jawans from 11-21 September 2023, 25 September to 6 October 2023, 9 to 19 October 2023, 30 October to 9 November 2023, 20 November to 1 December 2023, 4 to 14 December' 2023, 22 January to 3 February 2024, 5 to17 February' 2024, 19 February to 4 March 2024 and 7 to 21 March 2024.
4. EM SONO workshop– Organized and conducted by Department of Emergency Medicine, AIIMS, New Delhi on 9 to 10 February 2024 and 18 to 19 March 2024.
5. Paediatric radiology and suturing course - Organized and conducted by the Department of Emergency Medicine at JPN Apex Trauma Centre, AIIMS, New Delhi on 23 March 2024
6. 7th National Emergency Medicine Board Review of India Course – Organized by Academic College of Emergency Experts in India and Emergency Medicine Association from 19 to 23 February 2024 at JPN Apex Trauma Centre, AIIMS, New Delhi
7. Champions of Change for Chhattisgarh - Capacity Building for the Strengthening Emergency Care in Primary Health Care Setting for doctors, nurses and paramedics was conducted by the Department of Emergency Medicine at JPN Apex Trauma Centre, AIIMS, New Delhi from 29 March to 2 April 2024.

Lectures delivered: 129

Sanjeev Bhoi: 23	**Nayer Jamshed: 10**
Tej Prakash Sinha: 34	**Meera Ekka: 04**

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Akshay Kumar: 13 **Prakash Ranjan Mishra: 14**

Vineeth Chandran K P: 31

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
29	66	129

List of oral papers/posters presented: 18

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
4	17	18

RESEARCH

Funded Projects

Ongoing

1. Adaptive model to strengthen facility-based emergency care system for providing quality emergency care among red triage patients (Time-sensitive and other emergencies) at all levels of health care facilities**,** Dr Sanjeev Bhoi, Indian Council of Medical Research, New Delhi**,** 3 Years**,** 2023**-**26**,** Rs 21,35,71,736
2. Association of Cytokine levels (TSLP, IL-31, IL-13, IL-35) with clinical outcomes in patients with acute coronary syndrome: a case-control study, Dr Prakash Ranjan Mishra, AIIMS, New Delhi, 1 Year, 2024-25, Rs 5,00,000
3. Bedside percutaneous drainage of Liver Abscess in the emergency department by trained Emergency Physician versus Radiologist, Dr Nayer Jamshed, Indian Council of Medical Research, New Delhi, 2 Years, 2024-26, Rs 62,29,208
4. Effect of sodium-hydrogen channel (NHE-1) inhibitor in hypoxic cardiac arrest, Dr Tej Prakash Sinha, Indian Council of Medical Research, New Delhi, 3 Years, 2024-27, Rs 62,38,200
5. Evaluation of the water bath ultrasound technique (WBT) in the diagnosis of distal hand and foot injuries in the emergency department, Dr Tej Prakash Sinha, Indian Council of Medical Research, New Delhi, 10 Months, 2022-23, Rs 28,37,000
6. Immuno-clinical correlation in Sepsis Patients Presenting to the Emergency Department, Dr Akshay Kumar, AIIMS, New Delhi, 3 Years, 2021-24, Rs 9,50,000
7. Improving crucial procedures in the Emergency Department – Cardiac Arrest and Emergency Endotracheal Intubation, Dr Akshay Kumar, Indian Council of Medical Research, New Delhi, 3 Years, 2024-27, Rs 70 Lakhs
8. Integrating Emergency & injury care to strengthen post-crash response at health & wellness centre in India, Dr Tej Prakash Sinha, WHO, 10 Months, 2022-23, Rs 28,37,000
9. Multicentric implantation research to strengthen facility-based emergency care system for providing quality emergency care among red triage patients (Time-sensitive and other emergencies) at all levels of health care facilities, Dr Tej Prakash Sinha, AIIMS, New Delhi, 2 Years, 2022-24, Rs 44,40,653
10. Nebulized versus intravenous tranexamic acid for haemoptysis: A randomized controlled trial, Dr Prakash Ranjan Mishra, Indian Council of Medical Research, New Delhi, 3 Years, 2024-27, Rs 62,44,794
11. Randomized, open labelled, phase IIa /IIb clinical trial to study the safety and efficacy of intravenous oestrogen therapy in reducing the incidence of sepsis/septic shock in trauma haemorrhagic shock patients, Dr Sanjeev Bhoi, Indian Council of Medical Research, New Delhi, 2 Years, 2024,-26, Rs 67,17,708
12. Strengthening emergency and trauma care system in the state of Uttar Pradesh, Dr Sanjeev Bhoi, WHO, 6 Months, 2022-23, Rs 54,09,000
13. To study the pattern of mesenchymal stromal stem and progenitor cells in peripheral blood of trauma haemorrhagic shock patients, Dr Sanjeev Bhoi, Indian Council of Medical Research, New Delhi, 3 Years, 2021-24, Rs 46,00,000

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14. To study the role of iPSC (induced pluripotent stem cells) derived hematopoietic progenitor cells (HPC) for hematopoietic failure among trauma haemorrhagic shock using an animal model, Dr Sanjeev Bhoi, Indian Council of Medical Research, New Delhi, 3 Years, 2021-24, Rs 69 Lakhs

Completed

1. To study the role of cell free-DNA among trauma haemorrhagic shock and its correlation with clinical outcomes and severity of injury, Dr Sanjeev Bhoi, Indian Council of Medical Research, New Delhi, 2 Years, 2021-23, Rs 46 Lakhs

Departmental Projects (including thesis/dissertations)

Ongoing

1. Absolute lymphocyte count as prognostic indicator in Acute heart failure
2. Capillary refill time as a predictor of mortality post-resuscitation in patients presenting with shock
3. Clinical profile of patients with acute-on-chronic liver failure presenting to the Emergency department
4. Clinical profile of patients with malignancy presenting to the emergency department
5. Clinico-epidemiological profile of liver abscess presenting to the emergency department
6. Comparison of efficacy of erector spinae plane block versus conventional pharmacological therapy in successfully alleviating abdominal pain of patients with pancreatitis in an emergency department: A Randomized Control Trial
7. Efficacy and Safety of Methylene Blue compared to Vasopressin as second vasopressor in the management of Septic Shock in Adults: A Randomised Open-Label Trial
8. Efficacy of Pantoprazole versus placebo in mucosal healing and change in endoscopic grading in patients of acute corrosive ingestion: A Randomised Control Open-Label Study
9. To improve pre-hospital health care bundle compliance provided to critically ill patients presenting to AIIMS emergency department through government-run emergency services
10. To study the impact of ultrasound-guided chest compressions when compared to conventional chest compressions in cardiac arrest outcomes in patients with cardiac arrest
11. To study the utility of point-of-care ultrasound-assisted reduction of long bone fractures as compared to usual care
12. To study the utility of ultrasound-guided blocks on arrival vs usual care for analgesia in patients with acute limb injuries presenting to emergency Department: A Randomized controlled trial
13. Valuation of safety and efficacy of delayed sequence intubation as compared to rapid sequence intubation in critically ill patients requiring endotracheal intubation: A randomised controlled trial

Completed

1. Assessing accuracy of Smartphone ECG in diagnosing arrhythmias
2. Assessing accuracy of Smartphone ECG in diagnosing STEMI
3. Assessment of internal jugular vein and femoral vein collapsibility in the determination of intravascular volume status as compared to inferior vena cava collapsibility
4. Association between boarding time in the emergency department and in-hospital mortality
5. Chest pain and heart failure in the Emergency Department registry study
6. Clinical profile of patients with rheumatic heart disease presenting to Emergency Department
7. Comparing crystalloids during resuscitation in Emergency Department: An interventional cluster randomized controlled trial
8. Comparison of scoring systems in predicting hospital mortality in patients with pneumonia presenting to emergency department

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9. Developing an antibiogram based on culture samples of suspected patients of infection presenting to the Emergency department
10. Diagnostic yield of Non-contrast Computed Tomography Brain in patients of Chronic liver disease presenting with altered mental status
11. Does POCUS guided AIIMS-Paediatric POCUS Algorithm improve early diagnosis and critical care management decisions in acutely ill paediatric patients
12. Effect of intravenous iron on symptomatic improvement in iron-deficient patients with acute decompensated heart failure
13. Evaluation of diagnostic characteristic of Neutrophil-Lymphocyte ratio in comparison to commonly used scores (APACHE II, CTSI and BISAP) in acute pancreatitis
14. High dose NTG vs low dose NTG in the management of SCAPE (Sympathetic Crashing Acute Pulmonary Oedema): a randomised controlled trial
15. Impact of interactive training interventions on soft skill of communication to nursing staffs in Emergency Department of a tertiary care teaching hospital: An experimental study
16. Lung USG in paediatric patients coming with shortness of breath and fever
17. Performance of chief complaint-driven triage system based on mortality at 72 hours for patients presenting to the Emergency department
18. Profile of acute poisoning in emergency department: A retrospective study
19. Role of Methylprednisolone in prevention of stricture formation in patients of Zargar class IIb corrosive oesophageal injury: A randomised controlled open-label study
20. Severity of COVID-19 infection in partially or completely vaccinated and non-vaccinated patients presenting to the Emergency Department
21. Study of etiological profile of brought dead patients and comparison of death due to COVID-19 during lockdown period presenting to AIIMS, New Delhi
22. Study of existing pain assessment and management practices in the Department of Emergency Medicine
23. The utility of End Tidal carbon dioxide monitoring in patients with Shock in Emergency Department
24. The utility of left ventricular outflow tract velocity-time integral monitoring in patients presenting with shock
25. To estimate prevalence of pulmonary embolism in patients of acute exacerbation of COPD presenting in emergency department
26. To estimate the incidence of crescent sign in ONSD using POCUS (USG) in altered mental state with raised Intracranial pressure in Emergency department
27. To evaluate the prognostic significance of hypocalcaemia in patients presenting with dengue fever to Emergency department
28. To study the diagnostic characteristics of point-of-care ultrasound in patients of blunt trauma of chest
29. Utility of point-of-care ultrasound-guided primary survey algorithm in taking critical management decisions in adult trauma patients

COLLABORATIVE PROJECTS

Ongoing

1. Comparative efficacy of low vs high dose Terlipressin in the management of upper Gastrointestinal bleeding: An Open-label Randomized Control Trial, Department of Gastroenterology, AIIMS, New Delhi
2. Development of a real-time PCR technique using the CotH gene as a target for early diagnosis of Mucormycosis, Department of Microbiology
3. Efficacy and safety of Injection Tenecteplase in 4.5 hours to 24-hour imaging eligible window patients with Acute Ischemic Stroke (EAST-AIS), Department of Neurology, AIIMS, New Delhi

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4. Evaluation of cardio-protective effect of remote ischemic post-conditioning in patients undergoing thrombolysis and its correlation with vitamin D, Department of Pharmacology, AIIMS, New Delhi
5. Impact of COVID-19 on Tuberculosis, Department of Microbiology, AIIMS, New Delhi
6. Point of Care Thromboelastography for critical decision making in patients requiring Massive Transfusion Protocol at a Level 1 Trauma Centre, Department of Laboratory Medicine
7. Poisoning due to agrochemicals in India: epidemiology, awareness, identification of molecular markers (Transcriptome profiling and metagenomic analysis) of risk assessment and development of preventive strategies, Department of Pharmacology, AIIMS, New Delhi
8. Prognostic Implications of Right Ventricular Dysfunction Score among Patients with Sepsis and Septic Shock, Department of Anaesthesia
9. Standard medical therapy plus intravenous Albumin vs standard medical therapy in patients with acute variceal bleeding. A Pilot Randomized Controlled Trial, Department of Gastroenterology, AIIMS, New Delhi
10. Thromboelastography parameters as predictor of thrombus burden in ST-Segment Myocardial Infarction undergoing primary Percutaneous Coronary Intervention, Department of Cardiology, AIIMS, New Delhi

Completed

1. Development of Aptamer-based rapid diagnostic test for acute heart failure, THSTI, Faridabad, Haryana
2. Evaluation of workplace violence and communication skills of resident doctors at a tertiary care teaching hospital, Department of Medicine, AIIMS, New Delhi
3. Genomic analysis of symptomatic SARS-CoV-2 vaccine breakthrough infection, Department of Microbiology, AIIMS, New Delhi
4. Optimal usage of laboratory information systems and its impact in the emergency care setting. A prospective observational study, Department of Laboratory Medicine, AIIMS, New Delhi
5. Role of antibiotic prophylaxis in Child-A Cirrhosis with acute variceal haemorrhage. A multi-centric Open-label Randomized Controlled Trial, Department of Gastroenterology, AIIMS, New Delhi
6. Utility of in-house and commercial PCR assay in diagnosis of COVID-19 associated mucormycosis in an emergency setting in a tertiary care centre, Department of Microbiology, AIIMS, New Delhi

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	09	11	14
Total funding (Lakhs)	Rs. 7,19,24,131/-	Rs. 26,68,20,647/-	Rs. 27,44,75,299/-

Publications: 29

Journal articles: 24 **Abstracts: 2**

Chapters in books: 2 **Books – Editor: 1**

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	26	27	29
Journal articles	20	25	24
Abstracts	3	-	2

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Chapters in books	3	1	5
Books - editor	-	1	1

PATIENT CARE SERVICES

1. (a.) Number of patients attended Emergency services

Total new patients	Total revisit patients	Total patients
81,343	42,619	1,23,962

(b.) Medico-legal cases

YEAR	TOTAL MLCs
2023-24	9,916

2. Point of Care Testing Laboratory (POCT) data

Test type	Total test done
Complete blood count	83,503
Quantitative Troponin I	9,665
Blood gas analysis	1,13,397
NT pro-BNP	1,279
D-Dimer	1043
Urine Tox screen	609
Procalcitonin	492
hs CRP	49
Urine and Serum Osmolality	539
Total tests done :	**2,10,576**

3. Procedures done in Emergency OT

Name of procedure	Total number
Tracheostomy	212
Total procedures done :	**212**

PATIENT CARE

Item	2021-22	2022-23	2023-24
Total Emergency visits	1,07,853	1,11,063	1,23,962
Total MLCs generated from Emergency	9,169	10,940	9,916
Total Point-of-care investigations done in Emergency laboratory	2,38,001	2,41,898	2,10,576
Total Procedures done in Emergency OT	122	266	212

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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Sanjeev Bhoi has focused his area of work on emergency and trauma care system building in India and Southeast Asia. He is assessing the status of facility-based emergency and injury care systems in secondary and tertiary care in India and providing technical advice to the NITI Aayog in building an emergency care system. Presently his major focus area is use of point-of-care ultrasound for emergency & trauma conducting training programs on using point-of-care ultrasound in medical education by training undergraduate students to learn anatomy and physiology. He is training postgraduate students to use point-of-care ultrasound in acute/emergency care including its use in disaster scenarios. As a mentor, he is pursuing a chief guide for a point-of-care ultrasound-related thesis and another thesis as a co-guide. Presently, he is serving as Educational sub-committee co-chair of global emergency medicine research network "Emergency Medicine Education & Research by Global Experts (EMERGE)" with a vision to transform lives globally through emergency care research. He is also serving as an officer of the WHO-collaborating centre for Emergency and trauma in the region and has been working collaboratively with various states of India and member countries of SEARO for emergency medicine in building systems of integrated emergency and trauma care in India and SEAR region. He has done high quality research work and has ongoing projects funded by ICMR, New Delhi and other projects in collaboration with WHO-SEARO. Quality emergency care for addressing patient safety concerns has been his domain of work since a decade and he continues to focus on this issue. Key area of his research is Trauma haemorrhagic shock especially translational, since last 8 years and he has published many research papers on the same.

Dr Nayer Jamshed has published 13 research papers in peer-reviewed PubMed Indexed journals in 2023-24. He is the Principal investigator in 4 research projects and co-investigator in 08 research projects, chief guide for 4 postgraduate students and co-guide for 07 postgraduate candidates. Dr Nayer Jamshed is doing 4 Randomized controlled trials as Principal investigator/Chief guide and 6 RCTs as co-investigator. He is a teaching faculty for the proposed Emergency fellowship program in Toxicology and an adjunct faculty in the proposed DM Course in Psychosomatic Medicine. He is also a teaching faculty to the SET facility of AIIMS and in-charge of the academic teaching program, departmental simulation teaching and training program, quality assurance meetings, radio-conference and monthly panel discussion of the department. He is a part of departmental quality improvement program to improve quality of patient care in the Emergency Department. Dr. Nayer Jamshed is the Associate editor of Washington manual of Emergency Medicine and has written chapters in various textbooks. He is the reviewer of 6 International journals of Emergency Medicine. He is the nodal officer for COVID-19, hospital infection control committee and MBBS curriculum revision program of AIIMS. He is also the member of student wellness committee and various Institute selection committee and procurement committees of AIIMS. He is also one of the national moderators for NBE exams and was also the external and internal examiner for the subject of Emergency Medicine at various AIIMS and other post graduate institute. He was appointed as assessor for Emergency Medicine by NBE. He was one of the members for making the guidelines in toxicology. He was one of the board members for the initiation of fellowship in paediatric emergency Medicine started by Diplomat National Board. In the assessment year, he made national guidelines for the treatment of corrosive and recreational drugs poisoning. He has contributed immensely in the development of proposed new Emergency block which will help in catering 2 lakhs patients. In the coming year, has a plan to start fellowship in emergency toxicology and B.SC in Emergency Medicine Technicians. More than 500 patients come to AIIMS Emergency department per day, catering to these patients, maintenance of quality patient care and disposition in terms of hospital admission and discharge is a daunting task. To improve the protocolized patient care, he was involved in making protocols for commonly encountered emergency conditions and contributed in various quality improvement projects spearheaded by the department. He is the member of various Scientific Committees like Asia Pacific Association of Medical Toxicology, Association of Emergency Medicine Educators. He is extremely committed to quality patient care, research and various teaching programs of the Institute.

Dr Tej Prakash Sinha has focused his work on Emergency and trauma care system building. He has been involved in assessing the status of facility-based emergency and injury care systems in secondary and tertiary care in India and providing technical advice to the NITI Aayog in building emergency care system. He is also involved in training postgraduate students to use point-of-care ultrasound in acute/emergency care, including its use in disaster scenarios. As a mentor, he is also pursuing a chief guide for a point-of-care ultrasound-related thesis and another thesis as a co-guide. Presently, he is serving as Educational Sub-committee co-chair of global emergency medicine research network "Emergency Medicine Education & Research by Global Experts (EMERGE)" with a vision to transform lives globally through emergency care research. He is serving as an officer of the WHO-collaborating centre for Emergency and Trauma in the region and has been working collaboratively with various states of India and member countries of SEARO for Emergency medicine in building systems of integrated emergency and trauma care in India and SEAR region. He is also involved in the preparation of trauma centre for CBRNE emergencies. Also, he handles the administrative management of the emergency department at the trauma centre.

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Dr Meera Ekka continued to be a reviewer of various international journals and is on editorial board of 'Annals of Clinical Case Studies'. She is a member of Asia Pacific Association of Medical Toxicology, Association of Physicians of India and Emergency Medicine Association of India. She has delivered 4 lectures at institute level. She has published six articles in international and nationally indexed journals as a co-author and two papers as corresponding author. She is one of the associate editors of Washington Manual of Emergency Medicine, SAE and contributed one chapter on COVID-19 disease in the same manual and one chapter on toxic gases in Critical Care in Toxicology Book. She is the faculty in-charge Store, POCT lab, and nodal officer for equipment audit for the department of Emergency Medicine. She is also nodal officer for parliament affairs for Emergency department from AIIMS, N. Delhi. She is one of the teaching faculty for SET Facility and has developed a teaching module on "needle decompression in tension pneumothorax" for MBBS students. She is also the teaching faculty for Emergency ECG and comprehensive Emergency and trauma care training of medical/paramedical CAPFS course run by the department. She is chief guide of ten Emergency Medicine post graduate students (seven students submitted thesis) and moderator of post graduate students for various seminars and journal clubs in seminars conducted in the department. She is one of the teaching faculties for the proposed Toxicology Fellowship Program. She is member of purchase committee for various equipment for the department at institute level. She has started one registry study on acute chest pain and heart failure in Emergency Department. She is working on acute poisoning registry. She along with her seven postgraduate students designed, studied, completed, and submitted seven research studies as thesis project. Her two post graduate students have published their thesis as article in indexed journal and one student has submitted the paper. Her three post graduate students have presented their work as oral presentation in national conferences and one was selected as one of best 15 paper as podium presentation.

Dr Akshay Kumar was selected as American Heart Association Basic & Advanced Cardiovascular Life Support Instructor in October 2023. He was awarded for best Abstract at the National Emergency Medicine Conference, EMINDIA in August 2023 in Pune, India and invited for oral podium presentation. He was also the winner of the Quality Improvement project in sepsis presented at American College of Emergency Physicians international conference in Philadelphia, USA in October 2023. He has been involved in training and capacity building of nurses working in various departments of the Institute. He was a faculty in the National Emergency Medicine Board Review of India Course (NEMBRIC 2024) and also for the WHO Collaborating Centre led 'Capacity Building and Emergency Care System Strengthening Program for the State of Chhattisgarh' held in March 2024; Acute care electrocardiography national course and Acute critical care courses in January 2024. He has presented papers in various international conferences and at the national conference of emergency medicine. He was also awarded funding by ICMR for implementation research project in Emergency medicine.

Dr Prakash Ranjan Mishra devoted his services towards patient care, research, education and administrative work. He was involved in patient care and clinical work both at Main AIIMS as well as emergency department at JPN apex trauma centre, AIIMS, New Delhi. He contributed significantly to research activities and has seven publications in peer-reviewed indexed journals during this period. He is one of the Associate editors of Washington manual of Emergency Medicine, SAE edition. Three of his thesis students successfully completed and submitted their thesis research work under his able guidance. He applied for and was awarded ICMR extra-mural research grant for his randomized controlled trial related to Tranexamic acid in haemoptysis. His second extramural project related to an 'intraosseous device' is applied to ICMR and waiting final sanction. He also applied for and was granted permission to conduct his second early career research intramural grant by AIIMS, New Delhi. He was actively involved in educational activities and training residents and post-graduate students in point-of-care ultrasound, trauma care and 'simulation-based teaching' during this period. He organised and conducted the 'Emergency ECG Course' where he was the 'Course Director' as well as a teaching faculty. He was also a part of many national conferences where he was invited as a faculty to deliver lectures and organise workshops. He is a part of teaching programs of the institute for undergraduates, post-graduates, paramedics and nursing students. He has participated actively in academics of the department as a faculty and moderator during seminars, journal clubs, table top sessions, as a panelist during panel discussions, and POCUS grand rounds. He was involved in organizing and teaching several skill workshops including paediatric imaging, ACLS and ATLS skills to post-graduate students. He is a part of departmental quality improvement program and has actively participated in mortality meetings and QI programs of the department. In view of his administrative skills, he was the roster-in-charge of residents working in the department, has been a part of store purchase committee, is an officer in the team for equipment audit for the department of Emergency Medicine, is the Assistant central public information officer for RTI from the department, nodal officer for content update related to department of Emergency Medicine on AIIMS website, nodal officer for management of heat-related illnesses and nodal officer for needle stick injuries at main AIIMS, from the department of Emergency Medicine. He is the Principal investigator in three on-going research projects, co-investigator in two projects, is the chief thesis guide for four post-graduate students, thesis co-guide for 13 postgraduate candidates of the department and co-guide for a PhD student from the department of Bio-chemistry. He is currently working on developing an efficient pre-triage system in the emergency with a long-term vision of improving and strengthening emergency and patient care services at institute and national level.

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Dr Vineeth Chandran KP's major focus this year was teaching and training medical staff including doctors, nurses and paramedical staff in basic and advanced emergency management. He was also involved in teaching undergraduate and postgraduate. He was actively involved in departmental activities including seminars, panel discussions, simulations, case discussions and bedside teaching. He was also involved in conducting practical exams for the postgraduate residents in the department and DNB emergency medicine practical exam in this institute. He has been a faculty during regular training sessions in trauma centre conducted by emergency department to BSF soldiers, CRPF, CRPF pharmacists on basic emergency care. He was an invited faculty at the National Emergency Board Review of India Course (NEMBRIC) in February'2024 held in New Delhi. As a part of G20 preparations, JPN trauma centre was the designated centre for CBRNE disasters (chemical, biological, radiological, nuclear, explosives). He was part of the team for preparing JPN trauma centre to manage CBRNE disasters. This included attending training workshops and conducting mock drills at ministry level, policy-making, drafting institutional protocols, conducting training sessions and workshops for the staffs in the institution, and making structural changes in the trauma centre. He was also in-charge of post-exposure prophylaxis management of staffs in JPN trauma centre and was part of Code blue committee at the trauma centre. Apart from departmental activities, He was also an invited faculty for conducting webinar sessions for DNB emergency medicine residents across India and was involved in preparing question paper for EMT students at AIIMS, Nagpur. He also looks after the resident and faculty roster of emergency medicine department at the trauma centre.

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9.11 Endocrinology and Metabolism

Professor and Head

Nikhil Tandon

Professors

Ravinder Goswami Rajesh Khadgawat Viveka P Jyotsna

Additional Professor

Yashdeep Gupta

Assistant Professor

Ashutosh Kumar Arya

HIGHLIGHTS

The department is engaged in many academic activities such 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, and has state-of-the-art laboratory services for hormone assays, metabolic studies and bone density measurement. The academic activities of the department were conducted during the year.

EDUCATION

Undergraduate, Postgraduate, Paramedical Training

The department was actively involved in teaching undergraduate medical students and nursing students. Postgraduate students (MD) from Internal Medicine and Geriatric Medicine come for one and two-month postings in 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

- Four candidates joined the DM course [Two General (July 2023) and Two Sponsored (one July 2023 and one January 2024).
- One candidate joined as short-term training from 17 August 2023 to 31 August 2023.

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered: 38

Nikhil Tandon: 16 **Ravinder Goswami: 1** **Rajesh Khadgawat: 14**

Viveka P Jyotsna: 3 **Yashdeep Gupta: 4**

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
47	45	39

List of oral papers/posters presented at International Conference: 4

Oral/poster presentations over past 3 years

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2021–2022	2022–2023	2023–2024
2	1	4

RESEARCH

Funded projects

Ongoing

1. A 26-week, randomised, multicentre, open-label, active-controlled, parallel-group, two armed, treat-to-target trial investigating the effect on glycaemic control and safety of treatment with once weekly Insulin Icodec compared to once daily Insulin Degludec, both in combination with Insulin Aspart in adults with type 1 Diabetes, with a 26-week extension investigating long term safety, Dr Rajesh Khadgawat, Novo Nordisk, 5 Years, 2021-26, Rs 34,95,400
2. A dose-finding trial evaluating the effect and safety of once-weekly treatment of somapacitan compared to daily Norditropin® in children with short stature born small for gestational age with no catch-up growth by 2 years of age or older, Dr Rajesh Khadgawat, Novo Nordisk, 5 Years, 2020-25, Rs 25,00,000
3. A Master Protocol to Investigate the Efficacy and Safety of LY3437943 Once Weekly in Participants without Type 2 Diabetes who have Obesity or Overweight: A Randomized, Double-Blind, Placebo-Controlled Trial (TRIUMPH-1), Dr Rajesh Khadgawat, Eli Lilly, 2 Years, 2023-25, Rs 30,00,000
4. 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, Dr Rajesh Khadgawat, Novo Nordisk, 8 Years, 2017-25, Rs 30,00,000
5. A randomized, controlled, multicentre study to evaluate the safety and efficacy of paltusotine in subjects with non-pharmacologically treated acromegaly, Dr Rajesh Khadgawat, Crinetics, 3 Years, 2022-25, Rs 38,34,170
6. A study comparing the effect and safety of once-weekly dosing of somapacitan with daily Norditropin® as well as evaluating long-term safety of somapacitan in a basket study design in children with short stature either born small for gestational age or with Turner syndrome, Noonan syndrome, or idiopathic short stature, Dr Rajesh Khadgawat, Novo Nordisk, 3 Years, 2023-26, Rs. 30,00,000
7. A trial comparing the effect and safety of once-weekly dosing of somapacitan with daily Norditropin® in children with growth hormone deficiency, Dr Rajesh Khadgawat, Novo Nordisk, 7 Years, 2018-25, Rs. 10,00,000
8. An open-label multicentre rollover study to assess long term safety in patients with endogenous Cushings syndrome who have completed prior Novartis sponsored osilodrostat (LCI699) study and are judged by the investigator to benefit from continued treatment with osilodrostat, Dr Viveka P. Jyotsna, Novartis/ IQVA, 7 Years, 2019-26, Rs 30,00,000
9. Centre for Advanced Research and Excellence (CARE) in Young Diabetes, Dr Nikhil Tandon, ICMR, 5 Years, 2019-24, Rs 4,89,42,083
10. Changing diabetes in children, Dr Nikhil Tandon, Novo Nordisk India Pvt Ltd, 11 Years, 2012-2025, Rs 25,00,000
11. Development of Phase II Clinical Trial for an Investigational New Drug, Dr Nikhil Tandon, Torrent Pharma, 9 Years, 2014-24, Rs 84,53,212
12. Effect of comprehensive sleep programme on sleep quality and glycemic/metabolic control in patients with diabetes mellitus: A randomized control trial, Dr Viveka P. Jyotsna, Department of Health Research, 3 Years, 2023-26, Rs 20,16,882
13. Effectiveness of ARDA in a diabetic retinopathy screening program among people with Type 2 diabetes in India - A three-arm Randomized Controlled Trial, Dr Nikhil Tandon, Google LLC, 2 Years, 2023-25, $ 49,600
14. Evaluation of maternal and fetal outcomes in women diagnosed with GDM or normoglycaemia using IADPSG criteria, among women diagnosed with normoglycemia by DIPSI criteria: Prospective multi-centre observational cohort study, Dr Nikhil Tandon, ICMR, 3 Years, 2022-25, Rs 72,44,005
15. ICMR - Young Diabetes Registry (YDR) & YDR cohort - Phase III", Dr Nikhil Tandon, ICMR, 3 Years, 2020-25, Rs 4,28,44,503
16. Integrated Tracking Referral, and Algorithmic Management (I-TREC) System for Hypertension and Diabetes Institution, Dr Nikhil Tandon, NIH, USA, 6 Years, 2017-24, $1, 298, 113

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17. Long-term effects of semaglutide on diabetic retinopathy in subjects with type 2 diabetes (FOCUS), Nikhil Tandon, Novo Nordisk India Pvt Ltd, 5 Years, 2019-24, Rs 27,50,000
18. Molecular Genomics of congenital Growth Hormone Deficiency and GH sensitivity, Dr Rajesh Khadgawat, Self-funded, 4 Years, 2021-25, Self-funded
19. Neuropsychiatric and cognitive dysfunctions in hypoparathyroidism, its natural course after 10 years of follow-up in patients with idiopathic hypoparathyroidism on conventional therapy and effect of these dysfunctions on the calcemic control, Dr Ravinder Goswami, ICMR-DHR, 3 Years, 2023-25, Rs. 54, 0000
20. One alpha hydroxyl vitamin D versus 1, 25 dihydroxy vitamin D for achieving optimal calcemic and phosphatemic control in patients with idiopathic hypoparathyroidism, Dr Ravinder Goswami, ICMR, 2 Years, 2021-23, Rs 31,20,076
21. Precision CARRS, Dr Nikhil Tandon, NHLBI, NIH, 5 Years, 2023-26, $1, 61, 320 12, Drug Intervention for prevention of type 2 diabetes among women with prior gestational diabetes mellitus and pre-diabetes in South Asia (DIVINE): A Randomized control trial, Dr Nikhil Tandon, ICMR, 4 Years, 2024-28, Rs 1,76,75,542
22. SOUL - Semaglutide cardiovascular outcomes trial in patients with type 2 diabetes, Dr Nikhil Tandon, Novo Nordisk India Pvt Ltd, 5 Years, 2019-24, Rs 30,00,000
23. Strengthening Ambulatory Care for NCD in India, Dr Nikhil Tandon, ICMR, 4 Years, 2024-27, Rs 5,99,88,140
24. The cardiovascular safety of cagrilintide 2.4mg s.c. in combination with semaglutide 2.4 mg s.c. (CagriSema 2.4 mg/2.4 mg s.c.) once-weekly in participants with obesity and established cardiovascular disease (REDEFINE 3), Dr Nikhil Tandon, Novo Nordisk, 4 Years, 2023-27, Rs 35,07,000
25. 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, Dr Nikhil Tandon, Lupin Ltd, 5 Years, 2018-26, Rs 40,41,400
26. To develop and evaluate the effectiveness of multidisciplinary education and care model for individuals with diabetes affected by COVID-19: A two-arm parallel Randomized Control Trial, Dr Yashdeep Gupta, ICMR, 3 Years, 2022-25, Rs 67,72,400
27. To generate normative data using continuous glucose monitoring system for glycemia in pregnancy at 24 to 32 weeks of gestation in women defined as normal by IADPSG (International Association of Diabetes and Pregnancy Study Groups) criteria, Dr Yashdeep Gupta, ICMR, 3 Years, 2021-24, Rs 45,00,000
28. To study the effect of changes in growth hormone status on metabolomic profile of human subjects, Rajesh Khadgawat, ICMR, 3 Years, 2021-24, Rs 29,00,000
29. Vitamin D deficiency and bone microarchitecture in asymptomatic healthy Indians: Exploring the functional significance of low serum 25(OH)D and high PTH, Dr Ravinder Goswami, DBT, 4 Years, 2019-23, Rs 76,00,000

Completed

1. A Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicenter Study to Evaluate the Effect of Efpeglenatide on Cardiovascular Outcomes in Type 2 Diabetes Patients at High Cardiovascular Risk, Dr Rajesh Khadgawat, Sanofi Aventis, 5 Years, 2018-23, Rs 20,00,000
2. Comparison of Seroprevalence of SARS-CoV2 among people with and without diabetes and/or hypertension among existing cardio-vascular community cohort in National Capital Region (NCR) of Delhi, Dr Nikhil Tandon, ICMR, 1 ¼ Years, 2021-22, Rs 58,516,50
3. Efficacy and safety of oral semaglutide versus oral placebo both in combination with metformin and/or basal insulin in children and adolescents with type 2 diabetes, Dr Rajesh Khadgawat, Novo Nordisk, 3 Years, 2020-23, Rs 25,00,000
4. Metabolic profiling as per glycemic status [normoglycemia/prediabetes/diabetes] in women with a history of gestational diabetes mellitus (GDM)- A cross-sectional study, Dr Yashdeep Gupta, AIIMS-THSTI, 2 Years, 2020-22, Rs 20,00,000
5. Performance analysis of point of care device for HbA1c developed indigenously against gold standard of HbA1c HPLC-123G8 machine (by High-Performance Liquid Chromatography), Dr Viveka P Jyotsna, ICMR, 2 ½ Years, 2019-22, Rs 22,88,494
6. To evaluate the effectiveness of lifestyle intervention program in overweight/obese women [within two years of last childbirth] when delivered to them along with their spouse as compared to them alone: Two arms parallel Randomized Control Trial, Dr Yashdeep Gupta, ICMR, 4 Years, 2019-23, Rs 47,00,000

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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. Dr Prashiddha Dhakal (DM Endocrinology) Clinical, biochemical, radiological profile and treatment outcome of patients with tumour-induced osteomalacia: an ambispective study
4. Dr Sachin Krishna Raj (DM Endocrinology) Sleep quality in patients with diabetes and its correlation with duration of diabetes, glycemic and metabolic control and NAFLD: a cross-sectional study
5. Evaluation and characteristics of multiple Endocrine neoplasia in cases with primary hyperparathyroidism admitted in Endocrine ward over last 10 Years: an ambispective study
6. Evaluation of endocrine, reproductive, metabolic musculoskeletal parameters of subjects with congenital adrenal hyperplasia-a cross-sectional study
7. Molecular aspects in the pathogenesis of Basal ganglia calcification in hypoparathyroidism
8. Pattern of islet antibodies and their persistence in Type 1 Diabetes patients from North India
9. To study the clinical spectrum/profile of MEN syndrome patients in North India
10. To study the effect of personality on diet quality & academic performance among adolescents: a comparison between boys & girls
11. To study the prevalence of primary aldosteronism in high-risk subjects with hypertension
12. To study the response to vitamin D treatment in obese, overweight and normal BMI, vitamin D deficient Indian children aged 5 to 12 Years - an open labelled randomized intervention study
13. Vitamin D status and its functional significance

Completed

1. Dr Setu Gupta (DM Endocrinology) Etiological and clinical profile of non-diabetic hypoglycemia: an ambispective study.
2. Dr Bhawna Attri (DM Endocrinology) Etiological and clinical profile of patients with ectopic ACTH syndrome: ambispective study
3. DR Kirandeep Kamal (DM Endocrinology) To study the management outcomes in patients with primary aldosteronism
4. DR Uthara Elsa Mathew (DM Endocrinology) Clinical profile and treatment outcomes of patients with sporadic and multiple endocrine neoplasia syndrome-related primary hyperparathyroidism

Collaborative projects

Ongoing

1. A randomised control trial to compare the safety and outcome of trans-oral vestibular and axilla-breast approach for endoscopic hemithyroidectomy in patients with benign thyroid swellings. 3 Years, 2021-24, Department of Surgery, AIIMS
2. A randomized controlled trial to compare the effect of dietary interventions and resistance exercises on changes in skeletal muscle strength mass and functions in type 2 diabetes patients with Dynapenia and Sarcopenia, 3 Years, 2022-25, Department of Medicine, AIIMS
3. Assessment of risk factors of Graves orbitopathy and predicting odds of dysthymic optic neuropathy in hyperthyroidism. 3 Years, 2021-24, Department of Ophthalmology, AIIMS
4. Assessment of epigenetic modifications of CDKN2A and RASSF1 genes in the peripheral blood of sporadic pituitary adenoma cases, 3 Years, 2023-26, Department of Anatomy, AIIMS

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5. Comparison of outcomes of Trans-oral vestibular and Axillo-breast approach for endoscopic hemithyroidectomy in patients with benign and indeterminate thyroid lesions- A randomized controlled trial, 3 Years, 2023-26, Department of Surgery, AIIMS
6. Effect of benfotiamine as an adjuvant drug on oxidative stress in patients with type 2 diabetes mellitus- a randomized double-blind placebo-controlled clinical trial. 3 Years, 2021-24, Department of Pharmacology, AIIMS
7. Evaluation of role of platelet-rich plasma in the healing of chronic diabetic and peripheral arterial disease ulcers as compared to standard medical care: a randomised control study. 3 Years, 2021-24, Department of Surgery, AIIMS
8. Study to quantify the burden of Insulin resistance in breast cancer women and its relation with other known prognostic and predictive factors of breast cancer (2023-2026), Department of Surgery, AIIMS.
9. To evaluate the personality traits and assess the impact of humanistic psychotherapy for trait-specific intervention on body composition and metabolic parameters in obese subjects, 3 Years, 2023-2026, Department of Medicine, AIIMS
10. To study the response to Vitamin D treatment in obese, overweight and normal BMI, Vitamin D deficient Indian Children aged 5 to 12 years- an open labelled randomized intervention study, 3 Years, 2023-2026, Department of Medicine, AIIMS

Completed

1. A Prospective study to determine early predictive factors of hypocalcemia in patients undergoing total or completion thyroidectomy (2021-2023), Department of Otorhinolaryngology, AIIMS.
2. Correlation. of Levator-Muller's Complex Thickness on UBM with Clinical Response to Botulinum Toxin A injection in Patients with Thyroid-related severe Retraction of Upper Eyelid, Department of Ophthalmology, AIIMS.
3. Identification of genetic mutation in neuroendocrine tumors: Implication in diagnosis and management (2020-2023), Department of Anatomy, AIIMS
4. Pathogenesis of primary parathyroid adenoma, Departments of Pathology, Forensic Medicine and Anatomy
5. Study to quantify the burden of Insulin resistance in breast cancer women and its relation with other known prognostic and predictive factors of breast cancer (2021-2023), Department of Surgery, AIIMS.

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	25	26	34
Total funding	16, 98, 48, 384	17, 61, 43, 297	38, 22, 20, 218

Publications

Journal : 85 **Abstracts: 4**

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total	81	73	89
Journal articles	81	54	85
Abstracts	-	19	4
Chapter in books	-	-	-
Books	-	-	-

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Patient Care

OPD/Clinic attendance from 1 April 2023 to 31 March 2024

Endo New Patient	Endo Old Patient	PAE Clinic	DOY Clinic	GDM Clinic	Total
14068	53877	661	2049	519	71746

Month wise break-up for OPD attendance from 1 April 2023 to 31 March 2024

Month	New Patient	Old Patient	PAE Clinic	DOY Clinic	GDM Clinic	Total
April 2023	1011	3822	46	181	28	5088
May 2023	1268	4494	70	170	38	6040
June 2023	1187	4133	61	160	35	5576
July 2023	1259	4319	74	165	38	5855
August 2023	1347	4882	73	181	43	6526
September 2023	1152	4602	43	210	61	6068
October 2023	1168	4755	63	171	50	6207
November 2023	1098	4123	21	134	59	5435
December 2023	1108	4820	51	147	55	6753
January 2024	1123	4387	72	158	22	5762
February 2024	1215	4844	49	168	44	6320
March 2024	1132	4696	38	204	46	6116
Total	**14068**	**53877**	**661**	**2049**	**519**	**71746**

Item	2021-2022	2022-2023	2023-2024
OPD Consultations	31827	57775	68517
Special clinic consultations	1768	3115	3229
Patients provided rehabilitation services	--	--	--
Total inpatient admissions	**Inpatient and other patient related details may please be seen in Hospital (Medical Record Division)**		

Laboratory Services

Hormonal assays

No	Hormone	Tube assays done		No	Hormone	Tube assays done
1	T4	17759		18	GAD65	785
2	TSH	24575		19	F T4	6277
3	TPO	3167		20	T3	4054

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4	LH	2812		21	F T3	1063
5	FSH	2726		22	IGF 1	2297
6	PRL	2949		23	E2	1212
7	CORTISOL	5551		24	ALDOSTERONE	2635
8	TESTOSTERONE	2491		25	RENIN	2055
9	DHEA	1726		26	FGF 23	311
10	17 OHP	229		27	SARS Cov 2	600
11	ACTH	2809		28	OSTEOCALCIN	148
12	PTH	5046		29	IA2	108
13	VITAMIN D	6995		30	ZnT8	320
14	INSULIN	5683		31	β CROSS LAPS	79
15	C PEPTIDE	3403		32	Metanephrine	539
16	GH	1558		33	NORMETANEPHRINE	539
17	CT-II	162		34	3-METHOXYTYRAMINE	539
	total	**89641**			**GRAND TOTAL**	**113202**

From the Year 2019, we have optimized the method of the steroid hormone assays on Liquid chromatograhphy tandem mass spectrometer installed in Immunoassay laboratory located on the 7th floor of the Convergence Block. In the same year, steroid panel testing (especially testosterone in female patients and 17-Hydroxyprogesterone) on LC-MS system. In the current year, we have optimaized method for estimations of plasma free metanephrines (Metanephrine, normetanephrine and 3-methoxy tyramine) and started patients screening and diagnosis. We are participating in external quality assurance programme for all our LC-MS based hormone assays.

Biochemical investigations

No	INVESTIGATION	NUMBER OF SAMPLES
1	Blood glucose	30462
2	Glycated hemoglobin (HbA1c)	27556
3	Urine pH	202
4	Osmolality (urine)	422
5	Osmolality (serum)	327
6	Lipid Profile	17598
7	tTG Elisa test	1200
	Total tests	**77767**

Specialty Clinics:

- Diabetes of Young (DOY) Clinic on Saturdays
- Paediatric and Adolescent Endocrine Clinic (PAEC) on Monday afternoons.
- Gestational Diabetes Mellitus (GDM) Clinic on Friday mornings
- Community services/camps.

The department regularly hold camps especially awareness and screening programs on obesity, PCOS, diabetes, and thyroid disorders.

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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Nikhil Tandon was Member of the WHO Advisory Group on Diabetes (TAG/D) from 22 January 2024 to 21 January 2026; Nominated as Member 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; Member, Expert Panel of the Joint Global Health Trials scheme (Medical Research Council UK/DFID/Wellcome Trust); Associate Editor, for the Scientific Journal Global Health, Epidemiology and Genomics; Member of the KDIGO Management of Diabetes & CKD Guideline: Work Group; Nominated as Global Panel Member of the FOCUS study; 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 (NCPP), 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; Chairman of the Human Resource Committee at AIIMS for deployment of faculty / residents for COVID-19; Associate Editor, National Medical Journal of India (NMJI), New Delhi; Member, Editorial Board on Thyroid Research, UK; Member, International Expert Advisory Group, Global Alliance for Chronic Disease; Member, Governing Board, Centre for Chronic Disease Control; Member, Expert Panel meeting of the Joint Global Health Trials scheme (Medical Research Council UK/DFID/Wellcome Trust); Member, NCD Policy Group of the Comprehensive National Nutrition Survey; Member, Council of the Indian Academy of Science; Member, Governing Council of the Sun Pharma Foundation; Member, Research Council of the CSIR-Institute of Genomics and Integrative Biology; External Expert to assist Standing Selection Committee of AIIMS, Bilaspur, for selection to the post of Assistant Professor in the Department of Endocrinology and Metabolism, AIIMS, Bilaspur (Conducted by PGIMER, Chandigarh); Member, Selection Committee constituted by the National Academy of Sciences, India for Award of Fellowships and Memorial Lectures (Senior Scientist Platinum Jubilee Fellowship, Young Scientists Award, and NASI Memorial Lecture Award).; External Member of the Selection Board at Dr Ram Manohar Lohia Hospital, for selection of Assistant Professor (Endocrinology) on contract basis; Expert in the Committee to develop guidelines for national prioritization for COVID vaccination for people with co-morbidities; Program chair of the Scientific Advisory Board for the "Endocrinology Masterclass" being organized by Centre for Control of Chronic Conditions and Public Health Foundation of India; Member, Technical Committee, Central Drug Standard Control Organisation, Drug Controller General of India, New Delhi; Member of the Scientific Committee of Chellaram Diabetes Institute and join the Editorial Board of "Chronicle of Diabetes Research and Practice".; Nominated by the Hon'ble HFM as a Member, Scientific Advisory Board (SAB), Indian Council of Medical Research (ICMR) for a period of 3 years. The SAB is entrusted to examine all proposals in connection with the scientific objects of ICMR.; Nominated by the Chairman and Managing Director, Sitaram Jaipuria Foundation (SJF) to serve as Jury Member for Sitaram Jaipuria Medical & Healthcare Excellence Awards.; Invited by Dr. Samiran Nundy, Editor-in-Chief, Raxapedia to be a part of the Editorial Board to help peer-review and curate a set of best practices on Raxapedia that will be made instantly, freely available to all providers and patients.; Nominated as National Leader in the clinical trial ID: NN9838-4942 (Redefine 3), project titled, "The cardiovascular safety of cagrilintide 2.4 mg s.c. in combination with semaglutide 2.4 mg s.c. (CagriSema 2.4 mg/2.4 mg s.c.) once weekly in participants with obesity and established cardiovascular disease". In this context, I have been invited to become India's National Leader for REDEFINE 3 study.; Member of the "National Strategic Advisory Committee (NSAC) on Biomanufacturing" a "Bio E3 Policy i.e. Biotechnology for Economy, Environment and Employment", with emphasis on "Fostering High Performance Biomanufacturing-An integrated approach towards promoting circular economy for Green, Clean and Prosperous India".; Member of the South-East Asia Regional Expert Group on NCD (REG-NCD); Chairman, Computerization Committee, All India Institute of Medical Sciences, New Delhi; Patron of the Curriculum for Type 1 Diabetes Education Program aimed at educating general physicians, paramedics and Type 1 Diabetes caregivers/patients. The Society for Promotion of Education in Endocrinology and Diabetes (SPEED). The SPEED is a not-for-profit making educational society involved in education dissemination to medical fraternity and patients.; Member of the Treatment Optimisation for Blood Pressure with Single-Pill Combinations in India (TOPSPIN) trial Steering Committee (TSC), Centre for Chronic Disease Control (CCDC).; Attended the Global Stake holder Meeting on heterogeneity of diabetes (virtual mode) held on 23 June 2023 during American Diabetes Association's Scientific Session at the San Diego Conference Centre, USA supported by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institute of Health (NIH); Participated the KDIGO Implementation Summit on Diabetes Management in CKD: from primary to Collaborative Care held from 14-16 July 2023 at Hong Kong; Participated the meeting of Prix Galien Foundation - India held on 24 July 2023 at Taj Mahal Hotel, New Delhi; Delivered the Professor Sidhartha Das Oration during 11th Annual conference of the RSSDI, Bhubaneswar ODISHA on 12 August 2023; Participated the Council & other important meetings of the the National Academy of Sciences, India (NASI), Prayagraj held on 25-26 August 2023; Delivered the 17 Professor A.S. Paintal Memorial Oration organized by the Vallabhbhai Patel Chest Institute (VPCI) at Paintal Memorial Golden Jubilee Auditorium, VPCI, Delhi University, Delhi on 27 September 2023; Participated the 2nd Annual Investigators Meeting of the "Precision Cardiovascular Disease Phenotyping and Pathophysiological pathways in the CARRS cohort (Precision-

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CARRS)" study held from 3-5 October 2023 at Casino Hotel, Cochin, Kerala, I have been invited by the Executive Director, Centre for Chronic Disease Control (CCDC), WHO Collaborative Centre for Surveillance Capacity Building and Translational Research in Cardio-Metabolic Diseases; Subject Expert for Selection of Suitable candidate(s) as Faculty member in the specialty of Endocrinology & Metabolism at AIIMS, Vijaypur Jammu on 10 October 2023; Participated the 49th Annual Conference of the International Society for Pediatric and Adolescent Diabetes held at Rotterdam, Netherlands from 18-21 October 2023; Attended Collaborative meeting of the number of projects at University of Leicester held on 22-24 October 2023 at Leicester, UK; Participated as a Member of the Select International Expert Advisory Group to the Global Alliance for Chronic Diseases (GACD) and its first meeting held on 25-26 October 2023 at Gibbs Building (Wellcome Offices), London, UK; Attended a meeting with Principal Secretary, Health and Special Secretary, Health in Chandigarh held on 1 November 2023 for the NIH, USA funded research project code No.N-1805 registered in Research Section at AIIMS, New Delhi; Partiipated the 2nd Statutory meeting of the Council of Indian Academy of Sciences held on 2 December 2023 at Bengaluru; Participated Past presidents meeting at Board room Level 1 organized by Endocrine Society of India (ESI) and Scientific Committee, ESICON 2023 on 15 December 2023 at Hyderabad; Awarded Fellowship award during Inauguration ceremony of the Endocrine Society of India (ESI) and Scientific Committee, ESICON 2023 on 15 December 2023 at Kakatiya Hall, Hyderabad; Participated in the NIHR Global Health HPSR Call 3 Stage 2 Funding Committee Meeting held from 17-18 January 2024 at the De Vere Latimer Estate Hotel, London, UK organized by the Organizing Committee of the Global Health Research Programme; Participated in a dinner round table on Cardiovascular Diseases and Diabetes in India on 27 February 2024 at Delhi Invited by the Director Health and Chief Strategy Office, Bill & Melinda Gates Foundation; Participated as a Member of the Scientific and Technical Advisory Board of ARUMDA at Tata Institute of Fundamental Research (TIFR), Advanced Research Unit on Metabolism, Development & Aging (ARUMDA) during the 2nd ARUMDA symposium and the board meeting at TIFR-Hyderabad held on 1 March 2024.

Professor Ravinder Goswami was Member of the 3rd International Task Force on Hypoparathyroidism Initiated by Endocrine Society of USA; Member Project Review Committee for Medical Projects, CSIR since 2015 till date; Member Core Committee of the Central Core Research Facility (CCRF); Member Fellowship Selection Committee Indian Academy of Science, Bangalore; Sun-Pharma Science Foundation Research Fellowship 2023.

Professor Rajesh Khadgawat was conferred Fellowship of Royal College of Physician (FRCP), Edinburgh, UK; Appointed as Board of Member of Aligarh Muslium University (AMU); Member, Scientific Council of Zandu Foundation of Health Research, Kolkata; Expert, National Anti-Doping Agency (NADA), Ministry of Youth Affairs and Sports, Govt of India; Endocrinology External expert, Japan Anti-Doping Agency (JADA), Japan; Board of Members (BOM), Rajasthan University of Health Sciences (RUHS), Jaipur; Member, Selection Board, Rajasthan University of Health Sciences (RUHS), Jaipur; Member, SAE-Death committee, DCGI, Govt of India; Subject Expert Committee (Endocrinology), DCGI Govt of India, ; Subject Expert, National List of Essential Medicines (NLEM), Department of Health Research, Govt of India; Subject Expert, Standing National Committee on Medicines (SNCM), Department of Health Research, Govt of India; Member, Subject Review Committee, National Formulary of India (NFI), 6th Edition; Member (Clinician), The Institutional Ethics Committee, University of Delhi South Campus; Member (Clinician), The Central Ethics Committee, Central Council for Research in Ayurvedic Sciences (CCRAS), Ministry of Ayush, Govt of India; Subject expert (Endocrinology) for faculty selection/promotion for Union Public Service Commission (UPSC), AIIMS-Bhopal, AIIMS-Bhubaneshwar, AIIMS-Jodhpur, AIIMS-Raipur, AIIMS-Manglagiri, AIIMS-Kalyani, Rajasthan Public Service Commission (RPSC), PGI Rohtak and other State Public Service Commissions; Community health services, Participated in Medical Camp - 17-23 September 2023, Leh, Ladakh, Particiapted in Medical Camp - 31 August to 2 September 2023, Dharmshala; Participated as Chief coordinators and External Examiner for DNB Endocrinology Practical exams and physical inspection of hospitals for DNB (Endocrinology) organized by the National Board of Examinations (NBE), NBE inspection : 18 April 2023, NBE inspection : 13 January 2024, NBE inspection : 16 January 2024, NB Practical Endocrinology Exam : 26-27 April 2023 at AIIMS, New Delhi, ; DNB Practical Endocrinology Exam : 21-22 August 2023 at MS Ramiah Medical College, Bangaluru; DNB Practical Endocrinology Exam : 28-29 February 2024 at AIIMS, New Delhi, Subject Expert for Faculty in Endocrinology Selection in following institutions; Rajasthan Public Service Commission, UPSC, Institute of Liver & Biliary Scienecs (ILBS), PGI, Rohtak, RML Hospital and PG Institute, Delhi; AIIMS-Jodhpur, Bhubaneswar, Raipur, Bhopal, Manglagiri, Kalyani; Invited by Public Service Commission, Govt of Mauritius, Mauritius as expert for helping in conducting evaluation of medical doctors for service, 9-16 May 2023.

Professor Viveka P Jyotsna was Central Assistant Public Information Officer (CAPIO) of the Department of Endocrinology and Metabolism under the Right to Information Act, 2005 at AIIMS since 2010 till date.; Member of Department Purchase Committee, Department of Endocrinology since January 2016.; Member of the subject expert committee (Endocrinology), New drug division, Drug Controller General, India, since January 2015 till date; Reviewer for National and International journals: Indian Journal of Endocrinology and Metabolism, Indian Journal of Medical Research, Endocrine practice, Clinical Endocrinology, JCEM; Moderator for DNB Endocrinology question paper on 19 April 2023, at National Board of Examinations in Medical Sciences, Dwarka.; Evaluated DM Endocrinology thesis of

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2 students of Government Medical College, Thiruvanathapuram, Kerala University of Health Sciences, Thrissur, June 2023; Evaluated DM Endocrinology thesis of 3 students of DM Endocrinology, December 2023, Institute of Medical Sciences, Banaras Hindu University, Varanasi.

Dr Yashdeep Gupta received RSSDI Novartis Young Investigator Award given by Research Society for the Study of Diabetes in India; and the Anil R Sheth Young Investigator Award in the field of Clinical Endocrinology given by Endocrine Society of India.

Dr Ashutosh Kumar Arya got Lifetime Membership of the Endocrine Society of India; and served as Departmental Nodal Officer of AB-PMJAY.

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9.12 Forensic Medicine

Professor Head

Sudhir Kumar Gupta

Professors

DN Bhardwaj OP Murty Millo Tabin

Sanjeev Lalwani (JPNATC) Adarsh Kumar (JPNATC) Chittaranjan Behera

Additional Professors

Kulbhushan Prasad Abhishek Yadav

Assistant Professors

Swati Tyagi (JPNATC) Abilash S

Group A Officer

Scientist- 1

Nidhi Sharma

Chemist

AK Jaiswal

HIGHLIGHTS

The Department of Forensic Medicine and Toxicology is the apex referral centre for complicated medicolegal problems in India. The department is providing expert opinions in referred cases from the CBI, NIA, NHRC, courts, and crime branches 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 work. The department runs three laboratory services: toxicology, DNA fingerprinting, and histopathology, and three support services in the form of forensic radiology, forensic anthropology, and forensic biochemistry. A total of 1564 medico-legal autopsies were conducted. The facility of virtual autopsy (the Centre of Advanced Research and Excellence in Virtual Autopsy) is catering to medico-legal autopsy with the objective for dignified management of dead bodies and also being used for research purposes. A total of 45 virtual autopsies were conducted The department is implementing a multicentric Task Force project for identification of unidentified dead bodies and missing persons in India funded from ICMR. Two faculties from the University of Utah, USA, have visited the department for a research collaboration on suicide. There are now six funded projects and 23 departmental research projects under progress.

EDUCATION

There are nine postgraduate (MD) students and three PhD students enrolled in the department.

CMEs/Workshop/Symposium /Conferences

1. Workshop on Innovation, Knowledge & awareness in Virtual Autopsy held in Coordination with ICMR Hqs, on 24 February 2024
2. Workshop on Forensic Anthropology Basics and Virtual Autopsy held in Coordination with ICRC, regional delegation, on 12-13 June 2023
3. Training Programme for Delhi Forensic Science Lab. Scientists in the Department Forensic Toxicology Lab, AIIMS on 21-25 August 2023
4. Workshop on Management of Dead Bodies in disaster situation held in Coordination with ICRC, regional delegation, on 9 October 2023

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5. Joint Training programme on Enhancing Skills in Skin Harvest and Banking at Departmental Tissue and Organ harvesting lab, held in collaboration of Burns and Plastic Department, AIIMS, Delhi conducted on 2 September 2023
6. Study tour of Maldives Police service with ICRC, regional delegation held on 4-9 December 2023

Lectures delivered: 38

Adarsh Kumar: 10	**Chittaranjan Behera: 10**	**Abhishek Yadav: 7**
Swati Tyagi: 3	**Abilash S: 5**	**AK Jaiswal: 3**

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
19	20	38

Oral papers/posters presented: 17

Oral/poster presented over past 3 years

2021-2022	2022-2023	2023-2024
9	40	17

RESEARCH

Funded projects

Ongoing

1. An exploratory case-control study to assess the risk and protective factors for completed suicide among persons with psychoactive substance abuse, Dr Chittaranjan Behera, AIIMS Interdisciplinary Intramural, 2 Years, 2023-25, Rs 10 Lakhs
2. Centre of Advanced Research and Excellence in Virtual Autopsy, Dr Sudhir K Gupta, ICMR, 5 Years, 2019-24, Rs 5 Crores
3. Determination of relationship in third-degree maternal relative by mitochondrial DNA analysis, Dr Nidhi Sharma, AIIMS Intramural, 2 Years, 2022-24, Rs 10 Lakhs
4. Establishing the cause of sudden unexplained deaths in young, Dr Sudhir K Gupta, ICMR, 2 Years, 2023-25, Rs 87 Lakhs
5. Genome-wide DNA methylation profiling to study role of epigenetic modification in suicide completers, Dr Chittaranjan Behera, DBT, 3 Years, 2023-26, Rs 1,20,62,219
6. Multicentric Task Force Project-Establishment of a multicenter Identification portal and DNA database for identification of unidentified dead bodies in India by using molecular, bioinformatics tools and techniques, Dr Chittaranjan Behera, ICMR, 3 Years, 2023-26, Rs 3,89,90,669/-

Completed

Departmental projects (including thesis/dissertations)

Ongoing

1. A comparative analysis of Post-mortem CT findings with that of Violent Asphyxial deaths
2. A Comparative Study of CT Scans and Digital X-rays based on Virtual Autopsy and Traditional Autopsy Including Histopathological Examination in Various Causes of Death

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3. A Comparative Study of Ethyl Alcohol in Human Blood, Urine, Vitreous Humor, and Cerebrospinal Fluid in Cases Brought For Post-mortem Examination in AIIMS Mortuary
4. A study on the effect of genetic manipulation in mammalian inner ear cells
5. Age estimation by radiological study of bones and joints
6. Association between suicide and toxoplasma gondii infection: a hospital-based case-control study
7. Comparative analysis of virtual autopsy and traditional autopsy with multiple organ histopathology in sudden unexplained and unexpected deaths
8. Content and linguistic analysis of suicide notes collected during medico-legal autopsy at AIIMS, New Delhi
9. CT Scan and Digital X-ray Based Virtual Autopsy vis-a-vis Traditional Autopsy including Histopathological Examination Findings in Cases of Death due to Fatal Pressure on Neck
10. Effect of ACE inhibitors and angiotensin receptor blockers on renin-angiotensin system markers in brain tissue of postmortem subjects with depression
11. Evaluation of CRISPR-mediated ATOH1 knock-in on hair cell differentiation in cell lines derived from Murine Organ of Corti
12. Genetic characterization and Genotypic phenotypic correlation in inherited cardiomyopathies
13. Genetic landscape of cardiomyopathies
14. Gross and microscopic features of organs in suspected and confirmed cases of poisoning
15. Mitochondrial DNA analysis in Post Mortem Samples under Degrading Conditions to establish relatedness
16. Morphological and genetic evaluation of sudden cardiac death
17. MYH7 Gene mutation in inherited cardiomyopathies
18. PM CT Angiography
19. Study of Fibrosis in Cardiovascular Disease: FIBICAR Study
20. Study on MYBPC3 gene mutations in patients of primary cardiomyopathies
21. The 'Forensomics' approach for postmortem Interval Estimation from the human liver and toxicity by integrating metabolomics and lipidomics
22. Trauma-focused Postvention Module for family and friends of victims of completed suicide- Development and Validation
23. Viability Assessment of different organs and tissues in Non-heart beating cadavers for Transplantation Purposes

Completed

1. A Comparative Study of CT Scan and Digital X-ray based on Virtual Autopsy and Traditional Autopsy Including Histopathological Examination in Various Causes of Death
2. A study of aspiration in medico-legal autopsies by gross, histopathological and radiological examination
3. Analysis of Death due to poisoning, of 25 years of postmortem records (1996-2020) in the Department of FMT, AIIMS, New Delhi
4. Computed Tomographic and Morphometric Analysis of Dimensions and weights of Internal organs in Indian Population
5. Estimation of Age by CT scan of pubic symphysis using Suchey Brooke's method in North Indian population- A digital autopsy-based study
6. Postmortem findings and psychological autopsy in suicidal hanging in adolescents
7. To Establish Sexual Dimorphism & Estimate Age from Hyoid Bone Using Anthropological and Radiological Techniques
8. Virtual autopsy findings vis-a-vis traditional autopsy findings in road traffic accident cases
9. Virtual Autopsy Findings vis-a-vis Traditional Autopsy Findings in Sudden Deaths with Cardiac Origin

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Collaborative projects

Ongoing

1. Defining the Fc receptor-based immune landscape in rheumatic heart diseases, Department of Cardiac Biochemistry
2. Development and method validation for Z-drugs and Tramadol analysis in biological matrices, National Forensic Science University, Delhi campus
3. Editing of Atoh1 in cadaver-derived supporting cells for the regeneration of auditory cells, Department of Biochemistry and ENT
4. Effect of antidepressants and add-on therapy of renin-angiotensin-aldosterone system (RAAS) modulators on treatment response in subjects with depression: Correlation analysis with RAAS related biomarkers and their gene expression, Department of Pharmacology
5. Epidemiological investigation of suicide deaths during the COVID-19 Pandemic in south and south-east districts of Delhi, Department of Community Medicine
6. Evaluation of immune-modulatory and antioxidant potential of an Unani formulation, Department of Ocular Biochemistry, AIIMS
7. Evaluation of prevalence of cyanide poisoning in patients of flame burn injuries admitted at a tertiary health care facility, Department of Burns and Plastic Surgery
8. Impact of alcohol on dysregulation of inflammation and recovery of trauma hemorrhagic shock patients, JPNATC AIIMS
9. Influence of Vitamin D-binding protein gene polymorphisms on microbiome-metabolome profiles of children with congenital uropathies prone to urinary tract, Department of Pediatric Surgery
10. The evaluation of STR markers in various Global and Indian populations for exploring the correlation between genotype and geolocation, National Forensic Science University, Delhi campus

Completed

1. An exploratory study on the interface of social media and completed suicides, Department of Psychiatry
2. Comparison of suction verses microdissection method for harvesting supporting cells from inner ear, Department of E.N.T
3. Sudden cardiac death in young: An autopsy and molecular study to identify the cause, Department of Pathology

Research over past 3 years

Research projects	2021-22	2022-23	2023-2024
Total number of funding received for research	3	3	6
Total amount of funding received for research	Rs 72,70238/-	Rs 96,50110/-	Rs 3,62,56,679

Publications

Total Publications: 24; Journal articles: 24

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total	29	30	24
Journal articles	29	29	24
Abstracts	0	0	0
Chapters in books	0	0	0
Books	0	1	0

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PATIENT CARE

Number of patient-care related activities - specialty clinics, procedures, investigations etc. (RELEVANT TO THE DEPARTMENT)

Sl. No.	Item		2021-22	2022-23	2023-2024
	Medico legal Postmortem		1906	1523	1564
	Clinical Forensic Medicine	Potency and other Medico legal examination	554	578	503
		CBI Cases	39	27	13
		Subsequent opinion	289	380	280
	Summons		130	409	458
	Toxicology Laboratory services	No. of cases	83	249	47
		No. of Tests	283	1643	336
	Embalming		97	134	141
	Forensic Radiology Services	X-Rays in no. of cases	141	116	74
		CT Scan in no. of cases	991	1214	1271
		Virtual Autopsy in no. of cases	-	-	45
	Forensic Anthropology Services (Age estimation) in no. of cases		10	16	01
	Forensic Histopathology in no. of case		105	121	73
	DNA Fingerprinting Laboratory		DNA –Profiling of unidentified bodies sample(s): (168 cases and 302 runs for profiling). Research Samples (blood & saliva) processed for DNA Isolation and Quantitation of DNA (195 samples). Samples performed for other technique's-PCR: 1519, RFLP: 1033, Sequence reaction:47.	DNA –Profiling of unidentified bodies sample(s): (186 cases and 125 runs for profiling). Research Samples (blood & saliva) processed for DNA Isolation and Quantitation of DNA (201 samples). Samples performed for other technique's-PCR: 912, Real Time PCR:64, Sequencing PCR:105, RFLP: 233, STR Profiling:32.	DNA –Profiling of unidentified bodies sample (hairs, tooth pulp, Blood in gauze) processed: DNA Isolation, Quantitation of DNA and sample RUNS (Total of cases -431, Multiplex PCR in 287 and 105 runs for profiling).

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				Research Samples (blood & saliva) processed for DNA Isolation and Quantitation of DNA (465 samples). Samples performed for other technique's-, DNA Isolation and quantification: 275, Total PCR:3350[PCR: 1700(Mt DNA), Sequence PCR: 1100(Mt DNA), Exosap PCR: 550(Mt DNA)], Sanger Sequencing generates (F&R):870, Alcohol testing:115, Multidrug screening:100 for research samples.
	Organ Retrieval for Therapeutic Transplantation (No. of corneas retrieved)	56	208	152

1. **Casualty services:**

   Providing round-the-clock medico-legal services in cases of injury, sexual offences, poisoning etc. to the South and South-east districts of Delhi.

2. **Mortuary Services**

   Total **1564** medico-legal autopsies were conducted at the mortuary of the main department.

3. **Clinical Forensic Medicine**

   Total **503** cases of potency and other medico-legal examinations brought by the investigating officer and referred from court were dealt by the department. A total of **13** cases from CBI were dealt with by the medical board of the department. A subsequent opinion in complicated cases including reference from casualty etc. was offered in total **280** cases.

4. **Summons**

   Doctors of the department attended court of law in **458** cases from Delhi and other states

5. **Medical Toxicology**

   Total **47** cases were received, **65** samples were examined, **336** tests were performed for various poisons referred from the clinical department of AIIIMS, medico-legal cases and academic cases.

6. **Forensic Histopathology**

   The department provides histopathology services for the samples of medico-legal autopsy cases from South and Southeast districts and also for research purposes. Total **73** cases were done and **533** slide**s** were made during this period.

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7. **Embalming facility**

   The department is providing embalming facility for MLC cases (Postmortem cases). A total **141** cases of embalming were done during this period.

8. **Organ Retrieval for Therapeutic Transplantation**

   Total **152** corneas from **76** donors were retrieved at mortuary for transplantation by the National Eye Bank.

9. **Forensic Radiology Services**

   X-ray was done **74** cases (Total **111** X-rays were done), for various medico legal and academic purposes (both autopsy and live cases). CT Scan service was provided to **1271** cases(PMCT) for various medico legal and academic purposes during autopsy. Virtual autopsy was conducted in **45** cases.

10. **Forensic Anthropology Services**

    Age estimation for **one** case.

11. **DNA Fingerprinting Laboratory**

    DNA –Profiling of unidentified bodies sample (hairs, tooth pulp, Blood in gauze) processed: DNA Isolation, Quantitation of DNA and sample RUNS (Total of cases -431, Multiplex PCR in 287 and 105 runs for profiling). Research Samples (blood & saliva) processed for DNA Isolation and Quantitation of DNA (465 samples). Samples performed for other technique's-, DNA Isolation and quantification: 275, Total PCR:3350[PCR: 1700(Mt DNA), Sequence PCR: 1100(Mt DNA), Exosap PCR: 550(Mt DNA)], Sanger Sequencing generates (F&R):870, Alcohol testing:115, Multidrug screening:100 for research samples.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Adarsh Kumar Delivered the First MTMC Oration on 'Quality Assurance in Forensic Medicine' during Eastern Forensic Medicine Innovative Conference i.e. EFMICON-2023 at Manipal Tata Medical College, Jamshedpur, Jharkhand on 14-15 April 2023. Speaker on Role of Various Branches of Science in Criminal Investigation during Refresher Course on Interdisciplinary Sciences organized by Guru Ghasidas University, Bilaspur, Chhattisgarh as part of faculty development program by UGC on 14 July 2023. Delivered I Bhooshan Rao Oration on "In the realm of Justice, An unseen player - A Forensic Virtuoso" during FORENSIC MEDICON-2024 at AIIMS Nagpur on 18 January 2024. Delivered First Justice Jagdish Sharan Misra Oration on "Medicolegal Aspects of Recordkeeping - An update" during IABSCON-2024 at AIIMS Patna on 24 February 24. Forensic Excellence Award by Galgotia's University on 22 April 2023. Elected Secretary General of Indo-Pacific Association of Law, Medicine & Science (INPALMS). Elected Vice President of the Indian Academy of Forensic Medicine. Nominated Management Committee member of the Asia Pacific Association of Medicolegal Agencies (APMLA). Included as International Scientific Committee Member for the 26th Conference of International Academy of Legal Medicine to be organized in Athens, Greece on 21-23 May 2024. Board of Studies Member-External Expert in Forensic Sciences at The West Bengal University of Juridical Sciences, Kolkata, Board of Studies Member-External Expert in Forensic Medicine & Forensic Sciences at Manipal University, Manipal, Board of Studies Member in Forensic Sciences at Government Institute of Forensic Sciences, Nagpur. Research Advisory Committee member of National Forensic Science University, Ahmedabad, and New Delhi campuses, Board of Studies Member-External Expert in Forensic Medicine at Aligarh Muslim University, Aligarh, Board of Studies Member-External Expert in Forensic Sciences at Maharshi Dayanand University, Rohtak. Honorary Medicolegal Expert to National Human Rights Commission, India.

Professor Chittaranjan Behera Member of the expert committee by DGHS regarding Single window system for post-mortem. Member standing medical board at AIIMS for MTP beyond 24 weeks of gestation. Subject Expert for Faculty Selection by Standing Selection Committee at AIIMS Patna and AIIMS, Gorakhpur. Expert in selection of research staff at AIIMS**.** Reviewed articles from reputed international journals (Pub-Med Indexed) like the Journal of Forensic and Legal Medicine, Science and Justice, Journal of Family Medicine & Primary Care, and Frontiers in Psychiatry. Assistant editor of the International Journal of Medical Toxicology & Legal Medicine, Associate Editor of IP International Journal of Forensic Medicine and Toxicological Sciences, Editorial board member of ARC Journal of Forensic Sciences, Annals of Forensic Research and Analysis, Sci. Fed Journal of Forensic, Journal of Forensic Medicine, IP International Journal of Forensic Medicine and Toxicological Sciences, Editorial advisory board of Indian Journal of Forensic Medicine and Toxicology.

Dr Abhishek Yadav was Awarded Certificate of Merit for exceptional contribution in establishing the First Virtual Autopsy Centre in India at AIIMS, New Delhi. Nominated as Member of a standing expert Committee to develop a detailed National Strategy and action plan to minimise drug overdose deaths. Nominated as a Committee member for matters related to Medicolegal aspects of rabies at the National Centre for Disease Control, DGHS, MOHFW on 10

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October 2023. Member of AIIMS Standing Medical Board member to decide on Medical Termination of Pregnancy beyond 24 weeks of gestation. Nominated as Committee member for review of Body Donation and Anatomy Act on 5 July 2023 at Niti Aayog. Nominated as Committee member to discuss the project proposal for Forensic Autopsy and draft policy on Radiological Imaging considered as evidence under the judiciary system for Govt. of India at MOHFW on 22 September 2023. Nominated as Committee member for proper treatment of COVID-19 Patients and Dignified management of dead bodies in the hospitals at MOHFW on 19 October 2023. Subject expert in appeal cases in National Medical Commission. Resource Faculty for Content Development and "Induction Training Programme for newly recruited Medical Officer" by Public Health Foundation of India. Member of Medical Boards in Multi institutional Medical Boards constituted in different hospitals of Delhi for Custodial Death Investigation like MAMC, BS Ambedkar, UCMS, DDU etc. Editor-in-Chief of 'RFP- Journal of Hospital Administration. Editorial board members for the journals- Indian Journal of Forensic Medicine & Pathology, ARC Journal of Forensic Science, Journal of Forensic Chemistry & Toxicology, Medical Case Reports, Journal of Forensic Medicine Forecast. Reviewer in the "Journal of Indian Academy of Forensic Medicine", which is the National Body of the specialty and Journal of Forensic Science and Medicine. DC member in PHD doctoral committee of students in the Department of Anatomy, Department of Lab oncology, AIIMS, New Delhi.

VISITING SCIENTIST

Two Scientists Dr Anna Docherty, Associate Professor, and Dr Andrey A Shablin, Assistant Professor of Psychiatry, University of Utah, USA visited the Department of Forensic Medicine & Toxicology, AIIMS on 12 December 2023 for research collaboration on suicide and delivered a lecture titled "Building International Resources to better understand and Prevent Global Suicide".

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9.13 Gastroenterology and Human Nutrition

Professors and Head

Anoop Saraya Pramod Garg

(Superannuated on 31 December 2023)

Professors

Vineet Ahuja Govind K Makharia

Shalimar Baibaswata Nayak

Additional Professors

Saurabh Kedia Deepak Gunjan

Assistant Professors

Soumya Jagannath Mahapatra Anshuman Elhence (NCI)

HIGHLIGHTS

Since, the inception of this department it has provided state of the art services and provided training to many physicians in specific areas like luminal gastroenterology, liver diseases and endoscopy. The department has been consistently ranked as the Best Department of Gastroenterology in India for many years in surveys conducted by leading News Weekly. In December 2011 department was awarded as the Best Department of Gastroenterology in India at the CNBC TV18 India Healthcare Awards. In the current year (2023-2024) the department continued its mandate to train future gastroenterologists for the country, provide quality care to patients and produce practice changing research in the field of Gastroenterology.

EDUCATION

The department continued the training program 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. The department initiated the Advanced Fellowship Training program.

Long-term training: 24 DM students
5 PhD students
8 Advanced fellowships in Advanced Endoscopy, Hepatology, Pancreatology& Inflammatory bowel disease

CMEs/Workshops/Symposia/National & International Conferences

1. "A Joint Pancreas International Conference on Pancreas 2023: Towards finding a cure for pancreatic disorders" (15 -17 September 2023), JW Marriott Hotel, Aerocity, New Delhi- Organized by **Professor Pramod Garg** (IAP secretary) and **Dr Soumya Jagannath** (Organizing Secretary)
2. "Current Perspectives in Liver Disease 2023: Complications in cirrhosis" (21-22 October 2023), All India Institute of Medical Sciences, New Delhi- Organized by **Professor Anoop Saraya** (Organizing Chairperson) and **Dr Shalimar** (Organizing Secretary), **Dr Saurabh Kedia** (Organizing Secretary), **Dr Deepak Gunjan** (Organizing Secretary), **Dr Anshuman Elhence** (Co-organizing Secretary), **Dr Samagra Agarwal** (Co-organizing Secretary)
3. "1ST Asia Pacific Celiac Disease Symposium (APCDS 2024) and brainstorming session on oppurtunities and challenges in Asia Pacific Region" (8-10 March 2024), Le Meridian, Aerocity, New Delhi- Organized by **Professor Govind Makharia** (Organizing Chairman) and **Professor Vineet Ahuja** (Organizing Co-Chairman), **Dr Saurabh Kedia** (Organizing Secretary), **Dr Samagra Agarwal** (Organizing Secretary)

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4. "Young Endoscopist up-Skilling (YES) Program by Society of Gastroenterology Endoscopy of India(SGEI)"(17-18 February 2024) at SET Facility, 2nd floor, Convergence block, AIIMS, New Delhi.- **Dr Deepak Gunjan** (Organizing secretary) and **Dr Soumya Jagannath** (Joint Organizing Secretary)

Lectures delivered: 124

Pramod Kumar Garg: 8	**Vineet Ahuja : 44**	**Govind Makharia: 30**
Shalimar : 6	**B. Nayak : 7**	**Saurabh Kedia: 14**
Deepak Gunjan : 7	**Soumya Jagannath Mahapatra: 4**	**Anshuman Elhence: 4**

Lectures delivered over past 3 years

2021–22	2022– 23	2023-24
56	125	124

Oral Papers/Posters presented: 39

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
40	63	39

RESEARCH

Funded Research projects

Ongoing

1. (Exploration of immunopathogenesis of extra-intestinal organ involvement in patients with Celiac Disease" (No. F: 2-1470/2023/RS), Dr Govind K Makharia, ICMR, 3 Years, 2023-26, Rs 73.50 Lacs
2. A Multicenter, Single-arm, Open-label, Phase 4 Study to Evaluate the Safety and Efficacy of Vedolizumab in Indian Patients With Ulcerative Colitis and Crohn's Disease, Version 3 Dated 30 March 202, Study no-Vedolizumab 4020", Dr Vineet Ahuja, Takeda-SIRO, 2 Years, 2022-24, Rs 4.50 Lacs
3. A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-and Active-Controlled, Treat-Through Study to Evaluate the Efficacy and Safety of Mirikizumab in Patients with Moderately to Severely Active Crohn's Disease, Dr Vineet Ahuja, Eli Lilly, Pharmaceutical company, 3 Years, 2021-24, 8.04 Rs Lacs
4. A Phase III, multicentre, randomized, double-blind, placebo-controlled, interventional study on efficacy and safety of Standardized fraction of Picrorhiza kurroa Royal Ex Benth (Picroliv®) for 24 weeks in the Management of Non-Alcoholic Fatty Liver Disease (NAFLD)", Dr Shalimar, ICMR, 3 Years, 2 February 2023 to 1 February 2024, Rs 33 Lacs
5. A pilot study to estimate prevalence of celiac disease in high-risk group in Asia (Asian Celiac disease study), Dr Govind K Makharia, Takeda Pharmaceuticals, USA, 3 Years, 2021-24, Rs 1.82 Crores
6. A prospective, multi-centre, open label, phase IV study to evaluate safety and efficacy profile of InfimabTM in patients with moderate to severe Crohn's disease, Dr Vineet Ahuja, Reliance Pharmaceuticals, 2 Years, 2022-24, Rs 3.75 Lacs
7. ABX464-106-A randomized, double-blind, placebo-controlled, multicenter phase III study to evaluate the efficacy and safety of ABX464 once daily for induction treatment in subjects with moderately to severely active ulcerative colitis, Dr Vineet Ahuja, IQVIA Research (India) Private Limited), 2 Years, 2023-25, Rs 2.21 Lacs
8. ABX464-107 A randomized, double-blind, multicenter phase III study to evaluate the long-term efficacy and safety of ABX464 25 mg or 50 mg once daily as a maintenance therapy in subjects with moderately to severely active ulcerative colitis", (short title: ABTECT-Maintenance), Dr Vineet Ahuja, IQVIA Research (India) Private Limited, 3 Years, 2023-26, Rs 3.05 Lacs
9. Cancer stemness signatures of Hepatitis B induced hepatocellular carcinoma, Dr Baibaswata Nayak (Women Scientist: Dr Sonali Sengupta), DST, 3 Years, 2022-25, Rs 24 Lakhs

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10. Celiac disease prevalence in native south versus north Indians; migrant study to access regions for the difference, Dr Govind K Makharia, ICMR, 2 Years, 2022-24, Rs 68.45 Lacs
11. Centre for Advanced Research and Excellence in Intestinal Diseases, Dr Vineet Ahuja, ICMR, 5 Years, 2019-24, Rs 5 Crores
12. 'Centre for Advanced Research and Excellence in Pancreatic Diseases', Dr Pramod Kumar Garg, ICMR, 5 Years, 2019-24, Rs 4.90 Crores
13. Chronic pancreatitis induces mitochondrial dysfunction and proteostasis in skeletal muscle, Dr Avinash Kumar, ICMR, 3 Years, March-2024, February-2027, Rs 88.43 Lacs
14. Crohn's Disease (CD) in South Asians: Defining disease biology for prevention and better treatment, Dr Vineet Ahuja, The Leona M. and Harry B. Helmsley Charitable Trust, 3 Years, 2021-24, Rs 2.02 Crores
15. Department of Biotechnology "Consortium On Celiac Disease, " Extension & Nurturing of national Biorepository of well-defined patients with celiac disease, Dr Govind K Makharia, DBT, 5yrs, 2023-28, Rs 4.56 Crores
16. Determination of receptor-mediated pathogenesis of SARS-COV2 variants and immunomodulation by viral proteins, Dr Baibaswata Nayak, ICMR, 3 Years, 2021-24, Rs 48 Lakhs
17. Development of a recombinant vaccine against the hepatitis E virus and immunological characterization of hepatitis E cohort and potential vaccine recipient cohort, Dr Shalimar, BIRAC (Co-PI), 30 Month, 2021-23, Rs 1.10 Crores
18. Differential metabolomic profiling of platelets in patients with pancreatic cancer and chronic pancreatitis, Dr Nidhi Singh, AIIMS Intramural grant, 2 Years, 2024 (February), 2026, Rs 10 Lakhs
19. 'Epidemiology of Pancreatitis and Major Gastrointestinal Disorders: A Nationwide Multi-Centre Study across India, Dr Pramod Kumar Garg, ICMR, 3 Years, 2021-24, Rs 3.50 Crores
20. Estimating the Prevalence of Chronic Enteropathy Associated with SLCO2A1 Gene (CEAS) with whole exome sequencing in patients with difficult to treat small bowel stricturing Crohn's Disease: A Cross sectional study, Saurabh Kedia, AIIMS Intramural, 2 Years, 2024-26, Rs 10 Lacs
21. Exploration for development of wheat with low immunogenic gluten (CS 11/6/2014-IA-IV), Dr Govind K Makharia, ICAR, 9 Years, 2017-26, Rs 47.50 Lacs
22. Hypoxia, angiogenesis and stemness markers predicting outcome of locoregional and immunotherapy for hepatocellular carcinoma, Dr Baibaswata Nayak, ICMR, 3 Years, 2023-26, Rs 69 Lakhs
23. Identification and validation of a panel of miRNAs in pancreatic cystic fluid as differentiating biomarker for Intraductal Papillary Mucinous Neoplasm, Dr Deepak Gunjan, AIIMS Intramural, 2 Years, 01 May 2023, 30 April 2025, Rs 10 Lacs
24. JC Bose fellowship, Dr Pramod Kumar Garg, SERB, 5 Years, 2020-25, Rs 95 Lacs
25. Mechanism of hyperammonemia induced skeletal muscles mitochondrial dysfunction: Therapeutic opportunity, Dr Avinash Kumar, DBT, 5 Years, October 2021-2026, Rs 1.13 Crores
26. Metabolic associated liver disease (MAFLD) in lean and obese: search for disease and progression biomarkers, Dr Shalimar, SERB, 36 Month, 1 January 2022 to 20 January 2025, Rs 44 Lacs
27. Prevalence of antimicrobial resistant genes in the healthy gut flora of individuals residing in rural and urban community setting, Saurabh Kedia, AIIMS Intramural collaborative, 2 Years, 2021-23, Rs 10 Lacs
28. Role of nuclear receptor in Hepatitis B (HBV) mediated hepatocarcinogenesis, Dr Baibaswata Nayak (RA: Dr Afnan Quadri), ICMR, 3 Years, 2021-24, Rs 22.92 Lakhs
29. Role of potentially oncogenic miRNAs in Hepatitis B virus-induced hepatocarcinogenesis, Dr Baibaswata Nayak (RA: Dr Neeti Nadda), ICMR, 3 Years, 2021-24, Rs 22.92 Lakhs
30. Should Colorectal Cancer screening be done in Asymptomatic Indians: A Pan-India multicentre study, Dr Vineet Ahuja, ICMR, 4 Years, 2024-28, Rs 6.83 Crores
31. Standard medical therapy plus Rifaximin vs. standard medical therapy alone for the management of sarcopenia in patients with cirrhosis: A pilot Randomized Controlled Trial, Dr Deepak Gunjan, Sun Pharmaceutical Pvt Ltd, 2 Years, 18 April 2022, 17 April 2024, Rs 16 Lacs
32. Studying the mechanism of Rab7-based regulation of Goblet cell function in Ulcerative colitis, Dr Vineet Ahuja, Department of Biotechnology (DBT), 3 Years, 2023-26, Rs 28.62 Lacs

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33. The effect of structured yoga practices on the quality of life and clinical outcomes in patients with ulcerative colitis, Dr Vineet Ahuja, Ministry of AYUSH, 3 Years, 2023-26, Rs 21.64 Lacs
34. To evaluate the role of phage transfer through faecal microbiota transplantation in causing anti-microbial gene depletion and intestinal decolonization from multidrug resistant organisms, Dr Vineet Ahuja, Indian Council of Medical Research (ICMR), 3 Years, 2021-24, Rs 5.73 Lacs

Funded Research Projects: Completed

Completed

1. A Long-Term Extension Study to Evaluate the Safety of Filgotinib in Subjects with Crohn's Disease, Dr Vineet Ahuja, Gilead Sciences, 6 Years, 2017-23, Rs 6.7 Lacs
2. A Long-Term Extension Study to Evaluate the Safety of Filgotinib in Subjects with Ulcerative Colitis, Dr Vineet Ahuja, Gilead Sciences, 6 Years, 2017-23, Rs 7 Lacs
3. An open label, single arm, investigator intiated Phase I/II study to assess the safety and efficacy of local administration of stempeucel (Adult Human Bone) Derived, Cultured Pooled, Allogenic Stromal Cells Marrow, Dr Vineet Ahuja, Stempeutics Research Pvt. Ltd, 3 Years, 2020-23, Rs 5.77 Lacs
4. 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, Dr Vineet Ahuja, Gilead Sciences, 5 Years, 2017-22, Rs 6.7 Lacs
5. 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, Dr Vineet Ahuja, Gilead Sciences, 7 Years, 2017-24, Rs 8.72 Lacs
6. Comparative gut eukaryotic microbiome in inflammatory bowel disease: Search for common link in genetically similar population residing in areas with differing disease prevalence, Dr Vineet Ahuja, DST-UKIERI, 2 Years, 2015-17, Rs 2.50 Lacs
7. Comparison of the risk of infection due to SARS-CoV-2 between immunocompetent and immunocompromised individuals, Dr Saurabh Kedia, AIIMS Intramural, 1 year, 2020-21, Rs 4.50 Lacs
8. Correlation between Kv1.3 potassium channel expression in intestinal biopsy and disease severity in patients with Ulcerative Colitis, Dr Saurabh Kedia, AIIMS Intramural, 1 year, 2019-20, Rs 2 Lacs
9. Crohn's Disease in India: A multi-centric study from a country where intestinal tuberculosis as well as Johne's Disease is endemic, Dr Vineet Ahuja, Department of Health Research (DHR), 4 Years, 2017-21, Rs 42.57 Lacs
10. Development of a low-cost diagnostics platform for the identification of viral DNA using CRISPR/Cas13a system, Dr Shalimar, DBT (Co-PI), 3 Years, 2018-21, Rs 24 Lac
11. Entyvio (Vidolizumab IV) Extended Access Program in Ulcerative colitis and Crohn's Disease, Dr Vineet Ahuja, Pharmaceutical Product Development (PPD), 6 Years, 2016-22, Rs 4.29 Lacs
12. Epigenetic reprogramming of intestinal epithelial stem cells via gut microbiota derived metabolites in Ulcerative Colitis, Dr Vineet Ahuja, Science and Engineering Research Board (SERB), 3 Years, 2020-23, Rs 56.45 Lacs
13. Genetic basis of Budd Chiari Syndrome/ hepatic venous outflow tract obstruction in Indian patients, Dr Shalimar, ICMR, 4 Years, 2019-23, Rs 74 Lacs
14. Glue Grant Scheme "Human Gastrointestinal Immunology Translational Program", Dr Vineet Ahuja, DBT-Glue Grant, 3 Years, 2014-17, Rs 1.44 Crores
15. Gut Microbiome-Regulators of the Intestinal Stem cell niche in Health and Inflammatory Bowel Disease, Dr Vineet Ahuja, MHRD-Scheme for Promotion of Academic and Research Collaboration (SPARC), 4 Years, 2019-23, Rs 45.97 Lacs
16. International study of COVID-9 Antibody Response Under Sustained immune suppression in IBD, Dr Vineet Ahuja, The Leona M. and Harry B. Helmsley Charitable Trust, 2 Years, 2021-23, Rs 9.24 Lacs
17. Liquid Biopsy for Early Prediction of Hepatocarcinogenesis in Chronic Liver Disease Patients, Dr Baibaswata Nayak, ICMR, 3 Years, September 2019, February 2023, Rs 49.48 Lakhs
18. Towards understanding the role of gut microbiota and their metabolites in the causation and treatment of colorectal cancer, Dr Govind K Makharia, SERB, 3 Years, 2020-23, Rs 18.62 Lacs

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Departmental projects (including thesis/dissertations)

Ongoing

1. A Randomized Controlled Trial Comparing the time to achieve clinical response in Patients with Moderate to Severe Ulcerative Colitis using cortico-steroids Vs Tofacitinib
2. Assessment of challenges & burdens faced by family members of patients with celiac disease
3. Cancer stemness signatures of Hepatitis B induced hepatocellular carcinoma
4. Characterisation of pancreatic head mass: Role of microbial infection
5. Characterization of Cytokine Storm Syndrome in Acute Pancreatitis: A prospective cohort study
6. Comparing plastic vs no plastic after EUS guided lams drainage for recurrence of pancreatic fluid collection in patients of acute pancreatitis
7. Dexamethasone versus N-acetylcysteine for the reduction of post-embolization syndrome following trans-arterial chemoembolization for Hepatocellular Carcinoma: a randomized controlled trial (DANCES trial-DexAmethasone versus NAC for Post-Embolization Syndrome)
8. Eating Disorders-classification, diagnosis & its protocols on patients with celiac disease
9. Exploration of immunopathogenesis of extraintestinal organs involvement in patients with celiac disease
10. Neuropsychiatric manifestation & metabolic characteristics in brain in patients with treatment naïve celiac disease compared with controls & effect of gluten free diet on them: A prospective follow up study
11. Prevalence Of CeD in patients with Interstitial lung disease
12. Prevalence of celiac disease in pancreatitis
13. Reverse genetics and gene editing approaches for understanding chronic hepatitis virus reactivation, propagation and virus induced carcinogenesis, and drug resistance following infection
14. Role of immune pathways in the pathogenesis of chronic pancreatitis
15. Role of potentially oncogenic miRNAs in Hepatitis B virus induced hepatocarcinogenesis
16. Safety and efficacy of corticosteroids in severe acute pancreatitis
17. Sarcopenia in acute pancreatitis and its impact on post discharge outcomes
18. Secondary prophylaxis of gastric variceal bleed: Endoscopic Ultrasound-Guided Coil and n-butyl cyanoacrylate glue versus radiological intervention: A Randomized Control Trial
19. Targeting of HBx in Hepatitis B virus induced hepatocarcinogenesis and development of replicon-based assay to study effect of mutation on replication
20. The effect of structured yoga practices on the quality of life and clinical outcomes in patients with ulcerative colitis"
21. To Explore the association of enteric parasitic infections with duodenal eosinophilia in functional dyspepsia patients
22. Understanding etiologies of Non responsive celiac disease, Developing ex vivo organoid model of celiac disease

Completed

1. A multiparameter model to differentiate intestinal tuberculosis from Crohn's Disease in ulcero-constrictive disease of the intestine
2. A randomized control trial of exclusive enteral nutrition with corticosteroids vs corticosteroids alone in patients with acute severe ulcerative colitis
3. A randomized controlled trial of adjunctive incremental pregabalin therapy vs placebo for pain management 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. Carvedilol to prevent decompensation in patients with compensated advanced chronic liver disease without high-risk varices with liver stiffness more than 20kPa (CaLD-20 trial): An open label randomized controlled trial

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6. Comparative analysis of cost and nutritional composition of gluten-free food with their gluten containing counterparts
7. Development and validation of a tool for assessment of gluten free diet in Indian celiac disease patients
8. Efficacy and Tolerability of Hyperbaric Oxygen Therapy in Small Bowel structuring and Fistulizing Crohn' Disease: A stratified RCT
9. Epigenetic reprogramming of intestinal epithelial stem cells via gut microbiota-derived metabolites in ulcerative colitis
10. Etiology, nature and severity of dyspepsia in India: a National Task Force study" and "Rifaximin's. Placebo in functional dyspepsia-a randomized double-blind controlled trial
11. Exploration of intestinal stem cell (ISC) niche in persistent villous atrophy in patients with gluten free diet in unresponsive celiac disease at 12-months post-GFD
12. Gut microbiota-regulators of the intestinal stem cell signaling pathways in health and ulcerative colitis
13. Modulation of Human Immune and Inflammatory Responses by Vitamin A in Inflammatory Bowel Disease (Ulcerative Colitis, Crohn's Disease)
14. Prevalence of anxiety and depression in patients with chronic pancreatitis and its impact on pain and quality of life
15. Prevalence of celiac disease in cirrhosis of liver
16. Prevalence of Celiac Disease in patients of Inflammatory Bowel Disease
17. Prevalence of clarithromycin in helicobacter pylori using a molecular diagnostic method in a tertiary care center in North India
18. Prevalence of elevated alanine aminotransferase levels in adult participants from a community-based study from northern part of India
19. Role of Liquid Biopsy Biomarkers in Hepatocellular carcinoma and Hepatitis B virus induced carcinogenesis
20. Role of non-biopsy pathway in diagnosis of celiac disease in adults
21. Status and effect of pancreatic enzyme replacement on gut microbiota and resting energy expenditure in patients with chronic pancreatitis
22. To assess the prevalence and etiology of non-responsive celiac diseases in patients on gluten free diet for one year or more
23. To evaluate the role of phage transfer through fecal microbiota transplantation in causing anti-microbial gene depletion and intestinal decolonization from multidrug resistant organisms
24. To study the quality of skeletal muscle in nonalcoholic fatty liver disease
25. Treat to target strategy in active Ulcerative Colitis patients: A Randomized Control Trial
26. Treatment of iron deficiency anemia with intravenous ferric carboxymaltose versus oral ferrous ascorbate in patients with cirrhosis after an episode of upper GI bleed: an open label randomized controlled trial

Collaborative projects

Ongoing

1. "Development & Validation of an Explainable Deep Learning Network-based Software for Automated Interpretation & Grading of Duodenal Mucosal Biopsies from patients with Celiac Disease, ", Department of Gastroenterology & HNU, Department of Pathology, AIIMS Delhi & IIT Delhi.
2. A randomized trial of endoscopic versus laparoscopic drainage of walled-off necrosis. Collaborative department, Department of Surgery.
3. Correlation of traits of tumour immune microenvironment and response to targeted anti-PD-L1 and anti-VEGF therapy in hepatocellular carcinoma: a prospective study, Department of Pathology, AIIMS, New Delhi
4. Development and characterization of Enteroids from human intestinal biopsies for ex-vivo studies, Department of Gastroenterology & HNU & Department of Pathology, AIIMS Delhi
5. Development of framework for abnormally identification quality assessed small bowel capsule endoscopy video frames, Department of ECE, IGDTUW, Delhi

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6. Fecal microbiome in patients with gallbladder stones and gallbladder cancer. Collaborative Department, Department of Surgery
7. Genome-wide DNA methylation profiling to study role of epigenetic modification in suicide completers and its utility in suicidality of Indian population, Department of Forensic Medicine and Toxicology
8. Indian asymptomatic gall Stones: natural course and their predictors (INDIASTONE STUDY), Department of Gastroenterology, PGIMER, Chandigarh
9. Lignocaine as an alternative versus ketamine, used as an adjunct to propofol for sedation during Endoscopic retrograde cholangiopancreatography (ERCP): a randomized controlled trial. Collaborative Department, Department of Anaesthesiology
10. Prevalence of Clarithromycin in Helicobacter pylori using a molecular diagnostic method in a tertiary care centre in north India, AIIMS Delhi; IGIB Delhi
11. RNA-seq based case-control study to identify alternatively spliced events in colorectal adenocarcinoma-Bioinformatics and genomics-based study", Department of Surgery, AIIMS, New Delhi
12. To Explore the association of enteric parasitic infections with duodenal eosinophilia in functional dyspepsia patients, Department of Gastroenterology & HNU & Department of Medicine, AIIMS Delhi

Completed

1. Effect of urbanization on gut microbiome mycobiome and virome in patients with IBD from Northern India, Department of Microbiology, Maharshi Dayanand University Rohtak Haryana
2. Genetic association of cytokine with suicidality in Indian population, Department of Forensic Medicine, AIIMS
3. Lipolytic Helicobacter pylori enzymes and their potential role(S) in pathogenesis, Department of Natural and Applied Sciences TERI School of Advanced Studies, New Delhi
4. To Study The Innate Inflammatory Ability Of Macrophages In Crohn's Disease And Intestinal tuberculosis, Cellular Immunology International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi
5. Towards understanding the role of gut microbiota and their metabolites in the causation and treatment of colorectal cancer, AIIMS Delhi, NII Delhi

Research over past 3 years

Research projects	2021-22	2022-23	2023-24
Total Funded project	38	34	34
Total Amount	Rs 14.26 Crores	Rs 16.72 Crores	Rs 38.56 Crores

PUBLICATIONS

Total Publications: 138; **Journal: 105** **Abstracts: 31**

Chapters in books: 2

Publications over past 3 years

Item	2021–2022	2022–2023	2023-24
Total	190	175	138
Journal articles	131	125	105
Abstracts	58	50	31
Chapters in books	1	Nil	2
Books	Nil	Nil	Nil

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PATIENT CARE:

The following numbers of patients were seen in outpatient: Routine OPD and special clinics

Investigation name	**2021-2022**		**2022-2023**		**2023-24**	
Routine Gastroenterology OPD (Monday to Friday)						
New cases	17790		42586		31679	
Old cases	35622		93358		72865	
Specialty clinics	**New cases**	**Old cases**	**New cases**	**Old cases**	**New cases**	**Old cases**
Liver Clinic	901	6182	1105	10317	911	11644
Pancreas clinic	664	2251	898	4290	933	4887
IBD & ITB Clinic	512	4121	855	7844	654	7823
Interventional Clinic	156	206	---	527	126	1214
Celiac Clinic	67	493	101	955	131	1087
Endoscopic procedures						
Diagnostic and therapeutic endoscopies	17427		18602		19270	
Diagnostic and therapeutic colonoscopies	4402		2549		5214	
Diagnostic sigmoidoscopies	2058		1683		2486	
Side viewing endoscopies	850		502		460	
Endoscopic retrograde cholangiopancreatography (ERCP)	1650		1908		2010	
Endoscopic ultrasound (Diagnostic and therapeutic)	1048		340		845	
Per Oral Endoscopic Myotomy	74		51		40	
Percutaneous Endoscopic Gastrostomy	170		5		68	
Walled off necrosis-endoscopic lavage	220		38		210	
Self-expanding metallic stent placement	207		39		95	
Enteroscopy	108		53		65	
Fibroscan (transient elastography)	7168		12344		12560	
Laboratory tests	**2021-22**		**2022-23**		**2023-24**	
Viral NucleicAcid isolation for testing	2477		7120		195	
Genomic DNA isolation from blood	540		727		92	

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HBV quantitation by Real time PCR	1876	4799	150
HCV quantitation by real time PCR	1076	2599	12
HCV genotyping by Real time PCR	89	170	Nil
HEV detection quantitative	392	687	107
HBsAg by ELISA	650	958	212
Anti HBsAg by ELFA	90	187	106
HBeAg by ELISA	878	2020	513
Anti Hbe by ELISA	249	615	203
Anti HBc Total by ELISA	309	746	226
HBc IgM by Vidas	105	246	41
HAV IgM by ELISA	272	427	219
HEV IgM by ELISA	422	891	382
Anti HCV by ELISA	211	287	112
EBV IgM by ELISA	-	23	Nil
CMV IgM by ELISA	-	98	Nil
Arterial Ammonia	368	510	178
IgG4 by Nephelometry	63	250	209
D-Xylose by colorimetry	213	418	287
Fecal Fat by ether extraction	Nil	3	5
Fecal elastase by ELISA	Nil	1033	254
Hydrogen breath test	Nil	51	20
Urea/Ammonia breath test	Nil	231	56
Anti TTg IgA by ELISA	Nil	5235	2748
Ceruloplasmin by turbidometry	1906	2895	1457
Serum Copper by colorimetry	1538	2274	922
24 hr Urinary copper	640	895	481
Lipid peroxidation (MDA) by spectrophotometry	109	14	Nil
Free radical Antioxidant potential (FRAP)	109	14	Nil
Fecal Calprotectin	Nil	322	322

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Total Oxidant Stress (TOS)	19	14	Nil
Total Antioxidant Stress (TAS)	19	14	Nil
Fecal Bile Acid Test	Nil	280	228
Fecal Electrolyte	Nil	Nil	10
IL6	Nil	320	Nil
FABP	Nil	160	Nil
CRP	Nil	320	Nil

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Pramod Kumar Garg is JC Bose Fellowship (2020-25), Science and Engineering Research Board, Govt. of India; Council Member, National Academy of Medical Sciences (FAMS), India. 2021-24; Council Member, National Academy of Sciences, India (NASI), India, 2022-24.

Professor Vineet Ahuja was Member, NTAGI, Standing Technical Sub Committee; NTAGI Standing Working Group – Immunization and Vaccination and Capacity Building; Chairperson, ICMR Workshop; Chairperson, ICMR MD Thesis; Chairman, Standing Selection Committee, AIIMS Jodhpur; Member, Academic Committee, ILBS; Member, Management Board, ILBS; Member, ICMR – INTENT – TAG; Member, ICMR-SRUM TAG.

Professor Govind Makharia is the President of Indian Society of Gastroenterology (2023-24); Governing Council Member of Indian Council of Medical Research; Member Academic Council, ICMR; Governing Council Member, World Gastroenterology Organization; Chairman, Clinical Research Committee, World Gastroenterology Organization (2020-25); Member of the Climate Committee and Planetary Health, World Gastroenterology Organization; Council Member, Asian Pacific Association of Gastroenterology (2019-2023); Chairman, Committee on Celiac disease; Member, Technical Evaluation Committee, Department of Biotechnology; Member, TEC, BIRAC; Member Special Selection Committee, Council for Scientific and Industrial Research; Society Member, National Agro-Food Biotechnology Institute, Mohali; Society Member, CIAB; Institutional Ethics Review Board (IERB), JNU, (2020 onwards); Coordinator of the Department of Biotechnology Consortium on Celiac Disease; Coordinator of Young Clinician Program, Indian Society of Gastroenterology; Professor In charge, Employees Health Scheme, AIIMS; Delivered Gen Amir Chand Oration instituted by National Academy of Medical Sciences 2023; Invited to deliver Rathnavelu Subramanium Oration by Association of Physicians of India, 2023; External assessor for the development of Medicine, Faculty of medicine, University of Malaysia 2021-2024.

Dr Deepak Gunjan received "AIIMS International fellowship award" and trained in ESD at NTT Medical Centre, Tokyo, Japan. 01-30 July 2023 A patent has been granted to us for "A system and method to score capsule endoscopy frames using KODA [KOREAN-CANADA] scoring method" (Patent No.: 511453); Member of the Ethics Committee, AIIMS, New Delhi; Became co-editor of the journal "Tropical Gastroenterology"; Membership of the "Society of Gastrointestinal Endoscopy of India"; Our abstract won Young Investigator award in KSGE (Korean Society of GI Endoscopy) days 2023 in Seoul, South Korea.

Professor B Nayak was Dr Baibaswata Nayak awarded the AIIMS Excellence Research Award 2022 and second prize in recognition of his outstanding publication under category of Basic Sciences on 3rd Research Day, AIIMS, 30 January 2024. He received ISO (Indian Society of Oncology) award for best oral paper in 3rd Indian Cancer Congress 2023, 2-5 November 2023. His PhD student and Research Associates received several awards in national and international conferences includes Young Investigator award and First prize to Ph. D student (Dr Sonu Kumar) in 31st Annual Scientific Meeting of the Indian Association for Study of Liver (INASL), 3-6 August 2023; Best Poster (Dr Bibhudutta Mishra) and Oral (Dr Neeti Nadda) presentation award in 7th International Conference on Translational Research (ICTR), 16-18 October 2023; First prize in Oral presentation (Dr Afnan Quadri) in Virology/ Hepatitis and HIV category in 46th Annual conference of IAMM, Microcon 2023, 23-26 November 2023; First prize (Dr Bibhudutta Mishra) and Commendation Award (Dr Neeti Nadda) for poster in Project Scientist/staff category on 30 January 2024 in 3rd AIIMS annual research Day 2023. He served as chairperson for oncology and theranostics session at 7th International Conference on Translational Research 17 October 2023; expert member in brainstorming session: Opportunities and Challenges of Celiac Disease in Asian Pacific Region in 1st Asian Pacific Celiac Disease Symposium (APCDS 2024), March 8-10, 2024 and chairperson in sessions of Translational Research in 11thAnnual Conference of the Molecular Pathology Association Of India (MPAI)

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" MPAICON 2024" on 16-18 February 2024. He has been chosen as Associate editor of 3 Journals including Frontiers in Medicine (Hepatology), Frontiers in Microbiology (Virology) and GHIJ. He has been chosen as reviewer for 26 national and international journals. At national level, he served as reviewer for Intensification of research in high priority Areas (IRHPA), SERB for Biosafty level 3/4 development; served reviewer to various COVID-19-related grants by ICMR and DST as national importance. He is also reviewer and expert committee member for Innovation & Translation Research (ITR), ICMR, Reviewer for ICMR RA and SRF, and ICMR Project review committee member for (diarrheal diseases). He is also reviewer for extramural funding of DST SERB, AYUSH/CCRH, ICMR STS expert group, ICMR ITR (innovation translation research) group and DBT nominee for the Institute Biosafety committee.

Dr Soumya Jagannath Mahaptra is Associate Fellowship in National Academy of Medical Sciences.

Dr Anshuman Elhence received Best Reviewer Award 2023 at ISGCON 2023, Bengaluru, India: for Indian Journal of Gastroenterology for the time, effort, and expertise in improving the scientific quality of the articles published in the Indian Journal of Gastroenterology; Science Editor of the Indian Journal of Gastroenterology and member of Editorial Board (IF 2 and cite score 2.6) from January 2024; Plenary Paper at Pancreas 2023, International Association of Pancreatology and Indian Pancreas Club meet, September 2023; Chaired a session on "Small bowel lesions -newer diagnostic and therapeutic modalities" at UP ISGCON, October 2023; Faculty for hands-on session for 1st Young Endoscopist up-Skilling (YES) Program" at AIIMS, New Delhi on 17-18 February 2024.

VISITING SCIENTIST

- Dr Anne Marie Lenon, Dr Venkat Akshintala. Hopkins meeting on 21 November 2023
- Professor Patrick Kamath (MELD Score) Mayo Clinic for delivering a lecture
- Dr Anjan Dhar will be visiting our department on 31 January 2024
- Dr Mandeep Sawhney, Associate Professor of Medicine at Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA will be visiting the Department on 21 February 2024
- Prof Asbjørn Mohr Drewes and Prof Søren Schou Olesen for deliver a lecture (18-21 March 2024)

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9.14 Gastrointestinal Surgery and Liver Transplantation

Professor and Head

Peush Sahni (till 30 November 2023)

Sujoy Pal (w.e.f. 1 December 2023)

Professor

Nihar Ranjan Dash

Associate Professors

Rajesh Panwar

Saurabh Galodha

Anand Narayan Singh

Assistant Professor

Kailash Chand Kurdia

HIGHLIGHTS

Two academic events were conducted, in collaboration with the Indian Association of Surgical Gastroenterology(IASG) and the Indian Chapter of the International Hepato-pancreato-biliary Association (IHPBA India) in the months of August (8 Aug) and November 2023 (Nov 1-5) respectively. The former was a one-day meeting with the theme of Women surgeons in Surgical Gastroenterology/HPB in India. Thirty women GI surgeons were invited for this one day meeting to discuss issues plaguing the women workforce in this super specialty and to suggest steps to increase their participation and professional engagement. The subsequent meeting was a HPB Surgery CertificateCourse and Workshop aimed at post-graduate training in GI/HPB surgery from India and Nepal. There were 54 delegates and 70 national faculties who participated in this event. Three hands-on workshops demonstrating deceased donor solid organ retrieval on fresh cadavers, vascular/pancreatic anastomoses workshop on tissue models in the Wet lab and a basic workshop on the use of the surgical Robot (Hugo-Medtronic) were also conducted during this course. Apart from the 980 major GI operations conducted (the highest ever) the Department also took steps to bolster its liver transplant activity by initiating adult living donor liver transplantation apart from deceased donor liver transplantation activity which has also picked up following the COVID-period full. Finally, it was time to bid adieu to ProfessorPeushSahni who superannuated on 30 November 2023

EDUCATION

The department is actively involved in the teaching of undergraduate students. The following topics were taught to sixth &eighth-semester students through didactic lectures and integrated seminars:

Portal hypertension
Upper Gastrointestinal bleeding
Acute Intestinal obstruction
Inflammatory lesions of small and large bowel
Cancer of the stomach
Biliary strictures
Obstructive Jaundice
Acute Pancreatitis
Nutrition in surgical patients
Benign and malignant esophageal disorders
Lower Gastrointestinal bleeding
Intestinal tuberculosis
Amoebic lesions of the bowel and liver
Gallstone disease and complications
Gallbladder cancer
Diseases of the Pancreas
Chronic Pancreatitis

The department offers 3-year training leading to award of MCh in Gastrointestinal Surgery. There are 15MCh 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 a week, and a GE-GI Surgery histopathology conference is once in two weeks.

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The department also regularly conducts cadaveric-based teaching of liver retrieval and tissue model-basedsurgical skill courses to teach vascular, biliary and pancreatic anastomosis techniques to post-graduate students.

CMEs/Workshops/Symposia/National & International Conferences

1. Themed meeting: 'Women in GI and HPB surgery'; 8 August2023, SET facility Studio II, in collaboration with IASG and IHPBA-IC.
2. HPB Certificate Course and Workshop, 1-5 November 2023; Conference Hall, AIIMS New Delhi.
3. Hands-on Surgical Skills workshop: 1st Pancreaticojejunostomy Course, 2-3 March 2024, AIIMS, New Delhi
4. As Scientific Chair of IHPBA IC, Professor Sujoy Pal was involved in the organisation of all the workshops, mid-term, annual and International meetings of the IC-IHPBA in various cities of India: Mid-term meeting-Ahmedabad May 2022, HPB Courses (Stanley Chennai July2022, PGIMER Chandigarh November 2022, Tirupati July2023), Mid-term meeting- Srinagar March2023, Combined meeting of IHPBA-GB IHPBA April 2023 at Leeds, APHPBA international meeting- Bengaluru, September2023 and finally Annual National meeting at JIPMER, Puducherry-April2024.

Lectures Delivered: 56

Peush Sahni: 5 **Sujoy Pal: 10** **Nihar Ranjan Dash: 14**

Rajesh Panwar: 9 **Anand Narayan Singh: 11** **Saurabh Galodha: 3**

Kailash Chand Kurdia: 4

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
24	42	56

Oral papers/posters presented: 5

Oral/poster presentations presented over past 3 years

Presentation	2021–2022	2022–2023	2023–2024
Oral papers/poster	10	3	5

RESEARCH

Funded projects

Ongoing

1. Database creation for computational predictive analysis of treatment response assessment in Esophageal cancer patients in India. PeushSahni& Rajesh Panwar, Collaborative multi-centre project funded by ICMR, 3 years, 2021-24, Rs 25.9 Lakhs
2. Development and Validation of a structured hands-on surgical skills training module for duct-to-mucosa pancreatico-jejunostomy using animal tissues. Rajesh Panwar, AIIMS Intramural, 2 years, 2023-25, Rs 5 Lakhs per year
3. To evaluate the role of tumor markers CA-125, CA-15-3, CEA and CA 19-9 in diagnosis of carcinoma gall bladder singly and combined, Saurabh Galodha, AIIMS Intramural Mentor-mentee research grant, 1 year, 2022-23, Rs 2 Lakhs.
4. Trial of Unmanned Aerial Vehicles for medical supplies between CHRSP Ballabgarh and its associated centers, Rajesh Panwar, AIIMS-IIT collaborative research project, 2 years, 2023-25, Rs 2.5 Lakhs per year

Completed

1. Development and validation of a structured hands-on surgical skills training module for bilio-enteric anastomosis using animal tissues, Rajesh Panwar, AIIMS Intramural, 2 years, 2021-23, Rs 5 Lakhs

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Departmental projects

Ongoing

1. Clinical Significance and risk factors of Post-Pancreatectomy Acute Pancreatitis After Pancreatectomy- A single centre prospective cohort study
2. Clinical validation of 'Modified Complication Severity Score (mCSS)' and its comparison with 'ClavienDindo' (CD) grading and 'Comprehensive complication Index' (CCI) for measuring post-operative Complications in Gastrointestinal and Hepato-pancreato-biliary surgeries
3. Role of FAPI-PET/CT in Hepatobiliary malignancies- A prospective pilot study
4. Role of transarterial radionuclide therapy in locally advanced carcinoma gall bladder- a pilot study
5. The role of Positron Emission Tomography/Computed Tomography (18FDG-PET/CT) in primary resectable carcinoma Gallbladder
6. To study the long-term follow-up of patients who have undergone prophylactic shunting for EHPVO at AIIMS.
7. To study the spectrum of pancreatic neuroendocrine tumors occurring in the background of a cohort of MEN1 patients presenting to AIIMS, New Delhi
8. To validate the PREDICT-DGE scoring system in an Indian Cohort of patients undergoing Pancreatoduodenectomy with an aim to predict and assess the risk of delayed gastric emptying

Completed

1. A study of the efficacy of intraperitoneal injection of methylprednisolone on the severity of organ dysfunction in adult male Wistar rats with acute pancreatitis induced by surgical ligation of the biliopancreatic duct
2. Comparing feeding jejunostomy with nasojejunal tube feeding in patients undergoing pancreaticoduodenectomy
3. Outcomes of external pancreato-biliary drainage in patients undergoing Whipple's pancreatoduodenectomy : a non-inferiority randomised controlled trial
4. Postoperative Albumin Drop Is a Marker for Surgical Stress and a Predictor for Clinical Outcome in Hepatopancreaticobiliary Surgeries: A Prospective Study
5. Prevalence of Minimal Hepatic Encephalopathy in Extra Hepatic Portal Venous Obstruction patients following Proximal Lienorenal Shunt surgery

Collaborative projects

Ongoing

1. A randomized controlled trial evaluating the efficacy of a combination of Tofacitinib and fecal microbiota transplantation (FMT) versus Tofacitinib and sham feeding in inducing remission in patients with moderate to severe ulcerative colitis (Gastroenterology)
2. Effect of I:E ratio optimisation and prolonged end-inspiratory pause on postoperative lung atelectasis and pulmonary complications in adult patients undergoing major open abdominal surgery: A randomised controlled trial (Anaesthesiology)
3. Study of Tight Junction claudin proteins in intestinal biopsies from patients with Inflammatory Bowel Disease (Pathology)

Completed

1. Chronic pancreatitis induces mitochondrial dysfunction and proteostasis in skeletal muscle (Gastroenterology)
2. Post-Operative Pulmonary Complications with High versus Standard FiO2 in Adult Patients Undergoing Major Abdominal Surgery: A Non-Inferiority Trial (Anaesthesiology)
3. Role of Nuclear Receptor network signalling in pathogenesis of gall bladder cancer (Biochemistry)

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Research projects over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total fundedprojects	5	5	4
Total funding	**2646000**	**2646000**	**3540000**

PUBLICATIONS

Journals: 25 **Abstracts: 2** **Chapters in books: 1**

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**27**	**36**	**28**
Journal articles	25	24	25
Abstracts	1	11	2
Chapters in books	0	0	1
Books	1	1	0

PATIENT CARE

OPD

New patients: 3736 **Revisits:** **11102**

Specialty clinics

Department is running a daily clinic for stoma patients.

Inpatients

Total Surgical procedures: 980 **Elective:** 745 **Emergencies:**235

Special interest areas

Biliary obstruction:	121	Portal hypertension:	45
Oesophageal cancer:	16	Carcinoma gall bladder:	64
Ulcerative colitis:	43	Upper GI haemorrhage:	7
Lower GI haemorrhage:	16	Acute pancreatitis:	51
Chronic pancreatitis:	25	Biliary strictures:	46
Pancreato-duodenectomy:	86	Major Liver resections:	18

Patient care over past 3 years

Item	2021–2022	2022–2023	2023–2024
OPD Total	6325	14058	14838
OPD: New	2167	3277	3736
OPD: Follow up	4158	10781	11102
Total inpatientadmissions	636	994	1228
Elective surgeries	372	392	745
Emergency surgeries	188	232	235

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Peush Sahni delivered PV Chalapathi Rao Oration: Non-cirrhotic portal hypertension: Evolving a protocol for management on 15 December 2023 during ASICON 2023 at Vishakhapatnam, India; is Editor, NMJI, section

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Editor, Gastroenterology, Chair, IASG Education Committee, Chair, WAME Membership Committee, Chair, Selection Committee, AIIMS, Bilaspur, Himachal Pradesh, Co-chair, Academic Committee, AIIMS, Bilaspur, Himachal Pradesh, Member, Institute Body, Governing body and Finance committee, AIIMS, Bilaspur, Himachal Pradesh, President, Indian Association of Medical Journal Editors.

Professor Sujoy Pal was the Chairman of the scientific committee of IHPBA-India chapter and was involved in the teaching of post-graduates from all over the country through Certificate courses and CME meetings; is the Secretary of 'The AIIMSONIANS', the alumni association of AIIMS, New Delhi; has contributed to the Stores work of the department and Institute as member of the SPC; is actively involved in the activities of the Liver transplantation society of India (LTSI) as an editor of its newsletter 'LiveReport'; has been appointed as an MCh examiner by JIPMER, GB Pant- Delhi University and PGIMER Chandigarh and have conducted exams in all these institutes of National Importance.

Professor Nihar Ranjan Dash delivered MS Khadanga Oration: Update in management of corrosive injury of pharyngoesophagus during Association of Surgeonsof India Odisha state chapter held at MKCG College, Berhampur from10 to 12November 2023; organized International workshop on Nutrition Health and Wellbeing IAPEN India Delhi chapter in Association with Department of nutrition Amity University, Gurgaon, 3-4 October 2023.

Dr Rajesh Panwaris a member of the education committee of the IASG; was elected as an executive member of the Indian Association of Surgical Gastroenterology as well as Indian Chapter of International Hepato-PancreatoBiliary Association (IHPBA), is a member of SET facility team and wet lab sub-committee and is actively involved in simulation-basedsurgical skills training, isJoint Secretary of the 'The AIIMSONIANS', the alumni association of AIIMS, New Delhi; Was Invited as chairperson/Judge/Faculty for 71st Annual Conference of IAPM & IAP-ID, 6-10 December 2023, AIIMS, NewDelhi, Current Perspectives in liver diseases (CPLD) 2023, 21 October 2023, AIIMS, NewDelhi, Oncology Updates, 7-8 October 2023, Delhi; is a reviewer for numerous international indexed journals.

Dr Saurabh Galodha received International Observership to Korea (IOTK 2023) award from Korean Society of Hepato-Bilio-Pancreatic Surgery(KSHBPS) and completed a one-monthobservership in minimal access hepato-bilio-pancreatic surgery in SNUBH, Seoul, South Korea.

Dr Anand Narayan Singhjudged e-posters on pancreas during IASG mid-term conference, 24-25 February 2024, Bhubaneshwar.

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9.15 Geriatric Medicine

Professor and Head

Naveet Wig

Additional Professor

Prasun Chatterjee Avinash Chakrawarty

Assistant Professor

Nidhi Soni Pramod Kumar

The National Centre for Aging, a state-of-the-art facility at AIIMS, New Delhi, heralds a new era of integrated geriatric care in India. With the increasing longevity of our population, the proportion of older adults is expected to rise to 12.5% of the total population by 2030. The Centre, dedicated to the care of older adults, shall also play a key role in guiding research in the field of geriatric medicine. It will also serve as a crucial training facility for undergraduate and postgraduate courses. Providing multi-specialty healthcare, it boasts 180 general ward beds, four modular operation theatres, and 20 ICU beds. The Centre was developed at a cost of Rs 330 crores and will be made functional in phases for eventual full coverage of the facilities to be provided. A 10-bed ICU and a 36-bed ward at NCA have already been initiated, along with ongoing OPD services.

Since March 2023, outpatient services have commenced catering to older adults aged 65 years and above. It provides comprehensive care to old age patients with currently functional Geriatric Medicine OPD, along with Surgery, Psychiatry, PMR, Gynaecology, Clinical Psychology and Orthopaedics OPD services. The memory clinic under geriatric medicine started at the centre after its inauguration. Other collaborative OPDs and geriatrics clinics, like Frailty Clinic, Falls Clinic, Onco-geriatrics Clinic, and more, will also be launched at the Centre in the near future. All laboratory and radiological investigations are done with ease in a single centre. Hence, undue delay in diagnosis and management has been eliminated.

GERICON 2023



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ICOPE workshop





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NCA Inauguration





Education

The Department of Geriatric Medicine at AIIMS, New Delhi, is the largest postgraduate department of its kind in India. In addition to active participation in institutional academic activities like Clinical Combined Rounds, the department places a major focus on postgraduate training with five teaching sessions every week. Postgraduate students and senior residents, with the assistance of consultants, have maintained the teaching schedule with discipline and punctuality. Residents have also participated in various workshops and conferences both within and outside the institute. They have performed well in their thesis work and study projects, delivering good patient care.

The department is proud to announce the resounding success of GERICON 2023 and its accompanying workshops, held at AIIMS Delhi. The event was graced by the presence of leading national and international figures in the field of geriatrics. Recognising its valuable contribution to continuing medical education, the Delhi Medical Council has awarded GERICON 2023 and the workshops a total of 12.5 credit hours.

CMEs/Workshops/Symposia/National and International Conferences:07

GERICON 2023 - 28 to 30 September 2023 at New Delhi

ICOPE workshop- 30 September 2023 at New Delhi

Dementia assessment workshop- 30 September 2023 at New Delhi

Vascular Dementia workshop - 30 September 2023 at New Delhi

Art of prescribing and deprescribing - 30 September 2023 at New Delhi

Fall assessment workshop - 30 September 2023 at New Delhi

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Narrative medicine workshop - 30 September 2023 at New Delhi

Lectures delivered: 09

Prasun Chatterjee: 3 **Avinash Chakrawarty: 1**

Nidhi Soni: 2 **Pramod Kumar: 3**

Lectures delivered over past 3 years:

2021–22	2022–23	2023–24
01	02	09

Oral papers/posters presented: 12

Oral/poster presentations presented over past 3 years

2021–22	2022–23	2023-24
05	12	12

RESEARCH:

Funded projects

Ongoing

Sanctioned

1. Association between the DualTask gait performance and cognitive frailty among older adults, Dr Pramod Kumar, Intramural, 2 years, 2024-26, Rs. 6,00,000
2. Blood plasma derived exosomal profiling of cytokines and chemokines in frail elderly and assessment of impact of Nordic walking intervention on exosomes, Dr AvinashChakrawarty, ICMR, 3 Years, 2023-26, Rs. 70,35,084(Rs. 27,82,288 is sanctioned for 2023-24)
3. Determination of anti-aging and antioxidant potential of a Unani formulation, Dr AvinashChakrawarty, CCRUM, Ministry of AYUSH, Government of India, 3 Years, 2021-24, Rs. 48,71,832
4. Development and validation of an android based application app to assess cognitive status of older people through speech, emotion and visuo-spatial pattern recognition., Dr Prasun Chatterjee, DST, 2 Years, 2023-25, Rs. 21,43,650
5. Efficacy of adjunct probiotics in combination with standard of care as compared to standard of care alone in elderly patients with moderate unipolar depression: A randomized double-blind parallel-group placebo-controlled multi-center pilot trial (Site PI at AIIMS, ND), Dr.Prasun Chatterjee, ICMR, 2 years, 2023-25, Rs. 31,32,440
6. Efficacy of Technology Based Intervention in Mitigating Caregiver Stress Associated with Caring People with Dementia- An Open Labelled Pragmatic Randomized Control Trial', Dr.Prasun Chatterjee, SERB, 3 years, Technically approved
7. GIS Based Surveillance of People with Dementia and Its Risk Factorsamong People Residing in South Delhi by Multi- Disciplinary Collaborative Approach- A PilotCross Sectional Study for Customized Care Plan and Policy Planning, Dr Prasun Chatterjee, DHR, 2 Years, 2022-24, Rs. 15,00,000
8. Health Awareness Amongst Elderly and Family Member of India through Series of Audio Visual and Print Media, Leveraging Existing Old Age Solution Portal of the Department of Geriatric Medicine-AIIMS, Dr Prasun Chatterjee, Central Warehousing Corporation (CWC), 1 year, 2023-2024, Rs. 30,00,000(Received Rs. 15,00,000 as the 1st instalment)
9. Impact of Geriatric assessment- based intervention on Health-Related Quality of life of older patients with cancer, Dr Nidhi Soni, intramural, 2 years, 2024-26, Rs. 10, 00, 000
10. Validating BiomarkerPanel in Five DifferentCohorts to Define andPredict Biological Ageing, Disease Burden andMortality in HumanSubjects- A Pilot Prospective Cohort Study.(Technically Approved), Dr Prasun Chatterjee, ICMR, 3 Years, 2023-26, Rs. 98,00,000

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Completed

1. Characteristics of Indian Super Agers- A pilot prospective cohort study with a potential future predictive model**,** Dr.Prasun Chatterjee**,** ICMR**,** 3 Years, 2019-22,Rs. 50,98,750
2. Effect of Smart Nordic Walking Training on Mobility Independence in Community Elderly- A pilot Study. (ICMR)**,** Dr.Prasun Chatterjee**,** ICMR**,** 3 Years, 2020-22,Rs. 27,12,650
3. Online and Tele survey for assessment of Knowledge, Attitude and Perception (KAP) levels about COVID-19 in various Districts of Delhi/NCR**,** Dr.Prasun Chatterjee**,** DST**,** 1 Year**,** 2021-22**,** Rs. 10,00,000
4. Study of Sarcopenia: Establishment of norms for diagnosis, prevalence and risk factors in ageing North Indian population and development of preventive strategies**,** Dr.Prasun Chatterjee**,** ICMR**,** 3 Years, 2019-22,Rs. 88,25,680
5. Use of AI m-Health Improvement of Symptoms and Adherence in geriatric medicine care –A Randomized Controlled study**,** Dr AvinashChakrawarty**,** Know Your Meds India Private Limited**,** 1Year 10 Months**,** 2021-23**,** Rs. 15,42,200

Research over past 3 years

Year	2021-2022	2022-2023	2023-2024
Total funded research projects	5	6	10
Total funding(in Rs.)	25,89,06,639	2,13,38,462	3,30,50,566

Departmental projects

Ongoing

1. A prospective cohort to study the adverse outcomes related to inappropriate medications as per Beer's criteria in elderly patients.
2. Assessment of Cardiopulmonary Exercise indices in sarcopenic patients after guided physiotherapy and nutritional intervention.
3. Assessment of factors affecting functional independence in oldest-old adults
4. Assessment of IC in Indian Older Adults with Prostate Ca
5. Assessment of structural and functional brain changes associated with increasing age.
6. Change in IC of adults aged 65 years and older before and after hospitalization based on WHO ICOPE-based screening.
7. Clinical & Biochemical factors associated with increased incidence of delirium in patients with UTI: Cross-Sectional study
8. Comparing the performance of CARG and CRASH scores for predicting toxicity in older adults with cancer
9. Effect of exercise on dual-task performance in cognitive frail patients- A non-randomized control trial
10. Factors which predict risk of Anti-tuberculosis treatment (ATT) induced Hepatitis in older adults: A single centre cohort study.
11. Impact of geriatric assessment-based intervention on health-related quality of life of older people.
12. Pattern of smoking cessation among elderly and primary caregivers after diagnosis of cancer
13. Prevalence of impairments in geriatric domains and quality of life in elderly cancer survivors of India and its comparison with age-matched non cancer cohort- A case-control study
14. Self-Assessment screening tool for Dementia.
15. To evaluate the benefit of magnetic stimulation of the pelvic floor in older females with urinary incontinence - a single centre randomized controlled trial

Departmental Projects

Completed

1. A cohort study to assess the feasibility of WHO ICOPE in tertiary health care.

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2. A comparative study of left ventricular muscle mass and function between sarcopenic and non-sarcopenic Indian Geriatric population
3. A cross-sectional study on diagnosis of Dementia in elderly. based on informant interviews using modified CDR.
4. A cross-sectional study to compare health status among obese, sarcopenic and sarcopenic obese in elderly population
5. A prospective observational study on assessment of cognitive impairment as a predictor of outcome in older patients with heart failure.
6. A study to assess risk factors which act as a barrier to early hospital discharge.
7. Assessment of self-reported sleep duration and quality in relation to the cognitive status of older adults. A case-control study.
8. Change in the cognitive status of older people registered and followed up in the memory clinic of AIIMS on 3 years follow-up.
9. Effect of COVID-19 infection on functionality in older adults.
10. Evaluation of the efficacy of a self-assessment questionnaire (ICT Brief 10) to assess the intrinsic capacity of older adults in comparison with standard tools.
11. Study of hospitalization in post-COVID older adults.

Collaborative Projects– Nil
Journal Articles: 18 Abstract: 12, Chapters in Book: 2

Publications over past 3 years

Year	2021-2022	2022– 2023	2023 - 2024
Total publications	**24**	**19**	**32**
Journal articles	21	19	18
Abstract	00	00	12
Chapters in book	03	00	02
Books	00	00	00

Patient care

The Department has been providing daily OPD and once-a-week afternoon Memory Clinic services. During the year, a total of 53528 consultations were provided to patients in OPD. 527 patients were assessed for cognitive impairment in the Memory Clinic in the previous year. Physiotherapy and rehabilitation services from the Day Care service of the department were provided to 18324 patients. In Geriatric Medicine Ward, 2347 patients were admitted during the period.

Patient care over past 3 years

Year	2021 – 2022	2022 – 2023	2023 - 2024
Total OPD consultations	20, 986	34656	53528
Total Clinic consultations	192	347	527
Total patients provided rehabilitation services	7, 826	11603	18324
Total inpatient admissions	399	1493	2347

Awards, Honors and Significant Events:

Dr Prasun Chatterjee received the Young Scholar IAG Kota Chapter award. Topic of research: Characterization of Indian Super-Agers: A Ray of Hope for Healthy Ageing.

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Dr Pramod Kumar received ICMR International Travel Grant 2023. He also received IAGG Advanced Scholar Travel Grant 2023.

Dr Afeef received GERICON 2023 Poster presentation (Title- Lead Encephalopathy in Older Adults).

Dr Arundhati and Dr Vasu were the Winners of Quiz at GERICON.

Dr Ambica Singh received IAGG Advanced Scholar Award 2023. He received Special Award for Platform presentation (Title- Sweet Mindful Aging: Diabetes, Cognition, and Senior Spectrum- A Case-Control Study).

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9.16 Haematology

Professor and Head

Manoranjan Mahapatra

Professor

Seema Tyagi (Expired on 14 July 2023)

Tulika Seth

Associate Professors

Rishi Dhawan, Jasmita Dass, Mukul Agarwal, Ganesh Kumar V, Pradeep Kumar

Assistant Professor

Richa Chauhan

Scientist -II

Suman Lata

Scientists - I

Ravi Ranjan, Ravi Kumar

HIGHLIGHTS

The department of Hematology is a composite department which provides both **Clinical Hematology** and **Hemato-Pathology** services to the institute.

- **Clinical Hematology** services include comprehensive management for patients with benign and malignant hematological illnesses. The department runs specialized outpatient clinics for patients with these illnesses. The department has been performing autologous and allogeneic hematopoietic stem cell transplantation (HCT), including haploidentical donor HCT, for various benign and hematological illnesses like aplastic anemia, thalassemia, myeloma, lymphomas, leukemias, and myelodysplastic syndromes.
- **Hemato-Pathology** provides state-of-the-art evaluation of blood and bone marrow diseases. Expert hematopathology services offered by the department include bone marrow examination including immunohistochemistry and cytochemistry; flowcytometry; molecular diagnostics; and specialized hemolytic and coagulation tests.

- The ISHTM-AIIMS external quality assessment program for hemogram, conducted by the Department of Hematology was accredited for a further two years as PT provider by NABL. More than 6000 laboratories took part in this program.
- Department of Hematology continued to be a regional training Centre for the International Society of Hemostasis and Thrombosis in collaboration with the Institute of Experimental Haematology and Transfusion Medicine, University Clinic Bonn.

EDUCATION

- The department conducts **DM (Clinical Haematology), DM (Haematopathology)** and **Ph.D. program** in the field of Haematology. The academic program includes regular seminars, guest lectures, symposia, micro-teaching and case discussions.

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- The faculty is involved in theory and practical classes for MBBS students in the subjects of Pathology, Hematology and Medicine. Students of MD (Pathology) are trained in Haematology laboratory. Students from MD (Pediatrics), MD (Medicine), MD (Geriatric Medicine), MD (Emergency Medicine) and MD (Transfusion Medicine) as well as DM (Pediatric Oncology) and DM (Infectious Diseases) come for training and for case discussion in the department.
- The department provides short-term training for visiting doctors, healthcare professionals and MSc students interested in the field of Haematology.

CMEs/Workshops/Symposia/National and International Conferences

- Highlights of Past EHA –Asia 2023 (HOPE-Asia 2023) on 18-20, August 2023 at New Delhi
- Three parallel workshops during HOPE-Asia on 18 August at AIIMS, New Delhi
- Workshop on Flow-cytometry on leukemia & lymphomas during APCON 2023 on 6-10 December at AIIMS, New Delhi
- Session on Benign Hematology during MPAICON 2024 on 16-18, February 2024 at AIIMS, New Delhi

Lectures delivered: 127

M Mahapatra: 11
Rishi Dhawan: 5
Mukul Aggarwal: 41
Pradeep Kumar: 2
Tulika Seth: 35
Jasmita Dass: 23
Ganesh Kumar V: 7
Richa Chauhan: 3

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
119	113	127

Oral papers/posters presented: 13

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
20	18	13

RESEARCH

Funded projects

Ongoing

1. A Phase 3 randomized double-blind study to assess efficacy and safety of Ianalumab (VAY736) versus placebo in warm autoimmune hemolytic anaemia (wAIHA) patients who failed at least one line of treatment (VAYHIA), Dr M Mahapatra, Novartis, 3 Years, 2023-25, Rs. 7 lakhs/ patient enrolled
2. A Phase II, open-label study of NM8074 in patients with Paroyxsmal Nocturnal Hemoglobinuria (PNH), Dr Tulika Seth, NovelMed Therapeutics, 2 Years, 2022-24, Rs. 15 lakhs
3. A phase IIIb multicenter randomized study of tolerability and efficacy of oralasciminib versus nilotinib in patients with newly diagnosed Philadelphia chromosome-positive chronic myeloid leukemia in chronic phase, Dr M Mahapatra, Novartis, 3 Years, 2023-25, Rs 5 lakhs/ patient enrolled
4. A Randomized Open-Label, Phase 3 Study to Evaluate Imetelstat (GRN163L) Versus Best Available Therapy (BAT) in Patients with Intermediate-2 or High-risk Myelofibrosis (MF) Refractory to Janus Kinase (JAK)-Inhibitor, Dr. M Mahapatra, Geron Pharma, 3 Years, 2021-24, Rs 4 Lakhs/ patient enrolled
5. Assessment of BCL-2 expression in B-Acute lymphoblastic leukemia at diagnosis and after therapy for minimal residual disease assessment, Dr Pradeep Kumar, AIIMS Early career intramural, 2 Years, 2023-24, Rs 10 Lakhs

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6. Comparative study of digital droplet polymerase chain reaction (dd-PCR) and quantitative real time polymerase chain reaction (qRT-PCR) for BCR-ABL1 transcript quantitation in chronic myeloid leukemia (CML) patients on tyrosine kinase inhibitor (TKI therapy) and eligible for treatment-free remission (TFR), Dr. Ganesh Kumar V, AIIMS Early career intramural, 2 Years, 2023-24, Rs 10 Lakhs
7. CRISPR Mediated Genetic Correction of Sickle Cell Disease Towards Clinical Trials in a Small Patients Cohort, Dr Rishi Dhawan, Department of Science and Technology, 5 Years, 2022-27, Rs 60 Crores
8. Efficacy and safety of concizumab prophylaxis in patients with Hemophilia A and B with Inhibitors, Dr Tulika Seth, Novo-Nordisk Pvt Ltd, 5 Years, 2020-25, Rs 14 Lakhs
9. Elucidation of molecular genetics of triple negative myeloproliferative neoplasm, Dr.Seema Tyagi /Dr Suman Lata, DST, 3 Years, 2021-24, Rs 69,50,120
10. Evaluate the effect of Dexamethasone vs. prednisolone on ocular toxicity induced by systemic cytarabine arabinoside (Ara-C) in AML patients, Dr Mukul Aggarwal, AIIMS Intramural Interdepartmental research grant, 3 Years, 2023-26, Rs 20 lakh
11. Genome-Wide Association Study in an Indian Cohort of Patients with Acquired Aplastic Anemia, Dr Rishi Dhawan, American Society of Hematology Global Research Award 2021, 3 Years, 2022-24, Rs 1.12 Crores
12. Impact of Transplant Conditioning Regimen Intensity on Gut Microbiota Changes in Patients Undergoing Hematopoietic Cell Transplantation, Dr Rishi Dhawan, AIIMS Intramural, 2 Years, 2023-24, Rs 10 Lakhs
13. Impact of Transplant Conditioning Regimen Intensity on Gut Microbiota Changes in Patients Undergoing Hematopoietic Cell Transplantation, Dr Rishi Dhawan, AIIMS Early career intramural, 2 Years, 2023-24, Rs 10 Lakhs
14. ISHTM-AIIMS External Quality Assurance Program for Hemogram, Dr M Mahapatra, ISHBT, 19 Years, 2005-Ongoing, Rs 80 Lakhs/year (approx)
15. Mitigation of clinical phenotype by activated platelets in severe haemophilia, Dr M Mahapatra, DBT, 5 Years, 2019-24, Rs 8 lakhs
16. Study of B-cell subsets and NK cell subsets in patients of acquired Aplastic anaemia, Dr Jasmita Dass, AIIMS Early career intramural, 2 Years, 2023-24, Rs 10 Lakhs
17. To assess recombinase polymerase amplification-based diagnosis of sickle cell disease, Dr Mukul Aggarwal, CSIR, 1 Year, 2023-24, Rs 10 Lakhs
18. To study whether the levels of Tissue factor pathway inhibitor (TFPI) and its polymorphisms influence bleeding severity in moderate and severe Hemophilia A patients, Dr Mukul Aggarwal, AIIMS Early career intramural, 2 Years, 2023-24, Rs 10 Lakhs

Completed

1. Strengthen and standardize the national referral training centers in India, Dr. Tulika Seth, NNHF (global NGO), Three years, 2020-2023, Rs. 454.44 lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. A phase 2 feasibility study of combining Dasatinib with Multiagent BFM Chemotherapy backbone in adult patients with Philadelphia chromosome-positive acute lymphoblastic leukemia
2. A study of anti-phosphatidylserine/anti-prothrombin IgG antibodies as a tool to improve diagnosis of antiphospholipid antibody syndrome (APS)
3. Activated Partial Thromboplastin Time - Clot Waveform Analysis (APTT-CWA) for evaluation of clotting function in Hemophiliacs - An observational study
4. Addition of bortezomib to standard multiagent induction chemotherapy in ALL patients increases their EOI MRD negativity rates
5. An explorative study to assess prevalence of heavy metal level abnormality in patients presenting with unexplained cytopenia and low risk MDS

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6. An open label Randomised Study of Low Dose Dasatinib (50mg OD) vs Standard Dose Dasatinib (100mg) vs Standard Dose Imatinib (400mg) as Upfront Therapy in Patients with Newly Diagnosed Chronic Myeloid Leukemia (CML) - Chronic Phase (CP)
7. Analysis of CD9 expression in AML by flow cytometry: Prognostic role, correlation with clinicopathological parameters, cytogenetics and mutation profile
8. Assessment of biochemical response and correlation with PET/CT scan response at 6 months in newly diagnosed multiple myeloma patients on different induction chemotherapy protocols
9. Azacytidine and Venetoclax followed by HiDAC consolidation in Previously Untreated Acute Myeloid Leukemia patients unfit for intensive chemotherapy
10. Central nervous system haemorrhage and thrombosis in acute promyelocytic leukaemia
11. Clinical profile, treatment patterns and quality of life in cancer patients with venous thromboembolism
12. Clinicopathological spectrum of Renal Involvement in Patients with Myeloma Myeloma
13. Comparative study of BCR-ABL1 kinetics in Philadelphia positive precursor B-cell acute lymphoblastic leukaemia by droplet digital PCR, quantitative PCR and flowcytometric estimation of measurable residual disease
14. Detection of CXCR4, MYD88 and BRAFV600E in CD5 and CD10 negative mature B cell lymphoid neoplasm using multiplex PCR- a cross-sectional study
15. Evaluate the role of HbF modulating gene polymorphism in sickle cell disease patients
16. Evaluation of response rate after early initiation of eltrombopag with cyclosporine in treatment-naive severe aplastic anaemia patients compared to historical cohort. A pilot study
17. Evaluation of the bleeding problems and severity and the psycho-social impact of being a carrier of haemophilia
18. Expression Of Basophil-Lineage Commitment Marker CD203c In Acute Promyelocytic Leukemia And Its Correlation With Disseminated Intravascular Coagulation (Dic) Profile
19. Flow cytometric detection of leukemic blasts in CSF in ALL patients with CNS stage 1 disease and monitoring the efficacy of standard Intrathecal methotrexate in them
20. Global longitudinal staring pattern as a measure of cardiac dysfunction in patients receiving 7 plus 3 for AML
21. Identification and quantification of Myeloid-derived suppressor cells in Precursor B cell acute lymphoblastic leukaemias by flow cytometry
22. Prevalence of common variable immunodeficiency and autoimmune lymphoproliferative disorder in autoimmune hemolytic anaemia/Evans syndrome and their impact on clinical outcomes
23. Study of molecular basis of idiopathic erythrocytosis
24. To assess rs2302464 polymorphism as an explanation for CD157 negative cases as determined by flow cytometry using SY11B5 antibody clone
25. To study the efficacy of metformin as an anti-hyperglycemic agent in patients requiring insulin therapy during the induction phase of acute lymphoblastic leukaemia treatment.
26. To study the predictors of response to thalidomide in patients with transfusion-dependent thalassemia
27. Validating a flow cytometry-based G6PD assay for the diagnosis of G6PD deficiency

Completed

1. Analysis of Monocyte subsets by Multiparameter flow cytometry in peripheral blood in cases of Monocytosis
2. Characterization of immunoparesis in newly diagnosed myeloma and its impact on progression-free and overall survival with regards to anti-myeloma therapy
3. Correlation of endogenous thrombopoietin levels with response to thrombopoietin receptor agonists and assessment of serum LDH profile in adults with primary ITP
4. Evaluation of programmed death- ligand1 (PD- L1)/CD274 expression on myeloblasts in acute myeloid leukaemia (AML) by flow cytometry
5. Evaluation of response to immunosuppressive therapy and eltrombopag in aplastic anaemia

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6. Flow cytometry assessment of CD 26+ leukaemia stem cells in chronic myeloid leukaemia
7. Minimal residual disease analysis in acute myeloid leukaemia by flow cytometry using a limited antibody panel
8. Study of the expression of GATA1 protein by immunohistochemistry in BCRABL negative myeloproliferative neoplasm.
9. Study of the role of thromboelastography in predicting risk of haemorrhage in patients with acute leukaemia
10. To assess utility of MPN 10 questionnaire for assessment of symptoms burden and quality of life) and assessment of various scoring systems being used in patients of myelofibrosis

Collaborative projects

Ongoing

1. A prospective multi-centric observational study on the role of blood coagulation and fibrinolysis in emergence of ARDS in patients with new coronavirus pneumonia (COVID-19), Safdarjung Hospital
2. An open-label randomised control trial to compare the outcomes with and without preoperative splenic artery embolization (SAE) in patients with moderate splenomegaly undergoing elective laparoscopic splenectomy, Surgery, AIIMS, New Delhi
3. Effect of different vitamin D supplementation practices in vitamin D deficient mechanically ventilated patients with sepsis in a medical ICU on haemoglobin levels at day 0 and day 14, Internal Medicine, AIIMS, New Delhi
4. Genome-Wide Association Study in an Indian Cohort of Patients with Acquired Aplastic Anemia, NIH, Bethesda
5. Multicentric collaborative study of the National Registry for Rare Disorders in India, Pediatrics, AIIMS
6. MYD88 L265P Mutational studies in characterization of unclassifiable mature small B cell lymphoid neoplasms, Pathology, AIIMS, New Delhi
7. Preclinical study of CRISPR-Cas mediated gene editing of globin gene locus in healthy donor-derived CD34+ hematopoietic stem progenitor cells (HSPCs) in mouse models to develop a potential therapy for sickle cell anaemia patients, IGIB and 5 other clinical centers in the country
8. Real-Time PCR for Diagnosis of Invasive Fungal Infections, Microbiology, AIIMS
9. Screening, classification and clinical profile of patients with Anaemia and Diabetes mellitus, Medicine, AIIMS
10. Venetoclax with chemotherapy for Remission induction in AML patients: a phase I-b/II study, Medical Oncology, AIIMS

Completed

1. A population-based prospective cohort study to unravel the causes of stroke and cognitive decline: a cross-cultural perspective international co-operation division. AIIMS and Erasmus Medical Center Rotterdam, Netherlands, Clinical Epidemiology Unit, AIIMS
2. Autoimmune haemolytic anaemia: Clinical and Serological correlation, Transfusion Medicine, AIIMS
3. Clinical and laboratory profile of patients with hypereosinophilia presenting to a tertiary care center on north India, Medicine, AIIMS
4. Efficacy of intravenous iron therapy compared to oral iron treatment in iron deficient adult cyanotic, congenital heart disease patients for improvement in clinical outcome at 3 months, Cardiology, AIIMS
5. Identifying association of gene polymorphism and Prakriti in responders & non-responders to dual antiplatelet therapy in coronary artery disease patients, Cardiology, AIIMS
6. Prospective observational study to assess the prevalence of platelet refractoriness and its reasons in patients receiving multiple platelet transfusions in an Indian setting, Transfusion Medicine, AIIMS
7. Role of platelet activation in the development of systemic inflammations in patients with type-2 diabetes, Endocrinology, AIIMS and Regional Centre for Biotechnology (RCB)
8. To evaluate the role of serum d-dimer, neutrophil: lymphocyte ratio, platelet: lymphocyte ratio and CA125 in assessment of ovarian masses, Obstetrics and Gynaecology, AIIMS

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Research projects over past 3 years:

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	39	14	19
Total funding	79,74,00,000	67,46,94,357	68,60,00,000

PUBLICATIONS

Journal articles: 24 **Abstracts: 14** **Chapters in Books: 3**

Publications over past 3 years

Item	2021–2022	2022–2023	2023-2024
Total	**48**	**40**	**41**
Journal articles	30	23	24
Abstracts	18	15	14
Chapters in books	-	2	3
Books	-	-	-

PATIENT CARE

A. CLINICAL SERVICES

- **OPD/Clinics runs 6 days per week**:
    - New Patients: Monday/Wednesday/Friday
    - CLINICS:
        1. Monday: CML, Hemato-oncology
        2. Tuesday: Stem cell Transplant Clinic
        3. Wednesday: Hemolytic anemias and ITP, CLPD
        4. Thursday: Coagulation and Bleeding clinic
        5. Friday: Aplastic anemia, CMPD clinics
        6. Saturday: Leukemia Survivor clinic

TOTAL OUT PATIENTS Census in 2023-24: 55544

- **New Patients: 13280**
- **Follow up patients (H.No): 6821**
- **Specialty CLINICs:**
    - **CML: 6377**
    - **Transplant (HT) 1734**
    - **ITP (HC) 3807**
    - **Hemolytic Anemia (HA) 2053**
    - **Aplastic Anemia(AA) 4460**
    - **Hemostasis(HS) 2419**
    - **Leukemia surviver (HL) 666**
    - **Leukemia (HO) 2650**
    - **Lymphoma/Myeloma(CLPD) 2760**

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- **CMPD** **2554**
- **Miscellaneous (HM)** **171**

- **In Patient care:**

i) Inpatients: C2, C6, D6, Emergency ward, Private wards

ii) Stem cell Transplant: 4-6 New Allogeneic transplants per month

iii) Hematology Day care: for procedures, chemotherapy and transfusion services

- **TOTAL INPATIENT census in 2023-24**

Regular admission – 1271

Short admissions: –16102 (including OPD day Care)

Total Admissions: 17373

Hematology Day Care Center (Near C2 ward) Census 2023-24

Month	Admissions	Chemotherapy	Transfusions		Procedures			Total Procedures
			RBC	SDP/PRP/ FFP/Cryo	Bone marrow	Intra-thecal	Phlebetomy	
April 2023	1235	655	338	167	230	270	31	531
May 2023	1206	593	336	173	241	319	55	615
June 2023	1283	733	212	135	192	305	40	586
July 2023	1322	685	356	165	221	381	109	711
August 2023	1281	646	365	156	250	353	84	687
September 2023	1211	662	346	167	229	332	59	620
October 2023	1229	670	361	161	235	291	45	571
November 2023	1142	604	338	140	194	291	48	533
December 2023	1174	579	336	164	212	380	48	640
January 2024	1040	487	353	155	227	348	46	621
February 2024	1021	453	335	156	206	331	29	566
March 2024	1154	601	360	190	167	376	23	226

- **Community services**

The department has been active around thalassemia and hemophilia awareness with the help of Thalassemia federation of India and Hemophilia Federation of India.

LABORATORY SERVICES

The Department of hematology has state of art facilities of following:

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- Bone marrow aspirate, bone marrow biopsies and peripheral smears
- Immunohistochemistry
- Molecular genetics
- Hemolytic anemia workup
- Flow cytometry
- Capillary electrophoresis for hemoglobinopathies
- Coagulation workup for inherited and acquired bleeding disorders
- Platelet aggregometry
- Thrombophilia workup
- Prenatal diagnosis of Hemophilia and hemoglobinopathies

Census of various laboratories (2023-2024)

LAB NAME	TEST	NUMBER	TOTAL
Bone marrow biopsy laboratory	Biopsy (H & E)	3188	4845
	Reticulin Stain	116	
	Masson Trichome	453	
	Congo red	38	
Immunohistochemistry lab	Immunostaining performed	5140	5140
Coagulation lab	Prothrombin time	3100	47047
	INR	3100	
	Activated partial thromboplastin time	4278	
	APTT for heparin monitoring	400	
	Thrombin time	2100	
	Fibrinogen	3800	
	Platelet count	4000	
	D-dimer	3200	
	Clot solubility test	250	
	Factor assay (VIII, IX, X, II, V, VII, XI)	864	
	Factor inhibitor screening	500	
	Bethesda assay for inhibitor titer	60	
	Platelet aggregation	250	
	von-Willebrand antigen	700	
	Lupus anticoagulant (PTT-LA, KCT and DRVVT)	23000	
	Protein C	490	

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	Protein S	485	
	Activated protein C resistance	330	
	Antithrombin	410	
	β2-glycoprotein I	2540	
Hemolytic lab	HPLC	10500	14329
	Ferritin	434	
	G6PD	660	
	DCT	280	
	OFT	-	
	PNH	-	
	Urine Hemosiderin	25	
	Cryoglobulin	30	
	Sickling test	360	
	LAP score	40	
	Cytochemistry	2000+	
Hemogram laboratory	OPD and ward patients	L- 16000 C	63531
	Hematology OPD patients	H- 5112	
	Hemograms for HDCC, bone marrows and hemolytic lab	B-3214	
	Bone marrow staining	3214	
	Retic Count	25401	
	Hemogram PS staining	L-16000 H-5112 C-4259 = 25401	
	Slide staining for MBBS class	1000	
	Hematology clinic	4289	
Molecular diagnostic laboratory	RTPCR/RQPCR	354	5459
	Hemophilia prenatal diagnosis	1961	
	Factor V Leiden	550	
	MTHFR polymorphism	81	
	Prothrombin gene mutation (P20210)	22 FAMILIES	
	α-thalassemia	777	
	β-thalassemia	699	
	α-triplication	15	

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Flow cytometry	Acute leukemia	40	1371
	Chronic lymphoproliferative disorders	16	
	Paroxysmal Nocturnal hemoglobinuria	990	
	Minimal Residual disease	238	
	CD34 enumeration	66	
	Platelet disorders	21	

Item	**2021–2022**	**2022–2023**	**2023–2024**
OPD consultations			20101
Special clinic consultations			29651
Procedures	11, 747	17, 780	21, 205
Lab Investigations	80, 783	1, 47, 700	1, 41, 722
Total inpatient admissions	11, 182	14, 850	17, 373

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Manoranjan Mahapatra continued as Editor-in-Chief of the Indian Journal of Hematology and Blood Transfusion (IJHBT) Became the Vice-President of the Indian Society of Hematology and Blood Transfusion (ISHBT); Member of GATEC (Gene Therapy Advisory and Evaluation Committee) working group on Hematology; Member of Expert Group for CSIR Mission on Sickle cell anaemia; Organizing Chairperson at Highlights of Past EHA- Asia Pacific in August 2023, at New Delhi ; International Member of the European Society of Hematology (EHA) ; International member of the International Society of Thrombosis and Hemostasis (ISTH).

Professor Tulika Seth is National NTPPH coordinator for PHO Chapter of Indian Academy of Pediatrics 2021-current; EC member IAHAD (Indian Academy for Haemophilia and allied disorders; Member Institute Ethics Committee for Post Graduates, AIIMS, New Delhi; Member subcommittee to assist ethics committee with monitoring for adverse events for clinical trials (AIIMS, New Delhi); Member Library committee AIIMS; Governing body member of Delhi School of Public Health (DSPH); National board of examiners (NBE) Specialist Member for Hematology; Member National centre of excellence and advanced research on anaemia control (NCEAR-A); Member National Consortium for Research and Development on Therapeutics for Rare Diseases (NCRDTRD)-Hematology expert group ; Member JNU stem cell ethics committee IC- SCR.

Dr Rishi Dhawan was Appointed Secretary of Adult Aplastic Anemia/MDS Working Group of the Indian Society of Blood and Marrow Transplantation (ISBMT) for the tenure 2023-2026.

Dr Mukul Agarwal is working as a Hematology expert for the Athlete Biological Passport Management Unit (ABPU) with the National Anti-doping Agency (NADA), India and with the Anti-Doping Laboratory, Tokyo; Completed GVACI course by IGIB, New Delhi.; Completed Basic courses in biomedical research and Ethics Review of Health Research courses by ICMR-NIC; Completed GCP course organized by AIIMS, THSTI, Delhi.

VISITING SCIENTIST:

1. Dr Rizwan Romee, Director, Haploidentical Donor Transplantation Program at the Dana Farber Cancer Institute, Boston, MA, United States visited on 6 July 2023.
2. Dr Saurabh Dahiya, Associate Professor of Medicine and Clinical Director of Cancer Cell Therapy in the Stanford BMT and Cell Therapy Division at Stanford University, Stanford, California, United States visited the department on 27 July 2023.

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9.17 Hospital Administration

Professor and Head

Sidhartha Satpathy

Medical Superintendents

DK Sharma (Dr RP Centre)

Nirupam Madaan (w.e.f. 19.1.2024)

Professors

Sanjay Arya

Aarti Vij

Amit Lathwal

Mahesh R

Additional Professors

Anoop Daga (Passed away on 02.05.2024)

Angel Rajan Singh

Parmeshwar Kumar

Vijaydeep Siddharth Abdul Hakim

Associate Professors

Jitender Sodhi

Laxmi Tej

Wundavalli Sheetal Singh

Vikas H

Assistant Professors

Kanika Jain

Anant Gupta

Arun Verma

Rahul Ranjan

Namarata Makkar

Khalid Mehmood

Charan Raj (Resigned in March, 2024)

Mohammad Kausar

Nishant Sharma

Rakesh Narimeti (Resigned in March, 2024)

EDUCATION:

The Department is running a postgraduate degree program for medical graduates, viz. MD(HA), earlier known as MHA (Masters in Hospital Administration). This course was started in February 1966, for the first time in India and has since been recognized as a distinct postgraduate discipline. In January 2016, this course was converted to MD (Hospital Administration) in accordance with decision of Academic Committee (AC-113/10) duly ratified by GB (GB-152/7) during its meeting held on 13-04-2015. The Residency Program in Hospital Administration focuses on 'hands on' training, where Resident Administrators are posted in the 'Administrative Control Room' of main hospital, Jay Prakash Narayan Apex Trauma Center, and National Cancer Institute, Jhajjar campus round the clock as 'Duty Officers', and coordinate all the hospital activities after duty hours. It is also the nerve center of the Hospital/centers. The Department also has Senior Residents who are posted in the Main Hospital and various centers to assist Faculty members in administrative tasks. They are also involved in new projects at AIIMS. A total of 12 JRs and 15 SRs are in the Department at present. Faculty members conducted several training programmes for the doctors working in various organizations including Central, State Governments, Paramilitary Forces and various PSUs such as IICM, Ranchi and also other management institutes.

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LONG AND SHORT-TERM TRAINING:

1. One MD(HA) Resident from BPKIMS, Dharan, Nepal
2. Two MD(HA) Residents from Gandhi Medical College, Secunderabad
3. Two MD(HA) Residents from Sher-I-Kashmir Institute of Medical Sciences, Srinagar, J & K
4. Six ITBP Medical Officers

CONTINUING MEDICAL EDUCATION

RESEARCH

Ongoing **Thesis/dissertation projects**

1. Study on Patient-Centered Care at AIIMS, New Delhi
2. Application of Artificial Intelligence in Hospitals
3. To study the implementation of procurement process as per General Financial Rule, 2017 and its amendments in medical equipment across, AIIMS
4. To study the scope of implementing sustainable practices at a tertiary care teaching institute in New Delhi
5. A study on professional fulfillment, intention to leave and attrition among Resident doctors at AIIMS
6. A study to assess compliance status of in-patient Medical Records of a tertiary care teaching hospital in New Delhi as per NABH Accreditation Standards
7. Medico-Legal Guidelines
8. Planning on costing of Dietary services
9. Resident Administrator Manual
10. Process of renewal of PC and PNT license of a large tertiary care teaching hospital of North India – How one needs to plan for it
11. Soft skills of security personal
12. To study the impact of interventions to streamline the patient flow in Emergency Deptt. – A systematic review
13. A study to evaluate the health literacy of patients of JPNATC
14. Areas of Special Skill Development – Resident Manual Chapter
15. A study of knowledge attitudes and practices of Healthcare professionals about Passive Euthanasia in view with latest guidelines by Supreme Court
16. Procurement of drugs, dispensing, and storage of medicines at AIIMS
17. A study on procurement practices through Government e-Marketplace (GeM) at tertiary care hospitals in North India
18. Planning and Designing of CBRNE makeshift and waste management at JPNATC, AIIMS during G-20
19. Audit of local purchase of Medicine and Surgical consumables through the Control Room
20. Impact of protective footwear in Infection Control in Critical Care setting – A Comparative study
21. Cost analysis of a gamma knife facility in an Institute of National Importance (INI) in India: An exploratory study into operational models and identifying user charges for achieving breakeven analysis
22. Medical oxygen requirement among the admitted COVID-19 patients: Evidence from a tertiary care hospital compared against the formula for calculating medical oxygen requirement
23. Increasing access to healthcare and reducing out-of-pocket expenditure through AMRIT (Affordable medicines and reliable implants for treatment) Pharmacy Scheme: A novel initiative towards Universal Health Coverage by Govt. of India
24. To assess the utilization of surgical consumables in operating rooms of Main OT of a tertiary care teaching hospital

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25. Electrical safety in operating rooms of a tertiary care teaching hospital in North India.
26. Assessment of Patient's understanding of OPD card and discharge summary: A need Assessment study to improve organizational health literacy
27. Evaluation of Patient Satisfaction with Inpatient Services offered at the Trauma Care Facility
28. Evaluation of Discharge process and analyzing the delays of discharge at JPNATC
29. Challenges and learnings of NABH certification at JPNATC
30. Assessing the Healthcare Package utilization in BPS under PMJAY and its barriers and facilitators
31. Creation of Center of Excellence with ICMR collaboration at BPS

Completed Thesis/ dissertation/ projects:

1. A comparative medical record audit of COVID positive, COVID suspect and non-COVID patient records in a tertiary care hospital in New Delhi
2. A quality study to assess the perception of Principal Investigators conducting extramural research about Research Management systems at AIIMS
3. A study on Patient Centered Care at AIIMS, New Delhi
4. A study on procurement practices through Govt. eMarketplace (GeM) at a tertiary care hospitals in north India
5. A study on the maintenance strategies of critical medical equipment and its cost implications
6. A study to assess the shared professional role and responsibilities in nursing services at CDER &DrBRAIRCH, AIIMS: Social Network Analysis
7. A study to assess the shared professional role and responsibilities in nursing services in CDER & Dr. BRAIRCH, AIIMS: Social Network Analysis
8. A study to assess the utility of telemedicine as a screening tool in the pediatric outpatient department of a tertiary care teaching hospital
9. A study to estimate the consumption pattern of surgical consumables over a period of 4 months in operating rooms of Main hospital at AIIMS to optimize their storage and buffer stock levels.
10. A study to evaluate the health literacy of patients of JPNATC
11. A study to evaluate the utility of Telemedicine as a screening tool in the Pediatric OPDeptt. Of a tertiary care teaching hospitals in Delhi
12. An exploratory study into the perceived impact of accreditation on healthcare quality and its associated cost among accredited healthcare organization in India
13. An interventional study to evaluate the impact of a Patient Safety Incident Reporting system on Incident Reporting in various in-patient areas of AIIMS
14. Application of Artificial Intelligencein hospitals in India
15. Assessment of Quality of death certification practices at AIIMS, New Delhi and testing quality improvement solutions
16. Assessment of serial COVID-19 IgG antibody response among fully vaccinated healthcare workers involved in sanitation and housekeeping at AIIMS, New Delhi
17. Capacity building of doctors and hospital engineers in structural and non-structural mitigations measures for hospital safety and disaster resilience
18. Comparative study of secondary trauma, burnout, compassion fatigue of healthcare workers of COVID positive, COVID suspect and non-COVID patients in a tertiary care hospital.
19. Cost conundrum of anti-cancer drugs : A study on pricing variations across India
20. Cost-effectiveness of early stoppage of empirical antibiotic therapy at the clinical improvement in pediatric cancer patients with high risk febrile neutropenia in an ongoing label randomized control trial
21. Electrical safety in operating rooms of tertiary care teaching hospital in North India

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22. Impact of interactive Training interventions on Soft Skill of communication in Nursing staff of emergency of a Tertiary Care Teaching Hospital - An Experimental Study
23. National Capacity building program for healthcare workers in infection prevention and control (IPC) including biomedical waste (BMW) management for pandemic preparedness
24. Process of PC & PNDT license of a large tertiary care teaching hospital of North India : How one needs to plan for it ?
25. Process of renewal of PC & PNDT license of a large tertiary care teaching hospital in North India - How one needs to plan for it
26. Soft skills of Security Personnel
27. To assess the utilization of surgical consumables in operating rooms of Main OT of a tertiary care teaching hospital
28. To study the impact of interventions to streamline the patient flow in Emergency Department - A systematic review
29. To study the knowledge, awareness, skill practices among officials in the procurement process at AIIMS, New Delhi and identification of preferred model for procurement.
30. To study the perceived impact of accreditation on healthcare quality and its associated cost among accredited HCOs in India

Lectures Delivered: 92

Sidhartha Satpathy: 24	**Sanjay Arya: 4**	**Nirupam Madan: 7**	**Anoop Daga: 3**
Vijaydeep Sidharth: 7	**Parmeshwar Kumar: 4**	**Angel Rajan Singh: 3**	**Abdul Hakim: 14**
Jitender Sodhi: 3	**Kanika Jain: 9**	**Namrata Makkar: 1**	**Anant Gupta: 5**
Nishant Sharma: 3			

Lectures delivered over past 3 years:

2021-22	2022-23	2023-24
31	84	**92**

List of oral papers presented: 18

List of Oral Papers Presented:18

Oral presentations over past 3 years

2021-22	2022-23	2023-24
0	5	**18**

RESEARCH

Funded projects

Ongoing

Extramural

1. Capacity building of doctors and hospital engineers in structural & nonstructural mitigations measures for hospital safety & disaster resilience, Dr Vijaydeep Siddharth, Ministry of Health & Family Welfare, Govt of India, 3 Years, 2021-24, Rs 1,54,00,000
2. National Capacity building program for healthcare workers in infection prevention and control (IPC) including biomedical waste (BMW) management for pandemic preparedness, Dr Vijaydeep Siddharth, USAID, India & JHPIEGO, India, 1 Year, 2022-24, Rs 3,00,00,000
3. Assessment of serial COVID-19 IgG antibody response among fully vaccinated healthcare workers involved in sanitation and housekeeping at AIIMS, Dr Abdul Hakim Choudhary, AIIMS Intramural Grant, 1 Year, 2022-23, Rs. 4,50,000

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4. Randomized Control Trial on Benefits of Mindfulness Meditation Intervention on Improving Work-life Integration among Healthcare Workers at Deaddiction Center of AIIMS, New Delhi, Dr Nishant Sharma, AIIMS Early Career IntramuralGrant, 2 Years, 2023-25, Rs 8,50,000
5. Impact of Protective Footwear in Infection Control in Critical Care Settings: A comparative study, Dr Kanika Jain, AIIMS Intraumral grant, 1 Year, 2024-27, Rs 5,00,000
6. Capacity building of doctors and hospital engineers in structural & nonstructural mitigations measures for hospital safety & disaster resilience, Dr VijaydeepSiddharth, Ministry of Health & Family Welfare, Govt. of India, 3 Years, 2021-24, Rs 1,54,00,000

Completed

1. Effectiveness of robot in floor cleaning for minimizing human exposure in view of COVID-19 pandemic, Dr Vijaydeep Siddharth, AIIMS Intramural grant, 1 Year, 2020-23, Rs. 6,28,580

Collaborative projects

Ongoing

1. Determinants of mortality due to COVID in India, CCM
2. Clinical characteristics of critically ill older adults with COVID–19, Geriatric Medicine
3. Study of etiologic profile of brought dead patients and comparison of deaths due to COVID-19, Emergency Medicine
4. A study to standardize acceptable communication among female and male doctors in a hospital setting with regard to provisions of the PoSH Act, 2013, ICCSHWW
5. To develop and evaluate the effectiveness of multidisciplinary education and care model for individuals with diabetes affected by COVID-19: A two-arm parallel Randomized Control Trial (As Co-investigator), Endocrinology, Pulmonary Medicine, Medicine, Cardiology, Neurology, Nephrology, Orthopaedics, Psychiatry, Computer Facility
6. Assessing the Health Care Package utilization in BPS under PMJAY and its barriers and facilitators, Burns and Plastic Surgery
7. Creation of Centre of Excellence with ICMR collaboration at BPS, Burns and Plastic Surgery
8. Evaluation of Medical certification of death at AIIMS and prepare a training programme, Deptt. of CCM
9. Automation of Stores in Government Hospital: The need of the hour, Department of Hospital Administration

Completed

Collaborative Project

1. Facilitation of IT-enabled training for generating skilled HCWs in COVID-19 pandemic management, Dept. of Physiology, Psychiatry under aegis of MEITY, Govt. of India

Research over past 3 Years:

Research Projects	2021-2022	2022-2023	2023-2024
Total funded projects	4	4	6
Total funding	1, 70, 60, 000/-	3, 04, 60, 000/-	6, 26, 00, 000/-

Publications over past 3 years:

Journal: 21 **Abstract: 1** **Chapters in Book: 1**

Item	2021-2022	2022-2023	2023-2024
Journal articles	31	29	21
Abstracts	-	3	01

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Chapters in Books/ Monographs	6	15	01
Books	2	-	-

PATIENT CARE:

A. Facilities:

- Soft launch of the National Centre for Ageing at Masjid Moth Complex
- Mentorship of Medical Colleges and laboratories of the states of Bihar and Delhi for registration of COVID testing
- Planning and Installation of new Manifold for JPNATC-Burns, including g arrangement for CSR funding for the same
- Commissioned the National Centre for Ageing in pursuance of the goals of the NPHCE and the commitment of AIIMS, New Delhi
- Increased service time of EHS OPD to 12 hours and operationalized EHS pharmacy 24 x 7; started a service of self-prescription for the resident doctors, in order to ease their access to EHS
- Redesigning of process flow in Emergency
- Implementation of the smart card for patient care in MCH for financial transactions of patients
- Took over the AIIMS-CAPFIMS Hospital, a 960 bedded tertiary care hospital (and Med College)
- Achieved first position (highest incentive) in the Kaya kalp incentive scheme (2023)
- Decentralized Ayushman Bharat in all centres for the convenience of patients
- Inspection of NABH entry-level accreditation of surgical and MCH blocks was completed and Main Hospital and NCA applied for entry-level NABH
- Rolled out competitions on good sanitation and infection prevention for all categories of manpower in NRAK in an effort to encourage good hygiene, empower staff and build total quality management into the system
- Facilitation of establishment of a bio-incubator on the ninth floor of the National Centre for Ageing under the bio-nest project sanctioned by the ICMR (in process) for Centre for Medical Innovation and Entrepreneurship (CMIE)

B. Community Services/Camps:

- Creation and display of health educational material in the New RAK OPD
- Official spokesperson (in waiting) and member of AIIMS Media cell, responsible for collating pertinent information
- Capacity building in infection control and good sanitation practices by instituting poster, painting, nukkadnatak, quiz and debate competitions for all cadres of staff of NRAK and NCA other than doctors

AWARDS, HONOURS AND SIGNIFICANT EVENTS:

Professor Sidhartha Satpathy was nominated as member of Quality Steering Committee (QSC) for monitoring Quality of empaneled hospitals under AB-PMJAY by National Health Authority, MoHFW; nominated by Hon'ble Governor of Uttarakhand as a Member of Board of Governors (BOG) of Swami Rama Himalayan University, Dehradun, Uttarakhand; member of Project Review & Steering Group (PSRG) Committee under project entitled "Facilitation of IT enabled training for generating skilled HCWs in COVID-19 pandemic management under aeigis of MEITY, Govt of India; contributed to development of BIS standards as Member of (a) Health Informatics Sectional Committee (MHD-17); (b) Hospital BMW Management Infection Control Sectional Committee (MHD-21) under the aegis of MHD Sectional Committee-Medical Equipment &Hospital Planning Committee, and Technical Textiles for Med tech applications Sectional Committee (TXD-36); Chaired Session on "Compendium of Case Studies on BMW management" and moderated Panel Discussion on Challenges in BMW and SWM in large tertiary care hospitals during International Conference ISHWMCON-23 at AIIMS Jodhpur on 2-3 November 2023; participated as Subject Expert for selection of Assistant Professor Hospital Administration at AIIMS Mangalagiri (27 April 2023), AIIMS Raipur (3 May 2023), AIIMS Bhopal (24 May 2023), AIIMS Jodhpur (26 July 2023), AIIMS Gorakhpur (1 August 2023), AIIMS Madurai (2 November 2023), AIIMS Kalyani (25 November

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2023), KGMU, Lucknow (7 February 24); and Medical Superintendent of AIIMS Bilaspur on 11 October 2023 and 27 February 2024; nominated as Member of National Oversight Committee (NATCOM) for Pradhan Mantri National Dialysis Program (PMNDP); Expert Member of Board of Studies (BOS) for Hospital Management & Administration at SGPGI, Lucknow, School of Health Sciences, IGNOU, and JamiaMiliaIslamia, New Delhi; contributed as Member of Building Committee of National Brain Research Institute (NBRI) for shortlisting of Architect for undertaking further development works; continued as Expert member of Academic Audit Committee of IIHMR University for improvement of Academics and Research as mandated by the University Grants Commission; continued as Advisor, Editorial Committee of JAHA and Reviewer for NMJI, WHO-SEAJPH, IJCM etc; membership of World Association of Medical Law in current year.

Professor Nirupam Madan won the first prize for AIIMS, N.D., as the hospital with the highest number of share and scan tokens from the National Health Mission; earned an incentive of 1.8 crore from the Digital Health Mission for AIIMS, N.D.

Professor Amit Lathwal was resource faculty at ICCM, Ranchi in the training programme on Hospital Management and Administration for Medical Superintendents GDMOs, Non-specialist of Coal India Ltd; resource faculty at Belphar Training Institute, Lakhanpur Area, Mahanandi Coalfields Ltd. in programs on "Hospital Management & Administration".

Dr Angel Rajan Singh was empanelled as an Assessor for the Digital Health Accreditation Standards after successful completion of the Digital Health Assessors Training Programme; invited to participate as an assessor in the pilot for Assessment and Rating of Medical Colleges in India by NABET.

Dr Parmeshwar Kumar was temporary advisor to WHO, EMRO for capacity building programme for Human Resources Management for hospital managers; Member, Expert Advisory Group for drafting "AIIMS Guidance Document of Preparedness for Infection Prevention and Control including Biomedical Waste Management during public health emergencies" for secondary and tertiary care facilities; Member, National Expert Advisory Group Meeting on creating a capacity building programme for Doctors & Hospital Engineers in Disaster Resilient Hospitals under a project funded by the Ministry of Health & Family Welfare, Government of India

Dr Vijaydeep Sidharth was Member Secretary of Expert Advisory Group for drafting "AIIMS Guidance Document of Preparedness for Infection Prevention and Control including Biomedical Waste Management during public health emergencies" for secondary and tertiary care facilities; Organized guest lecture by DrAtulGawande, Assistant Administrator for Global Health, United States Agency for International Development (USAID), on 'Lessons for Advancing Life Expectancy'; Organized National Expert Advisory Group Meeting on creating a capacity-building programme for Doctors & Hospital Engineers in Disaster Resilient Hospitals under a project funded by Ministry of Health & Family Welfare, Government of India, Coordinated Machinery & Equipment worth Rs 108 Crores under corporate social responsibility from Infosys Foundation for MCH block; Chairperson, Member Secretary and Members of various committees at the Main Hospital and at the Institute level for procurement of various items/services, Member Secretary, Lung Transplant Programme at AIIMS New Delhi, Jury Member - Various competitions organised by ORBO on Organ Donation to promote organ and tissue donation, Resource faculty at IIM, JAMMU: a. to teach the "Hospital & Healthcare Services in India Module" for MBA Healthcare Management from 17 to 18 December 2023; b. to teach the "Risk Management and Patient Safety Management Module" for MBA Healthcare Management from 17 to 18 December 2023; Resource Faculty for "Management of Nursing Services & Education" module for BSc (Honour) Nursing at RajkumariAmrit Kaur College of Nursing, New Delhi; External Examiner: a. MD Hospital Administration at PGIMER, Chandigarh (November 2023); b. Masters in Hospital Administration, SGPGI, Lucknow; Internal examiner for MD Hospital Administration at AIIMS New Delhi; Organized the "Regional Training Cum Workshop on Infection Prevention & Control including biomedical waste management during Pandemic Preparedness from 26-27 October 2023 at Delhi in collaboration with USAID RISE India, JHPIEGO India Office and NHSRC; Organized the "Regional Training Cum Workshop on Infection Prevention & Control including biomedical waste management during Pandemic Preparedness from 11 -12 December 2023 at Kochi in collaboration with USAID RISE India, JHPIEGO India Office and NHSRC; Faculty at Global Healthcare Summit organized by American Association of Physicians of Indian Origin in collaboration with AIIMS New Delhi; Conducted Kaya Kalp Assessment a. National Institute of TB & Respiratory Diseases on 13 January 2024;
b. Burari Hospital Delhi; Member of Royal Society of Tropical Medicine and Hygiene, London; Member of ISPOR – The Professional Society for Health Economics & Outcome Research; Member of Technical Advisory Committee for research proposal by Department of Epidemiology at National Institute of Health & Family Welfare, New Delhi; Felicitated for contribution to Organa Donation Programme by ORBO at AIIIMS New Delhi; Felicitated for contribution in achieving NABH Accreditation of Burns & Plastic Surgery Block.

Dr Abdul Hakim Coordinated and facilitated the conduct of Kaya Kalp Assessment for the Institute and AIIMS won the first prize in Kaya Kalp Programme in Group "A" of the Central Government of Tertiary Care Hospitals. (2023-24)**;** conducted Kaya Kalp peer assessment at Safdar Jung Hospital New Delhi; coordinated and facilitated third-party fire

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safety Audit at AIIMS, New Delhi; Member of National Medical Value Travel Services committee; Coordinated and facilitated Visit of State Secretary Ministry of Economic Cooperation & Development, Germany, on 1 November 2023; coordinated and facilitated visit of the German Delegation led by the State Secretary Federal Ministry of Economic Cooperation & Development, Germany on 12 February 24. The purpose of the visit was to understand the process flow of PM-JAY, in an empanelled healthcare facility; coordinated and facilitated Visit of international Health Officials participating in a training course on Health Sector Programmes organized by NILERD, NITI Aayog from eight different countries to Ayushman Bharat Kendra, AIIMS, New Delhi to understand the process flow of AB-PMJAY on 5 March 24.

Dr Jitender Sodhi was awarded 3rd prize under the category of "Hospital Innovations" for the initiative of Digital Library of Court Cases of Main Hospital, AIIMS, New Delhi in CAHOTECH-2023; awarded 3rd prize (in cash) for a case study on Zero Waste Conferences in India: An environmental imperative selected for the WHO compendium of case studies; awarded a letter of appreciation by the Vice-Chancellor of Gujarat National Law University for my contribution as an Expert Panelist and Chair for a technical session in the Medical Law Conference (MEDLAWCON-2024) from January 6-7, 2024 organized by GNLU, Gandhinagar; awarded a letter of appreciation by the Vice-chancellor of National Law Institute University, Bhopal for presenting Studies on Medical Negligence as a Resource Faculty and contributing as a Co-Chair for technical sessions in their National Seminar on Health Law at NLIU, Bhopal from 27-28 March 2024; Member of the Specialists Board in Health Administration including Hospital Administration of National Board of Examinations; Member of the Departmental Academic Committee; Member of the various Inquiry Committees; Member Secretary of the Disability Assessment Boards of CSE Candidates; Member of the AIIMS Annual Report Editing Committee; Member of the review committee for Research Directory of Faculty and Scientists of AIIMS; contributed to the Technical Specification and Evaluation Committee for procurements of various departments; contributed substantially in preparation of replies from the hospital side for group petitions listed in the matter of Rare Diseases of children in Hon'ble High Court of Delhi in the capacity of Officer-in-charge for court cases; contributed as faculty in-charge, Hospital Establishment in quality of administrative proposals related to leave matters and disciplinary proceedings of employees being put up on the file; Faculty-in-charge for all the court cases of Main Hospital; contributed to the ongoing initiative of a digital library of court cases of Main Hospital and created an auto dispatch system of emails to legal counsels prior to the next listed dates of hearing in our court matters; contributed as a Resource Faculty in the training of Hospital and Sanitary Attendants of Main OT and AB-8 ICU; contributed as a Resource Faculty in the induction programme of newly joined residents at AIIMS, New Delhi; contributed as faculty-in-charge, CIMR in organizing the IDY 2023.

Dr Kanika Jain was Resource faculty at Indian Institute of Management, Jammu where I have been instrumental in designing and conducting the module on Advanced Health Economics and Insurance (25 lectures were taken) and have also taken classes on Health Planning and Designing; Resource faculty at Coal India in the training programme taken for Hospital Administrators; Member of the Appeals committee for National Quality Assurance System constituted by the National Health Systems Resource Centre; awarded scholarship by the International Society of Quality (ISQua) during their International Conference held in Seoul in the Month of August 2023; Member and convener in the Expert Advisory Committee (EAC) constituted for the National Capacity Building Programme for Disaster-Resilient Hospitals, an initiative under the "Health Sector Disaster Preparedness & Response" program of the Disaster Management Cell, Ministry of Health & Family Welfare, Government of India; Resource faculty for the External Assessors Training for National Quality Assurance Standards; Member of the Creative team responsible for making the film on the AIIMS Smart card system; Felicitated for for contribution in the G20 Summit by the Ministry of Health & Family Welfare; Co-ordinator for all proposals being sent for Make in India (MII) Exemptions to the Ministry of Health & Family Welfare; Member of the team constituted by the Director, AIIMS for visit to various Healthcare facilities to study the IT infrastructure, implementation of Hospital Management Information Systems, Network Security, etc; Expert member for Procurement of Drugs at Employee State Insurance Corporation; Expert member for Procurement / Outsourcing of Laundry systems for AIIMS under PMSSY; Co-ordinated and facilitated revision of the Essential drug List at AIIMS, New Delhi.

Dr Namarta Makkar attended Early career research Methodology Workshop on 8 and 9 August 2023, AIIMS, New Delhi; participated as Speaker in GERICON, 2023, AIIMS, New Delhi; attended 2 days programme on Overview of GFR and public procurement through GeM conducted by IRILMM on 5-6 October 2023; participated as Delegate in Internal Patient Safety conference on 23-24 February Bangalore; attended Workshop on Qualitative research: 7-8 March 2023, AIIMS, New Delhi.

Dr Mohd. Kausar was Member of the Expert Advisory Committee for the project "Capacity Building of Doctors and Hospital Engineers in Structural and Non-structural Mitigation Measures for Hospital Safety and Disaster Resilience" – funded by the Disaster Management Cell, Ministry of Health & Family Welfare, Govt. of India.

Dr Arun Verma was a Planning, Desiging and DPR preparation of National Institute of Child Health, Jhajjar campus of AIIMS; Planning, Desiging and DPR preparation of super-speciality OPD Block at Masjid Moth campus of AIIMS; DPR preparation for hostels in Trauma Centre extension campus of AIIMS; assisted Computer Facility for Cyber Security

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measures at AIIMS and Member of Committee constituted for Cyber Security measures at AIIMS; Member TSEC for Medical Equipment at Main, AIIMS.

Dr Nishant Sharma was Joint-Organizing Secretary for Global Healthcare Summit organized from 3 to 4 January 2024 by American Association of Physicians of Indian Origin in collaboration with AIIMS New Delhi; appointed as BIDA International Advisor by British International Doctor's Association, United Kingdom; Member of the Committee constituted by NITI Aayog to prepare a roadmap to make AIIMS a worldclass medical institute in medical research and practice; Convener of the AIIMS-HSSC Cell for re-skilling and up-skilling of healthcare workers; Resource Faculty a. Coal India Limited: Conducting the training programme on Hospital Management and Administration for Medical Professionals of Coal India Limited at Indian Institute of Coal Management, Ranchi; b. NIHFW: PGDM and induction programme for CHS doctors; c. Induction training programme for newly joined residents at AIIMS, New Delhi; d. ESIC: Training programme for Hospital Administrators at ESIC; Member Secretary and Member of numerous committees at Main Hospital and at Institute level; Guest Speaker at "CSR Symposium" organized by REC Foundation, on 21 December 2023; Poster presentation on "Keeping Patients Safe During Surgery: An Interventional Study to Enhance Compliance to the Surgical Safety Checklist at a Tertiary Care Teaching Hospital in India" at 39th International Conference of International Society for Quality in Healthcare at South Korea from 27 to 30 August 2023; Guest Speaker at National Conference "ISHWMCON 2023" organized by the Department of Hospital Administration and Department of Microbiology, AIIMS Jodhpur from 3 to 4 November 2023 - Single use devices & consumables in healthcare: being preventable to pollutant:Time to strike a balance; Coordinating donation worth Rs 20 Crores under corporate social responsibility from REC Foundation for construction of waiting lounge above UG parking.

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9.18 Laboratory Medicine

Additional Professor & Head

Sudip Kumar Datta

Additional Professor

Shyam Prakash

Associate Professors

Suneeta Meena

Tushar Sehgal

Assistant Professors

Ashok Kumar Ahirwar

Rojaleen Das

HIGHLIGHTS

The Department continues to remain the mainstay of diagnostics at All India Institute of Medical Sciences, Delhi through the Smart Lab at New RAK OPD and the IPD and Emergency Lab in the Main Hospital Building, catering to not only the main hospital but also the CN Centre, Surgical and Mother and Child Blocks and the National Centre for Ageing. The Smart Lab also receives samples from JPNATC and the Burns and Plastics Block. In the current year, the department has **successfully reported approximately 2.7 Crore (27 million) tests** overall. The department operates two sample collection centers, both collecting patient samples from 8:00 AM in the morning to 6:30 PM in the evening. In the current year **overall 14 lakhs (1.4 million) samples were collected**. The department has conducted multiple training programs for Faculty, Residents and Staff for the NABL accreditation process as per ISO15189:2022 and has **successfully submitted the application** for accreditation by National Accreditation Board for Testing and Calibration Laboratories (NABL). Several distinguished visitors from numerous national and international institutes have visited the department in the last year including Dr. Octavia M. Peck Palmer, President American Association of Diagnostics and Laboratory Medicine (ADLM, formerly AACC) and Director, Clinical Chemistry, University of Pittsburgh, School of Medicine, USA and delivered a guest lecture on "The Total Testing Process: Collaboration between Laboratory Medicine and Emergency Medicine to Ensure Quality Testing" on 18 September, 2023. For Undergraduates, the department has started a two hours Seminar and lab visit to the Smart Lab to orient students on Automation. The department has also started several new tests under various research projects for patients in various sections and plans to increase the directory of services in the coming year. Dr Shyam Prakash, Additional Professor of the department has been awarded the prestigious Indian Academy of Biomedical Sciences, 2023 fellowship.

Summary of achievements:

	2023-24	2022-23	2021-22
Total Number of tests done in the department	More than 27 million	More than 18 million	More than 10million
Funded Projects	15	14	19
Collaborative projects	51	35	49
Publications	50	30	34
Oral papers and Posters	21	23	11
Invited lectures/ Talk	22	19	15
Abstracts Published	19	11	12
Students awarded MD	05	02	03
Students awarded PhD	01	01	--

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EDUCATION

The department runs a comprehensive MD program in Laboratory Medicine which is offered in very few medical institutes in India. The department also has a vibrant PhD program and takes active participation in MBBS, BSc (Nursing) programs.

1. UG teaching:
    i. Seminar on Diabetes mellitus for 5th Semester students
    ii. Seminar on Kidney Function Tests for 8th semester
    iii. Two-hour Lab Visit to Smart Lab for 8th semester to orient them towards automation.
2. Post-Graduate:
    i. MD (Lab Medicine): 05 MD awarded; currently pursuing:09. Extensive hands-on practicals on different advanced techniques such as PCR, real-time PCR, HPLC, Immunoanalyzer etc. were started for the training of postgraduate residents in the department. Monthly discussion on internal quality control and on EQA are held with postgraduate residents and lab staff.
    ii. Department continues to provide hands on training to post-graduates of Pathology, Biochemistry, Transfusion Medicine and Paediatrics departments
    iii. Ph.D: 1 Awarded; currently pursuing 03
3. M Biotech (Immunology class first and 2nd-year students)
4. BSc Nursing: 8 lectures
5. Has started conducting Regular training programs for our Technical staff as per the requirements of Iso15189:20922

CMEs/Workshops/Symposia/National and International Conferences

1. Organized multiple in-house training sessions for ISO15189:2012 and 2022 versions.
2. Organized Workshop on 'Smart Laboratory' and training for Laboratory Technologists on 21-July-2023 as a part of National Medical Laboratory Professionals Week (NMLPW-2022) at AIIMS, New Delhi
3. Organized and Moderated IFCC Live Webinar on "Publication Ethics: An overview from different perspectives" on 22-June-2023 on behalf of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) Task Force-Ethics.

Lectures delivered: 21

Sudip Kumar Datta: 10 **Shyam Prakash: 6** **Tushar Sehgal: 3** **Ashok Kumar Ahirwar: 1**
Rojaleen Das: 1

Lectures delivered over past 3 years

2021—2022	2022—2023	2023-2024
15	15	22

Oral papers/posters presented: 21

Oral/poster presentations over past 3 years

2021—2022	2022—2023	2023-24
11	23	21

RESEARCH

Ongoing

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1. Evaluation of the role of Vitamin D receptor (VDR) polymorphisms on the efficacy of calcitriol therapy in stage 3 to 5 chronic kidney disease: A prospective double-blind study: Funded by ICMR, Dr. Sudip Kumar Datta, ICMR, 3 years, 2021-2024, Rs.53,97,494/-
2. Clinical Performance Evaluation of a Thyroid Stimulating Hormone (TSH) test kit for Point of care settings, Dr. Sudip Kumar Datta, M/s Vidcare Ltd through CMIE, 1 year, 2024-2024, All costs to be borne by funding company
3. Development of a SERS based portable device for detection of urinary and salivary cotinine to monitor the compliance towards tobacco abstinence (BT/PR50566/MED/32/971/2023), Dr. Sudip Kumar Datta (PI-AIIMS) & Dr Satish Dubey (PI-IITD), DBT-BME, 3 years, 2024-2027, Rs. 1,70,91,726/-
4. Characterization and expression of transfer RNA derived small RNAs as a circulating biomarker for disease diagnosis and prognosis in NAFLD, Dr Shyam Prakash, ICMR, 3 Years, 2022-2025, Rs. 65.5 Lakh
5. Molecular interaction of iron trafficking gene variants with mitochondrial dysfunction in metabolically associated fatty liver disease, Dr Shyam Prakash, ICMR, 3 Years, 2022-2025, Rs. 55.5 Lakhs
6. Molecular coordination of T-regulatory cells and Prokineticins in obesity and their clinical correlation in obesity associated inflammation in non alcoholic fatty liver disease and metabolic syndrome, Dr Shyam Prakash, ICMR, 2 years, 2021-2023, Rs 70.0 Lakh
7. Rapid diagnostic evaluation of Micro PCR for Hepatitis B virus DNA quantitation, Dr Shyam Prakash, BigTech Bangalore, 6 Years, 2017 -2023, Rs. 52.0 Lakh
8. Evaluation of Artificial neural network for differentiating Iron deficiency anemia and β-Thalassemia trait in comparison to the conventional methods, Dr Tushar Sehgal, ICMR, 1 year, 2022-23, Rs. 22,87,766/-
9. Evaluation of salivary biomarkers as compared to established serum biomarkers in predicting pre –eclampsia: A nested case control study, Dr Ashok Kumar Ahirwar, AIIMS, Delhi, 2 years, 2024-26, Rs 10,00,000/-
10. Comparison of gut microflora of different age groups of geriatric population on long- term Non-Steroidal Anti-Inflammatory Drugs and healthy geriatric population., Dr Rojaleen Das, AIIMS, Delhi, 2 years, 2024-26, Rs. 9,90,000/-

Completed

1. A Prospective Multicentric Study on the Role of Blood Coagulation and Fibrinolysis in the emergence of ARDS in patients with New Coronavirus Pneumonia (COVID-19), Dr Tushar Seghal, AIIMS, Delhi, 1 year, 2019-20, Rs. 10.0 Lakh
2. An expensive and rapid diagnostic method for detection of SARS COV-2 and COVID -19 RNA by loop mediated isothermal amplification (LAMP), Dr Shyam Prakash, Intramural AIIMS, 3 yeas, 2020-23, Rs. 10 Lakh
3. Clinical validation of two versions of salivary glucose and urea analyzers for developing of rapid non-invasive prototypes, Dr Shyam Prakash, IMRG AIIMS, 2.6 years, 2020-22, Rs 10.0 Lakh
4. Development and validation of Standalone meter for non-invasive salivary glucose quantification, Dr Shyam Prakash, BIRAC (DST), 02 years, 2021-22, Rs. 10.0 Lakh
5. Evaluation of Rapid Thromboelastography in Predicting Acute Trauma-Induced Coagulopathy in Severe Traumatic Brain Injury, Dr Tushar Seghal, AIIMS, Delhi, 1 year, 2021-22, Rs 4,79,000

Departmental Projects (MD/PhD Thesis/Dissertation)

Ongoing

1. Association of Vitamin D Receptor Gene Polymorphisms with Severity In Dengue Fever Amongst North Indian Adults
2. Comparative analysis on free radical scavenging efficiency in Sickle Cell anaemia patients from diverse geographical regions and insights into the link with iron homeostatic mechanism
3. Comparison of Urine Galactomannan with Serum Galactomannan for Diagnosis of Invasive Aspergillosis inPatients of Hematological Malignancy at a tertiary care hospital

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4. Effect of varying concentrations of proteins and lipids on electrolyte measurement by direct and indirect ion-selective electrodes.
5. Evaluation Of Blood and Urinary Biochemical Parameters In Autosomal Dominant Polycystic Kidney Disease And Comparison With Healthy And Disease Controls
6. Molecular characterization of transfer RNA derived RNA fragments and expression of mitochondrial, fusion proteins in Non-alcoholic fatty liver disease
7. Molecular expression and interaction between growth differentiation factor -15 (GDF-15) and nitric oxide regulatory genes in diabetes and metabolic syndrome
8. PCOS and its correlation with Vitamin B1, Sex hormone binding globulin and PAI-1
9. Prevalence of *Microsporidia* in hematological malignancy and bone marrow transplant at a tertiary care centre
10. Role of endothelial GATA 4 and Platelet derived growth factor-B in Metabolic associated Fatty Liver Disease
11. Role of Glucose regulated protein-78 and Fatty acid binding protein-4 in Non-alcoholic fatty liver disease and type-2 diabetes mellitus patients
12. Time-Saving Approach in Urine Antibiotic Susceptibility Testing: Implementing Effective Antibiotic Stewardship

Completed

1. A Study of the Efficacy Of Intraperitoneal Injection Of Methyl Prednisolone On The Severity Of Organ Dysfunction In Adult Male Wistar Rats With Acute Pancreatitis Induced By Intra Peritoneal Injection Of L Arginine And Surgical Ligation of The Pancreatic Duct
2. CAP-53194, a novel predictive tumor inhibitor of polo-like Kinase- 1
3. Evaluation of myelin loss and oligodendrocyte pathology in severe traumatic brain injury
4. Identification of transcriptomic, lipidomic, and mitochondrial challenges in NAFLD and HCC
5. Microsporidia and gastrointestinal infections in renal transplant recepients
6. Molecular coordination of Adropin, Irisin, preptin gene expression in metabolic syndrome and type -2 diabetes mellitus patients
7. Molecular interaction of reactive oxygen species in mitochondrial dysfunction and nrf-2 gene expressions in polycystic ovary syndrome (PCOS)
8. Renal Resistive Index for the prediction of Augmented Renal Clearance : A Prospective Observational study
9. Role of Serum Matrix Metalloproteinase 7 Levels in Diagnosis and Prognostication of Infants with Extra-Hepatic Biliary Atresia
10. Short Term Efficacy & Safety Of Sucroferric Oxyhydroxide In Non Dialysis Dependent Pediatric Chronic Kidney Disease With Hyperphosphatemia
11. Structural and functional adaptation in renal, cardiovascular and bone mineral metabolism in living kidney donors: a prospective observational study
12. The Prevalence and Risk Factors Of Cystic Fibrosis Related Diabetes In Children With Cystic Fibrosis: A Cross Sectional Study
13. Urinary biochemistry as a marker of renal microcirculatory stress in sepsis: Prospective observational study

Collaborative projects

Ongoing

1. A prospective cohort study on trajectories of postpartum weight, risk factors associated with weight retention and its relationship with metabolic derangements till 18 months post- delivery among women in india Department of Obstetrics and Gynaecology
2. A study of association of metabolic dysfunction associated fatty liver disease (MAFLD) and dynapenia/sarcopenia with cardio metabolic risks., Department of Medicine, AIIMS, New Delhi

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3. Air Pollution impact on Pregnancy and Early childhood Development in India - (APiPED Cohort), Department of Centre for Community Medicine
4. Assessment of eating behavior and nutritional chronotypology and its association with body composition and metabolic parameters in obese adults, Department of Medicine, AIIMS, New Delhi
5. Biochemical and enzymatic analysis of bile in choledochal cyst and correlation with histopathological features and expression of immune modulators, Department of Pediatric surgery, AIIMS, New Delhi
6. Case Control Study to examine the impact of Serum Vitamin-D levels on the composition and risk of RenalStone formation., Department of Urology, AIIMS, New Delhi
7. Classification of Anemia in patients with Type 2 Diabetes Mellitus and association with metabolic indices, Department of Medicine
8. 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
9. Comparison of dried blood spots and plasma samples for the quantification of amino acid using HPLC method among inborn error of metabolism patients, Division of Genetics, Department of Pediatrics AIIMS, New Delhi
10. Correlation between Albumin and Protein excretion in Spot and 24-hr Urine Samples in Pediatric Glomerular Diseases, Department of Paediatrics
11. Developing models based on biomarker signature and clinico-electroencephalographic parameters to predict severity and outcome in pediatric status epilepticus: a longitudinal observational study, Department of Paediatrics
12. Diagnostic Accuracy of A Novel Nutrition Risk, Sarcopenia, Sonographic (mNUTRIC-S2) Score To Predict ICU Acquired Weakness In Mechanically Ventilated Critically Ill Patients, Department of Anaesthesia
13. Effect of 5% human albumin-based perioperative fluid therapy in perforationperitonitis patients undergoing emergency laparotomy: A randomized controlled trial, Department of Anaesthesia
14. Effect of body composition on gait, balance and strength in obese individuals in comparison to non-obese individuals, Department of Medicine, AIIMS, New Delhi
15. Effect of parental presence on stress biomarkers, melatonin level and anxiety scores during induction of anesthesia in children undergoing ophthalmic procedures.A randomized controlled trial, Department of Anesthesia, RPC AIIMS, New Delhi
16. Efficacy of Cognitive Retraining Based Intervention Modules for Treating Cognitive Deficits Among Obese Individuals, Department of Clinical Psychology NDDTC
17. Evaluation of lifestyle related factors and biochemical markers for the occurrence and severity of Nonalcoholic Fatty Liver Disease in India Department of Medicine, Department of Medicine
18. Evaluation of micro-RNA profiles in the follicular fluid of women with and without PCOS and their correlation with IVF outcomes: A case control study, Department of Obstetrics and Gynecology, AIIMS, New Delhi
19. 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, Multi-centric project
20. Evolution of cerebral edema, blood brain barrier disruption and its subsequent restoration along-with the comparison of equiosmolar solutions in pediatric traumatic brain injury patients, Department of neurosurgery, JPN Trauma center, AIIMS, New Delhi
21. Fetal Cardiac Profile in Intrahepatic Cholestasis of Pregnancy And its Association with Perinatal Outcome, Department of Gynaecology and Obstetrics
22. Hypomagnesemia and its correlation with clinical outcomes in admitted sepsis patient, Department of Medicine
23. Impact of intravenous iron therapy on fatigue and quality of life in cancer patients receiving palliative care : a prospective interventional study, Department of Onco-Anaesthesia Palliative Medicine AIIMS, New Delhi
24. Long Term Efficacy and Safety of Oral Dapagliflozin In Reducing Proteinuria In Children With Proteinuric Chronic Kidney Diseases, Department of Paediatrics

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25. Micronutrient deficiency in children with moderate to severe Traumatic Brain Injury: Burden and association with outcome, Department of Neuro-Anaesthesia, JPNATC
26. Prevalence of Chronic Kidney disease among adults aged ≥45 years residing in rural areas of Ballabgarh, Faridabad district, Department of Community Medicine
27. Quantification of Microalbuminuria using smartphone-based point-of-caredevice for early diagnosis of chronic kidney disease, IIT Delhi
28. Randomized controlled trial to compare the effect of dietary intervention and resistance exercises on changes in muscle strength, mass and function in Type-2 diabetes patients with Dynapenia and sarcopenia, Department of Medicine, AIIMS, New Delhi
29. Randomized controlled trial to compare the impact of costal expansion exercises and dietary intervention on lung function rate of perceived exertion and quality of life in obese individuals, Department of Medicine, AIIMS New Delhi
30. 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, Department of Medicine, AIIMS, New Delhi
31. Role of Pre-operative Thromboelastography (TEG) in predicting Peri-operative Blood Loss during Gynaecology Surgeries, Department of Obstetrics and Gynaecology
32. Role of Serum Autotaxin in Intrahepatic Cholestasis of Pregnancy in IndianWomen, Department of Gynaecology and Obstetrics
33. Role of T- Regulatory cells (T-regs) in obesity and their clinical correlation in obesity associated inflammation in type 2 diabetic and chronic kidney disease (CKD), Department of Nephrology, AIIMS, New Delhi
34. Screening of Celiac Disease in Type 1 Diabetes Mellitus Patients By IgA Anti-Tissue Transglutaminase Antibody - Are we Missing anyone? Department of Endocrinology
35. Study of evolution of cerebral edema, neuroinflammation and blood brain barrier disruption in pediatric traumatic brain injuries, Department of Neurosurgery JPN Trauma Center, AIIMS, New Delhi
36. Study of the effect of stainless steel and titanium biomaterial on the level of C3 and C4 serum complement levels in patients undergoing intramedullary nailing for fracture shaft femur, Department of Orthopedics
37. Study to compare the effect of hypertonic saline and mannitol on cerebral edema following traumatic brain injury in pediatric patients, Department of Neurosurgery JPN Trauma Center, AIIMS, New Delhi
38. To evaluate the personality traits and assess the impact of humanistic psychotherapy for trait specific intervention on body composition and metabolic parameters in obese subjects, Department of Medicine, AIIMS, New Delhi
39. To evaluate the utility of novel molecular techniques (multiplex PCR, dipstick and NGS) for early identification of ESKAPE organism and antimicrobial profiling in burn wounds., Department of Burn & Plastic
40. To examine myelination and changes in oligodendrocytes in white matter pathology post severe traumatic brain injury (sTBI) among humans, Forensic Pathology and Molecular DNA, JPNATC AIIMS, New Delhi
41. Validating Biomarker Panel in Five Different Cohorts to define and predict Biological Ageing, Disease Burden and Mortality in Human Subjects- A pilot Perspective Cohort Study, Department of Geriatric Medicine, AIIMS
42. Validation study of portable analyzer device for diagnosis of Liver, Pancreas, Heart and Kidney function from human blood/serum/urine/CSF at point of Care(POC), Department of GI Surgery

Completed

1. A double-blind randomized placebo-controlled trial comparing genotype guided standard dosing with conventional dose escalation strategy of azathioprine in patient with ulcerative colitis, Department of Gastroenterology, AIIMS, New Delhi
2. Effect of general anaesthesia with mechanical ventilation on biomarkers of lunginflammation/injury in COVID-19 survivors – A cohort study, Anaesthesia and Critical Care
3. Efficacy of A Virtual, Video-Based, Regular Yoga Programme on the Antioxidant Status, Immune Function, Stress Hormone Responses and Psychological Components in Healthy Population and Patients Recovered from COVID-19 in COVID Pandemic period: A Randomized Control Trial, Morarji Desai National Institute of Yoga, Department of Medicine, AIIMS

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4. Study of molecular and peripheral blood biomarkers and their utility to diagnose mild and moderate TBI induced cognitive impairment, Department of Laboratory Medicine, JPNTC, AIIMS, New Delhi
5. xpression of Immune checkpoints (CTLA-4, PD-1, PD-L1), cytokines and T-reg cells in Lupus Nephritis, Department of Nephrology, AIIMS, New Delhi

Research over past 3 years

Research projects	2021-2022	2022-2023	2023-24
Total funded projects	14	**09**	**10**
Total funding	Rs 3,73,91,760	Rs 2,88,76,760	Rs 5,99,76,986

PUBLICATIONS

Total Publications: 50; Journal articles: 30; Abstracts:19; Book chapter: 01

Publications over past 3 years

Item	2021-2022	2022-2023	2023-24
Total	31	42	**50**
Journal articles	28	30	**30**
Abstracts	02	11	**19**
Chapters in books	01	01	**01**
Books	-	-	-

PATIENT CARE:

Central Collection Facility (Old RAK OPD and New RAK OPD)

LABORATORY SERVICES

S No	Lab No 27 at New RAK OPD and Old RAK OPD (Samples drawn)	No. of Bleed patients
1	Blood Culture (Microbiology RoomNo.2071)	2552
2	BLUE CAPPED	41778
3	clinical immunology	15782
4	Clinical Microbiology (HIVANDVIRAL MARKERS)	28304
5	Clinical Microbiology (PCR)	171
6	Clinical Microbiology (Torch Profile)	4607
7	ENDOCOLLECTION	94
8	Grey Capped lab	56369
9	HBA1C TUBE	25939
10	HEMATOLOGY(OPD)	27931
11	Hematology Trauma	0
12	HEMOLYTIC ANEMIA	3
13	Lab Oncology (IRCH)	12

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14	Mycology (Fungal)Lab BC	5
15	Mycology (Fungal)Lab BT	32
16	Parasitology lab subcenter	7069
17	RenalLab (Clinical Chemistry)	9
18	Reproductive Biology (Main Building 2nd floorRoomNo.20	110014
19	Serology Lab (MicrobiologyRoomNo.24)	6528
20	Serology lab new (Microbiology Room No:24)	10
21	Specialpathogentestsnon NABL(Anaerobic Lab Microbiology)	22
22	Violet cap lab Hematology	540000
23	Virology Laboratory-Chikungunya	4
24	Virology Laboratory-Dengue	179
25	Blood Bank	6123
26	ESR	58374
27	YELLOW CAP (Chemistry)	540500
	TOTAL	**1472411**

Emergency Laboratory Services

Hematology Services

Name of Tests	No. of Tests
CBC	297718
RETIC COUNT	4635
PERIPHERAL SMEAR	45684
ESR	19885
PT/INR	159856
APTT	100034
D-DIMER	17718
FIBRINOGEN	17658
BODY FLUIDS	15610
PFT	121
MPO stain	62
IPF samples	6850
GRAND TOTAL	**685831**

Clinical Biochemistry (Emergency and Ward 24 x7 services)

Main Lab (2nd Floor)

Sl. No.	Test Name	
1	HbA1C	4693

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2	AFP	406
3	ALB	286682
4	ALKP	285680
5	ALTV	284686
6	AMYL	24885
7	AST	286129
8	BhCG2	1598
9	Bu	268756
10	Ca	296035
11	CA125	132
12	CA19-9	144
13	CEA	216
14	CHOL	11692
15	CK	5289
16	CKMB	5653
17	Cl-	297684
18	Cort	1672
19	CREA	299982
20	CRP	147
21	dHDL	11553
22	dLDL	2754
23	FT3	4252
24	FT4	4199
25	GLU	8358
26	iPTH	3415
27	K+	301052
28	LDH	27606
29	LIPA	13116
30	mALB	340
31	Na+	303075
32	PHOS	280293
33	PROT	7992
	TBIL	286975
34	TP	285691
35	tPSA	160

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36	TRIG	11617
37	TSH	10662
38	TT3	7286
39	TT4	7343
40	UREA	300342
41	URIC	279754
42	Vit D	5844
43	ESR	46482
44	BT/CT	902
45	Chromogranin A	1152
Total No of test of all parameters		**45, 74, 376**
ABG test (Emergency and Ward 24 × 7 services) Main Lab (2nd Floor) **Total ABG Tests done 15580**		

Fluid Chemistry (Emergency and Ward 24 × 7 services) Main Lab (2nd Floor)

Sl. No.	Test Name	Total
1	U Sodium (Na)	90
2	U ACR	195
3	U Albumin	273
4	U Creatinine	218
5	U Proteins	46
6	U Urea	150
7	U Calcium	0
8	U Phosphate	0
9	U Uric Acid	0
10	U Potassium (K)	0
11	U Chloride (Cl)	214
12	U Lipase	0
13	U Amylase	10
14	U Glucose	0
15	U 24 Albumin	315
16	U 24 Proteins	0
17	U 24 Creatinine	351
18	U 24 Uric Acid	0

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19	U 24 Calcium	0
20	U 24 Urea	148
21	U 24 Phosphate	0
22	U 24 Sodium	135
23	U 24 Chloride	142
24	U 24 Potassium	139
25	U24 Glucose	0
26	CSF Protein	22890
27	CSF Glucose	15960
28	CSF Albumin	598
29	CSF LDH	591
30	Pleural Fluid Glucose	3649
31	Pleural Fluid Protein	3649
32	Pleural Fluid Albumin	3649
33	Pleural Fluid Lipase	2148
34	Pleural Fluid LDH	2148
35	Ascitic Fluid Glucose	4125
36	Ascitic Fluid Protein	4125
37	Ascitic Fluid Albumin	4589
38	Ascitic Fluid Lipase	5245
39	Ascitic Fluid Amylase	3256
40	Ascitic Fluid LDH	2751
41	Pericardial Fluid Glucose	256
42	Pericardial Fluid Protein	256
43	Pericardial Fluid Albumin	256
44	Pericardial Fluid Amylase	48
45	Pericardial Fluid LDH	48
46	Synovial Fluid Glucose	10
47	Synovial Fluid Protein	12
48	Drainage fluid (pus) TG	15
49	24 Hr-Urinary Citrate	560
50	24 Hr-Urinary Oxalate	560
TOTAL		83,820
	GRAND TOTAL	**46,73,776**

SMART LAB SERVICES

S.No	HEMATOLOGY	G. Total
1.	Hb	443932

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2.	RDW-CV	441374
3.	Neutro	442304
4.	Lympho	443614
5.	Eosino	444249
6.	Mono	442784
7.	Lupus Anticoagulant Screen	363
8.	Lupus Anticoagulant Confirm	227
9.	Baso	444565
10.	Neutro - Abs	442120
11.	CSF Total cell count	50
12.	Fluid Total Cell Count	165
13.	Fluid Differential cell count	154
14.	Lympho- Abs	443454
15.	Eosino - Abs	444086
16.	NRBC	441959
17.	Hematocrit	443265
18.	Mono - Abs	414200
19.	PS for (Others)	24195
20.	Baso - Abs	444402
21.	Reticulocyte count - Abs	7095
22.	Corrected Reticulocyte	7100
23.	RBC count	441580
24.	WBC count	441139
25.	Platelet count	441765
26.	MCV	442944
27.	MCH	443297
28.	PT	70004
29.	MCHC	443140
30.	INR	70075
31.	APTT	69513
32.	TT	22
33.	D Dimer	2316
34.	Fibrinogen	1293
35.	Protein C	321
36.	Antithrombin	167
Total Count		**9083233**
SEROLOGY		
1.	HIV Combo (HIV 1, 2)	102540

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2.	Anti HAV IgM	27683
3.	HBs Ag	108908
4.	Anti HBs	44907
5.	IgM Anti HBc	7477
6.	Anti HCV Ab	108385
Total Count		**399900**
IMMUNOASSAY		
1.	FSH	6471
2.	LH	8078
3.	Prolactin	5788
4.	Testosterone	5605
5.	Cortisol	7115
6.	Estradiol	5333
7.	Progesterone	5087
8.	Insulin	10424
9.	Intact PTH	59784
10.	TSH (ultrasensnsitive)	199087
11.	FT3	16405
12.	FT4	17646
13.	T3	197264
14.	T4	197251
Total Count		**741338**
CHEMISTRY		
1.	VLDL - C	184631
2.	LDL-C	185035
3.	HDL -C	185579
4.	CHOL/HDL ratio	185206
5.	LDL/HDL ratio	184943
6.	Iron	77980
7.	Transferrin	69191
8.	Ferritin	100459
9.	TIBC	74243
10.	Vitamin B12	156969
11.	Serum Folate	94933
12.	IgG	14407
13.	IgA	10406
14.	IgM	9609
15.	CRP	170993

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16.	hs CRP	5005
17.	ASO	1801
18.	RA Factor	21387
19.	Complement C3	8713
20.	Complement C4	8092
21.	AFP	15828
22.	Total PSA	7647
23.	Free PSA	3313
24.	Beta HCG	2528
25.	OGTT-1 Hr	3779
26.	OGTT-2 Hr	3856
27.	Urine Protein	9521
28.	Urine 24hr Protein	5638
29.	Urine 24hr Albumin	4371
30.	CSF Protein	70
31.	CSF Glucose	67
32.	CSF LDH	33
33.	Fluid Protein	1526
34.	Fluid Glucose	1502
35.	Fluid LDH	482
36.	GGT	8269
37.	Urine 24hr Urea	611
38.	Urine 24hr Creatinine	5416
39.	Urine 24hr Calcium	3055
40.	Urine 24hr Phosphate	2092
41.	Urine 24hr Uric Acid	1067
42.	Urine Urea	571
43.	Urine Calcium	1999
44.	Urine Phosphate	1128
45.	Urine Uric Acid	527
46.	Urine Sodium	3548
47.	U Chloride (Cl)	1613
48.	Urine Potassium	2823
49.	Urine 24hr Sodium	1084
50.	Urine 24hr Potassium	974
51.	Urine 24hr Chloride	654
52.	Fluid Cholesterol	817
53.	Fluid Triglyceride	387

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54.	Fluid Amylase	1282
55.	Fluid Albumin	1426
56.	Urine Albumin	24134
57.	Urine Creatinine	28190
58.	Urine ACR	27900
59.	HbA1c	146804
60.	Glucose R	19164
61.	Glucose F	115683
62.	Glucose PP	54671
63.	OGTT	4000
64.	Urea	474708
65.	Creatinine	475663
66.	Uric Acid	501221
67.	Calcium	503134
68.	Phosphorus	502182
69.	Sodium	474708
70.	Potassium	474963
71.	Chloride	475429
72.	Magnesium	17588
73.	Bilirubin (T)	501190
74.	Bilirublin (D)	500899
75.	Bilirubin (I)	501452
76.	ALT	501879
77.	AST	501675
78.	ALP	502159
79.	Total protein	463209
80.	Albumin	463783
81.	Globulin	463498
82.	A/G ratio	463943
83.	Vitamin D3 Total	160729
84.	Total Amylase	10901
85.	Lipase	8354
86.	CK	10935
87.	CK-MB (Activity)	7896
88.	Troponin T - hs	3270
89.	Myoglobin	950
90.	Homocysteine	8139
91.	LDH	33488

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92.	Carbamazepine	382
93.	Valproic acid	2116
94.	Total Cholesterol	211271
95.	Triglycerides	185239
Total Count		**11676822**
Grand Total		**21901056**

Clinical Microbiology Division:

A. Routine Investigations

1. Urine

Name of the Tests	**OPD**	**WARD**	**TOTAL**
Routine	115464	79172	194636
Microscopic	57732	39586	97318
pH	57732	39586	97318
Specific gravity	57732	39586	97318
Acetone	57732	39586	97318
Bile pigment/salt	57732	39586	97318
Urobilinogen	57732	39586	97318
Blood	27	28	55
Bence Jones Protein	105	22	127
Chyluria	65	32	97
Porphobilinogen	19	8	27
Myoglobinuria	48	24	72
Haemoglobin	0	0	0
Urine Cultures	41095	0	41095
Strain identifications tests	18439	0	18439
Antibiotic Sensitivity	4590	0	4590
Sub Total	**526244**	**316794**	**843038**
2. Stool Investigations	**OPD**	**WARD**	**TOTAL**
Wet mount saline	14246	3149	17395
Wet Iodine stain	14246	3149	17395
Occult blood in stool	5983	1321	7304
Fat globules	37	29	66
Special stains for stool Z-N stain, Modif	290	34	324
Sub Total	**34802**	**7682**	**42484**
3. Semen analysis	**OPD**	**WARD**	**TOTAL**
Routine	5232	0	5232

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No. of Reactions	5232	0	5232
Motility	5232	0	5232
Count	4270	0	4270
Fructose	1664	0	1664
Subtotal	**21630**	**0**	**21630**
4. Sputum Analysis	**OPD**	**WARD**	**TOTAL**
Total Number of samples received	4010	0	4010
ZN staining (Microscopy)	8020	0	8020
MTB Culture	0	0	0
Sub total	**12030**	**0**	**12030**
5. Urine AFB Analysis	**OPD**	**WARD**	**TOTAL**
Total Number of samples received	1450	0	1450
ZN staining (Microscopy)	2900	0	2900
MTB Culture	0	0	0
Sub total	**4350**	**0**	**4350**

B. Specialized Investigations

Immuno-Serological & Molecular Diagnosis Tests

6. TORCH

NAME OF THE TEST*(these tests remained suspended for most of the year)

Toxoplasma gondii IgG	2292
Toxoplasma gondii IgM	2272
Rubella IgG	2720
Rubella IgM	2570
Cytomegalo virus IgG	3077
Cytomegalo virus IgM	3077
Herpes Simplex virus IgG	1082
Herpes Simplex Virus 2 IgG	1107
Herpes Simplex Virus (1+2) IgM	0
CMV IgG avidity	0
Rubella IgG avidity	0
Sub Total	**18197**
6. Viral Marker & HIV	
HAV IgM	1078
HBsAg	13755
HBc IgM	662
HBeAg	1785

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Anti HBe	782
Anti HBs	934
Anti HCV antibody	13271
HEV IgM	288
HIV	8976
HBV DNA	3066
HCV RNA	1503
HCMV DNA	850
Subtotal	**46950**
7. Others	
Measeles IgG	192
Mumps IgG	192
Varicella IgG	224
Varicella IgM	0
Subtotal	**608**
8. Molecular Tests	
TB PCR	0
Subtotal	**0**
11. TB Laboratory	
Total Number of samples received	5460
ZN staining:	10920
LJ medium inoculated	0
ADA Test	0
BACTEC MGIT 960 inoculated	0
BACTEC MGIT DST 960:	0
BACTEC MGIT DST 960: Second Line	0
Colorimetric Redox Indicator assay (CRI)	0
Line Probe assay (HAIN'S Test)	0
GeneXpert MTB/RIF	150
RK 39	12
DNA Sequencing	0
Subtotal	**16542**
Grand Total	**9,92,949**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Sudip Kumar Datta is Member**,** International Federation of Clinical Chemistry (IFCC) Task Force on Ethics (2018-till date); Member**,** ICMR "Capacity Building Program for Pandemic Preparedness" (CBPPP) Implementation Framework as part of PMABHIM (2022-till date); Member, ICMR Task Force for Establishment of Reference Intervals in Indian Population (TERIIP) (2022-till date); Chairman**,** MHD-10**,** Bureau of Indian Standards; Member**,** Genomics Sub Committee**,** Centralized Co-research Facility (CCRF)**,** AIIMS (2019- till date); Examiner for MBBS (1st Prof) for

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Biochemistry at PGIMS, Rohtak, NRSMC, Kolkata and BSA MC Rohini, Delhi; Vice-President, Association of Clinical Chemistry and Laboratory Medicine Professionals (ACCLMP) Delhi Chapter; State Representative of Delhi**,** Association of Clinical Biochemists of India (ACBI); Executive Member**,** association of Medical Biochemists of India (AMBI) Delhi Chapter; Associate Editor**,** Journal of Laboratory Physicians; Secretary**,** American Association of Clinical Chemistry (AACC)- India Section (2018-till date); Technical Assessor for Clinical Biochemistry**,** NABL as per ISO 15189:2012 and ISO 15189:2022; Member, ICCSHW, AIIMS; Member, TSEC for NCA, AIIMS; Member of several other Technical Specification and Evaluation Committees of several other institutes: RIMS, Ranchi, HLL, THSTI, PGIMER, Chandigarh, SGPGI, Lucknow, VMMC and SJH, Delhi; Chairperson, scientific session "Hematology for Practitioners" at 64th Annual Conference of the Indian Society of Hematology & Blood Transfusion (ISHBT) "Hematocon 2023" held from 2-5November 2023 at Bhubaneswar and Chairperson, Symposium on Laboratory Management, at 8th Annual Academic Sessions-2023 of the College of Chemical Pathologists of Sri Lanka (CCPSL) at Kandy, Sri lanka held from 14 to 15 of July 2023.

Professor Shyam Prakash the Department is providing the facility for routine investigations such as Chromogranin and HbA1C under the Clinical Pathology and Molecular Immunology service area. 6-Thio Guanine (6-TG) and 6-Methyl Mercaptopurine acid (6-MMP), Omega-3, Omega-6 fatty acids, Bile acids, Vitamin A and E, and plasma citrulline standardization have been done. Metabolic evolution parameters such as urinary citrate, oxalate, phosphate, and calcium have been done and provided the services to the patients. Biochemical, immunological and molecular investigations were done viz like FRAP assay, SOD, Lipid peroxidation, Arginine (HPLC), HbA1C (HPLC), SDMA/ADMA (HPLC), CD4, CD8 IFN gamma, T-reg cells, Citrate, Oxalate, Phosphate, Calcium, Clustrin, Chromogranin, Calprotectin, Citrulline, Vitamin A& E and Cytokines profiles and expression of GDF-15, GPNMB, FUNDC1, IRP-1/2, Mitoferrin-1/2 and Mitofusin -1/2 genes were done in our research lab; awarded IABS Fellow 2023.

Professor Norul Islam got the award for Best Oral Presentation (Gold) Project review committee and fellowship review committee member of SERB (DST), DBT & ICMR New Delhi, PhD Thesis evaluator, DRDO-DIPAS, New Delhi, National Institute for Interdisciplinary Science and Technology, CSIR, Thiruvananthapuram, Indian Institute of Toxicology Research, CSIR, Lucknow and National Institute for Interdisciplinary Science and Technology, CSIR, Thiruvananthapuram.

Dr Suneeta Meena got the award for best oral presentation for the study entitled "Triacetylfusarinine C (TAFC) in urine as a potential biomarker of invasive aspergillosis" at National level conference of Indian Association of Medical Microbiology, Lucknow held on 23 October 2023.

Dr Tushar Sehgal joined as a PhD scholar as anin-service faculty-"Evaluation of Artificial neural network for differentiating Iron deficiency anaemiaand β-Thalassemia trait in comparison to the conventional methods"; Completed NABL training for quality control and accreditation and Global Investigator Award -18-20 October 2023, LMCE, Korea 2023.

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9.19 Medicine

Professor & Head

Naveet Wig,

Professors

Sanjeev Sinha, Naval K Vikram

Manish Soneja, Piyush Ranjan

Additional Professors

Neeraj Nischal, Pankaj Jorwal, Arvind Kumar

Ranveer Singh Jadon, Animesh Ray, Upendra Baitha

Associate Professors

Prayas Sethi, Ved Prakash Meena, Siddharth Jain

Assistant Professors

Amandeep Singh, Bindu Prakash

HIGHLIGHTS

The Department of Medicine at AIIMS New Delhi stands as a paragon of excellence, dramatically elevating patient care, revolutionizing medical education, and pioneering advancements in research. Its specialized clinics, including the Infectious Disease, Metabolic, Chest, and Sleep Clinics, have vastly improved healthcare delivery, adeptly diagnosing rare disorders and providing top-tier care for prevalent diseases. This commitment has broadened the department's reach, serving an increasingly diverse patient demographic. Academically, the department has revitalized its Medicine Website, a digital cornerstone rich with educational content for MBBS, MD, and DM courses. The blend of online and traditional assessments forms a robust educational structure, equipping students with practical skills and strong mentorship to navigate modern medical challenges. The department further underscored its academic leadership by hosting the "Inquisito" National Medicine Quiz, which drew sharp minds from across the nation, fostering a dynamic exchange of knowledge.

In its stride toward public health leadership, the department led a national training program for managing extrapulmonary TB, aiming for the elimination of TB by 2025. This initiative united doctors from across India, enhancing their capabilities to address this significant health challenge. Additionally, the faculty's collaboration with the National Vector Borne Disease Control Programme to draft guidelines for the management of dengue and chikungunya has been pivotal in strengthening national health policies. These initiatives, coupled with numerous impactful research publications, highlight the department's enduring commitment to elevating medical standards and improving community health across India.

EDUCATION

Our department is at the forefront of medical education, providing a vibrant and enriching learning environment for both undergraduate and postgraduate students. Our curriculum is thoughtfully designed to integrate lectures, seminars, and an array of interactive sessions, including Clinical Combined Rounds (CCR), Clinical Grand Rounds (CGR), journal clubs, mortality meetings, Infectious Diseases meets, and monthly updates on antibiotic stewardship. These are complemented by rigorous bedside clinical case discussions that offer hands-on learning experiences. We proudly nurture the academic and professional growth of 71 MD students, 40 DM-Infectious Diseases candidates, and 20 Senior Residents. Our educational philosophy is centered on delivering exceptional training that meticulously aligns learning objectives with practical opportunities and assessments to maximize educational outcomes. We are committed to continuously advancing the caliber of our clinical training to adhere to the most stringent standards of research and patient care.

Our residents also gain invaluable global exposure through international observerships and active participation in national and international conferences, where they present both orally and through posters. Their achievements include accolades in National Quizzes, showcasing the depth of their knowledge and research acumen. Furthermore, our enhanced orientation

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program for new residents includes research methodology workshops, equipping them with advanced tools for quality improvement in patient care.

CMEs/Workshops/Symposia/National and International Conferences

- Medicine Club on "Environmental Toxins" held on 2 March 2024, AIIMS, New Delhi.
- Guest lecture on "**Artificial Intelligence and Sensors in Healthcare**" held on 26 February 2024 at AIIMS, New Delhi.
- Guest lecture on "**Chronic kidney disease and Kidney transplant**" held on 7 February 2024 at AIIMS, New Delhi.
- Workshop for '**Training of Trainers (ToT) for Extra-Pulmonary TB"** held on November 1-3 & 6-8, 2023 at AIIMS, New Delhi.
- Guest lecture on "Harrison's Textbook: Evolution over time, current challenges and future scope" held on 17 October 2023 at AIIMS, New Delhi.
- Medicine Club on "Rheumatology Infectious Disease" held on 16 September 2023 at AIIMS, New Delhi.
- Medicine Club on "Nephrology & Neurology" held on 19 August 2023 at AIIMS, New Delhi.
- Medicine Club on "Nutrition& Emergency Medicine" held on 5 August 2023 at AIIMS, New Delhi.
- Medicine Club on "Stroke: Diagnosis &Management" held on 29 April 2023 at AIIMS, New Delhi.
- Medicine Club on "Gastroenterology" held on 15 April 2023 at AIIMS, New Delhi.
- National Level PG Medicine Quiz "INQUISITO" on 8 April 2023 at AIIMS, New Delhi.
- Medicine Club on "Hematology" held on 1 April 2023 at AIIMS, New Delhi.

Lectures delivered: 28

Sanjeev Sinha: 5	**Naval K. Vikram: 3**	**Manish Soneja: 2**	**Arvind Kumar: 6**
Ranveer Singh Jadon: 3	**Animesh Ray: 5**	**Upendra Baitha: 1**	**Bindu Prakash: 3**

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
53	36	28

Oral papers/posters presented: 19

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
4	13	19

RESEARCH

Funded projects

Ongoing

1. "A preliminary study to validate BM-AspICU algorithm for diagnosing invasive pulmonary aspergillosis in critically ill mechanically ventilated patients using post-mortem minimally invasive tissue sampling", Dr Animesh Ray, ICMR, 3 years, 2023-26, Rs 40,00,000/-
2. "Correlation of muscle strength and hand grip with body composition in different body mass index participants", Dr Upendra Baitha, ICMR, 3 years, 2023-26, Rs 22,22,282/-
3. "Effect of high dose vitamin D3 on hemoglobin concentrations of mechanically ventilated patients with sepsis: A placebo-controlled randomized controlled trial", Dr Animesh Ray, ICMR, 3 years, 2022-25, Rs 50,47,800/-

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4. A longitudinal study to assess the incidence of chronic pulmonary aspergillosis in pulmonary tuberculosis patients and identification of Aspergillus immunodiagnostic antigens, Dr Animesh Ray, AIIMS, Intramural, 3 years, 2023-25, Rs 9,99,990/-
5. A randomized controlled trail of vitamin D supplementation on leukocyte telomerase length and telomerase activity in obese Individuals from north Indian with non—alcoholic fatty liver disease, Dr Ranveer Singh Jadon, ICMR, 3 years, 2024-27, Rs 1,23,12,515
6. A randomized placebo-controlled trial to assess efficacy of Vitamin-D supplementation in non-cystic fibrosis bronchiectasis patients, Dr Animesh Ray, ICMR, 3 years, 2024-27, Rs 76,51,252
7. A study on association of Metabolic Dysfunction Associated Fatty Liver Disease (MAFLD) and dynapenia/sarcopenia with cardio-metabolic risk, Dr Naval K Vikram, ICMR, 3 years, 2023-26, Rs 59,13,114
8. A study on the underlying immune deficits and co-infections in patients with chronic pulmonary aspergillosis, Dr Animesh Ray, AIIMS, Intramural, 2 years, 2024-26, Rs 20,00,000/-
9. Adherence Need Assessment tool development and validation among asymptomatic PLHIV to improve adherence to Anti-retroviral Therapy, Dr Naveet Wig, NACO, 2 years, 2022-24, Rs 10,92,442/-
10. Artificial Intelligence-based Decision Support System for Diagnosing Ventilator-Associated Pneumonia, Dr Animesh Ray, DHR, 3 years, 2021-24, Rs 26,86,419
11. Determining the prevalence of respiratory diseases in walk-in-patients, Dr Sanjeev Sinha, Alveofit, India-Sweden Healthcare Innovation Centre, 1.5 years, 2023-24, Rs 5,13,648/-
12. Development and Evaluation of a Comprehensive retraining module for patients with obesity to achieve clinically significant weight loss- An open-label randomized controlled trial., Dr Piyush Ranjan, DST, 3 years, 2023-26, Rs 46,36,000/-
13. Development and Evaluation of an Individualized Weight management module for young adults. Principal Investigator. Amount 57.16 Lakhs. Funded by ICMR, Dr Piyush Ranjan, ICMR, 3 years, 2022-25, Rs 57,16,000/-
14. Development and validation of an indigenous (1→3)-β-D-glucan (BDG) assay for diagnosing and prognosticating invasive fungal infections, Dr Animesh Ray, AIIMS, Intramural, 2 years, 2023-25, Rs 20,00,000/-
15. Development and Validation of Immunoassays to Aid in Diagnosing and Assessing Treatment Response in Chronic Pulmonary Aspergillosis, Dr Animesh Ray, ICMR, 3 years, 2024-27, Rs 59,65,142/-
16. Early Detection of Obesity-Related Glomerulopathy in the Asian Indian individuals: Evaluating the Role of Novel Biomarkers for Kidney Injury- A Cross-Sectional Study, Dr Amandeep Singh, AIIMS New Delhi, 1 years, 2024-25, Rs 5 Lakhs
17. Efficacy and safety of leuprolide acetate in reducing ovarian toxicity of intravenous cyclophosphamide in young females with autoimmune rheumatic diseases: An assessor-blinded, randomized controlled trial, Dr Siddharth Jain, ICMR, 3 year, 2024-27, Rs 84.5 Lakhs
18. Efficacy of Montelukast in reducing incidence of warning signs and severe disease in patients with dengue fever: a phase 2, double-blind, placebo-controlled, randomized trial, Dr Manish Soneja, ICMR, 3 years, 2024-27, Rs 75,00,000
19. Evaluating the association of fatty kidney with risk of cardiometabolic disorders and kidney functions: a comparative study of metabolically healthy and unhealthy obese and non obese Asian Indian individuals, Dr Amandeep Singh, ICMR, 3 years, 2024-27, Rs 98,07,427
20. Metabolomic fingerprint in CSF of TB Meningitis patients and its correlation to clinical outcomes, Dr. Bindu Prakash, Intramural, 2 years, 2023-25, Rs 10 Lakhs
21. Nebulized amphotericin B added to oral azoles in chronic pulmonary aspergillosis patients: A Placebo-controlled, Double-blinded Multicentric Randomized Controlled Trial (NAB trial), Dr. Animesh Ray, ICMR, 4 years, 2024-28, Rs 2,89,70,598/-
22. Prevalence of dynapenia/ sarcopenia and its association with metabolic parameters, body composition and bone mineral density in postmenopausal women: A cross-sectional study, Dr.Ranveer Singh Jadon, DHR, 3 years, 2023-25, Rs 89,07,608
23. Randomized control trial to study the impact of weight bearing and resistance exercise with nutritional intervention on bone and muscle health in obese patients with Osteosarcopenia, Dr. Ranveer Singh Jadon, ICMR, 3 years, 2022-25, Rs 76,74,989

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24. Randomized controlled trial to compare the effect of dietary intervention and resistance exercises on changes in skeletal muscle strength, mass and function in Type 2 Diabetes patients with Dynapenia and Sarcopenia, Dr Naval K Vikram, ICMR, 3 years, 2022-25, Rs 73,46,403
25. Sarcopenia in People living with HIV and AIDS(PLHIV) population: Clinical and Laboratory correlates and the effect of resistance training exercises, Dr. Prayas Sethi, ICMR, 3 years, 2021-24, Rs 10 Lakhs
26. Screening for autoinflammatory syndromes in undiagnosed patients presenting with recurrent or persistent sterile inflammation: A pilot study, Dr. Siddharth Jain, Intramural, 2 years, 2024-26, Rs 10 Lakhs
27. Screening for underlying inborn errors of immunity in high-risk adults and assessment of its diagnostic, treatment and prognostic implications, Dr. Siddharth Jain, APLAR (Asia Pacific League of Associations for Rheumatology), 1 year, 2023-24, 14000 USD
28. Study of the upper airway anatomy using magnetic resonance imaging in Indian obese patients with and without obstructive sleep apnoea., Dr. Sanjeev Sinha, SERB, DST, 3 years, 2024-27, Rs 75,00,000/-
29. Study on the impact of continuous glucose monitoring system on achievement of glycemic and clinical outcomes in critically ill patients, Dr. Ved Prakash Meena, Intramural AIIMS early career grant, 1 year, 2023-25, Rs 5,00,000/-
30. To evaluate the gaps in the diagnosis and treatment in extra-pulmonary tuberculosis patients under National Tuberculosis Elimination Programme (NTEP) guidelines among various multi-specialties: a multicentric observational study., Dr. Sanjeev Sinha, ICMR, 1.11 years, 2023-25, Rs 63,18,226/-
31. To evaluate the personality traits and assess the impact of humanistic psychotherapy for trait specific intervention on body composition and metabolic parameters in obese subjects, Dr Naval K Vikram, ICMR, 3 years, 2023-26, Rs 59,43,606

Completed

1. A randomized controlled trial of 6 months yogic exercise vs regular physical activity on body composition, multiple metabolic measures in North India individuals with non-alcohohlic fatty liver disease and obesity, Dr Naval K Vikram, DST, 3 years, 2019-23, Rs 96,39,720
2. A study on pulmonary microbiome and metabolomics in patients with Chronic pulmonaryaspergillosis, Dr. Animesh Ray, AIIMS, Intramural, 2 years 6 months extended, 2020-23, Rs 9,98,168/-
3. Association between Immunological characteristics and Clinical Outcomes in COVID-19, Dr. Arvind Kumar, AIIMS, New Delhi, 2 years, 2021-23, Rs 5,00,000
4. Effect of general anaesthesia with mechanical ventilation on biomarkers of lung inflammation/injury in COVID-19 survivors – A case control study, Dr.Ranveer Singh Jadon Dr.Shreya Shah (Collaborative Interdisciplinary project-Both are PI), 1 year extension taken), 2021-23, Rs 10,000,00.0
5. Effect of weight loss on hemoglobin and its association with the immuno metabolic parameters in obese patients, Dr. Prayas Sethi, Intramural, 2 years, 2021-23, Rs 5 Lakhs
6. Need-based vs guidelines-based fluid administration in dengue patients with warning sign: Open-label randomized study., Dr Manish Soneja, ICMR, 3 years, 2019-23 (Extension), Rs 57 Lakhs
7. Paradoxical reaction in lymph node tuberculosis among non HIV subjects–Clinical implications and Outcome., Dr. Pankaj Jorwal, RNTCP, 01, 2019-23 (extended due to COVID-19), Rs 1,90,000/-
8. Randomized controlled trial to compare the impact of exercise and nutritional interventions on muscle functional improvement and changes in skeletal mass in obese patients with sarcopenia, Dr Naval K Vikram, ICMR, 3 years, 2019-23 (extension), Rs 83,01,698
9. Sero-prevalence of COVID-19 in hospitalized patients, Dr. Animesh Ray, AIIMS, 1 year, 2020-21, Rs 75,000
10. Study of the course of somatic symptoms severity and disability in patients with medically unexplained physical symptoms (MUPS) in an Indian setup- [AIIMS MUPS Cohort Study]., Dr Piyush Ranjan, DST, 1 year, 2021-22, Rs 9.28 Lakhs
11. Study of the course of somatic symptoms severity and disability in patients with medically unexplained physical symptoms (MUPS) in an Indian setup- [AIIMS MUPS Cohort Study]., Dr. Piyush Ranjan, DHR, 3 years, 2021-23, Rs 19,27,000/-

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12. To compare the effect of Intermittent fasting and Continuous energy restriction on body composition, multiple metabolic and physiological parameters in obese adults, Dr Naval K Vikram, ICMR, 2 years, 2021-23 (extension), Rs 53,16,985
13. To determine the effectiveness of pulmonary rehabilitation on functional exercise capacity and health-related quality of life (HRQOL) in patients with post tuberculosis lung disease: pre-and post-interventional cohort study, a multi-centric study., Dr. Sanjeev Sinha, ICMR, 11 Months, 2023-24, Rs 57,08,207/-
14. To evaluate efficacy of Bacillus Calmette-Guerin (BCG) in Reducing the Incidence and severity of COVID-19 in the high-risk population (BRIC): a phase III, Multicentric, Quadruple blind Randomized controlled trial, , Dr. Sanjeev Sinha, , DHR, 3.4 years, 2020-24, Rs 2,00,00,000/-
15. To study the effect of Vitamin C and Thiamine in patients with sepsis in Indian, Population: Single blind, Parallel Group, Randomized controlled trial., Dr. Arvind Kumar, ICMR, New Delhi, 3 years, 2019-23, Rs 50,00,000
16. To study the role of serum proteomics profiles in subjects with metabolic syndrome, Dr. Upendra Baitha, DHR, 1 year, 2022-23, Rs 22,00,000

Departmental projects

Ongoing

1. A cross-sectional study of patient reported quality of life and cognitive impairment in patients with gastrointestinal stromal tumor
2. Adherence need assessment tool development and validation among PLHID to improve adherence to anti retroviral therapy.
3. Adherence to sepsis care bundle and its effect on patient outcome
4. An observational study to assess the effet of different vitamin D supplementation practices on hemoglobin levels in vitamin D deficient mechanically ventilated patients with sepsis in a medical ICU
5. Analysis of clinicopathological profile, treatment pattern and outcome of patient with NSCLC harboring driver mutation
6. Assessment of clinico-laboratory parameters and outcomes associated with dysglycemia in patients with sepsis
7. Clinical profile and outcome of ventilator associated pneumonia patients due to carbapenem resistant acenetobacter bauminii
8. Clinicodemographic and Electrophysiological Profile of ATT Induced Peripheral Neuropathy in patients with MDR/ XDR Extraneurological Tuberculosis : A Cross Sectional Study
9. Clinico-pathological characteristics and Survival outcome in patients with chronic myeloid leukemia-CP
10. Clinico-pathological characteristics and survival outcome of patients with Mantle Cell Lymphoma: A Retrospective Study
11. Clinico-pathological Characteristics and Survival Outcome of Patients with Follicular Lymphoma: A retrospective study
12. Clinicoradiologic profile and outcome of patients with NPH
13. Correlation of ggt/hdl-c ratio with MASLD in type 2 diabetes mellitus patients
14. Development of a predictive model for identifying causative organisms among patients with clinical suspicion of bacterial sepsis based on clinical, biochemical and radiological parameters
15. Diagnosing Recurrent Pulmonary TB: A comparison of clinico-radio-microbiological and AI based imaging systems
16. Diagnostic accuracy of Gene Xpert Ultra in Tuberculous pleural effusion
17. Diagnostic accuracy of procalcitonin for detecting bacterial infection / sepsis in chronic kidney disease patients
18. Diagnostic utility of genexpertmtb/xdr in extrapulmonary tuberculosis
19. Economic Burden of Drug Resistant Epilepsy in India
20. Effect of electrical based optimisation on improving electrical and mechanical performance after CRT implantation

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21. Epidemiology, clinical profile, management trends and outcomes in patients presenting with pulmonary artery hypertension in a tertiary care centre in North India
22. Etiological and clinico-radiological profile with outcomes in patients presenting with suspected CNS viral infection
23. Etiology and Outcome of lung cavity in hospitalized patients
24. Evaluating the diagnostic utility of predictive model based on clinical findings, laboratory parameters and radiological imaging for detecting fungal infection
25. Evaluation of current management practices and outcomes in patients with CNS tuberculosis
26. Evaluation of lifestyle related factors and biochemical markers for the occurence and severity of Non-Alcoholic Fatty Liver Disease in India.
27. Exploring the awareness and understanding of Desmoid/Fibromatosis among healthy care professionals: a knowledge assessment study
28. Hypomagnesemia and its correlation with clinical outcomes in admitted sepsis patient
29. Impact of costal expansion exercises on lung function, rate of perceived exertion and quality of life in obese individuals
30. Incidence of aids and non-aids related events in plhiv with immuno-virological discordance as compared to patients without discordance
31. Invasive fungal infections in acute on chronic liver failure patients -A prospective study
32. Long term health outcomes among post COVID syndrome patients.
33. Multi-drug resistant and Extensively drug resistant Enterobacterales- Prevalence, Treatment and Outcomes: A Prospective Observational study
34. NMR based CSF metabolomics for biomarker identification for poor outcomes in TB meningitis patients
35. Non Alcoholic Fatty Liver Discase and its sarco-metabolic correlates in people living with Human Immunodeficiency virus infection
36. Observing the changes in upper airway anatomy using Magnetic Resonance Imaging and correlating with changes in Apnea-Hypopnea index in patients undergoing weight loss with bariatric surgery”
37. Post Sepsis Syndrome- A Prospective Observational Study
38. Prevalence and clinical outcomes of rsv in adults with severe acute respiratory infection (SARI)
39. Prevalence and correlates of neurological and neurocognitive disorders in HIV+ patients on ART
40. Prevalence and diversity of non tuberculousmycobacterium in tb and ntm suspects in a tertiary care centre in north india
41. Prevalence of CRE intestinal colonisation among patients admitted to a medicine ward
42. Prevalence of EBV DNA and anti EBV antibodies in patients of Multiple Sclerosis, NMOSD and MOGAD.
43. Prevalence of primary aldosteronism in essential hypertension
44. Prevalence, Incidence and Risk factors for Latent Tuberculosis Infection (LTBI) among Medical Students and Residents
45. Prevalence, Risk Factors and Outcome of Undiagnosed Heart Failure with Preserved Ejection Fraction (HFpEF) Among Patients Admitted with Dyspnea”
46. Prevalence, Types and Factors determining Arrhythmias in patients with OSAHS
47. Seroprevalence of Vaccine preventable disease in health care worker
48. Study of association of Anthropometric measurements and body fat distribution with lipid profile and hsCRP in Adult population
49. Study of Body composition, clinical and metabolic profile of non obese individuals
50. Surveillance of hospital acquired UTI and significance of Candiduria in adult medical ICU
51. The association between obstructive sleep apnea and coronary plaque using a CT coronary angiography scan - a cross sectional observational study.

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52. To compare muscle mass, strength and function, biochemical and lifestyle factors between individuals of age (30 to <65 years) and (≥65 years) with Dynapenia/Sarcopenia
53. To evaluate efficacy for glycaemic control and safety profile of different metformin doses in women with Gestational Diabetes Mellitus- a pilot two arm parallel randomised controlled trial
54. To evaluate the effectiveness of enhanced behavioural intervention and use of technology(continuous glucose monitoring) for improving pregnancy outcomes among women with type 2 DM:A three arm parallel randomised controlled trial
55. To study the incidence of tuberculosis in patients with hematological malignancies and cancer specific incidence rates of tuberculosis among them
56. To study the prevalence of primary hyperaldosteronism in the patients of obstructive sleep apnea.
57. Utility of orofacial myofunctional therapy in obese patients with obstructive sleep apnea
58. Young onset lung cancer: clinicopathological profile, treatment and outcomes

Completed

1. "Psychiatric morbidities and psychological profile in patients with medically unexplained physical symptoms (MUPS) in medicine OPD"
2. A study to assess the knowledge, attitude and practices regarding adult immunization amongst Medicine and Infectious Discases residents of AIIMS, Delhi- A Quasi-Interventional Study
3. A study to determine the effectiveness of pulmonary rehabilitation on functional exercise capacity and health related quality of life (HRQOL) in patients with post tubercular lung disorders: pre and post interventional study.
4. An ambispective study of risk factors, potential diagnostic clues, course and outcome of cases of pyrexia of prolonged duration admitted in the medicine ward
5. Assessment of cardio-respiratory fitness in obese adults through spiroergometry and effect of structured exercise in improvement of cardiorespiratory response
6. Assessment of muscle strength and hand grip in young adults and correlation with body composition
7. Assessment of sarcometabolic and hemostatic profile in People living with HIV (PLHIV) on Highly active antiretroviral therapy (HAART)
8. Candida auris: Infection, Colonization and Risk of Transmission in Healthcare Setting
9. Central line-associated bloodstream infections and Bacterial contamination among Health Care Workers in medical ICU: a prospective observational study
10. Clinical features, treatment modalities, and outcomes of igg4-related diseases
11. Clinico Epidemiological Spectrum and factors affecting prognosis of Mucor mycosis
12. Correlation of impulse oscillometry with clinico radiological profile of post pulmonary tuberculosis sequelae patients
13. Diagnostic accuracy of the Gene Xpert MTB/ Rif ultra in tubercular lymphadenitis
14. Dynamic monitoring of hemodynamic parameters in Dengue fever: A prospective observational study
15. Effect of Educational intervention on antifungal use in Medicine wards and ICU
16. Effects of OSA on diameter of great thoracic vessels and upper airway parameters in CT scan
17. Evaluation of 99mtechnetium labelled antibiotic scintigraphy in diagnosis and monitoring of tuberculosis with bone involvement
18. Evaluation of Endotracheal Aspirate Galactomannan antigen detection for diagnosis of invasive pulmonary aspergillosis: A cross-sectional, diagnostic test validation study
19. Factors affecting outcome of patients with advanced hiv on TLD regimen
20. Immune response to COVID-19 vaccination in adult patients with HIV infection
21. Long COVID and coagulopathy among patients recovered from COVID 19: a prospective observational study
22. Muscle Strength as predictor of clinical outcomes in hospitalised adult patient

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23. Predictors of adverse outcomes in treatment of drug sensitive tuberculosis
24. Predictors of HIV Serodiscordance in couples- A retrospective study
25. Prevalence of Aspergillus Coinfection in Newly Diagnosed Pulmonary Tuberculosis Patients and on Treatment Completion by Serological And Microbiological Methods
26. Prevalence of mental health issues in post COVID patients
27. Prevelence of mafld in Indian adult population
28. Procalcitonin as a biomarker of bacterial sepsis in patients with or without acute kidney injury
29. SARS CoV2 antibody response to COVID 19 vaccination among immunocompromised and comorbid individuals
30. Screening of stool and rectal swab specimens from admitted patients on antibiotics for Carbapenem resistant Enterobacterales, Carbapenem resistant Acinetobacter baumannii and Clostridioides difficile to detect carriers
31. Study of prevalence and clinico-metabolic profile of osteo-sarcopenic obese individuals
32. Study to assess the prevalence of metabolically healthy obesity (MHO) and metabolically unhealthy obesity (MUO) among obese patients
33. The frequency and risk factors for latent tuberculosis infection among type 2 diabetes mellitus patients
34. Therapeutic drug monitoring in tuberculous meningitis : correlation with disease outcome
35. To evaluate social, clinical and biochemical parameters in patients having post COVID fatigue and Myalgia
36. Utility of serum Ferritin in Dengue fever

Collaborative projects

Ongoing

1. A cross-sectional study of patient reported quality of life and cognitive impairment in patients with Gastrointestinal stromal tumor', MedicalOncology, AIIMS, New Delhi
2. Clinicoradiological profile and outcome of patients with normal pressure hydrocephalus, Neurology, AIIMS, New Delhi
3. Development and validation of High-resolution melting curve Assay for detection of Aspergillus species and azole resistance, Microbiology, AIIMS, New Delhi
4. Exploring the Awareness and Understanding of Desmoid/Fibromatosis among Healthcare Professionals: A Knowledge Assessment Study, Medical Oncology, AIIMS, New Delhi
5. Quantification of targeted proteins to differentiate the active TB vs latent TB vs healthy population: evidence-based approach for tuberculosis diagnosis dilemma, Microbiology, AIIMS, New Delhi
6. To establish the therapeutic potential of probiotics and their associated metabolites in mitigating pulmonary and extrapulmonary ARDS under preclinical and clinical conditions, Biotechnology, AIIMS, New Delhi
7. Validating Biomarker Panel in Five Different Cohorts to define and predict Biological Ageing, Disease Burden and Mortality in Human Subjects- A pilot Prospective Cohort Study, Geriatric Medicine, AIIMS, New Delhi

Completed

1. "Metabolic and addiction indices in Indian opioid dependent subjects on Buprenorphine-naloxone Maintenance treatment: A longitudinal study", Psychiatry, AIIMS, New Delhi
2. Molecular Epidemiology and In-Vitro Antifungal Susceptibility of Cryptic Aspergillus species from Clinical Environment samples, Microbiology, AIIMS, New Delhi
3. Popularizing science and technology for alleviating occupational health hazards among women studying or working in schools, colleges and IT sector, Rheumatology, AIIMS, New Delhi
4. Validation and feasibility of Swaasa AI platform at a Primary Health Setting for lung health assessment, CCM, AIIMS, New Delhi

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Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded Projects	36	35	31
Total funding	Rs 13,97,85,331/-	Rs 16,46,45,949/-	Rs 16,53,41,563

PUBLICATIONS: 83

Journals: 79 **Abstract: 3** **Chapters in Books: 1** **Books & Monographs: 0**

Publications over the past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**103**	**138**	**83**
Journal articles	101	130	79
Abstracts	-	-	3
Chapters in books	2	7	1
Books	-	1	-

PATIENT CARE

Item	2021-2022	2022-2023	2023-2024
	OPD consultations		
Medical OPD	70397 (Including tele OPD)	150634	**179339**
Special Clinic Consultations			
Infectious Diseases, Travel Health & Adult Immunization Clinic (Monday & Thursday 2.00 PM)	1823 (Including tele OPD)	4352	**7010**
Sleep Clinic (Monday 2.00 PM)	330	479	**747**
Obesity and Metabolic Disorders Clinic (Wednesday 2.00 PM)	711 (Including tele OPD)	3361	**2452**
Chest Clinic (Friday 2.00 PM)	1191 (Including tele OPD)	1750	**4046**
Antiretroviral (ART) Centre	Pre-ART 485 ART 60717	Pre-ART 523 ART 63582	Pre-ART **546** ART **64182**
Patients provided rehabilitation services	**-**	**-**	**3173**
Total Inpatient Admissions	4172	4464	**5042**

Laboratories:

POCT Lab:	2021–2022	2022–2023	2023–2024
Procalcitonin (PCT)	3284	4320	**2543**
NT - Pro BNP	1411	2166	**1545**
Troponin I (Trop I)	1429	2164	**1517**
ABG (Arterial blood gas analysis)	29108	33290	**32257**
Blood Culture	4375	5814	**4581**
ROTEM's INTEM	150	146	**216**
ROTEM's EXTEM	119	149	**207**
ROTEM's FIBTEM	99	128	**196**
ROTEM's APTEM	97	74	**129**
Dengue NS1 IgG/ IgM	283	183	**104**
SCRUB TYPHUS IgG/ IgM	195	91	**98**
Malaria Antigen	122	97	**56**
Pneumonia Panel	-	-	**88**
Respiratory Panel	-	-	**8**
M/E Panel	-	-	**25**
BCID Panel	-	-	**61**

Sleep lab:	**2021–2022**	**2022–2023**	**2023–2024**
Sleep studies	217	350	**373**
Ambulatory monitoring of blood pressure	6	19	**10**
Actigraphy	2	4	**4**

PFT Lab:	**2021–2022**	**2022–2023**	**2023–2024**
Pulmonary Function Test	2992	7553	**7813**
6 Minute walk test	409	791	**698**
FOT	376	478	**322**
SVC	436	1072	**1007**
DLCO	434	1083	**1007**
TLC	76	187	**87**
MIP/ MEP	9	5	**3**
CPET	1	1	**-**

Number of Bronchoscopy done:	**2021–2022**	**2022–2023**	**2023–2024**
Fiber-optic bronchoscopy	-	5	**-**

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Bronchoalveolar (BAL)	173	232	**879**
Biopsy	31	-	**-**
Forceps Biopsy	-	23	**22**
Brush Biopsy	-	1	**2**
Radial Probe Biopsy	1	1	**4**
Brush Cytology	-	1	**-**
Transbronchial Needle Aspiration (TBNA)	15	0	**7**
EBUS	43	71	**65**
Tracheostomy	4	6	**9**
BPF Closure	3	-	**-**
Thoracoscopy	1	1	**-**
Ampho B	14	0	**-**
Pigtail Insertion	2	-	**3**
FNAC	-	1	**-**

ADA/ACE Lab:	**2021–2022**	**2022–2023**	**2023–2024**
ACE tests	790	1565	**1281**

Intermediate Reference Laboratory (IRL) Services:	**2021–2022**	**2022–2023**	**2023–2024**
No. of samples for sputum smear-	-	9081	**7890**
No. of samples for liquid culture-	8969	11011	**6448**
No. of samples for liquid DST (1st line)	73	65	**205**
No. of samples for liquid DST (2nd line)	135	109	**86**
No. of samples for Line Probe Assay (1st line LPA)	3940	5662	**6288**
No. of samples for Line Probe Assay (2nd LPA)	417	641	**750**
No. of samples for Gene/Xpert	1880	7977	**7810**
No. of samples for TB Ag MPT64	-	180	**250**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Naveet Wig was chairperson of the committee which developed Extra-Pulmonary tuberculosis (EPTB) training module, Member of National Task Force on COVID-19, Clinical Research Group (ICMR) on COVID-19, 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 the funded workshop on clinical training and translational research; Co-chair, Standing Treatment Guidelines (Medicine), ICMR; Member of ICMR Technical Resource Group on HIV/AIDS and member of HIV/AIDS Project Review Committee (PRC) of ICMR; Member of Joint Monitoring Group (MoH, FW &GoI).

Professor Sanjeev Sinha (Honours) received Fellowship of National Academy of Sciences India (NASI), Fellowship of American Thoracic Society, USA (2023), Best scientist award of the year 2023 by DST-NASI, and Fellowship of National

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Academy of Medical Sciences (FAMS, 2023); **(**significant events**)** Member of Medical Board Antarctica Expedition, Govt. of India, Goa, Member of Scientific Committee, NACO, Ministry of Health & FW, Govt. of India, Member of Health wellness programme, Govt. of India, Member of FDC, DCGI, India and Member of Indian Pharmacopeia, MOH & FW, GOI. He is also Member Secretary of AIIMS Ethics Committee of PGR; (Membership of Editorial boards of indexed international journals/Review committees of National bodies and Institutions) Member of Editorial board of "Cases Journal", 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, Fellowship of National Academy of Sciences India (NASI) and Member of council of National Academy of Sciences India (NASI).

Dr Arvind Kumar was awarded "American College of Physicians India Internist Award 2023" at 8th Annual Conference of ACP India on 23 September, 2023 at Bhubaneswar**,** "Fellowship of American College of Physicians" at 8th Annual Conference of ACP India, on 23 September, 2023 at Bhubaneswar held from 22 to 24 September, 2023.

Dr Ranveer Singh Jadoon was awarded Membership of prestigious National Academy of Medical Sciences on 7 October, 2023 at Bengaluru in NAMSCON, 2023, Fellowship (FIACM) of prestigious Indian Association of Clinical Medicine on 25 November, 2023 at Agartala in IACMCON, 2023 and Got Membership of American College of Physician on 1 July, 2023**,** Got "Diploma in Human Nutrition" by completing online Allison Course on 7 June, 2023 and Member secretary of Medical Board Antarctica Expedition, 2023 Govt. of India

Dr Animesh Ray was awarded APSR Teaching Library Case Submission Award, at the 27th Congress of the APSR 2023, Singapore and Secured 3rd prize for AIIMS Excellence Research Award 2022 (presented at AIIMS Excellence Research Award 2024).

VISITING SCIENTIST

1. **Dr Jagmeet P. Singh**, Professor of Medicine, Harvard Medical School, Cardiology Division, Massa Chusetts General Hospital, USA delivered a Guest Lecture on "Artificial Intelligence and Sensors in Healthcare".
2. **Dr Sajal Kumar**, Medical Director, Davita Yakima Dialysis Center and Asstt. Professor Adjunct, at PNWU Pacific Northwest Medical Sciences Yakima, WA, Washington State University delivered a Guest Lecture on "Chronic kidney diseaseand Kidney transplant" held on 7 February 2024 at AIIMS, New Delhi.
3. **Dr Samantha C. Shapiro**, Executive Editor of Harrison's Principles of Internal Medicine, USA delivered a Guest lecture on "Harrison's Textbook: Evolution over time, current challenges and future scope".

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9.20 Microbiology

Professor and Head

Lalit Dar

Professors

Bimal K Das	Bijay Ranjan Mirdha	Immaculata Xess
Benu Dhawan	Seema Sood	Urvashi B Singh,

Additional Professors

Sarita Mohapatra	Aashish Choudhary	Gagandeep Singh
Hitender Gautam	Nishant Verma	Megha Brijwal
	Kiran Bala	

Assistant Professor

Priyam Batra		Tanu Sagar

HIGHLIGHTS

The Department of Microbiology has been NABL Accredited w.e.f. November 2019 (As per ISO 15189:2012). While a total of 65 routine tests were accredited in 2021-23, the SCOPE has enhanced to 91 tests during renewal of accreditation for 2023-25 (all routine microbiological tests have been covered under accreditation and newer tests are to be added). Certificate validity till 15 November 2025. Further, all the sections in the department participate in EQA/PT programs. Successful continuation of NABL accreditation of National HIV Reference Laboratory as per ISO 15189:2012 and HIV ELISA testing included in existing scope as a scope extension. NABL Certificate validity till 10 July 2025. In addition, the NACO Regional Reference Laboratory for HIV Viral Load and Early Infant Diagnosis has been accredited since 2017. The Department of Microbiology is amongst the few government medical colleges with an accredited parasitology laboratory. The Department of Microbiology is designated as a DHR Integrated Disease Research and Diagnosis Laboratory (IDRDL), under a new GoI scheme, starting 2024.

The Department is providing 24 x 7 Microbiology Diagnostic Services for patient care. The faculty members of the Department of Microbiology coordinate hospital-acquired infection (HAI) surveillance activities and training.

The Department of Microbiology is a nodal resource centre for various National Programmes and other activities of the Government of India. The Bacteriology Laboratory has been a nodal centre for the ICMR-initiated Antimicrobial Resistance Surveillance and Research Network (AMRSN) since 2013 in reference to *Salmonella* Typhi, providing valuable inputs in formulating the national antimicrobial resistance policy for the country.

The Parasitology laboratory of the Department of Microbiology is carrying out multiplexing PCR assays for all five species of *Plasmodium* that cause human infections and investigating sub-microscopic malaria, in view of the National Malaria Eradication Programme target of 2030. The Mycology laboratory is designated as an ICMR Reference Laboratory for human fungal disease in India. The Virology laboratory is a DHR-ICMR Regional-Level Virus Research and Diagnostic Laboratory (RL-VRDL); ICMR Influenza Sentinel Surveillance Centre, Apex Referral Laboratory of the National Centre for Vector Borne Diseases Control (NCVBDC) for Dengue and Chikungunya; NACO Regional Reference Laboratory (RRL) for HIV-1 Early Infant Diagnosis (EID); Referral Laboratory for HIV-1 viral load (under the National AIDS Control Programme); and a National Program for the Surveillance of Viral Hepatitis (NPSVH) Surveillance Laboratory. The HIV laboratory in the Department of Microbiology is NACO-designated National Reference Laboratory (NRL) for HIV and CD4 testing with ART linkage of positive patients via the ART centre. STD lab has been designated as a reference laboratory for medical device testing for sexually transmitted infections (STIs) by ICMR-CDSCO. The lab is a pioneer in the use of molecular methods like DNA biosensors and aptamers for POCT development for STIs/RTIs.

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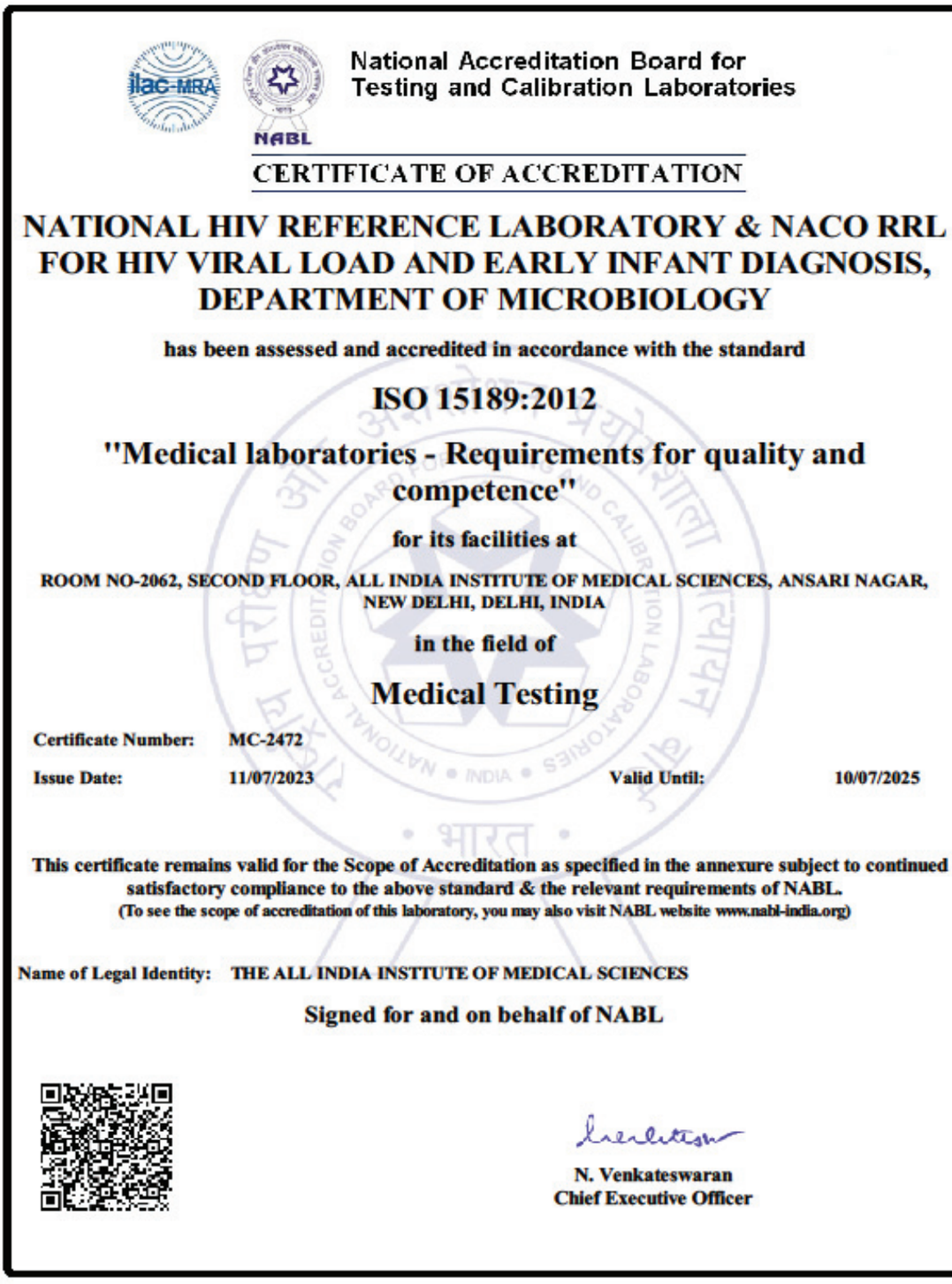


Workshop under AIIMS Initiative into NABL Accreditation: Conducted by Microbiology Department, AIIMS, New Delhi.



Public Lecture on "Tuberculosis Prevention, Role of Nutrition and Treatment" on the occasion of 'World TB Day' at Jawahar Lal Nehru Auditorium, AIIMS, New Delhi on March 26, 2024.

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National Accreditation Board for Testing and Calibration Laboratories

NABL

CERTIFICATE OF ACCREDITATION

NATIONAL HIV REFERENCE LABORATORY & NACO RRL FOR HIV VIRAL LOAD AND EARLY INFANT DIAGNOSIS, DEPARTMENT OF MICROBIOLOGY

has been assessed and accredited in accordance with the standard

ISO 15189:2012

"Medical laboratories - Requirements for quality and competence"

for its facilities at

ROOM NO-2062, SECOND FLOOR, ALL INDIA INSTITUTE OF MEDICAL SCIENCES, ANSARI NAGAR, NEW DELHI, DELHI, INDIA

in the field of

Medical Testing

Certificate Number: MC-2472

Issue Date: 11/07/2023 **Valid Until:** 10/07/2025

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity: THE ALL INDIA INSTITUTE OF MEDICAL SCIENCES

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

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National Accreditation Board for Testing and Calibration Laboratories

NABL

CERTIFICATE OF ACCREDITATION

DEPARTMENT OF MICROBIOLOGY, ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS), NEW DELHI

has been assessed and accredited in accordance with the standard

ISO 15189:2012

"Medical laboratories - Requirements for quality and competence"

for its facilities at

DEPARTMENT OF MICROBIOLOGY, SECOND FLOOR, TEACHING BLOCK, ALL INDIA INSTITUE OF MEDICAL SCIENCES, ANSARI NAGAR, NEW DELHI, SOUTH, DELHI, INDIA

in the field of

Medical Testing

Certificate Number: MC-3267

Issue Date: 15/11/2023 **Valid Until:** 14/11/2025

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: All India Institute of Medical Sciences

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

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EDUCATION

UNDERGRADUATE TEACHING:

MBBS for Medical Microbiology
BSc (Nursing)–Medical Microbiology
BSc OT Technology - Medical Microbiology

POSTGRADUATE TEACHING:

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 trainees: 06

No. of Students Registered	2021—2022	2022—2023	2023-2024
MD	18	19	17

CME/Workshops/Symposia/National & International Conferences:

1. AIIMS Initiative into NABL Accreditation: Conducted by the Department of Microbiology, AIIMS, New Delhi. NABL Training of all Laboratory Staff (App. 200) of AIIMS, New Delhi. Four Trainings were conducted with Quality Council of India

   Dates of the event:

   - Ist Training: 10 & 11 April 2023
   - 2nd Training: 22 & 23 May 2023
   - 3rd Training: Ist & 2 June 2023
   - 4th Training: 22 & 23 June 2023

2. EQAS workshop for four HIV State Reference Laboratories under the National HIV Reference Laboratory, Department of Microbiology, AIIMS, New Delhi, Dated: 09 January 2024

Participants: Four State Reference Laboratories participated i.e. PGIMER, Chandigarh; Govt. Medical College, Patiala; Govt. Medical College, Amritsar and Indira Gandhi Medical College, Shimla and staff of HIV Laboratory, AIIMS.

3. Conducted AMR-Educate: Indo-Norway Workshop on Integrated Research to combat anti-microbial resistance. 12 & 13 December 2023 at Ramalingaswamy Board Room, AIIMS, New Delhi. Under the Department of Microbiology & Department of Biophysics, AIIMS, New Delhi.
4. Organized Public Lecture on "Tuberculosis Prevention, Role of Nutrition and Treatment" on the occasion of 'World TB Day' at Jawahar Lal Nehru Auditorium, AIIMS, New Delhi on March 26, 2024.
5. Organized Lecture Series on "Tuberculosis and Nutrition" on 18 January 2024, 12 Noon-2 PM, at LT, Department of Microbiology, AIIMS, New Delhi
6. Two-day PG Assembly 2023 under the aegis of the Indian Association of Medical Microbiology (IAMM) on 18-19 October 2023. Over 45 residents from various medical colleges/institutes in Delhi/NCR, Rajasthan, Punjab/ Chandigarh, Uttar Pradesh, Madhya Pradesh, and Odisha attended the academic program.
7. The Virology laboratory of the department organized a 6-day workshop entitled 'Whole Genome Sequencing: Strengthening capacity for genomic sequencing of outbreak prone respiratory pathogens like influenza and other respiratory viruses' held between 7-12 August 2023. Over 26 delegates from many institutes across the country participated in this hands-on whole genome sequencing workshop.

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Lectures Delivered: 51

Lalit Dar: 4	**Bimal Kumar Das: 2**	**Bijay Ranjan Mirdha: 2**	**Immaculata Xess: 1**	**Seema Sood: 3**
Urvashi B Singh: 8	**Sarita Mohapatra: 6**	**Aashish Choudhary: 1**	**Gagandeep Singh: 8**	**Hitender autam: 5**
Nishant Verma: 3	**Megha Brijwal: 2**	**Kiran Bala: 2**	**Priyam Batra: 3**	**Tanu Sagar: 1**

Lectures delivered over past 3 years

2021—2022	2022—2023	2023—2024
28	**37**	**51**

Oral papers/posters presented: 43

Oral/poster presentations over past 3 years

2021—2022	2022—2023	2023-2024
25	43	43

RESEARCH

FUNDED PROJECTS

Ongoing

1. A Preclinical Study to evaluate synergistic action of Rifampicin with Faropenem and Cefdinir on persister Mycobacterium tuberculosis bacilli in mouse model, Dr Urvashi B. Singh, AIIMS-THSTI, 2 Years, 2023-25, Rs 10 Lakhs
2. Antimicrobial susceptibility patterns of pathogens isolated in bloodstream infections vis a vis antibiotic prescribing practices and genotypic clonality of Acinetobacter baumannii in various patient care units/areas, Dr Hitender Gautam, Inter-Disciplinary AIIMS IMRG, 1 Year, January 2024, January 2025, Rs 4,90,350
3. CD4 testing program, Dr Bimal Kr Das, NACO, Continuous, 2005, Continuous, Testing kits provided by NACO, Rs 50,000/- for Consumables
4. Characterization of human antibody responses to Plasmodium vivax in India". (Through Inspire faculty programme), Dr Bijay Ranjan Mirdha, Department of Science and Technology, 5 Years, August 2023-28, More than Rs 5 Crore.
5. Clinical and epidemiological study of Lyme disease: a multi-centric taskforce study in India, Dr Nishant Verma, ICMR, 3 years, 2020-23, Rs 3,86,71,240
6. DetDetection of viable but non-culturable (VBNC) Gram-negative bacteria in sepsis and meningitis: Clinical significance in AMR stewardship, AIIMS Site PI: Dr Hitender Gautam, AIIMS-THSTI Collaborative Project, 2 Years, December 2023, December 2025, Rs 10 Lakhs
7. Detection of Mycoplasma pneumoniae infections in acute exacerbation of Chronic Obstructive Pulmonary Disease, Dr Tanu Sagar, AIIMS Intramural, 2 Years, 2024-26, Rs 9.8 Lakhs
8. Detection of salmonella serovars and their associated resistance marker directly from blood specimen using paper-based DNA biosensor, Dr Bimal Kumar Das, Funded by ICMR, 2 Years, 2024-26, Rs 1,35,68,808
9. Development of Surface Enhanced Raman Scattering (SERS) Based Biosensor for Rapid Detection of oligonucleotides in MDR and XDR-TB, Dr Urvashi B. Singh, AIIMS-IITD, 2 Years, 2022-24, Rs 10 Lakhs
10. Development of Surface Plasmon Resonance Array Biosensor for Rapid Molecular Drug Resistance Detection for MDR and XDR TB, Dr Urvashi B Singh, ICMR, 2 Years, 2023-25, Rs 40 Lakhs
11. Epidemiological impact and intersection of the COVID-19 and Tuberculosis Pandemics in Brazil, Russia, India and South Africa, Dr Urvashi B Singh, DST, 2 Years, 2021-23, Rs 1.72 Crore
12. Evaluation of NF- B based reactivation of latency in HIV infected individuals who are on antiretroviral therapy for more than 15 Years: A Quest for Cure, Dr Shesh Prakash Maurya (under mentorship of Bimal Kumar Das), Funded by DHR (HRD scheme), 3 years, 2022-25, Rs 50,92,497/-

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13. Evaluation of role of B-1 cells in modulating the response of T cells in HIV infected patients pre and post antiretroviral therapy: cohort study, Dr Bimal Kumar Das, Funded by ICMR, 3 Years, 2022-25, Rs 50,40,572/-
14. Expanded viral etiological investigation of genital ulcer disease with phenotyping and genotyping for antiviral drug resistance in herpes simplex viruses, Dr Megha Brijwal, ICMR, 3 Years, 2023-26, Rs 59 Lakhs
15. Exploring SELEX technology for potential POCT development for Genital Chlamydia trachomatis, Dr Seema Sood, ICMR, 3 Years, 2022-25, Rs 50 Lakhs
16. External Quality Assurance Scheme (EQAS) of National HIV/AIDS Reference Laboratory, AIIMS, Delhi, Dr Bimal Kr Das, NACO, Continuous, 2005, Continuous, Approx. Rs 14 Lakhs/annum
17. Genomic profiling of invasive and hospital-acquired Escherichia coli pathotypes from different clinical samples to identify the virulence and antimicrobial resistance markers, Dr Hitender Gautam, Science & Engineering Research Board SERB (Under DST), 2 Years 6 months, March 2022, September 2024, Rs 45,45,816/-
18. HIV integrated counselling and testing (ICTC), Dr Bimal Kr Das, NACO, Continuous, 2005, Continuous, Kits are provided by NACO and the rest is taken care of under EQAS budget
19. ICMRs: Advanced Mycology Diagnostic and Research Centre (AMDRC), Prof Immaculata Xess, ICMR, 5 Years, 2022-27, Rs 250 Lakhs
20. Mapping hotspots of MDR-TB in Assam, Sikkim and Tripura using Genomics approaches, Dr Urvashi B Singh, DBT-NER, 3 Years, 2018-24, Rs 4 Crore
21. Micro-nano structured urinary catheter to minimize catheter-associated urinary tract infection, Sarita Mohapatra (Co-PI), MoE-STARS, 3 Years, 2023-26, Rs 32.6 Lakhs
22. Molecular Characterization of diarrheagenic Escherichia coli among children with acute diarrhoea: Association of virulence and adherence genes, AIIMS Site PI: Dr Hitender Gautam, Department of Health Research (DHR), 3 Years, January 2024, December 2026, Rs 20,42,367/-
23. Molecular Epidemiology and In-Vitro Antifungal Susceptibility of Cryptic Aspergillus species from Clinical and Environment samples, Dr Gagandeep Singh, ICMR, 3 Years, 2022-25, Rs 35 Lakhs
24. Multi-centric study on prevalence of Mycoplasma genitalium and its resistance markers in the high-risk group (MSM and FSW) attending sexually transmitted disease clinics in North India, Benu Dhawan, ICMR, 3 Years, December 2021, December 2024, Rs 28.65 Lakhs
25. NACO Regional Reference Laboratory for HIV early infant diagnosis (EID), Dr Aashish Choudhary, National AIDS Control Organization (NACO), No fixed duration, 2012, Continuous, Rs 93 Lakhs
26. NACO Regional Reference Laboratory for HIV viral load (VL), Dr Aashish Choudhary, National AIDS Control Organization (NACO), No fixed duration, 2019, Continuous, Rs 51 Lakhs
27. National Program for the Surveillance of Viral Hepatitis, Dr Aashish Choudhary, Ministry of Health & Family Welfare (MoHFW), 5 Years (extendable), 2020, Continuous, Rs 1.3 Crore
28. Nodal coordinating center for surveillance network of antimicrobial resistance in salmonella enterica serotype Typhi and Paratyphi, Dr Bimal Kumar Das, Funded by ICMR, 2 Years, 2018-24, Rs 2,39,22,040
29. Non-tubercular mycobacteria responsible for pulmonary disease and infections in procedures involving prosthetic devices, laparoscopy or following other interventions, Dr Kiran Bala, AIIMS, Intramural, 1 Year, 2023-24, Rs 4.95 Lakhs
30. Operational Feasibility and performance of indigenous phenotypic kit for detection of multidrug-resistant tuberculosis and extensively drug resistant tuberculosis in field setting under the National Tuberculosis Elimination program, Dr Urvashi B Singh, ICMR, 3 Years, 2022-25, Rs 14 Lakhs
31. Platform for discovery of novel therapeutic monoclonal antibodies against MDR and XDR Klebsiella pneumoniae, Sarita Mohapatra (Co-PI)/year, DBT-BIRAC, 3 Years, 2023-26, Rs 4,88,840.00
32. PlatPlatform for enhanced pathogen detection for meningitis and sepsis: Rapid, portable, and field-deployable diagnostics. IIRPIG-2023-0001405, AIIMS Site PI: Dr Hitender Gautam, ICMR, 4 Years, March 2024, February 2027, Rs 93,46,030/-
33. Point-of-care test development for Bacterial Vaginosis (BV): Bench to bedside (Clinical validation of proof-of-concept), Dr Seema Sood, ICMR, 3 Years, 2024-27, Rs 75 Lakhs
34. Proteomics study of Giardia intestinalis isolates to associate with different clinical spectrum and extrapolate its invasive potential, Dr Bijay Ranjan Mirdha, ICMR, 3 Years, September 2023-August 2026, Rs 48 Lakhs

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35. Proteomics study of Giardia intestinalis isolates to associate with different clinical spectrum and extrapolate its invasive potential, Dr Nishant Verma, ICMR, 3 Years, 2023-26, Rs 48,69,222
36. Quantification of JC polyomavirus in CSF in patients with suspected progressive multifocal leukoencephalopathy (PML) by digital PCR, Dr Megha Brijwal, AIIMS Delhi (Intramural grant), 1 Year, 2023-24, Rs 5 Lakhs
37. Regional Virus Research and Diagnostic Laboratory (RL-VRDL), Dr Lalit Dar, Department of Health Research (DHR), 10 Years (extendable), 2019, Continuous, Rs 5 Crore
38. Site-specific biomarkers to differentiate infection from either colonization or aseptic inflammation in ICU, Dr Hitender Gautam, ICMR, 3 Years, January 2023, December 2025, 73, 39, 362/-
39. Strengthening Capacity for Genomic Sequencing of Outbreak Prone Respiratory Pathogens like Influenza and Other Respiratory Viruses, Dr Megha Brijwal, CDC & APHL, USA, 5 months, 2023-23, Rs 40 Lakhs
40. To determine the prevalence of common virulence determinants associated with Uropathogenic Escherichia coli from community-setting at different geographical regions of India using phenotypic and genotypic methods, Dr Sarita Mohapatra, ICMR, 3 Years, 2022-25, Rs 553400.00
41. Towards point of care test development for Bacterial Vaginosis, a polymicrobial infection, Dr Seema Sood, ICMR, 3 Years, 2020-23, Rs 51 Lakhs
42. Validation of Indigenously Developed Diagnostic kit based on Detection of Proteomic Markers from Urine for Diagnosis of Pulmonary and Extra-pulmonary Tuberculosis, Dr Urvashi B. Singh, ICMR, 3 Years, 2022-25, Rs 1.4 Crores
43. Whole genome sequencing of the SARS-CoV-2 novel coronavirus strains at a tertiary care center in Delhi, Dr Aashish Choudhary, AIIMS Delhi (Intramural grant), 2 Years, 2020-23, Rs 11 Lakhs

Completed

1. A prospective study of viral infections in hematopoietic stem cell transplant recipients at a tertiary care hospital in India, Dr Megha Brijwal, ICMR, 3 Years, 2019-23, Rs 45 Lakhs
2. Changing epidemiology of tuberculosis among SARS CoV-2 pandemics, Dr Kiran Bala, AIIMS, Intramural, 2 Years, 2021-23, 7.14 Lakhs
3. Comparison of diagnostic accuracy of Real-time PCR versus Nugent's scoring in Indian women with and without Bacterial Vaginosis (BV). Award of SRFship, Dr Seema Sood, ICMR, 3 Years, 2019-22, Rs 16.6 Lakhs
4. Crohn's Disease in India: A multicenter study from a country where intestinal tuberculosis as well as Johne's disease is endemic, Dr Urvashi B. Singh, ICMR/DHR, 5 Years, 2016-22, Rs 35 Lakhs
5. Diagnosis of Pulmonary And Extra-Pulmonary Tuberculosis Patients Using Differentially Expressed Proteins As Potential Biomarkers: An Approach Towards Development Of Point Of Care Test, Dr Urvashi B. Singh, ICMR, 3 Years, 2018-22, Rs 60 Lakhs
6. Early Bactericidal Activity (EBA) and Pk/Pd Study of Rifampicin Feropenem Cefdinir with Clavulanate vs Standard of Care in Newly Diagnosed Smear Positive Rifampicin Susceptible TB, Dr Urvashi B Singh, ICMR, 2 Years, 2019-23, Rs 70 Lakhs
7. Early Bactericidal Activity (EBA) of Rifampicin and Feropenem in Tuberculosis (Rifampicin Susceptible)-, Dr Urvashi B Singh, ICMR, 2 Years, 2019-22, Rs 70 Lakhs
8. Implementation of An Institutional Antifungal Stewardship Program (AFSP) On The Appropriate Use Of Antifungal Therapy And Outcomes In Patients With Invasive Fungal Infections, Dr Gagandeep Singh, ICMR, 3 Years, 2020-23, Rs 48 Lakhs
9. In vitro susceptibility of Cefiderocol against carbapenem-resistant gram-negative bacilli from patients with blood stream infection/sepsis, urinary tract infection or pneumonia, Dr Sarita Mohapatra, Funded (Intramural), 2 Years, 2021-23, Rs 9.7 Lakhs
10. Magnitude of asymptomatic malaria infections in pregnant women in a community hospital, Dr Nishant Verma, AIIMS, New Delhi, 1 Year, 2018, 2019 (work continued in previous year too), Rs 4,98,000/-
11. Point of care Urinary Lipoarabinomannan antigen (LAM) detection as a diagnostic tool for Extra-pulmonary tuberculosis, Dr Kiran Bala, AIIMS, Intramural, 2 Years, 2021-23, Rs 4.94 Lakhs

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12. Rapid Molecular Drug Resistance Detections for MDR and XDR-TB and Molecular Typing of Mycobacterium Tuberculosis From Ziehl-Neelsen's Stained Microscopic Slides From Delhi State, Dr Urvashi B Singh, ICMR, 3 Years, 2018-22, Rs 60 Lakhs
13. Study of hyaline non-sporulating moulds isolated from clinical samples of tertiary care respiratory hospital in Delhi, Dr Gagandeep Singh, ICMR, 3 Years, 2021-24, Rs 27 Lakhs

DEPARTMENTAL PROJECTS

Ongoing

1. Acute diarrhoeal disease due to typical and atypical Enteropathogenic Escherichia coli among under-5 children.
2. Central line-associated bloodstream infections and bacterial contamination among health care workers in medical ICU: a prospective observational study
3. Chlamydia trachomatis and Neisseria gonorrhoeae coinfections in MSM
4. Clinico-Microbiological Profile of Patients with Acute Cholangitis.
5. Comparison of conventional and automated culture for aerobic bacterial isolates in Bacteraemia
6. Detection and molecular characterisation of parasites from patients with functional dyspepsia (FD).
7. Detection of Parvovirus B19 infection in patients with hematological disorders
8. Detection of Pneumocystis jirovecii (P. jirovecii) and Human Cytomegalovirus (HCMV) infection in immunocompromised individuals
9. Diagnosis of catheter-related bloodstream infections at a tertiary hospital in North India- A prospective study.
10. Genotypic characterization of Measles virus from clinical cases
11. HCMV disease in pediatric leukemias (ALL and AML)
12. Identification and antimicrobial resistance profile of Enteroaggregative Escherichia coli in acute diarrhoea cases
13. Identification and characterization of microsporidia in HIV-seropositive patients
14. Impact of Integrated Stewardship reinforcement among Health Care Workers on Diagnosis and Management of UTI: a Quality improvement study
15. In vitro susceptibility of Omadacycline against Extensively drug-resistant (XDR) Acinetobacter baumannii and Klebsiella pneumoniae clinical isolates from bacterial meningitis and bloodstream infections
16. Incidence and Clinico-Microbiological Profile of Surgical Site Infections in a General Surgery ward in a Tertiary Care Hospital
17. Incidence of Invasive Fungal Infection in NICU and Paediatric ICU with Cardiac intervention
18. Invasive fungal infection in ACLF patients-A prospective study
19. Long term outcome & prevalence of post-sepsis syndrome
20. Molecular Characterization and antimicrobial resistance profile of Uropathogenic Escherichia coli (UPEC) from patients with UTI in India: Across-sectional study
21. Molecular characterization, prevalence and antimicrobial resistance profile of Diarrheagenic Escherichia coli (DEC) pathotypes in the pediatric diarrheal population
22. Molecular detection of viral pathogens causing non-gonococcal urethritis (NGU)
23. Nodal Center for National Surveillance of Antimicrobial Resistance. Funded by ICMR
24. Prevalence of CRE intestinal colonisation among patients admitted to a Medicine ward
25. Prevalence of Histoplasmosis in Patients Suspected with Tuberculosis
26. Prevalence of human cytomegalovirus (HCMV) reactivation and tissue invasive disease in critically ill patients with sepsis
27. Prevalence of Strongyloides infection among immunocompromised patients at a tertiary care hospital
28. Quality control tests of routinely used therapeutic radiopharmaceuticals

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29. Rapid electrochemical detection of MRSA and azithromycin-resistant NG: A Novel Strategy
30. Role of aptamer technology in detection of Bacterial Vaginosis (BV) associated bacteria
31. Screening of stool specimens from admitted patients on antibiotics for Carbapenem-resistant Enterobacterales, Carbapenem-resistant Acinetobacter baumannii and Clostridioides difficile to detect carriers
32. Study of thymidine kinase gene polymorphisms in Herpes simplex virus-positive clinical isolates
33. Study on hepatotropic viruses causing acute liver failure (ALF) in children

Completed

1. Antibody response among healthcare workers recovered from COVID-19
2. Audit for antifungal treatment usage in adults with invasive fungal infection: a prospective observational study.
3. BK and JC polyomavirus detection in patients with allogenic hematopoietic stem cell transplant
4. Comparison of diagnostic accuracy of Real-time PCR versus Nugent's scoring in Indian women with and without Bacterial Vaginosis (BV)
5. Development of POCT using Aptamers: Neisseria gonorrhoeae as a prototype
6. Epidemiology of invasive fungal infections in COVID, post COVID and non-COVID patients
7. Evaluation of lateral flow assay for diagnosis of chronic pulmonary aspergillosis
8. In vitro evaluation of alternate antimicrobial combinations for Neisseria gonorrhoeae
9. In vitro susceptibility of Cefiderocol against carbapenem-resistant gram-negative bacilli from patients with bloodstream infection/sepsis, urinary tract infection or pneumonia
10. Screening of stool and rectal swab specimens from admitted patients on antibiotics for Carbapenem-resistant Enterobacterales, Cabapenem-resistant Acinetobacter baumannii and Clostridioides difficile to detect carriers
11. Screening of stool and rectal swab specimens from admitted patients on antibiotics for Carbapenem-resistant Enterobacterales, Carbapenem-resistant Acinetobacter baumannii and Clostridioides difficile to detect carriers
12. Studies of malaria with special focus on detection of sub-microscopic malaria, characteriztaion of species and correlation of clinical outcome.
13. To explore the association of enteric parasitic infections with duodenal eosinophilia in patients with functional dyspepsia (FD)

COLLABORATIVE PROJECTS

Ongoing

1. A preliminary study to validate BM-AspICU algorithm for diagnosing invasive pulmonary aspergillosis in critically ill ventilated patients using post-mortem minimally invasive tissue sampling, Medicine, AIIMS
2. A study of cytokines and the immune response in acute bacterial meningitis among paediatric patients, Microbiology
3. Acute diarrhoeal disease due to typical and atypical Enteropathogenic Escherichia coli among under-5 children, Microbiology
4. AMR-Educate: A multinational and interdisciplinary research-integrated education partnership for a sustainable future against infection and antimicrobial resistance threat, International (Indo-Norway)
5. AMR-Educate: A multinational and interdisciplinary research-integrated education partnership for a sustainable future against infection and antimicrobial resistance threats". Funded by Norwegian Directorate for Higher Education and Skills, Inland Norway University (INN), Norway
6. APP-DIP: Development of AI-based prognostic platform for the early detection of infections in immunocompromised patients. Jointly sanctioned under Indo-Sweden Collaboration in Biotechnology (IITD) & AIIMS, New Delhi. Indo(DBT)-Sweden Collaboration, Indo-Sweden Collaboration in Biotechnology with IIT-D and Department of Medical Oncology, AIIMS, New Delhi
7. Aptamer-based diagnostic test for vulvovaginal candidiasis, Dermatology & Venereology, AIIMS

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8. Assessment of Toxoplasma gondii seropositivity and its association with lifetime suicidality in patients with Bipolar Disorder, Psychiatry
9. Azithromycin-Based Extended-Spectrum Prophylaxis for Caesarean Delivery: A Randomized Controlled Trial, Department of Obstetrics and Gynaecology
10. Burden of multidrug-resistant neonatal sepsis in district hospital settings in India, Paediatrics
11. Capacity Building Project to undertake the study A phase III randomized placebo-controlled, double-blind three-arm trial to evaluate the efficacy and safety of two vaccines VPM1002 and Immuvac (MIP) in preventing TB in health household contacts of newly diagnosed sputum-positive pulmonary TB patients. Funded by ICMR, New Delhi; 2018-24, Pulmonary Medicine and Sleep Disorders, AIIMS
12. CDC-AIIMS Cooperative Agreement projects on Influenza and other respiratory viruses, Centre for Disease Control (CDC), Atlanta (USA) and Centre for Community Medicine, AIIMS
13. Central line-associated bloodstream infections and bacterial contamination among health care workers in medical ICU: a prospective observational study, Medicine
14. Characterization of human antibody responses to Plasmodium vivax in India, International Centre for Genetic Engineering Biotechnology
15. Clinical and Biochemical parameters related to delirium in patients with UTI: A cross-sectional study, Geriatric Medicine
16. Clinical profile & outcomes of ventilator-associated pneumonia due to MDR & XDR gram-negative bacilli, Medicine
17. Clinicopathological spectrum of cystic neutrophilic granulomatous mastitis and role of Corynebacterium as the etiological agent, Department of Pathology
18. Designing novel inhibitory molecules to quench quorum sensing in Gram0negative bacteria, Biophysics, AIIMS, New Delhi
19. Determination of seroprevalence of COVID-19 IgG antibody among healthcare workers involved in Sanitation, housekeeping and Security services, Hospital Administration, AIIMS, New Delhi
20. Developing an antibiogram based on culture samples of suspected patients of infection presenting to the emergency department, Emergency Medicine
21. Development of metabolite-based point-of-care test for diagnosis of bacterial vaginosis in Indian women, Dermatology & Venereology, AIIMS
22. Effect of a nested multiplex polymerase chain reaction (Biofire®) on the duration of empirical antibiotics and risk of treatment failure in asymptomatic neonates with perinatal risk factors for early-onset sepsis, Pediatrics
23. Efficacy of Energy Dense Nutritional Supplement (EDNS) as adjunct to standard DOTS therapy improving treatment outcomes in malnourished newly diagnosed sputum positive pulmonary tuberculosis adult patients, Centre for Community Medicine (CCM)
24. Etiological profile of infants, children and adolescents presenting with acute, subacute and chronic encephalitis/ encephalopathy in a tertiary care centre in North India, Neurology, Department of Paediatrics, AIIMS, New Delhi
25. Evaluation of M1 and M2 macrophages and tissue reaction in the peri-prosthetic soft tissue of the patients with loosening of artificial implants, Department of Pathology
26. Evaluation of newer molecular methods and antigen-based diagnostic modalities against RNTCP recommended methods in early diagnosis of female genital tuberculosis, Gyne & Obs
27. Exploration of alternate salivary diagnostic strategies for ovarian cancer, Biophysics, AIIMS
28. Incidence and characteristics of VAE in an adult ICU, Medicine, AIIMS
29. In-vitro susceptibility of Eravacycline V/S tigecycline in clinical isolates of XDR Acinetobacter baumannii and study of resistance mechanisms, Microbiology
30. Metabolic resuscitation using early administration of ascorbic acid, thiamine and corticosteroids in perioperative management of surgical patients with septic shock: an exploratory Randomized Controlled trial, Surgery
31. Multi-drug resistant and Extensively drug-resistant Enterobacterales- Prevalence, Treatment and Outcomes- A Prospective Observational Study, Medicine

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32. National Capacity Building for healthcare workers in Infection, Prevention and Control including biomedical waste management for pandemic. Funded by USAID & JHPIEGO, Hospital Administration, AIIMS, New Delhi
33. National Capacity building program for healthcare workers in infection prevention and control (IPC) including biomedical waste (BMW) management for pandemic preparedness, Department of Hospital Administration
34. OH-AMR Diag: Novel technological solutions for rapid detection and screening of AMR from a One-Health perspective, International (Indo-Norway)
35. Outcome of guideline-directed pre-operative prophylactic single dose/day vs extended prophylactic antibiotics for urological surgeries: A Randomized controlled study, Urology
36. Phase III, Randomized, Double-blind, Placebo-controlled Trial to Evaluate the Efficacy and Safety of VPM1002, Immuvac Vaccines in Preventing of Tuberculosis Disease in Healthy Household Contacts of Newly Diagnosed Sputum Positive Pulmonary TB (PTB) Patients Funded by ICMR, New Delhi; 2018-24, Pulmonary Medicine and Sleep Disorders, AIIMS
37. Post Sepsis syndrome: A prospective Observational study, Medicine
38. Proteomics study of Giardia intestinalis isolates to associate with different clinical spectrum and extrapolate its invasive potential, Gastroenterology and Pediatrics AIIMS, New Delhi
39. Rapid point of care detection of HPV-associated malignancies (National Cancer Institute, NIH, USA), Department of Obstetrics and Gynaecology, AIIMS; Arizona State University and University of Michigan at Ann Arbor, USA.
40. Role of tuberculosis and genital Chalmydia trachomatis infection in women with "unexplained infertility", Gyne & Obs
41. Studies on AMR: Actinobacterial bioactive compounds mediated biofilm inhibition and Molecular insights towards Quorum sensing pathways, IIT, Delhi
42. Utility of Radiolabeled Antibiotics as Imaging Agents in Establishment of a Decision Support Algorithm in Patients with Pyrexia of Unknown Origin (PUO) caused by Infection and its Impact on Short Term and Long Term Clinical Outcomes, Nuclear Medicine, AIIMS, New Delhi
43. Utility of radiolabeled antibiotics as imaging agents in establishment of a decision support algorithm in patients with pyrexia of unknown origin (PUO) caused by infection and its impact on short term and long term clinical outcomes, Nuclear Medicine

Completed

1. A study on frequency, risk factors and characteristics of sino-nasal mycobiome in COVID-19 associated mucormycosis, Department of Medicine
2. Analysis of vaginal microbiome and metabolome in women affected with bacterial vaginosis before and after treatment and their correlation with relapse or recurrences, Dermatology & Venereology, AIIMS
3. Antifungal Effect of Lactoferricin, a natural potent antimicrobial peptide derived from the innate immunity protein, Lactoferrin and its use in the therapeutics of Mucormycosis, Department of Biophysics
4. Association of anti-malarial antibody levels and disease outcomes in Coronavirus disease 19 infection, Medicine
5. Clinical and radiological outcomes of revision Joint replacement surgery in periprosthetic joint infections: An ambispective study, Department of Orthopaedics
6. 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, Department of Medicine
7. Clinical Trial- A Phase -IV, double-blind, comparative, prospective, multicentric study to assess safety and efficacy of fixed dose combination of Clindamycin 100 mg plus Clotrimazole 100 mg vaginal suppositories (Clingen) vs Clotrimazole 100 mg vaginal suppositories in patients with mixed vaginal infection, Obstetrics & Gynaecology, AIIMS
8. Effectiveness of Robot in floor cleaning for minimizing human exposure in view of COVID-19 pandemic, Department of Hospital Administration, AIIMS, New Delhi
9. Efficacy of two different Chlorhexidine gluconate preparations for skin antisepsis in neonates: a noninferiority randomized trial, Department of Pediatrics

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10. 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 & Research Centre, Kempegowda Institute of Medical Sciences, Bangalore
11. Role of 99m-Tc-Ubiquicidinscintigraphy in diagnosis of orthopaedic implant infection, Department of Nuclear Medicine
12. Secular trend of the urinary tract infection in diabetic patients and their antibiotic sensitivity, Department of Endocrinology & Metabolism
13. To determine gut colonization of Clostridiodes difficile, Vancomycin-resistant Enterococci and Carbapenem-Resistant Enterobacteriaceae in recovered COVID cases, Department of Anaesthesiology
14. Umbilical cord blood culture positivity in preterm and term neonates: prospective cohort study, Department of Paediatrics

Research projects over past 3 years

Research projects	2021-2022	2022-2023	2023-2024
Total Funded projects	62	43	43
Total Funding (Lakhs)	Rs 869.4	Rs 1179.46	Rs 3944

PUBLICATIONS

Journal articles: 84 **Abstracts: 3** **Chapters in Books: 1** **Books: 2**

Publications over past 3 years

Item	2021—2022	2022—2023	2023—2024
Total	105	99	90
Journal articles	91	83	84
Abstracts	9	15	3
Chapters in books	5	1	1
Books	0	0	2

PATIENT CARE:

The Department of Microbiology carried out a total of **4, 55, 415 tests** during the year 2023-24

BACTERIOLOGY LABORATORY	
Name of assay/test/investigation	**No. of tests performed**
Blood Culture and identification	42615
Respiratory tract samples: Culture and Identification	22310
Urine Culture	39877
Pus Culture	25575
Stool Culture	3010
CSF Culture	9310
Latex Agglutination (Antigen detection) from CSF Samples for Bacterial Meningitis	1000
Total	**143697**
Antimicrobial susceptibility testing (including automated VITEK-2)	

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Blood Culture	9373
Respiratory tract samples	9560
Urine Culture	10090
Pus Culture	11503
Stool Culture	17
CSF Culture	1505
Total	**42048**
HIC Laboratory	
IV Fluids, environmental samples etc.	25873
CSSD Biological Indicator	2825
Other Biological Indicator	170
CSSD Bowie Dick Pack	2420
Plasma indicator	416
Water Testing	2212
Total	**33916**
TUBERCULOSIS & CBNAAT COVID LABORATORY	
TB test	
ZN Smear Microscopy	9571
Gene Xpert MTB/RIF	8629
NTM	145
PCR for *Mycobacterium tuberculosis*	3495
Rapid Culture on MGIT 960	3946
Culture on LJ medium	9471
MGIT Drug susceptibility testing (DST)	226
Line Probe assay	29
Total	**35612**
COVID Test	
Gene Xpert	1754
TRUENAT	Nil
Total	**1754**
MYCOLOGY LABORATORY	
Direct microscopy/Culture	
Blood culture/Bone marrow/Blood BACTEC	3263
Respiratory (BAL, Sputum, Tracheal aspirate)	7441
Urine	2134
CSF	1694
Tissue/Biopsy	1552

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Skin scrapping/Nail/Hair	71
Fluid (Peritonial, Pericardialand Ascitic fluid)	1329
Pus	1093
Miscellaneous (plates, Swabs, Catheter tips)	1536
Total	**20113**
Fungal Serology/Antifungal/TDM/PCR	
Cryptococcal antigen	1832
Galactomannan antigen	7344
Urinary Histoplasma antigen	409
TDM (Voriconazole, Posaconazole, Itraconazole)	1060
Antifungal Susceptibility	385
PCR (Panfungal 4, Sequencing 45, Aspergillus 154)	756
BD Glucan	219
Total	**12005**
Parasitology Laboratory	
SEROLOGICAL INVESTIGATIONS	
Serology for anti-*amoebic* IgG antibodies by ELISA	314
Serology for anti-*echinococcus* for IgG antibody by ELISA	261
Serology for anti-*toxoplasma* IgG antibodies by ELISA	73
Serology for Teania solium infection	27
Serology for Strongyloidiasis	222
Serology for Toxocariasis	37
Total	**934**
INVESTIGATION FOR MALARIA	
Fluorescent staining (Acridine Orange)	7347
Giemsa staining	7347
Quantitative Buffy Coat (QBC) Assay	7347
HRP-II Antigen Detection test	7347
24 X 7 (AO, Giemsa, QBC, RDTs)	2376
Total	**31764**
INVESTIGATION FOR KALA-AZAR	
Fluorescent staining (Acridine Orange)	152
Giemsa staining	152
Kala-azar serology (rk-39)	686
24 X 7 (AO, Giemsa, QBC, RDTs)	5
Total	**995**
EXAMINATION OF FECAL SAMPLES FOR INTESTINAL PARASITOSIS	

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Direct and concentration techniques	2407
In-vitro Cultures	20
Modified Acid-fast and special staining for intestinal coccidia	2407
PCR assay for the detection of microsporidia species	2407
Total	**7241**
EXAMINATION OF ASPIRATES	
Sputum, pus and other aspirates	**171**
INVESTIGATION FOR FILARIASIS	
Direct and Concentration techniques	900
Acridine Orange	900
Thin Smear examination	900
Thick Smear examination	900
Filarial Antigen detection	900
QBC	900
24 X 7 MF	168
Total	**5568**
OTHER INVESTIGATIONS	
Investigation for the detection of *Pneumocystis jirovecii* infection (PCP) by staining & PCR assay	222
Cerebrospinal fluid examination for Freeliving Amoebas (FLAs)	71
Worm Specimens	4
Arthropod Specimens	2
Total	**299**
VIROLOGY LABORATORY	
Molecular tests (Conventional/Real time PCR)	
SARS-CoV-2 novel coronavirus real time RT-PCR	3, 176
Whole genome sequencing (NGS) for SARS-CoV-2, influenza, RSV & other respiratory viruses	742
Influenza real time multiplex RT-PCR	3, 139
Respiratory virus panel (other than influenza) multiplex PCR	701
HSV 1&2 DNA PCR (CSF, GUD, Ocular etc.)	118
HCMV DNA PCR (Urine, Colonic biopsy, CSF etc.)	2, 940
HIV-1 RT-PCR for Early Infant Diagnosis (DBS samples)	5, 777
HIV-1 RNA RT-PCR (Viral load)	19, 940
Dengue & Chikungunya virus real time RT-PCR	11
Zika virus real time RT-PCR	43
Polyomavirus (BK/JC) real time RT-PCR	902

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Fever with Rash- Viral PCR Panel (Measles, Enterovirus, Parvovirus B19, HHV-6 & HHV-7)	5
Viral Meningitis/Encephalitis PCR panel (HSV, Enteroviruses, Parechoviruses, VZV, Mumps)	746
Viral Gastroenteritis PCR Panel (Rotavirus, Norovirus, Adenovirus 40/41)	216
Epstein-Barr virus (EBV) DNA PCR (Conventional, real time PCR)	745
Parvovirus B19 real time PCR	281
Enterovirus real time RT-PCR	3
Adenovirus real time PCR	51
Measles real time RT-PCR	63
Mumps real time RT-PCR	10
Rubella real time RT-PCR	4
HHV-6 real time PCR	30
Dengue virus serotyping by real time RT-PCR	177
Antigen detection	
Dengue NS1 antigen (ELISA)	11, 393
HBsAg (ELISA/CLIA)	119
Antibody detection (Serology)	
Anti-Dengue IgM (ELISA)	9, 522
Anti-Chikungunya IgM (ELISA)	243
Anti-Japanese Encephalitis IgM (ELISA)	70
Anti_HAV IgM	129
Anti_HEV IgM	119
Anti-HBc IgM (ELISA/CLIA)	117
Anti-HCV (ICT/CLIA)	119
Anti-Measles IgM (ELISA)	40
Anti-EBV (VCA) IgM (ELISA)	52
Anti-SARS-CoV-2 IgG (CLIA)	1, 456
Direct Microscopy	
Tzanck smear (for HSV 1&2, VZV)	11
PS for Downey cells/atypical lymphocytes (EBV-related Infectious mononucleosis)	5
Cell Culture	
Virus isolation- MDCK, Vero, HEp-2 cells etc.	180
Total	**64005**
SEXUALLY TRANSMITTED DISEASES LABORATORY	
Culture (Routine)	

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High vaginal swabs (HVS)	590
Semen	1093
Expressed prostatic secretions (EPS)	55
Vaginal discharge	6
Culture for *Neisseria gonorrhoeae*	
Urethral swabs	168
Cervical discharge	208
Pharyngeal swabs	132
Rectal swabs	132
Antimicrobial susceptibility testing	
High vaginal swabs (HVS)	156
Semen	140
Expressed prostatic secretions (EPS)	10
Urethral discharge	8
Pharyngeal swabs	2
Bacterial Vaginosis	
Vaginal discharge-Gram stain	6
PCR for *Neisseria gonorrhoeae*	
Cervical discharge	208
Urethral swabs	168
Rectal swabs	132
Pharyngeal swabs	132
PCR for *Chlamydia trachomatis*	
Cervical discharge	208
Urethral swabs	168
Rectal swabs	132
Pharyngeal swabs	132
Rectal biopsy	2
PCR for *Treponema pallidum*	
Ulcer swab	1
Total	**3986**
Mycoplasma Laboratory	
Chlamydia trachomatis PCR	741
Ureaplasma urealyticum culture	566
Ureaplasma urealyticum PCR	681
Mycoplasma hominis culture	566
Mycoplasma hominis PCR	676
Mycoplasma genitalium PCR	389

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Total	**3, 619**
ANAEROBIC&SPECIAL BACTERIAL PATHOGEN LABORATORY	
Samples for Anaerobic culture (Blood, Bile, BAL, CSF, Tissue) other samples	633
Clostridiodes difficile	
Stool culture for *C. difficile*	602
Stool samples for *C. difficile* ELISA	599
Stool sample for *C. difficile* PCR	60
Stool sample for *C. difficile* Genexpert	5
Special Bacterial Pathogen Laboratory (SBPL)	
Leptospira	
Citrate blood samples for Culture for Leptospira spp.	350
Urine samples for Culture for Leptospira spp.	340
ELISA for Leptospira IgM antibodies	870
Urine Dark Ground Microscopy	848
Plasma Dark Ground Microscopy	867
Leptospira PCR	362
Scrub typhus and Rickettsia	
IgM ELISA for Scrub typhus	881
IFA for Scrub typhus	88
ICT for scrub typhus	100
Scrub typhus PCR	88
Bartonella	
Samples for Bartonella Culture	17
Sample for Bartonella IFA (IgG)	37
Sample for Bartonella IFA (IgM)	37
Sample for Bartonella PCR	48
Legionella pneumophila	
Legionella serology	84
Legionella PCR	38
Legionella urine antigen	32
Mycoplasma pneumoniae	
Mycoplasma IgM antibody detection	82
Mycoplasma PCR	90
Mycoplasma culture	77
Chlamydia pneumoniae	
ELISA for *Chlamydia pneumoniae* IgM antibodies	79

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Lyme Disease	
Lyme Disease IgM ELISA	177
Lyme Disease IgG ELISA	177
Lyme Disease IgM Immunoblot	33
Lyme Disease IgG Immunoblot	30
Borrelia 16S Real-time PCR	177
Total	**7908**
SEROLOGY LABORATORY	
Widal test:	8791
VDRL test	13027
Treponema Pallidum Hemagglutination Assay (TPHA)	1200
Anti-streptolysin O (ASLO):	28
Standard Agglutination Test (SAT) for Brucella antibody	243
***H.pylori* IgG antibody**	**5**
***H.pylori* Stool Antigen**	**1625**
Serum Procalcitonin	745
Total	**25664**
MOLECULAR BIOLOGY LABORATORY	
Multiplex PCR for Acute Bacterial Meningitis (ABM)	500
Total	**500**
HIV and Immunology Laboratory:	
CD4 Testing	5404
HIV testing	4673
Western blot testing of HIV	12
HIV, HepB, HepC, and syphilis testing of ANC samples under HIV sentinel surveillance program by NACO	3527
Total	**13616**
GRAND TOTAL	**4, 55, 415**

Patient Care

Item	2021-2022	2022-2023	2023-2024
OPD consultations	Not applicable	Not applicable	Not applicable
Special clinic consultations	Not applicable	Not applicable	Not applicable
Patients provided rehabilitation Services	Not applicable	Not applicable	Not applicable
Total investigations performed	2, 96, 909	3, 55, 618	4, 55, 415

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Lalit Dar was Member of the National Technical Advisory Group on Immunization (NTAGI); Member of the National High-level Task Force for COVID-19 (Chair: Professor V.K. Paul, Niti Aayog); Member of Joint Monitoring Group, MoHFW (under the Chairmanship of the DGHS); Member, WHO Working Group on Human Papillomavirus

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(HPV) Target Product Profiles Central Government-nominated Member, ESI Corporation; Professor Bimal K. Das was Dr Sonu (PhD completed 2024) under Professor Bimal Kumar Das has attended 2-month Training on Antimicrobial Resistance under Professor Rafi Ahmad, PhD in Inland Norway University of Applied Sciences, Campus Hamar, Norway.

Professor Bijay Ranjan Mirdha was Member of the Search-cum-Selection Committee meeting for the post of Director, ICMR-NIV, Pune; Chairperson, Institutional Animal Ethics committee (IAEC), AIIMS, New Delhi since 09 February 2024; Expert Member for malaria training under NVBDCP, South District. to take session for Malaria Training for Medical Officers & Public Health Nurses; Selection committee member for AIIMS Excellence Award for Basic sciences under the aegis of Research Section, AIIMS, New Delhi for AIIMS Research Day, 2024; Member, National Task force for Early Diagnosis and Treatment of Lymphatic Filariasis ; Technical Review expert by National Academy of Medical Sciences for the CME Programme on "Updates and Challenges in Parasitic Diagnosis" held on 26 October 2023 at All India Institute of Medical Sciences, Jodhpur; Chaired sessions during various conferences and symposia.

Professor Benu Dhawan received Dr P.S. Ranganathan Memorial Award by the Indian Association for the Study of Sexually Transmitted Diseases and AIDS (Corresponding author of paper).

Professor Seema Sood was Nominated for the "DR R.V. RAJAM ENDOWMENT ORATION" in ASTICON-2023; Elected committee member- IUSTI World Committee (2021-25); Member- Institute Ethics Committee for PG Research (Basic Science) at AIIMS, New Delhi; Invited as Member of Scientific Advisory Committee-ASTICON 2024; Advisor for Asia Pacific Sexual Health Experts Advisory Board by Abbott Laboratories Pte Ltd (Singapore) for formulation of guidelines for screening and testing of STIs in Asia-Pacific region; Invited by WHO SEARO for STI Webinar on Syndromic management of STIs; Invited by Sri Lanka College of Sexual Health & HIV medicine (SLCoSHH) as Resource Person; Member- Expert Committee for implementation of eGASP in India constituted by NACO, Min of H & FW, GOI; Member- ICMR Expert Working Group - STI in-vitro diagnostic kit validation; Member ICMR- Working Group to develop clinical work flows to improve HIV/ STI health related services under Ayushman Arogya Mandirs; Expert ICMR- Project Review Committee (PRC) - ("HIV/AIDS & STIs"); Expert ICMR- Evaluation of Annual progress reports on HIV/AIDS and STIs; Member- TRG on surveillance & epidemiology under NACP-constitute by NACO, Min of H & FW, GOI; Expert BIRAC for evaluating proposals under NBM; Member-Editorial Team Indian Journal of STDs & AIDS; Invited as External Subject Expert by AIIMS, Kalyani; Faculty- National Board of Examination (NBE) for MCQ validation workshop & Question bank validation.

Professor Urvashi B Singh was Member, Board of Governors of Delhi Pharmaceutical Sciences and Research University; Member, Subject Expert Committees (Antimicrobial and Antiviral), CDSCO(DCGI), GoI; Member, Subject Expert Committees (In-vitro Diagnostic Devices), CDSCO(DCGI), GoI; Member, National Technical Expert Group, National TB Elimination Program, GoI; Member, Operational Research Committee, National TB Elimination Program, GoI; Expert for selection of Microbiologist Specialist Grade -II at NITRD, New Delhi; Member, BCG Vaccination Implementation Research Study Steering Committee, ICMR; Member, BRICS STI Working group on Biotechnology and Biomedicine including Human Health and; Neuroscience, Department of Biotechnology, Ministry of Science and Technology; Member, CCRF Core Committee, BSL2/3 facility and Genomics subcommittee CCRF, AIIMS; Member, Diagnostic Research Group, India TB Research Consortium, ICMR, ; Member, State TB Task Force and Operation Research Committee; Member Editorial Board -Frontiers in Microbiology; Reviewer: BMJ Open, Nature Scientific Reports, Emerging Infectious Diseases, Medical Microbiology, Microbes and Infection, BMC Microbiology, BMC Infectious Diseases, Frontiers in Medicine, Frontiers in Public Health, J of Medical Virology, Epidemiology and Infection, PLOS One, Journal of Biosciences, Indian J Med research, Indian J Tuberculosis; Transfer of Patented Technology to industry (MolBio Diagnostics) :'Indigenous Gold Standard Diagnostic Kit' for MDR and XDR-TB'; CPIO, Department of Microbiology, AIIMS, New Delhi.

Dr Sarita Mohapatra was Elected as Executive Committee Member of the "Indian Association of Medical Microbiology" for the period of 3 years (2023-2025); Elected as Vice president of the "Society of Antimicrobial Stewardship Practices in India" for 2023-24; Selected as reviewing editor for the Journal "Microbiology Spectrum".

Dr Aashish Choudhary was Member of the Institute Biosafety Committee (IBSE), AIIMS Delhi; Member of- BSL-3 facility, Central Core Research Facility (CCRF), AIIMS Delhi; Member- DHR-ICMR working group to establish diagnostic algorithm based on syndromic approach under 'One Health'.

Dr Gagandeep Singh was AIIMS-NAMS NAVIGATE CME: Delivered a talk on Hospital-acquired Infections & management of waste in wards on 6 October 2023. Member of the Center for Medical Innovation and Entrepreneurship (CMIE) by BIRAC-BioNEST; Resource person for the Learning Resource Package (LRP) on 'Infection Prevention & Control including Biomedical Waste Management during Pandemic Preparedness'. AIIMS-USAID-RISE-MOHFW; Member of the Standing National Committee on Medicines and Healthcare Products (SNMC & HCP) under the National

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List of Essential Medicines (NLEM) by MOHFW and ICMR, Subcommittees; Hygiene and other healthcare products and Anti-infectives; Member of the National Medical College Network (NMCN), with AIIMS, New Delhi as the nodal centre, Subcommittee: Telemedicine; Resource person for the Training of Trainers on Leadership in Infection Prevention and Control for Nursing Professionals being organised regularly by the National Institute of Health and Family Welfare (NIHFW) in collaboration with Johns Hopkins University, USA.

Dr Hitender Gautam received Dr Sriniwas award for best poster on antibiotic susceptibility testing category; Certificate of Commendation Research to the student for Work on antibiotic sensitivity testing (AST); Faculty Incharge Stores (Non-Plan) for the Department of Microbiology w.e.f 1 April 2023; Department Store Verification Committee Member; Member Secretary: Committee for Sanitation & Swachhta at AIIMS, w.e.f 13 July 2023; Swachhta Team Committee member for AIIMS, New Delhi w.e.f 18 October 2022; AIIMS NABL Coordination Core Committee Member w.e.f October 2022 for NABL Accreditation of all laboratories at AIIMS, New Delhi. Also coordinated NABL training of all staff of all laboratories of AIIMS, New Delhi as per ISO-15189; Department NABL Core Committee Member & Deputy Quality Manager for Department of Microbiology, AIIMS, New Delhi: Department has been NABL Accredited w.e.f. 15 November 2019; Co-Organized Institute Day for Department of Microbiology at 68th AIIMS Institute Day 2023; Nodal Officer for COVID-19 for Department of Microbiology; G20 nominated faculty: Nominated faculty from the department for provision of medical care during the G20 summit; Contributed in Initiation, planning and running of 24 x 7 laboratory in Department of Microbiology w.e.f Ist June 2022; Clean & Green AIIMS Sub-committee member for Key Result areas (KRA)": For KRA 5: Waste Management and For KRA 6: Infection Control; Technical Specification & Evaluation Committee (TSEC) member for Antiseptics, Disinfectant & Chemicals at AIIMS w.e.f February 2022; Member Secretary: Infection Control Committee in Dr BRA IRCH, AIIMS, New Delhi, Initiation of Environmental Cleaning Monitoring through ATP bioluminescence in Dr B.R.A. IRCH, AIIMS, New Delhi; Hospital Infection Control Committee (HICC), Core Committee Member AIIMS, New Delhi; Hospital Infection Control activities at Surgical block; Incharge: Departmental KAYA KALP Committee. Part of AIIMS KAYA KALP Team. KAYA KALP Inspection Management for Department; Committee member for MBBS Curriculum reforms & AIIMS Undergraduate Curriculum Organizing Group (AU-COG) at AIIMS, New Delhi; Appointment as an External Member of the Constitution of the Board of Studies in the Department of Microbiology at AIIMS Bathinda; Invited Board member at AIIMS Bathinda: to design the curriculum and assessment of MBBS undergraduate for the Department of Microbiology at AIIMS Bathinda; Preparation of E-Learning Module for Under-Graduate Students for Uniform Teaching across India under NMC; Contributor for creation of online course on "Infection prevention and control" at SET Facility, AIIMS, New Delhi; Co-Guide for PhD in Medicine by Research Medical Microbiology program at Texila American University; Committee member for Department for AIIMS Master Plan of the department; Central Core Research Facility (CCRF), Proteomics facility Sub-Committee member w.e.f 31 January 2023.

Dr Nishant Verma was Assistant editor for the journal "Tropical Parasitology"; NABL accreditation of investigations in parasitology laboratory and Anaerobic & SBPL laboratories; Member - Core committee for coordination of NABL work at AIIMS; Faculty In-charge, Departmental Stores (Plan); Departmental DM ID teaching committee member; Core committee member for DM infectious diseases curriculum; Member-AIIMS under graduate curriculum organizing group; Member- Departmental patient safety & quality committee-Pediatrics, pediatric surgery, neonatal unit & neonatal surgery unit - MCH block; Diagnostic and administrative responsibilities for patient care in Parasitology section, and Anaerobic and SBPL laboratories (Faculty in-charge); Coordinator -AIIMS master plan departmental committee; Member of the 'clean & green AIIMS' sub-committee; CAPIO-RTI; Core Group Member: Hospital Infection Control Committee (HICC), AIIMS, New Delhi; Member Secretary: Infection Control Committee at CDER, AIIMS, New Delhi; Monitoring and surveillance of HIC activities at Mother and Child Health block, and CDER; Involved in the development of E-learning modules for undergraduate teaching; Internal examiner for MD Microbiology examination at AIIMS, New Delhi; Executive committee member: Indian Association of Tropical Parasitology; Member-Hospital Infection Society-India; Member-IAMM- Delhi Chapter; Reviewer for several reputed journals; Member - committee for renovation of the BSL-3 laboratory of CCRF; Member - selection committee for recruitment of consultant/computer programmer/ assistant in various research projects; Member of Microscopy Sub-Committee - for Centralized Core Research Facility (CCRF) at AIIMS, New Delhi; Member- district coordination committee for malaria, office of the chief district medical officer-South district, DGHS-Govt. of NCT of Delhi.

Dr Megha Brijwal was Member- DHR-ICMR working group to establish diagnostic algorithm based on syndromic approach under 'One Health'; Training on Serology and Molecular EQAS Panel Production, conducted by WHO, NRL Australia and ICMR, at RC-VRDL, ICMR-NIV, Pune from 21-29 August 2023.

Dr Kiran Bala received Appreciation poster award at AIIMS Annual Research Day; January 2024, as corresponding author: Rekha Rathee, Kiran Bala, Bharti Sharma, Prayas Sethi, Bhavuk Garg, Vineet Ahuja, Anant Mohan, Urvashi B Singh. Diagnostic utility of urinary lipoarabinomannan antigen point of care test for pulmonary and extra pulmonary tuberculosis in HIV negative population; Member- Hospital Infection control committee, AIIMS, New Delhi; Member

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Secretary- Hospital Infection control subcommittee at National centre of Ageing, AIIMS, New Delhi; Member- Infection prevention & control team of centralized core research facility at AIIMS, New Delhi; Nodal Officer Information Technology (IT) - Departmental computer related & Information technology & Digitalisation (Nodal IT Officer, Content Provider from Department, Integration of Lab LIS to HMIS, Website updation); Faculty coordinator- Organization of Departmental Assessment (Stage III) for admission for Ph.D Programme; Committee Member & Member TSEC - Planning and Initiation of Microbiology services at Mother & Child block, Technical specifications & Procurement of various M & E for Mother & Child block; Member TSEC- Technical specification evaluation committee for procurement of TB consumables at hospital stores; Expert member& TSEC member- BSL-3, BSL-2 Subcommittee of CCRF core committee at AIIMS, New Delhi. (Initiation, Procurement of M& E and designing, framing of SOP); Reviewer: BMJ case reports, Indian J of Urology, International J of Medicine and Public Health, Medical Mycology, Indian J Med research, Indian J Tuberculosis, Mycopathologia, Journal of Medical Virology.

Dr Priyam Batra won First prize in oral presentation Priyam Batra, Swati Khullar, Mamta Choudhary, K.V.P. Saikiran, Ananya Kaginalkar, Sheetal Singh, Anant Mohan, Rama Chaudhry. Clostridiodes difficile and SARS CoV-2 coinfection: Impact of antibiotic over usage in COVID pandemic. 2nd RAJMICROCON 2023;; Member of the Hospital Infection Control Subcommittee, Surgical Block; Member of NABH committee, Surgical block.

Dr Tanu Sagar was Undergraduate Batch incharge, ; Member of Departmental Specification committee; Member of BSL -Subcommittee in Centralized Core Research Facility (CCRF) AIIMS, New Delhi; Undergraduate teaching in-charge; Member- Infection prevention & control team of Burns and Plastic surgery department; Membership: Member of Indian association of Mycoplasmologists, Hospital Infection Control Society, ; Reviewer: Indian Journal of Medical Microbiology, Diagnostic Cytopathology, Heliyon.

VISI TING SCIENTIST

1. Dr Pranay Sinha, Assistant Professor, Infectious Diseases, Boston University Chobanian &Avedisian School of Medicine
2. Ms. Madolyn Dauphinais, Scientist, Infectious Diseases, Boston University Chobanian &Avedisian School of Medicine
3. Dr Amar Shah, Division Chief, TB and Infectious Diseases, USAID

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9.21 Nephrology

Professor and Heads

Sanjay Kumar Agarwal
(up to 15. September 2023)

Dipankar Madhusudhan Bhowmik
(From 16. September 2023 to till date)

Professors

Sandeep Mahajan

Soumita Kamal Kumar Bagchi

Additional Professor

Raj Kumar Yadav

Associate Professor

Arun Kumar Subbiah

HIGHLIGHTS

The department offers advanced nephrology care, including affordable renal transplantation services. Regular ABO-incompatible renal transplants are performed. Immunosuppressive drug monitoring and infection surveillance for renal transplant patients are provided free of charge. Round-the-clock hemodialysis is available at a nominal cost and is free for patients below the poverty line. Bedside dialysis is offered in various departments within the institute, along with support for dialysis in the Trauma Centre and other blocks at AIIMS. Additionally, the department maintains a bio-repository of samples for potential research in renal sciences, focusing on primary glomerular disease and chronic kidney disease. Faculty members are actively involved in government policy-making bodies related to chronic kidney disease, dialysis, and renal transplantation. An interventional nephrology program for vascular and peritoneal access has been initiated, with our center selected to train nephrology fellows/trainees by the International Society of Nephrology. A PD Masterclass for Nephrology fellows was successfully conducted on 26 November 2023, attracting participants from across Delhi NCR. The World Kidney Day program, held on 13-14 March 2024, in our JNU auditorium, was well-attended by nursing students and faculty, serving to educate and raise awareness about kidney health within the community.

EDUCATION

Long-term training

The department administers the DM Nephrology program, a three-year degree course designed for post-MD/DNB (Medicine and Pediatric) candidates. Selection for this program is based on merit through the All India Entrance Examination conducted by AIIMS. The department also organizes examinations for other AIIMS-like institutions including interviews for entrance examination. Four candidates were enrolled in the DM Nephrology course at AIIMS, New Delhi during this period. Additionally, residents from the departments of pediatric nephrology and pathology frequently participate in training courses in Nephropathology. Each semester, the department accommodates two to three non-academic junior residents for a maximum duration of 6 months each.

Short-term training

The department is providing short-term training for the following:

1. Postgraduates from the departments of Internal Medicine, Geriatric Medicine, Emergency Medicine, Urology, Anesthesia, Infectious disease, Critical Care Medicine and Transfusion Medicine are posted on a rotational basis for a variable period of a few weeks to a few months.
2. Our center has been selected as International Intervention Nephrology Center by the International Society of Nephrology. We have already trained a nephrologist from Coimbatore, Tamil Nadu under this program.

CMEs/Workshops/Symposia/National and International Conferences

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- The PD Masterclass for Nephrology fellows held on 26 November 2023, drew attendees from across Delhi NCR, providing a successful platform for learning and exchange.
- The World Kidney Day program, conducted on 13-14 March 2024, at our JNU auditorium, received significant participation from nursing students and faculty. It played a crucial role in educating and spreading awareness about kidney health within the community.

Lectures delivered: 31

Dipankar Madhusudhan Bhowmik: 7 **Sandeep Mahajan: 14** **Soumita Kamal Kumar Bagchi: 5**

Raj Kumar Yadav: 1 **Arunkumar Subbiah: 6**

Lectures delivered over past 3 years

2021—2022	2022—2023	2023—2024
	30	66

Oral papers/posters presented: 7

Oral papers/poster presentations over past 3 years

2021—2022	2022—2023	2023—2024
4	6	7

RESEARCH

Funded projects

Ongoing

1. A multi-centre, randomized, double-blind, placebo-controlled, parallel-group, phase III study to evaluate the efficacy and safety of LNP023 in primary IgA nephropathy patients, Soumita Bagchi, Novartis Ltd, 5 Years, 2021-26, Rs 588000/year (CRC salary) + Rs 200000 per patient
2. A multi-centre, randomized, double-blind, parallel-group, placebo-controlled study to evaluate the efficacy and safety of iptacopan (LNP023) in complement 3 glomerulopathy, Soumita Bagchi, Novartis Ltd, 2 Years, 2022-24, Rs 559000/ year (CRC salary) + Rs 224275 per patient
3. A Phase 2b/3, Multi-part, Randomized, Double-Blinded, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Atacicept in Subjects with IgA Nephropathy (IgAN), Soumita Bagchi, Medpace Clinical Research India Pvt Ltd, 3 Years, 2024-27, Rs 5,31,363 per patient
4. A phase 4, 52-week single arm multi-centre post-marketing surveillance to evaluate the safety of desidustat for the treatment of anaemia in subjects with chronic kidney disease, Dipankar Bhowmik, Zydus, 2 Years, 2023-25, Rs 30,525 per patient
5. A phase II. Open -Label Study of NM8074 in patients with Atypical Hemolytic Uremic Syndrome (aHUS) at AIIMS., RK Yadav, Novalmed Therapeutics, One year and 6 months, 2023-25, Rs 129000/- per patient
6. A randomized, double-blind, placebo-controlled, parallel-group, multicenter Phase 3 study to investigate the efficacy and safety of FInerenone, in addition to standard of care, on the progression of kidney disease in patients with Non-Diabetic Chronic Kidney Disease (FIND-CKD), Arunkumar, Bayer, 3 Years, 2023-26, Rs 43000/year (CRC salary) + ≈Rs 250000 per patient
7. An adaptive, randomized, double-blind, dose exploration, parallel-group, placebo-controlled, multicenter phase 2 trial to evaluate the efficacy, safety and tolerability of LNP023 in combination with standard-of-care with and without oral corticosteroids in adult patients with active lupus nephritis Class III-IV, +/- V, Arunkumar, Novartis, 3 Years, 2022-25, Rs 43000/year (CRC salary) + ≈Rs 190000 per patient
8. Expression of Immune checkpoints (CTLA-4, PD-1, PD-L1), cytokines and T-reg cells in Lupus Nephritis, Sandeep Mahajan, ICMR, 3 Years, 2021-24, Rs 86,16,605

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9. MC/BDS/23-009: A Prospective, Double-Blind, Multicentric, Randomized, Placebo-controlled Clinical Trial to Evaluate the Efficacy and Safety of Budesonide in Patients with Primary IgA Nephropathy (IgAN), Soumita Bagchi, Medclin Research Private Limited, 1 Year, 2024-25, Rs 1,98,400
10. Role of T-regulatory cells (T-regs) and their clinical correlation in obesity-associated inflammation in type-2 diabetic & CKD, Sandeep Mahajan, ICMR, 3 years + 1-year extension, 2019-23, Rs 56,53,300

Completed

1. A randomized, treatment open-label, dose-blinded parallel-group, three-arm, proof-of-concept clinical trial to investigate the efficacy and safety of LNP023 compared with rituximab in the treatment of subjects with idiopathic membranous nephropathy, Soumita Bagchi, Novartis Ltd, 4 Years, 2019-23, Rs 588000 per year (CRC salary) + Rs 200000 per patient
2. An adaptive seamless randomized, double-blind, placebo-controlled, dose ranging study to investigate the efficacy and safety of LNP023 in primary IgA nephropathy patients, Soumita Bagchi, Novartis Ltd, 2 Years, 2019-21, Rs 198000 per patient
3. An Open-label, Randomized, Parallel-group, Two Arm Clinical Study to Evaluate the anti-inflammatory effect of ferronemia (lactoferrin+ disodium guanosine monophosphate) tablet + Conservative Chronic Kidney Disease Management Therapy versus Conservative Chronic Kidney Disease Management Therapy in the Subjects with Chronic Kidney Disease, RK Yadav, PI initiated, 1 Year, 2022-23, Nil
4. Hydroxychloroquine blood concentration and its correlation with disease activity in lupus nephritis, Arunkumar Subbiah, Intramural grant, 1 Year, 2020, 2021, Rs 475000.00

Departmental projects (including thesis/dissertations)

Ongoing

1. A study to access the effectiveness of Nurse Driven enhanced recovery after surgery Programme (ERAS) on quality of recovery patient satisfaction and hospital stay of patients undergoing renal transplant at AIIMS, New Delhi.
2. A multi-centric randomized open-label trial to assess efficacy of hydroxychloroquine (HCQ) in reducing proteinuria in moderately severe primary IgA Nephropathy (EQUALITY study)
3. Clinicopathological profile and outcome of C3 glomerulopathy: a retrospective study
4. Diagnostic accuracy of procalciton in for detecting sepsis in chronic kidney disease patients
5. Evaluating the efficacy of various modalities of supportive treatment and immunosuppressive therapies in primary lgA nephropathy-a retrospective study"
6. Evaluation of Blood and Urinary Biochemical parameters in Autosomal Dominant Polycystic Kidney Disease and comparison with Healthy and Disease Controls
7. Evaluation of changes in measured GFR, Echocardiography, markers of bone mineral metabolism and carotid intimal medial thickness (CIMT) after renal donation
8. Factors affecting graft outcomes in deceased renal transplant
9. Impact of pregnancy on renal survival and pregnancy outcomes in women with primary glomerular diseases: a retrospective study
10. Retrospective multi-centric study for evaluating the clinical course and outcome of IgA nephropathy with crescents in the Indian population
11. Risk of contrast-induced nephropathy among diabetic patients undergoing fundus fluorescent angiography – A prospective observational study
12. Study of functional renal reserve in prospective kidney donors

Completed

1. A study to assess the effectiveness of mobile Application based home care management programme of Kidney transplant upon knowledge and practice of Patients undergone kidney transplantation in AIIMS, New Delhi

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2. A study to assess the effectiveness of video-assisted teaching regarding renal health on knowledge and behavioral practices about renal health among employees at AIIMS Delhi
3. An ambispective study to evaluate the outcomes of living kidney donors left with multiple renal arteries
4. Characterization of Chronic Kidney Disease of Unknown Origin in Patients attending Nephrology OPD of AIIMS, New Delhi-A cross-sectional study
5. Clinical Profile, Clinicopathological Correlation and Treatment Outcomes in Lupus Nephritis
6. Correlation of serum Immunoglobulin A/complement factor 3(IgA/C3) with the clinical and histologic severity in patients with IgA nephropathy
7. Effect of Calcitriol (active form) on experimental model of Cardiorenal Syndrome in rats: Possible involvement of ACE2/AT 1- 7/Mas receptor axis
8. Effect of Intravitreal Bevacizumab On Renal Function And Proteinuria Among Diabetic Patients: A Prospective Observational Study In North India (Chief Guide)
9. Isotonic bicarbonate vs balanced salt solution as resuscitation fluid in patients with severe metabolic acidosis: A randomized controlled trial
10. Practice patterns in IgA nephropathy: a questionnaire-based survey

Collaborative projects

Ongoing

1. Anemia: Exploring the role of vitamin D, essential elements and lifestyle in Indian Population (ICMR project)., Pharmacology, Medicine, Nephrology
2. Assessment of Fok I polymorphism of VDR gene, vitamin D and parathyroid hormone levels in stage 4-5 CKD patients, Department of Laboratory Medicine
3. Improving maturation rates of AV fistula hemodialysis access in CKD V patients using autologous adipose tissue-derived mesenchymal stem cells: a double-blind, randomized placebo-controlled trial, Department of Cardiovascular Radiology & Endovascular Interventions

Completed

1. A Randomized trial- To compare the catheter malfunction in Laparoscopic CAPD insertion with omentectomy versus Open CAPD insertion, Department of Surgery
2. An Open Label Randomised Controlled Trial to Study the Effect of Psychosocial Intervention on Quality of Life, Adherence and Psychiatric Morbidity in Patients with ESRD Undergoing Hemodialysis, Department of Psychiatry.
3. Intestinal Parasitic and microsporidia infections in renal transplant patients at a tertiary care center, Department of Laboratory Medicine
4. To study the effect of 24 hour versus standard 7 day prophylactic antibiotic regimen in renal transplant recipients: a randomized control study, Department of Surgery

PUBLICATIONS

Total Publications: 11; **Journal articles: 7;**
Abstracts: 1; **Chapters in books: 3**

Publications over past 3 years

Item	2021—2022	2022—2023	2023—2024
Total	28	19	11
Journalarticles	-	13	7
Abstracts	-	-	1

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Chaptersinbooks	-	6	3
Books	-	-	-

PATIENT CARE

a. *Facilities available in the department*

In addition to providing general nephrology care for all nephrology-related illnesses, department provides state-of-the-art renal replacement therapy; hemodialysis, CAPD and renal transplants at very low cost to any patient with end-stage renal disease. The department provides swap transplants and ABO-incompatible renal transplants. During hemodialysis, ultrapure water is provided to machine so that absolutely safe hemodialysis can be provided to patients. Isolation rooms were made ready to provide dialysis to COVID-suspect patients.

Special laboratory facilities

Department provides immunosuppressive drug monitoring free of cost to transplant patients. Apart from renal function tests, serum bicarbonate levels are measured in departmental laboratory. Accurate assessment of proteinuria is provided to renal patients in the laboratory.

b. Patient Camps

Dr Dipankar Bhowmik

Free Site Medical Camp in Mcloedganj Dharamshala (31 August 2023-3 September 2023)

Dr Arunkumar S

Medical camp at Leh (18-22 September 2023)

Patient care

S. No.	Area	Sub-heading	2021	2022	2023
1	HD Related	HD New Patients	1089	1125	1422
		Total HD	9826	11163	12343
		Plasmapheresis	170	192	115
		Femoral Vein catheterization	511	340	232
		Jugular/Subclavian catheterization	177	160	73
		Permcath Insertion	48	37	22
2	ICU Related	SLED – Bedside dialysis	109	136	804
3	Peritoneal Dialysis	Acute PD	2	3	2
		CAPD	7	9	6
4	Indoor Related	Kidney Biopsy	434	540	674
		Indoor regular admission	512	546	418
		Indoor short admission	2114	3450	5952
		Indoor Death/male	39/17	26	41/27
		Nephrology consultation	2993	3159	7547
		Ultrasound	433	578	720
5	Day Care Treatment	Pulse Methylprednisolone Tt	53	95	162
		IV iron Therapy	25	235	350
		IV Cyclophosphamide Therapy	42	28	72

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		IV Rituximab	-	-	243
		Other Miscellaneous Therapies	1994	3916	4540
6	Renal Transplant	Evaluation of LRRT	269	307	399
		Evaluation of Cadaver recipient	56	63	181
		Living RT done	62	97	118
		Cadaver RT done	0	12	13
7	Renal Lab related	Biochemistry (Urea, Cr, Na, K)	45548	40067	48954
		Urine osmolality	1187	1794	2278
		24 hr urine testing	10370	19907	29705
		Hemogram for RT Patients	11468	24260	10094
		Bicarbonate	14270	25765	30681
		Iron function tests (Iron, UIBC, TIBC)	4798	6994	9711
		Serum Ferritin	2249	3549	1481
		Tac Level	3258	5097	3339
8	OPD Related	Renal clinic new patient	337	5907	7265
		Renal clinic old patient	1031	28264	39407
		Renal clinic Total Patients	1368	34171	46672
		RTCC New Cases	299	349	399
		RTCC Old Cases	560	2073	2803
		RT new cases	62	109	131
		RT old cases	5261	8180	10210
		RT Clinic Total Patient visits	5323	8289	10341

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Our center has been selected as International Interventional Nephrology Training Center by the International Society of Nephrology from 2024–2029.

Professor Dipankar Madhusudhan Bhowmik was the President Indian Society of Nephrology North Zone and Vice President Delhi Nephrology Society.

Professor Sandeep Mahajan was awarded the Eminent Health & Medical Education award by the Delhi Medical Association on 04 September 2022; Appointed as Associate Editor of the Indian Journal of Nephrology (2023); Delivered the Arogya Nyas Oration at the 10thAsia Pacific Chapter Meeting of International Society of Peritoneal Dialysis, New Delhi (May 2023) and the KK Malhotra Oration at the 29th Annual Conference of the North Zone Indian Society of Nephrology, Chandigarh (February 2024).

Professor Soumita Bagchi is Associate editor – Seminars in Dialysis; Subject editor (glomerular diseases) Nephrology Carlton; Alumni Mentor for research projects for MSc (Public Health) for London School of Hygiene and Tropical Medicine; Alumni participant in pilot project for decolonising the curriculum (DtC), and equity, diversity and inclusion (EDI) in research projects for MSc (Public Health) for London School of Hygiene and Tropical Medicine; Member, Subject Expert Committee (SEC) of CDSCO, New Drugs Division; Member, The Transplantation Society (TTS) international CMV consensus group for the 4th International CMV and solid organ transplant consensus guidelines.

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9.22 National Cancer Institute, Jhajjar

Head

Professor Alok Thakar

INSTITUTE HIGHLIGHTS

National Cancer Institute (NCI-AIIMS) celebrated its 5th Foundation Day on 12 February 2024. Hon'ble minister of health and family welfare Shri Mansukh bhai Mandaviya Ji presided over the inauguration programme in the August presence of the Director AIIMS, Prof M Srinivas, Dean AIIMS, the British High commissioner and senior faculty members of the institute. Union Health Minister Dr Mansukh Mandaviya delivered keynote address at 5th Foundation Day of National Cancer Institute, AIIMS Jhajjar. He also launched Collaboration Agreement between University of Liverpool and AIIMS New Delhi for "AIIMS Liverpool Collaborative Centre for Translational Research in Head and Neck Cancer – ALHNS" ALHNS will combine resources at both institutions in order to develop joint research and education programmes which will enhance the quality of research outputs and education.

On the eve of the foundation day the institute invited faculties from different institutes of national importance to discuss a future roadmap of collaboration in oncology research. Many institutions of the AIIMS network and other INI institutions share commonalities in terms of the training courses taught by us, and in terms of the challenges and opportunities in the cancer care undertaken by us. At this particular conclave we delved to discuss modalities to improve and collaborate on training and teaching so as to optimally utilize the strengths of individual departments and institutions. Further, it provides us opportunity to forge partnerships on common research questions of relevance to all of us. Our commitment to advancing the field of oncology has been unwavering. We can use this platform to inspire, collaborate, and envision a future where cancer is not just treatable, but also preventable, and where every patient receives the best care possible. Nearly 200 faculty members from different institutes participated in the day-long program.

DEPARTMENTS

BIOCHEMISTRY

Additional Professor

Ashok Sharma

Highlights:

- Introduced Molecular Diagnostic Services **(**BCR-ABL1 quantitative (Major, Minor & Micro, ALL Comprehensive Panel, AML Comprehensive Panel Test) for Cancer patients at National Cancer institute, Jhajjar. Completed >170 tests from 1 September 2023 to 31 March 2024
- Dr Ashok Sharma received In Res "**CV Raman Prize-January 2024"** for outstanding work on behalf of the Institute of Researchers, registered and recognized by the Ministry of MSME, Govt. of India
- Nominated for the **Best Researcher award** in **International Research Awards on Information and Computer Applications**, 2023.
- **One Best oral presentation award** in "Young Scientists' Conference held as part of Indian International Science Festival 2023 held at DBT THSTI RCB campus during 17-20 January 2024.
- **One Certificate of appreciation** in the "3rd Research Day" held on 30 January 2024, AIIMS, New Delhi
- A Press Note released by AIIMS media Cell on the "Research Day" about our showcased product "iOncology.ai Platform" developed by our lab. This news covered by leading media house and tweeted by Hon'ble Health Minister's office:
    - https://twitter.com/OfficeOf_MM/status/1760145669904576666 (@OfficeOf_MM)

- https://www.thehindu.com/sci-tech/health/aiims-unveils-indigenously-developed-technology-for-early-detection-of-cancer/article67821512.ece
- https://indianexpress.com/article/long-reads/aiims-ai-project-cancer-therapy-9169481/

- Installed iOncology.ai in 7 district hospitals of states-Madhya Pradesh, Gujarat, Uttar Pradesh and Rajasthan

Education:

Theory as well as practical classes for:

M.B.B.S

M.Sc

M.D

M.Sc (Biotechnology)

Paramedical teaching

No. of short term/long term trainees = **12**

CMEs/Workshops/Symposia/National and International Conferences:

CME	= 1
Workshop	= 0
Symposia	= 02
Plenary Lectures	= 02
Guest Lectures	= 09
Invited Lecture	= 12
National Conference	= 06

1. 8th World Cancer Congress 2024, 18-20 March 2024, JNU, New Delhi
2. Global Immunology Summit-2024, 15-17 February 2024, THSTI Faridabad, India
3. India International Science Festival 2023, 17-20 January 2024, DBT THSTI RCB campus
4. World Cancer Day, 5 February 2024, UPES, Dehradun
5. AIIMS Research Day, 30 January 2024, AIIMS, New Delhi
6. 7th Annual Conference of the Association of Practising Pathologists, India (PATHCON & Lab Expo 2023), 17 December 2023, New Delhi
7. Electrochemical Society (ECS)-JNU student chapter, 16 December 2023, JNU, Delhi
8. SAARC Federation of oncologist-Nepal (SFO-N-International cancer conference, 7-9 December 2023, Kathmandu, Nepal
9. "IMMUNOCON-50" 2023 conference, 5-8 October 2023, AIIMS, New Delhi
10. GI-YSRI 2023 conference, GIST 2023 conference, 31 May to 2 June 2023, National Agricultural Science Complex Campus (NASC), New Delhi

Lectures delivered: 10

Ashok Sharma: 10

Ashok Sharma

1. iOncology.ai: An AI-based platform for breast and ovarian cancer early detection, diagnosis and prognosis, 8th World Cancer Congress 2024, 18-20 March 2024, JNU convention centre
2. Invited to chair a session at Global Immunology Summit-2024 with the theme of "Emerging Frontiers of Immunobiology and Immunotherapy", Global Immunology Summit-2024, 15-17 February 2024, THSTI Faridabad, India
3. Invited as a guest of honour & distinguished speaker to deliver a talk on celebrating World Cancer Day School of Health Sciences and Technology, World Cancer Day, 5 February 2024, UPES, Dehradun

4. "Reshaping of the genome-Nuclear lamina interaction and modulation of the epigenome in response to platinum induced chemoresistance in ovarian cancer", Young Scientists' Conference held as part of Indian International Science Festival 2023, 17-20 January 2024, DBT THSTI RCB campus
5. AI in Oncology: iOncology.ai prototype for detecting breast and ovarian cancers, AIIMS Research Day, 30 January 2024, AIIMS, New Delhi
6. DBT-AIIMS Translational and Clinical Research Center, 7th Annual Conference of the Association of Practising Pathologists, India (PATHCON & Lab Expo 2023), 17 December 2023, New Delhi
7. Invited as a Speaker to deliver a talk on "Potential of Nanotechnology in Cancer Diagnosis and Therapy", Oral hygiene in human Health and Diseases, under the Electrochemical Society (ECS)-JNU student chapter, 16 December 2023, JNU, Delhi
8. Invited as a Speaker to deliver a talk on "Artificial Intelligence and Deep Learning-A Novel Approach to Discovering and Integrating Novel Biomarkers for Testis Antigen POTE Discovery and Integration to Improve Ovarian Cancer Diagnosis", SAARC Federation of oncologist-Nepal (SFO-N-International cancer conference, 7-9 December 2023, Kathmandu, Nepal
9. Invited as a distinguished session chair in the Golden Jubilee conference of Indian Immunology Society [Immunocon-50]: Frontiers in immunology: A Gateway to Healthcare, Golden Jubilee conference, IIS, 5-8 October 2023, JLN Auditorium, AIIMS, New Delhi
10. "POTEE: A member of Prostate, Ovary Testis and Embryo (POTE) family is the potential modulator of Nocth1 mediated signalling and regulates ovarian cancer phenotype", GI-YSRI 2023 conference, GIST 2023 conference, 31 May to 2 June 2023, National Agricultural Science Complex Campus (NASC), New Delhi

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
10	12	10

Oral papers/posters presented: 14

1. Gupta R, Jit BP, Kundu S, Kanga U, Ray MD, Luthara K, et al., POTE protein family exhibits a potential therapeutic peptide vaccine candidate against epithelial ovarian cancer (EOC): An In silico and In vitro study, Golden Jubilee conference of Indian Immunology Society [Immunocon-50], 5-8 October 2023, Delhi
2. Gupta R, Jit BP, Ray MD, Sharma A, Dendritic cell mediated POTE (Prostate, Ovary, Testis and Embryo) vaccine approach: A potential immunotherapeutic candidate for Epithelial Ovarian Cancer (EOC), World Cancer Congress-2024 (WCC), 18-20 March 2024, Delhi
3. Gupta R, Jit BP, Ray MD, Sharma A, POTE protein family: "POTE (Prostate, Ovary, Testis and Embryo) protein as a potential immunotherapeutic target for Epithelial Ovarian Cancer (EOC), 3rd AIIMS Annual Research Day, 29-30 January 2024, Delhi
4. Gupta R, Jit BP, Ray MD, Sharma A, POTE, A novel Cancer Testis/Cancer Germline Antigen with strong potential therapeutic targets for Epithelial Ovarian Cancer (EOC), 9th India International Science Festival (IISF), 17-20 January 2024, Faridabad, Haryana
5. Gupta R, Jit BP, Sharma J, Ray MD, Sharma A, POTE AS POTENTIAL THERAPEUTIC TARGETS FOR EPITHELIAL OVARIAN CANCER (EOC): AN IN SILICO AND IN VITRO STUDY, 6th Annual conference of oncology forum, Delhi OFCON-2023, 2-3 December 2023, Delhi
6. Jit BP, Kundu S, Manav N, Gupta R, Kumar S, Sharma A, POTEE: A members of Prostate, Ovary Testis and Embryo (POTE) family is the potential modulator of Nocth1 mediated signalling and regulates ovarian cancer phenotype, GI-YSRI 2023 conference, GIST, 31 May to 2 June 2023, Delhi
7. Jit BP, Kundu S, Manav N, Gupta R, Ray MD, Sharma A, Elucidation of POTEE-Notch1 cross talk in EOC phenotype, 3rd AIIMS Annual Research Day, 29-30 January 2024, Delhi
8. Kundu S, Sharma A, Reshaping of the epigenome in response to platinum induced chemotherapy resistance in ovarian cancer, 6th Annual conference of oncology forum, Delhi OFCON-2023, 2-3 December 2023, Delhi
9. Kundu S, Sharma A, Reshaping of the genome-nuclear lamina interaction and modulation of the epigenome in response to platinum-based chemoresistance in ovarian cancer, AIIMS 3rd research day, 30 January 2024, Delhi

10. Manav N, Sharma A, Elucidation of the functional aspects and underlying epigenetic regulation of cancer-testis antigen POTEB gene in ovarian cancer with the assessment of its biomarker potential, 3rd AIIMS Annual Research Day, 30 January 2024, Delhi
11. Manav N, Sharma A, Elucidation of The Functional Aspects of Cancer-Testis Antigen POTEB Gene and its potential to serve as a biomarker in Epithelial Ovarian Cancer, 6th Annual conference of oncology forum, Delhi OFCON-2023, 2-3 December 2023, Delhi
12. Pal AK, Jit BP, Sharma A, Nandave M, Exploring the anti-invasion potential of Agomelatine and Ramelteon on Tamoxifen on tamoxifen chemosensitizer MCF-7 three dimensional multicellular spheroids, World cancer congress, 18-20 March 2024, Delhi
13. Qazi S, Sharma S, Sharma A, iOncology.ai: An AI-based platform for early detection of breast and ovarian cancers, India International Science Festival (IISF), 18 January 2024, Faridabad, Haryana
14. Qazi S, Sharma S, Sharma A, iOncology.ai: An AI-based platform for early detection of breast and ovarian cancers, Immunocon-2023, 9 November 2023, Delhi

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
2	12	14

RESEARCH

Funded projects

Ongoing

1. A pilot study evaluating role of homeopathic medicine in cancer patients as adjuvant treatment to chemotherapy/ radiotherapy and correlating with molecular profiling, Dr Ashok Sharma, DBT, 3 Years, 2023-26, Rs 89,85,660/-
2. DBT NCI-AIIMS Translational Cancer Research Centre, Dr Ashok Sharma, DBT, 5 Years, 2023-28, Rs 40 crores (Principally Approved)
3. Role of NF-kB in inflammation and immune response of Trauma Hemorrhagic shock patients: The protective effects of Estrogen, Dr Ashok Sharma, AIIMS, 2 Years, 2022-24, Rs 10,00,000/-

Completed

1. Artificial intelligence in Oncology: Harnessing big data and advanced computing to provide personalized diagnosis and treatment for cancer patients, Dr Ashok Sharma, MeitY, 3 Years, 2020-23, Rs 2,91,67,160/-
2. Immuno-epigenetics study of the humoral immune response in COVID-19 Patients from India, Dr Ashok Sharma, SERB, 3 years, 2020-23, Rs 31,82,360/-
3. Role of Nf-kB in inflammation and immune response of trauma hemorrhage shock patients: The protective effect of estrogen, Dr Sanjeev Bhoi and Dr Ashok Sharma, AIIMS intramural Collaborative Grant, 2 years, 2021-23, Rs 20 Lakhs

Departmental Projects

Ongoing

1. An AI powered functional genomics and systems biology approach to detect the epigenetic signature patterns in ovarian cancer
2. Cytoreductive Surgery and HIPEC in Relapsed Epithelial Ovarian Cancer-An Ambispective Observational Clinico-Molecular Study
3. Decoding the efficacy of homoeopathic plant extracts in ovarian cancer treatment through in-silico analysis
4. Elucidation of functional Interplay and polymorphism of POTE Protein/Notch signaling axis and its association with clinical phenotype in epithelial ovarian cancer
5. Elucidation of the Functional aspects and underlying Epigenetic Regulation of POTEB in Ovarian Cancer
6. Functional Analysis of Human Long Non-Coding RNAs (lncRNA) and their Association with Spatial Genome Organization in Cancer

7. Genome wide analysis of microRNA mediated regulation of Cancer Testis Antigen POTE in Triple Negative Breast Cancer"
8. Immunotherapeutic potential of novel Prostate, Placenta, Ovary, Testis-Expressed (POTE) Antigen in ovarian cancer
9. Molecular Mechanism of Cancer-Testis/Germline Antigen POTEB/B2 in Ovarian Cancer
10. Randomized controlled trial to assess the effect of riboflavin supplementation with antidepressant treatment in persons with major depressive disorder
11. Role of Epigenetics in Female Genital Tuberculosis
12. Study on 3D genome architecture as an epigenetic regulator of pericentromerically localized cancer-testis/germline antigen POTE in cancer
13. Targeting multiple tumor antigens with a recombinant Mycobacterium indicus pranii-based cancer immunotherapy approach and its evaluation using a mouse tumor (melanoma) model
14. To explore the Notch/Cancer testis antigen POTEE signaling axis in chemoresistant relapsed ovarian cancer patients derived organoid/cell model
15. To investigate the effect of epigenetic modulation on resensitizing platinum resistance in EOC.
16. To investigate the impact of monoclonal antibody therapy on expression of cancer testis antigen CTA, POTE in Ovarian Cancer
17. To investigate the impact of Naproxen and diclofenac on cancer testis antigen Notch (1, 2, 3) in platinum sensitive and resistance ovarian cancer
18. To Study Architecture for Developing AI-Powered Clinical Decision Support System(CDSS) integrated with EHR for Ovarian Cancer and Breast Cancer and perform AI modeling
19. To study the expression of POTE proteins in PBMC with respect to the clinicopathological parameters in patients with ovarian cancer
20. To understand the impact of diclofenac on the expression of POTE in ovarian cancer

Completed

1. A Pilot Study to Evaluate the Role of POTEE Gene and Machine Learning as Preoperative Diagnostic and Prognostic Prediction Tools for Epithelial Ovarian Cancer
2. An in-silico and in-vitro study to elucidate the expression of POTE in ovarian cancer'
3. An in-silico study to categorize the consensus molecular subtypes in ovarian carcinoma and identify potential biomarker
4. Development of an AI based expert system to diagnose and classify ovarian cancer
5. Expression of Notch signaling in cisplatin resistance EOC model
6. To elucidate the effect of NOTCH Modulator on the expression of POTEE in Epithelial Ovarian Cancer

Collaborative projects

Ongoing

1. Clinical and radiologic profile, risk associations, caregiver burden and clinical outcomes in early and late onset dementia, Department of Neurology, CNC, AIIMS, New Delhi
2. Determinants of Immune Reconstitution Inflammatory Syndrome (IRIS) in adult non-HIV Central Nervous System Tuberculosis (CNSTB) patients: a prospective cohort study, Department of Neurology, CNC, AIIMS, New Delhi
3. Development of novel cancer immunotherapy by incorporating cancer/testis antigen NY-ESO-1 into Mycobacterium indicus pranii and evaluation of its antitumor efficacy and immune mechanisms using a mouse tumor model, DRBRAIRCH, AIIMS
4. Effect of NHE-1 blocker, Cariporide on initiation of return of spontaneous circulation in hypoxic cardiac arrest rat model, Department of Emergency Medicine, AIIMS, New Delhi
5. Effect of sodium-hydrogen channel (NHE-1) inhibitor in hypoxic cardiac arrest, Department of Emergency Medicine, AIIMS, New Delhi
6. Randomized, Open labelled, Phase IIa /IIb Clinical trials to study the safety and efficacy of intravenous estrogen therapy in reducing the incidence of sepsis/septic shock in Trauma Hemorrhagic Shock patients, ICMR, 70L, Department of Emergency Medicine, AIIMS

7. Role of Epigenetics and Immune Factors in Female Genital Tuberculosis, Department of Gynaecology, AIIMS, New Delhi
8. Role of M1 macrophage on DNA methylation and PI3K-AKT signaling pathway analysis in tumor-associated Mesenchymal stem cell in Breast Cancer, Department of Biochemistry, AIIMS, New Delhi
9. To Investigate the role of Natural Killer cell in implantation failure and to study immunomodulatory effects of Intralipids in women with elevated uterine Natural Killer Cells in Fresh non-donor IVF cycles - A Randomized control Tria, Department of Gynaecology, AIIMS, New Delhi
10. Urinary novel microRNAs as a biomarker for prediction of acute kidney injury in sepsis, Department of Emergency Medicine, AIIMS, New Delhi

Completed

1. Artificial intelligence in Oncology: Harnessing big data and advanced computing to provide personalized diagnosis and treatment for cancer patients, CDAC, Pune
2. Immuno-epigenetics study of the humoral immune response in COVID-19 Patients from India, NII, New Delhi
3. Molecular Characterization of Endometrial cancer and its correlation with clinicopathological features, Pathology, AIIMS

Research over past 3 years

Research project	2021-2022	2022-2023	2023-2024
Total funded projects	1	1	2
Total funding	Rs 9,99,752/-	Rs 10,00,000/-	Rs 99,85,660/-

PUBLICATIONS

Total Publications: 36;

Journal Articles: 6; Abstracts: 27; Chapter in Books: 3

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total	10	12	36
Journal Articles	6	12	6
Abstracts	4	0	27
Chapter in books	0	0	03
Books	0		

Patient Care Services:

Molecular Diagnostic Services: 170 tests (1 September 2023 to 31 March 2024)

1. BCR-ABL1 quantitative (Major, Minor & Micro) test = 83
2. ALL Comprehensive Panel = 45
3. AML Comprehensive Panel = 42

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Best poster award in the 8th World Cancer Congress 2024 held at JNU convention centre during 18-20 March 2024; Received InRes "CV Raman Prize-January 2024" for outstanding work on behalf of the Institute of Researchers, registered and recognized by the Ministry of MSME, Govt. of India, and a premier organization in India to promote and support research; Certificate of appreciation in the "3rd Research Day" held on 30 January 2024, AIIMS, New Delhi; Best oral presentation award in Young Scientists' Conference held as part

of Indian International Science Festival 2023 held at DBT THSTI RCB campus during 17-20 January 2024; Best poster award in the 6th Annual conference of oncology forum, Delhi OFCON-2023 Impact of molecular oncology & real-world practice 2-3 December 2023; Best poster award in the Golden Jubilee conference of Indian Immunology Society [Immunocon-50]: Frontiers in immunology: A Gateway to Healthcare 5-8 October 2023; Nominated for the Best Researcher award in International Research Awards on Information and Computer Applications, 2023; Delivered a Lecture on l The first installation of iOncology.ai in The Sheela Sharma Cancer Memorial Hospital, Mathura, Uttar Pradesh on 13 January 2024; Installed iOncology.ai in 7 district hospitals of states - Madhya Pradesh, Gujarat, Uttar Pradesh and Rajasthan; Coordinated the 8th World Cancer Congress – 2024 hosted at JNU Convention Centre, Jawaharlal Nehru University, New Delhi, India, 18-20 March 2024; Organized "National Science Day" of Bharat (India), Invite Professor GK Rath and **Dr Manish Tripathi as a keynote speaker to deliver a talk on "Advancing Colorectal Cancer and the ncGenome" which is scheduled for 28 February 2024, in LT-2, AIIMS, New Delhi, India in the gracious presence of Honorable Additional Director of Administration (ADA), AIIMS Sh Karan Singh Ji. The Society of Young Scientists and Vijana Bharti will jointly organize this event;** Coordinated the 9th India International Science Festival (IISF) 2023 to be held at Faridabad**, Haryana from 17-20 January 2024 organised by The Ministry of Science & Technology, the Ministry of Earth Sciences, the Department of Space, and the Department of Atomic Energy, in association with Vijnana Bharati (VIBHA);** Organized Scientific Conference "50th Golden Jubilee Immunocon-2023"**, Indian Immunology Society, JL Auditorium, AIIMS, New Delhi, 5-8 October 2023. Research work in News and Media: A Press Note released by AIIMS media Cell on the "Research Day" about our showcased product "iOncology.ai Platform" developed by our lab. This news covered by leading media house and tweeted by Hon'ble Health Minister office:**

https://twitter.com/OfficeOf_MM/status/1760145669904576666 (@OfficeOf_MM); https://www.thehindu.com/sci-tech/health/aiims-unveils-indigenously-developed-technology-for-early-detection-of-cancer/article67821512.ece; https://indianexpress.com/article/long-reads/aiims-ai-project-cancer-therapy-9169481/; https://health.economictimes.indiatimes.com/news/hospitals/aiims-launches-ai-based-platform-for-cancer-diagnosis/107359177; https://thedailyguardian.com/aiims-launches-ai-based-platform-for-cancer-diagnosis/; https://www.aninews.in/news/national/general-news/aiims-launches-ai-based-platform-for-cancer-diagnosis20240202140552/#google_vignette; https://www.tv9hindi.com/health/in-aiims-delhi-cancer-diagnosis-will-be-done-with-the-help-of-artificial-inteligence-2398597.html. Media coverage at University of patanjali, February 28-March 2, 2023 on. "Plants to patients: Rethinking the ethno pharmacology

ENT AND HEAD & NECK ONCOLOGY

Professor and Head

Alok Thakar

Professors

Kapil Sikka

Chirom Amit Singh

Additional Professor

Rajeev Kumar

Assistant Professors

Anup Singh

Smriti Panda

Manish Verma

Manaswita Roy

Highlights

An MoU was signed between NCI-AIIMS and the University of Liverpool (Liverpool Head and Neck Centre) for the joint initiative "AIIMS-University of Liverpool Collaborative Centre for Translational Research in Head-Neck Cancer". The MoU was signed in the presence of Honourable Union Health Minister, Shri Mansukh Mandaviya, Director AIIMS, Professor Terrence Jones from the University of Liverpool and dignitaries from the British High Commission. The MoU is pledged to develop cutting-edge translational and molecular advances in the field of head and neck cancer.



The Department is undertaking human trials on novel tracheo-esophageal prosthesis developed in collaboration with IIT-Delhi and [99mTc] DTPA anti-cytokeratin collagenous nanoparticle for single-stage sentinel node biopsy.

The Department hosted Prof Kurinchi Gurusamy, Professor of Evidence-Based Medicine and Surgery, University College London for a session on "Introduction to Systematic Review and Meta-analysis". The program was attended by residents and faculty members at NCI-AIIMS, Jhajjar. This was followed by weekly online sessions where many faculty members benefitted by undertaking hands-on systematic reviews and meta-analyses.

On the occasion of the 5th NCI Foundation Day, the department collaborated with multidisciplinary members with a focus on head and neck cancer from various AIIMS and INIs and developed a working group for head and neck cancer to brainstorm future pathways to foster collaborative research and teaching activities.

The Department has also recently begun microvascular reconstruction for complex head and neck defects under the mentorship of senior faculty members from AIIMS, New Delhi.

Education

Residents pursuing MCh Head and Neck Oncology and Surgery course spend 18 months of their course duration in the Department of ENT at NCI-AIIMS. During this period, they are trained in patient care and participate in teaching activities. Patient care includes in-patient and out-patient posting, screening of head and neck cancer patients and managing head and neck cancer emergencies. Residents observe and perform various head and neck surgeries including reconstructive surgeries like regional and free flap reconstruction during this period. Academic lectures, journal clubs and case presentations are undertaken in hybrid mode along with residents and faculty members from AIIMS, New Delhi every week. The theme of the teaching activity is multidisciplinary and includes significant contributions from the Department of Pathology, Department of Radiation Oncology and Department of Medical Oncology.

Lectures Delivered: 72

Alok Thakar: 18	**Kapil Sikka: 9**	**Chirom Amit Singh: 7**
Rajeev Kumar: 19	**Smriti Panda: 18**	**Manish Verma: 1**

Alok Thakar

1. Current Role of Partial Laryngectomy in the management of Laryngeal Cancer, AIIMS International Head-Neck Dissection Course, 1 April 2023, New Delhi

2. ICG for parathyroid identification, Max Cancer Congress, 29-30 April 2023, New Delhi
3. Pearls and Pitfalls in Thyroid Surgery, Armed Forces Conference on Head-Neck cadaveric dissection (AFCONHNS) Army hospital Research & Referral, 25 May 2023, New Delhi
4. Conservation Laryngectomy. Voice and Laryngology Workshop, MedantaMedicity, 16 July 2023, Gurugram
5. Minimizing your Risks of Cancer-Cancer Screening and Health-Wellness Education program, India International Centre, 12 December 2023, New Delhi
6. Oral Cancer-Audit of failures and the way forward, IFHNOS 2023, 21-25 June 2023, Rome, Italy
7. Laryngeal Conservation Surgery in Radiorecurrent situations-, International Conference on Recurrent Head-Neck Cancer (UChicago-UCMS Joint meeting), UChicago Medical Centre, 21 August 2023, New Delhi
8. Keynote-The Tumour host interface in Oral Cancer and its impact on Prognosis, RRR-Resection, Reconstruction, Rehabilitation-Tata Medical Centre, 9-10 September 2023, Kolkata
9. KEYNOTE LECTURE - ORAL CANCER - An audit of Failures & the Way forward, SOUTH ZONE AOI CONFERENCE, 6-8 October 2023, Coimbatore
10. Role of Surgery in Management of Cancer Larynx-Moderator-Panel Discussion, Indian Cancer Congress, 3-5 November 2023, Mumbai
11. Foundation Oration-Hits & Misses as an Academic Surgeon in Head-Neck Oncology-, Foundation for Head-Neck Oncology-Annual Conference, 21-24 December 2023, Vapi, Daman
12. Retroauricular Robotic Thyroidectomy-safe & familiar Remote Access Thyroidectomy, Association of Otolaryngologists of India-Annual Meeting, 4-7 January 2024, Bengaluru
13. Moderator-ParaNasal sinuses and Skull Base Tumours, IFHNOS-Head and Neck Cancer Summit-2024, 16-28 February 2024, Chennai
14. -Relevance of p16 positivity in surgical management of oropharyngeal cancers-Indian perspective, RGCON-2024, 15-17 March 2024, New Delhi
15. Moderator Panel Discussion-Cancer Larynx, 3rd Asia Pacific Laryngology Association Congress, 2-5 March 2024, Dhaka, Bangladesh
16. Current Role of open partial laryngectomy in Cancer larynx, 3rd Asia Pacific Laryngology Association Congress, 2-5 March 2024, Dhaka, Bangladesh
17. The role of Robotic Surgery in Head-Neck Oncology, 3rd Asia Pacific Laryngology Association Congress, 2-5 March 2024, Dhaka, Bangladesh
18. Panelist-Challenges to the treatment of head and neck cancer in the Indian subcontinent, International Federation of Head-Neck Oncology Societies Conference, 21-25 June 2023, Rome, Italy

Kapil Sikka

1. PNSTumours, PG Update, MAMC, 12 December 2023, New Delhi
2. Panellist in panel discussion on “Management of locally advanced Oral Cancers”, Oncology Forum Midterm meeting, India Habitat Centre, 13 October 2023, New Delhi
3. Talk: Locally advanced larynx carcinoma: Where we stand today?”, Oncology Updates 2023, Organised by Max Hospital, 7 October 2023, New Delhi
4. Talk: Surgical Nuances of revision thyroid bed surgery”, International Conference on Head and Neck Surgery on Recurrent Head and Neck Cancer organised by UCMS and GTB Hospital and The University of Chicago centre in Delhi, 21 August 2023, New Delhi
5. Panelist: Management of Thyroid Nodules, 9th Annual conference of Indian Academy of Otorhinolaryngology, Head and Neck Surgery (IAOHNS 2023, 3-6 August 2023, Jammu
6. Case Discussion: Mediastinal Tracheal Mass, Monthly Meet of Association of Otolaryngologists of India, 28 July 2023, New Delhi
7. Panelist: Case based discussion on local and regional flaps in head and neck reconstruction, Max cancer Congree, 29-30 April 2023, New Delhi
8. Moderator: Case Discussion-Advanced Oral Cancer, Mahamana Case Discussion series organised by Mahamana Pandit Madan Mohan Malaviya Cancer Centre, 20 April 2023, Varanasi (Virtual)
9. Chairperson: Management of recurrent nasopharyngeal cancers-re irradiation/salvage surgery (endoscopic/robotic/ open)”, Delhi Head and Neck Oncology Group, 2 April 2023, New Delhi

Chirom Amit Singh

1. Cadaveric demonstration of Mandibulotomy, segmental mandidulectomy and infratemporal fossa clearance, International Head and Neck dissection course, 30 March to 3 April 2023, AIIMS, New Delhi
2. Live surgical demonstration of posterolateral neck dissection, International Head and Neck dissection course, 30 March to 3 April 2023, NCI, Jhajjar
3. Dysphagia in head and neck cancer: Clinician perspectives, PHAGONUTRICON 2023, 22 July 2023, Amrita, Faridabad
4. Local flap in oral cancer, Master course in oral cancer management 2023, 28-29 July 2023, Mumbai
5. Moderator: Advanced carcinoma larynx, Mahamana Case Discussion Series, 26 October 2023, Online
6. Infrahyoid Myocutaneous Flap-An Overlooked Flap, RGCON 2024, 15-17 March 2024, New Delhi
7. Panelist: Troubleshooting the Flaps in Adverse Scenarios of Head and Neck Reconstruction, RGCON 2024, 15-17 March 2024, New Delhi

Rajeev Kumar

1. Demonstrated live "total thyroidectomy" on 3 April 3rd International Head Neck Cadaveric Dissection Course, 30 March to 3 April 2023, NCI-AIIMS, New Delhi
2. Demonstrated "cadaveric total maxillectomy" on 2 April 3rd International Head Neck Cadaveric Dissection Course, 30 March to 3 April 2023, ACSST, JPNATC, AIIMS, New Delhi
3. Management of Parotid Gland Malignancies, USAESCON 2023 16th Annual Conference of Uttarakhand State Association of ENT Surgeons, 14-16 April 2023, AIIMS, Rishikesh
4. Panelist on panel discussion on "Decision making in Thyroid cancer", USAESCON 2023 16th Annual Conference of Uttarakhand State Association of ENT Surgeons, 14-16 April 2023, AIIMS, Rishikesh
5. Lid Loading, 5th AIIMS Facial Plastics Workshop 2023, 21-23 April 2023, AIIMS, New Delhi
6. Demonstrated rhomboid and bilobed flap on animal model, 5th AIIMS Facial Plastics Workshop 2023, 21-23 April 2023, AIIMS, New Delhi
7. Panelist on panel discussion on "Rehabilitation of paralyzed face", 5th AIIMS Facial Plastics Workshop 2023, 21-23 April 2023, AIIMS, New Delhi
8. Lid loading for facial reanimation, IAOHNS 2023 9th Annual conference of Indian Academy of Otorhinolaryngology-Head Neck Surgery, 3-6 August 2023, Jammu
9. Panelist on panel discussion "Management of Thyroid Nodules", IAOHNS 2023 9th Annual conference of Indian Academy of Otorhinolaryngology-Head Neck Surgery, 3-6 August 2023, Jammu
10. Panelist on panel discussion "Revision Oral Surgery", International Conference on Head Neck Cancer-Recurrent Head Neck Cancer, 21 August 2023, U Chicago Centre, New Delhi
11. Tips and tricks in parotid surgery, 45th Annual conference of Delhi AOI Branch, 22-24 September 2023, LHMC, New Delhi
12. Panelist on panel discussion "Carcinoma Oral Cavity", 2nd ENT-Radiology Meet 2023, 28 October 2023, MAMC, New Delhi
13. Invited Talk on "Surgical Management of Carcinoma Larynx with video on Total Laryngectomy", 12th ENT Update 2023, 11-13 December 2023, MAMC, New Delhi
14. Examiner for "Oral Cavity Malignancy" cases based discussion, 12th ENT Update 2023, 11-13 December 2023, MAMC, New Delhi
15. Examiner for "Carcinoma Larynx" cases based discussion, 12th ENT Update 2023, 11-13 December 2023, MAMC, New Delhi
16. Invited Talk on "Endoscopic Management of Sinonasal Malignancies", RHINOCON 2023 34th Annual Conference of All India Rhinology Society, 15-17 December 2023, SPMC Bikaner, Rajasthan
17. Panelist on panel discussion "Management of Sinonasal tumours", RHINOCON 2023 34th Annual Conference of All India Rhinology Society, 15-17 December 2023, SPMC Bikaner, Rajasthan
18. Panelist on panel discussion "Understanding the landscape of Nasopharyngeal carcinoma in India: A public health perspective, 5th Edition of cancer summit 2024, 2 February 2024, New Delhi

19. Chairperson for a session on "OPL and NBI in laryngeal cancers", RGCON 2024 22nd Annual International Conference, 15-17 March 2024, RGCIRC, New Delhi

Smriti Panda

1. Pectoralis major myocutaneous flap harvest-Cadaveric Demonstration, International Head and Neck Dissection Course, 2 April 2023, AIIMS, New Delhi
2. Surgical wound closure-Basics and tricks, 2nd Head and Neck Surgery Surgical and Cadaveric Dissection Workshop, 29 April 2023, AIIMS, Gorakhpur
3. Case-based panel-Thyroid nodule Panelist, 2nd Head and Neck Surgery Surgical and Cadaveric Dissection Workshop, 29 April 2023, AIIMS, Gorakhpur
4. Superficial and total parotidectomy-Cadaveric demonstration, 2nd Head and Neck Surgery Surgical and Cadaveric Dissection Workshop, 30 April 2023, AIIMS, Gorakhpur
5. Interactive class on diagnosis and treatment of parotid tumours-Moderator, Delhi Oncology Forum, 18 May 2023, New Delhi
6. Oral Cavity Verrucous Lesions: Audit of Long-Term Oncological Outcomes Junior Consultant Award paper, AOI Delhi State Branch, 22 September 2023, LHMC, New Delhi
7. Evaluation of solitary thyroid nodule, AOI Delhi State Branch, 24 September 2023, LHMC, New Delhi
8. Management of solitary thyroid nodule, MAMC ENT Update, 13 December 2023, MAMC, New Delhi
9. Salvage Laryngectomy (work up, reconstruction and evidence of complications) Moderator, FHNO Academics Series, 11 March 2023, Online
10. Indications of PET CT in head and neck cancers-Moderator, FHNO Academics Series, 29 April 2023, Online
11. Anaplastic Thyroid Cancer: Approach to management and treatment options-Moderator, FHNO Academics Series, 1 July 2023, Online
12. Recurrence in head and neck cancers: Including assessment, criteria for resectability-Moderator, FHNO Academics Series, 12 August 2023, Online
13. Tumour Board-Sinonasal Malignancy-Moderator, FHNO Academics Series, 21 October 2023, Online
14. Virtual tumour board-Moderator, FHNO Academics Series, 27 January 2024, Online
15. Innovation Landscape at AIIMS-Learning from our experience Case Study 4, CMIE Boot Camp in Oncology, 2 February 24, NCI-Jhajjar
16. Clinical presentation and diagnosis of premalignant lesions: oral cavity and larynx-Invited Talk, CME-Management of Pre-Malignant Disorders-Oral Cavity and Larynx (AOI, Delhi State), 20 February 2024, New Delhi
17. Management of sinonasal malignancy-Chairperson, RGCON, 15-17 March 2024, New Delhi
18. HBOT in head and neck cancer-Chairperson, RGCON, 15-17 March 2024, New Delhi

Manish Verma

1. Repair of lateral sphenoid wall CSF rhinorrhea (Video), 45th Annual Conference AOI, Delhi State, 22-24 September 2023, New Delhi

Lectures Delivered over past 3 years

2021-22	2022-23	2023-2024
42	38	72

Oral Papers/Posters Presented: 17

1. Gautam V, Tandon N, Panda S, Thakar A, Singh CA, Sikka K, et al., Poster: Evaluating the utility of office based flexible endoscopic guided biopsies in early diagnosis of head and neck cancers and factors shaping its outcome, FHNO 2023, 16 December 2023, Daman, India
2. Karthika C, Panda S, Sood R, Thakar A, Singh CA, Revitalizing care: Navigating the role of Botulinum Toxin A in the management of salivary leak and sialocele in head and neck, IFHNOS Summit, 16 Feruary 2024, Chennai, India

3. Kumar R, Kondamudi D, Kakkar A, Khan MA, Manchanda S, Bhalla AS, et al, Oral paper on "Impact of OSMF on Occult and Overt Lymph Nodal Metastasis in Gingivo-Buccal Complex Carcinoma-Prospective Cohort Study", 9th World Congress of International Academy of Oral Oncology 2023, 1-4 November 2023, Incheon, South Korea
4. Kumar R, Kondamudi D, Kakkar A, Khan MA, Manchanda S, Bhalla AS, et al, Oral paper on "Pre-vascular Facial Nodes in Gingivo-Buccal Complex Cancers: Incidence and Clinico-Pathological Predictors", 9th World Congress of International Academy of Oral Oncology 2023, 1-4 November 2023, Incheon, South Korea
5. Kumar R, Oral paper on "Factors influencing contralateral nodal metastasis in Oral Cavity Squamous Cell Carcinoma (OCSCC): prospective cohort study, 45th Annual conference of Delhi AOI Branch, 22-24 September 2023, LHMC, New Delhi
6. Kumar R, Oral paper on "Pre-vascular facial nodes in GBCC: Incidence and clinico-pathological predictors", IAOHNS 2023 9th Annual conference of Indian Academy of Otorhinolaryngology-Head Neck Surgery, 3-6 August 2023, Jammu
7. Kumar R, Saini A, Manchanda S, Sagar P, Aggarwal S, Khan MA, et al., Oral paper on "Efficacy of relative intact parathormone levels in predicting hypocalcemia after total thyroidectomy", USAESCON 2023 16th Annual Conference of Uttarakhand State Association of ENT Surgeons, 14-16 April 2023, AIIMS, Rishikesh
8. Kumar R, Saini A, Manchanda S, Sagar P, Aggarwal S, Khan MA, et al., Poster on "Efficacy of relative intact parathormone levels in predicting hypocalcemia after total thyroidectomy, IFHNOS Head and Neck Cancer Summit 2024, 16-18 February 2024, Chennai, India
9. Kumar R, Singh A, Manchanda S, Kumar R, Bhalla AS, Singh CA, et al, Poster on "Speech and swallowing outcomes with IHMCF reconstruction after compartmental glossectomy", RGCON 2024, 22nd Annual International Conference, 15-17 March 2024, RGCIRC, New Delhi
10. Kumar R, Video on " Open Partial Horizontal laryngectomy type IIa", IAOHNS 2023 9th Annual conference of Indian Academy of Otorhinolaryngology-Head Neck Surgery, 3-6 August 2023, Jammu
11. Kumar R, Video on "Frontolateral Laryngectomy", 45th Annual conference of Delhi AOI Branch, 22-24 September 2023, LHMC, New Delhi
12. Kumar R, Video on "Open Partial Horizontal Laryngectomy", USAESCON 2023 16th Annual Conference of Uttarakhand State Association of ENT Surgeons, 14-16 April 2023, AIIMS, Rishikesh
13. Mitra S, Panda S, Thakar A, Talukdar K, Singh CA, Sikka K, et al., Oral presentation: assessment of quality of life and functional swallowing outcomes following major glossectomy, 7th World congress of the International Federation of Head and Neck Oncology, 21-25 June, Rome, Italy
14. Panda S, Mitra S, Gautam V, Singh CA, Thakar A, Kakkar A, et al., Poster: Clinico-pathological analysis of oncological outcomes and patterns of failure in locally advanced carcinoma requiring major glossectomy, FHNO 2023, 16 December 2023, Daman, India
15. Panda S, Mitra S, Kakkar A, Singh CA, Kumar R, Thakar A, et al., Poster: Analysis of Prognostic Factors for Risk-Stratification in a Cohort of Head and Neck Cancer Patients with Extranodal Extension (ENE), IFHNOS Summit, 16 February 2024, Chennai, India
16. Panda S, Thakur K, Gautam V, Kakkar A, Thakar A, Singh CA, et al., Poster: Oral Cavity Verrucous Lesions: Audit of Long-Term Oncological Outcomes, FHNO 2023, 16 December 2023, Daman, India
17. Verma M, Surgical outcomes in geriatric head neck cancer patients in Indian population-A single center study (Poster), "22nd Annual Conference RGCON 2024 (Head and Neck Oncology, 15-17 March 2024, New Delhi

Oral/poster Presentations over past 3 years

2021-2022	2022-2023	2023-2024
	5	17

Research

Funded Projects

Ongoing

1. Centre for Medical Innovation and Entrepreneurship (AIIMSBioNEST), Prof Alok Thakar, AIIMS, BioNest

2. Comparative analysis of qPCR, mRNA ISH and p16 IHC for detection of high risk HPV on fine needle aspirates and core needle biopsies in patients with metastatic squamous cell carcinoma in cervical lymph nodes, Prof Chirom Amit Singh, Intramural collaborative, 2 years
3. Intraglandular Botulinum Toxin BoNT Injection for Postoperative Head and Neck Fistula Healing-A Pilot Study, Smriti Panda, Intramural early career grant, 2 years, 2024-2026, Rs 5,85,000
4. Minimally invasive nano enabled targeted technology for Sentinel Lymph Node detection in Head-Neck Cancers, Prof Alok Thakar, Biotechnology Ignition Grant-(BIG GRANT) Department of Biotechnology-BIRAC-DBT, 2024-25
5. Pre-compliance and clinical validation of implantable and diagnostic devices (Otorhinolaryngology, Ophthalmics and Orthopaedics): approved and to be initiated, Prof Kapil Sikka, ICMR, To be initiated,, Rs 15 Crores
6. Prospective study to evaluate the role of Systemic Bevacizumab therapy in patients with aggressive and complex laryngotracheal and pulmonary recurrent respiratory papillomatosis, Dr Rajeev Kumar, AIIMS Intramural Collaborative Research Project, 2 years, 2021-23, Rs 20 Lakhs
7. Study to determine the role of mTOR pathway in the pathogenesis of juvenile nasopharyngeal angiofibroma, Rajeev Kumar, Intramural, 2 years, 2021-2023, Rs 5.0 Lakhs

Concluded

Thesis

1. A prospective study to evaluate role of various frailty screening instruments in predicting surgical complications in geriatric head neck cancer patients
2. A STUDY ANALYSING “BACK TO NORMALCY” IN ORAL CAVITY CANCER SURVIVORS
3. Ambispective study to assess various primary tumour and ipsilateral nodal factors associated with contralateral nodal metastasis in patients with OCSCC
4. Ambispective study to evaluate the utility of Supraclavicular artery island flap [SCAIF] reconstruction in Head and Neck Cancers
5. Comparative evaluation of CAD-CAM planning versus traditional free fibula planning in surgical outcomes in mandibular reconstruction-A Prospective Study
6. Comparative study evaluating Ex-Vivo US aided deep margin assessment with fresh frozen section analysis in T1-T3 tongue carcinoma: Feasibility study
7. Prospective analysis of predictive factors for tracheal stomal stenosis after total laryngectomy for laryngeal and hypopharyngeal malignancies (2021-2023, Non funded study)
8. Role of adjuvant therapy in early stage oral cavity squamous cell carcinoma-An ambispective analysis
9. Role of ultrasound in predicting the depth of tumour invasion and lymph node metastasis in early tongue carcinoma. (2017-till date, Non-Funded Study)
10. Sentinel lymph node detection in early stages of oral squamous cell carcinoma: comparison between DTPA Cytokeratin-Collagenous Nanoparticle [99m Tc] Tc-DC-ColNP and [99m Tc] Tc-sulphur colloid
11. Study evaluating the effectiveness of Barbed suture versus Vicryl suture for pharyngeal closure after total laryngectomy in PCF reduction

Completed

1. A prospective study to determine early predictive factors of hypocalcemia in patients undergoing total or completion thyroidectomy
2. A Prospective Study to evaluate the impact of Oral Sub mucous Fibrosis (OSMF) on occult and overt lymph nodal metastases in Gingivo-buccal complex carcinomas (GBCC) (T1-T4a) of Oral cavity

Collaborative projects

Ongoing

1. A Phase IIb/III study to determine efficacy of Curcumin and Metformin to reduce the incidence of second primary tumors of aero-digestive tract in patients with history of head and neck squamous cell carcinoma, SPT Trial funded by NCG; Multi-centric

2. Evaluation of specific molecular alterations and tumor immune microenvironment for detection of clinically actionable targets in high grade salivary gland carcinomas, ICMR Funded, Department of Pathology
3. Identification of early candidate biomarkers of oral cancer from the saliva exosomal proteome
4. Potentially malignant lesion atlas project: Validating the efficacy of a novel, Point-of-care diagnostics and developing an integrated multidimensional, prognostic nomogram, ICMR funded, Department of Preventive Oncology, NCI, AIIMS
5. Role of celecoxib in reducing cognitive impairment in patients receiving definitive chemoradiation for head and neck carcinoma: A phase II randomized placebo controlled trial, Department of Medical Oncology
6. The SWOAR trial: A phase III trial evaluating dysphagia-aspiration related structures & submandibular gland sparing Intensity modulated radiotherapy (SWOAR-IMRT) versus standard IMRT in Head and neck squamous cell carcinoma, Department of Radiotherapy
7. The tumour immune microenvironment of follicular cell-derived thyroid carcinomas across different grades utilizing gene expression and spatial proteomic profiling, Department of Pathology
8. Utility of pectoralis major myofascial flap in reducing pharyngocutaneous fistula rates after salvage total laryngectomy

Completed

1. A phase II study of EMF (Erlotinib+ Methotrexate+ Celecoxib) in platinum refractory recurrent/metastatic head neck squamous cell carcinoma, Department of Medical Oncology
2. Assessment of Oral Microbiome and its significance in upper aerodigestive tract cancers, Department of Medical Oncology
3. Comparison between kit based and in-house preparation of Tc-99m Ubiquicidin, Department of Nuclear Medicine
4. Evaluation of genetic profile of olfactory neuroblastoma, Department of Pathology
5. Utility of 99m Tc-Ubiquicidin scintigraphy in diagnosis of sinonasal mucormycosis, Department of Nuclear Medicine
6. Utility of Ga-68-NOTA-UBI in infectious and non-infectious lesions, Department of Nuclear Medicine

PUBLICATIONS

Total Publications: 36;

Journal Articles: 28; Abstracts: 7; Chapter in Books: 1

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total			36
Journal Articles			28
Abstracts			7
Chapter in Books			1
Books			--

Patient Care

The department undertakes OPD, in patient services, operation theatres and multidisciplinary tumour board (DMG) for head and neck cancer patients. The statistics are as follows:

Item	2021			2022			2023			2024		
OPD	NEW	OLD	TOTAL	NEW	OLD	TOTAL	NEW	OLD	TOTAL	NEW	OLD	TOTAL
	744	3699	4443	891	5620	6511	1181	8194	9375	147	1330	1477
IPD	348			578			658			92		

TOTAL PATIENT= 21806

IPD PATIENT=1676

Minor OT Procedures

2021 - 441

2022 - 694

2023 - 1013

Major OT Procedures

2021 - 356

2022 - 552

2023 - 641

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Alok Thakar participated in Foundation Oration - Hits & Misses as an Academic Surgeon in Head-Neck Oncology - Foundation for Head-Neck Oncology-Annual Conference-Vapi 21-24 December 2023; Co-Chairperson - Subcommittee for Medical Devices, Standing National Committee on Medicines.

Professor Kapil Sikka was Treasurer - Foundation of Head and Neck Oncologists (FHNO); Appointed Additional MS, New RAK OPD - 28 March 2024; Organised TOET 2024 (Transoral endoscopic and thyroid workshop) at AIIMS New Delhi involving live surgeries, and cadaveric dissections and demonstrations. 2-4 April 2024; Invited guest faculty at Midterm conference of Indian Academy of Otorhinolaryngology and Head and neck surgery 16 March 2024. Moderated a panel on "Temporal bone tumors" at B Baruah Cancer institute Guwahati, Assam; Invited guest faculty at RGCON 2024, 24th Annual international conference by Rajiv Gandhi Cancer Institute and research centre on Head and Neck cancer. Moderated live surgery and chaired a session. 15-17 March 2024, New Delhi; Invited faculty at Head and Neck Cancer Summit 2024 at, Chaired a session on PNS Cancers 16-18 February 2024; Invited faculty 23rd National Conference FHNO 2023, at Daman, India on 22-24 December 2023. Delivered a talk on Narrow band imaging in laryngeal lesions; Chairman MCh Head and Neck exam, December 2023.

Professor Chirom Amit Singh was Technical expert group member of Ministry of Health and Family Welfare; Scientific committee FHNO 2023; Conducted Microvascular anastomosis workshop, live rat model, 12-14 October 2023; External expert, Selection committee, UCMS, New Delhi; External expert, Selection committee, AIIMS, Rishikesh.

Dr Rajeev Kumar was awarded first prize in senior consultant paper presentation category in USAESCON 2023 (16th Annual Conference of Uttarakhand State Association of ENT Surgeons) held from 14 to 16 April 2023 in AIIMS Rishikesh Uttarakhand; Awarded 2nd prize in video presentation category in USAESCON 2023 (16th Annual Conference of Uttarakhand State Association of ENT Surgeons) held from 14 to 16 April 2023 in AIIMS Rishikesh Uttarakhand; Award 3rd Prize in video presentation category on "Open Partial Horizontal laryngectomy type IIa" IAOHNS 2023; 9th Annual conference of Indian Academy of Otorhinolaryngology-Head Neck Surgery held from 3 to 6 August 2023 at Jammu; Awarded first prize in video presentation for presenting "Vertical Partial Laryngectomy" during 45th annual conference of AOI, Delhi branch (AOICON-2023) held on 22-24 September 2023 at LHMC, Delhi; Awarded 3rd prize in poster presentation on "Efficacy of relative intact parathormone levels in predicting hypocalcemia after total thyroidectomy" during IFHNOS Head and Neck Cancer Summit 2024 held from 16 to 18 February 2024, Chennai, India; Executive editor in ClinicalKey Now, ENT subspecialty, Elsevier (App based); Reviewer in (a) Reviewer for official publication of Association of Otolaryngologists of India-Indian Journal of Otorhinolaryngology and Head & Neck Surgery w.e.f. 21/2/2013; (b) Reviewer for Journal of Medical Case Reports; (c) Reviewer for "Indian Journal of

Radiology and Imaging"; (d) Reviewer for "Clinical Otolaryngology"; (e) Reviewer for "World Journal of Paediatric Surgery"; (f) Reviewer for "BMJ Case reports"; (g) Cureus.

Dr Smriti Panda was Member-Foundation of Head and Neck Oncology (FHNO) Fellowship Education Committee; Reviewer - Indian Journal of Otolaryngology; Reviewer - MDPI journals.

GASTROENTEROLOGY

Assistant Professor

Anshuman Elhence

HIGHLIGHTS

With the joining of only faculty in Department for NCI, Jhajjar campus, Dr Anshuman Elhence, on 12 December 2022, the Department started its services at National Cancer Institute, Jhajjar-including gastroenterology outpatient services, diagnostic endoscopy services as well as therapeutic endoscopy services including ERCP, EUS, esophageal and duodenal self-expanding metal stent (SEMS) placement for patients with malignancy at NCI, Jhajjar campus of AIIMS, New Delhi. Along with patient care, the department also is involved in research activities as well as teaching and training of Gastroenterology resident at AIIMS, New Delhi campus as outlined below. The departmental faculty, Dr Anshuman won the **Best Reviewer Award 2023 at ISGCON 2023, Bengaluru, India**: for Indian Journal of Gastroenterology for the time, effort, and expertise in improving the scientific quality of the articles published in Indian Journal of Gastroenterology and was invited as the **Science Editor of Indian Journal of Gastroenterology** and **member of Editorial Board** (IF 2 and cite score 2.6) from January 2024.

CMEs/Workshops/Symposia/National and International Conferences

1. Organizing committee member of Pancreas 2023: International conference held at JW Marriott, New Delhi in September 2023
2. Scientific committee member of Pancreas 2023: International conference held at JW Marriott, New Delhi in September 2023
3. Co-organizing secretary, CPLD (Current Perspectives in Liver Disease-2023) held at AIIMS, New Delhi, October 2023
4. Organizing committee member for APCDS (Asian Pacific Celiac Disease Symposium) held at Le Meridien, New Delhi 8-10 March 2024

Lectures Delivered: 4

Anshuman Elhence: 4

Anshuman Elhence

1. Non-invasive Ventilation Decreases the need for invasive mechanical ventilation and hospital acquired pneumonia in acute hypoxemic respiratory failure due to acute pancreatitis (BIPAP): A randomized controlled trial, Pancreas 2023, a joint international conference of IAP-IPC, Plenary talk, September 2023, New Delhi
2. Role of EUS in borderline resectable pancreatic cancer, Pancreas 2023, a joint international conference of IAP-IPC (panel discussion-Panelist), September 2023, New Delhi, India
3. Acute Gastric Variceal bleed-endoscopic management alone, Current Perspectives in Liver Disease (CPLD-2023), October 2023, New Delhi, India
4. Treatment and follow up of Celiac Disease, APCDS (Asian Pacific Celiac Disease Symposium)-lead discussant (panel discussion), 9 March 2024, New Delhi, India

Oral papers/posters presented: 2

1. Elhence A, Gupta A, Mahapatra S, Madan K, Iyer H, Pandey S, et al., Non-invasive Ventilation Decreases the need for invasive mechanical ventilation and hospital acquired pneumonia in acute hypoxemic respiratory failure due to

acute pancreatitis (BIPAP): A randomized controlled trial, Digestive Disease week 2023, 16 May 2023, Chicago, USA

2. Jagannath S, Ambade S, Jayraj P, Rajput MS, Elhence A, Pandey S, et al., In patients with Acute necrotizing Pancreatitis: a randomized controlled trial (LEAP trial), Digestive Disease week 2023, 16 May 2023, Chicago, USA

RESEARCH

Departmental projects (including thesis/dissertations)

Ongoing

1. Dexamethasone versus N-acetylcysteine for the reduction of post-embolization syndrome following trans-arterial chemoembolization for Hepatocellular Carcinoma: a randomized controlled trial (DANCES trial-DexAmethasone versus NAC for Post-Embolization Syndrome)-under ethics review at AIIMS, New Delhi

PUBLICATIONS

Total Publications: 18 **Journal articles: 10**

Abstracts: 6 **Chapters in Books: 2**

PATIENT CARE

- The department started its OPD services in National Cancer Institute, Jhajjar campus on Thursday and Friday every week to provide out patient consultations to patients visiting the institute and seeking diagnostic and therapeutic endoscopy services as well as gastroenterology consultation for other issues such as hepatitis B, C, drug induced liver injury etc
- The department started diagnostic endoscopy services in the 4th floor endoscopy room in Hospital Block at National Cancer Institute, Jhajjar
- The department also started therapeutic endoscopy services including ERCP (endoscopic retrograde cholangiopancreatography) and biliary stenting, EUS (endoscopic ultrasound) guided procedures and esophageal and duodenal self-expanding metal stent (SEMS) placement in ground floor OT as well as 3rd floor OT at NCI, Jhajjar
- Apart from these the department also provides in patient consultations to the patients with cancer and gastrointestinal or hepatobiliary issues admitted in the Departments of Medical Oncology, Surgical Oncology, Oncoanesthesia and Palliative Medicine and Radiation Oncology at NCI, Jhajjar

Patient care

For NCI-Jhajjar

Item	2023–2024
OPD consultations	1000
Therapeutic endoscopies including ERCP, esophageal and duodenal SEMS at NCI, Jhajjar	54

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Anshuman Elhence received Best Reviewer Award 2023 at ISGCON 2023, Bengaluru, India: for Indian Journal of Gastroenterology for the time, effort, and expertise in improving the scientific quality of the articles published in Indian Journal of Gastroenterology; Science Editor of Indian Journal of Gastroenterology and member of Editorial Board (IF 2 and cite score 2.6) from January 2024; Plenary Paper at Pancreas 2023, International Association of Pancreatology and Indian Pancreas Club meet, September 2023; Chaired a session on "Small bowel lesions - newer diagnostic and therapeutic modalities" at UP ISGCON, October 2023; Faculty for hands-on session for 1st Young Endoscopist up-Skilling (YES) Program" at AIIMS, New Delhi on 17 and 18, February 2024.

HOSPITAL ADMINISTRATION

Associate Professors
Laxmi Tej Wundavalli Sheetal Singh

Assistant Professor
Rahul Ranjan

RESEARCH

Departmental projects: (including thesis/dissertations)

Ongoing

1. To study the scope of implementing sustainable practices at a tertiary care teaching institute in New Delhi
2. To study the implementation of the procurement process at AIIMS Delhi and its centre

LABORATORY ONCOLOGY

Assistant Professor

Tanima Dwivedi

Officer In-charge

Ritu Gupta
Laboratory Oncology, NCI-AIIMS

HIGHLIGHTS

The Laboratory Oncology at NCI-AIIMS collaborates with the Laboratory Oncology Unit at Dr BRAIRCH to deliver Hemato-Oncopathology services to patients. Within NCI, they have pioneered India's first fully automated laboratory in the government sector, the "Robotic Core Clinical Laboratory". In the past year alone, this facility has conducted a total of 60, 69, 584 diagnostic tests. The Robotic Core Clinical Laboratory represents a cutting-edge advancement, providing seamless, round-the-clock services designed to minimize turnaround times and deliver accurate, high-quality digital reports to patients. This innovative approach significantly enhances the standard of patient care by harnessing state-of-the-art automation and precision technology.

PUBLICATIONS

Total Publications: 5

Journal articles: 5

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	05	06	05
Journal articles	05	06	05
Abstracts	0	0	0
Chapters in books	0	0	0
Books	0	0	0

PATIENT CARE

Laboratory Oncology, NCI handles a total automated laboratory along with two blood collection centers (NCI OPD & Outreach OPD).

Robotic Core Clinical Laboratory, Laboratory Oncology	
Month	**Total Investigation Performed**
April 2023	437599
May 2023	525301
June 2023	506582
July 2023	474630
August 2023	540072
September 2023	532796
October 2023	490657
November 2023	499317
December 2023	501705
January 2024	497370
February 2024	514984
March 2024	548571
Total	**6069584**

Blood Collection Centre

Month	Total Patients Footfall in NCI OPD Blood Collection centre	Total Patient Footfall in Outreach OPD Blood Collection centre
April 2023	2952	1220
May 2023	3693	1324
June 2023	3712	1269
July 2023	3683	1070
August 2023	3962	989
September 2023	4025	1024
October 2023	3706	835
November 2023	3643	663
December 2023	3689	901
January 2024	3674	721
February 2024	3677	967
March 2024	3740	1225
Total	**44156**	**12208**

MEDICAL ONCOLOGY

Professor and Head
Sameer Bakhshi

Associate Professor
Akash Kumar

Assistant Professors
Aparna Sharma Babita Kataria

HIGHLIGHTS

1. NCI Foundation Day-The department actively participated in the 5th NCI foundation day and the AIIMS Oncology Conclave. During the breakout sessions the faculty of the department at IRCH and NCI actively interacted with other AIIMS and INIs and formulated INI - Medical oncology Group (INI-MOG). This collaborative group is conducting regular meetings and are in the process of planning and initiating collaborative research projects.
2. CMIE BOOT CAMP – A 3-day bootcamp in Oncology (31 January to 3 February 2024) was organized by the Centre for Medical Innovation and Research to promote interaction and brainstorming for start-ups and individuals interested in commercialization of their research. Our faculty members were actively engaged from inception to the final closure. Our faculty helped prepare the agenda items, took lectures, and actively participated in brainstorming sessions.
3. GCIG KOLGO AIIMS NCI Meeting (10 February 2024) – NCI-AIIMS with IRCH, KolgoTrG (Kolkata gynae-oncology translational research and trials group) and international faculty members – Dr Michael Bookman from Gynecologic Cancer Inter-group (GCIG) and Dr Kailash Narayan from university Melbourne helped organize a national meeting with members from Institutes of National Importance (INIs) to brainstorm various research ideas in gynae-oncology. Our faculty presented their research proposals and actively participated in brainstorming sessions.10 February

Lectures delivered: 16

Akash Kumar: 2 **Aparna Sharma: 7** **Babita Kataria: 7**

Akash Kumar

1. Managing Cisplatin-Ineligible Patients Planned for Definitive Chemoradiation, RGCON-2024, 16 March 2024, Delhi
2. Geriatric Oncology-Numbers and Needs & Q/A, ICC-2023, 4 November 2023, Mumbai

Aparna Sharma

1. Resource Faculty from AIIMS, New Delhi, DM curriculum development workshop at BP Koirala Institute of Health Sciences, Dharan, Nepal, 16-17 May 2023, Nepal
2. "Principles of Chemotherapy", National Training Academy, ESIC, EPFO Complex, Dwarka Sector 23, New Delhi for two day training workshop in oncology for all medical officers of ESI, 4-5 October 2023
3. Judge at Poster session, 50th IMMUNOCON hed at AIIMS New Delhi, 5-8 October 2023
4. Session for Awareness of Cancers in Women, Centre of Women studies and Development center, University of Delhi, 17 October 2023
5. Panelist Molecular oncology workshop, 6th Annual Conference of Oncology Forum, Delhi" (OFCON 2023), 2 December 2023
6. Next Generation Sequencing iun Breast and Prostate Cancers: A clinicians Perspective, NGS workshop organized by AIIMS-RGCI-IIT Delhi, 27-28 February 2024
7. "Perioperative therapies in early stage NSCLC, Mid term meeting of Delhi Thoracic Oncology Group (Delhi Oncology Forum), 14 March 2024

Babita Kataria

1. Invited lecture, Breast cancer screening, "Certification Couse on preventive oncology and screening training initiatives" organized by Centre for Health Innovation (CHIP) foundation in collaboration with ECHO India for medical students of Kathmandu Medical College, 3 November 2023, Online

2. Panelist, Tumor board competition, Association of Gynae-Oncologists of India Conference (AGOICON)2023, 26 November 2023, Bhubaneshwar, India
3. Panelist, Molecular testing and Gynecological Cancer - Endometrial Carcinoma, 6th Annual Conference of Oncology Forum, 3 December 2023, New Delhi, India
4. Panelist, Clinical utility of NGS in Oncology Practice: How far? How deep? Genomics workshop for clinicians: A joint initiative of AIIMS-IIT-RGCI, 28 January 2024, New Delhi
5. Invited lecture, Emerging technologies in medical Oncology, Cancer bootcamp organized by CMIE, NCI-AIIMS, Jhajjar, 1 February 2024, NCI-Jhajjar
6. Panelist, Locally Advanced Cervical Cancer: Case based discussion, International Gynecological Cancer Society, India ECHO Webinar, 23 February 2024, Online
7. Panelist, Brainstorming on Harmonization Operations in gynecological cancers, Gynecologic Cancer Inter Group (GCIG), Spring meeting, 5-6 March 2024, Barcelona, Spain

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
	1	17

Oral papers/posters presented: 1

1. Kataria B, Sharma V, Jha AK, Sharma A, Ayushi, Olanzapine to improve Quality of life in metastatic solid cancer patients on chemotherapy : A phase II randomised placebo controlled trial, 8th World Cancer Congress, New Delhi, India, 19 March 2024, New Delhi, India[1]

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
-	1	1

RESEARCH

Funded projects

Ongoing

2. "Improving survival in childhood-Acute Lymphoblastic Leukemia in India (IS-CALL): ICICLE implementation study", Akash Kumar, ICMR, 3 years, 2023-26, Total Rs 55 Lakhs
3. All India Institute of Medical Science Early Career Intramural Research Project 2023-2024 for project entitled "Phosphorylated ALK expression in ALK positive Non small cell lung carcinoma and its impact on survival outcomes", Aparna Sharma, All India Institute of Medical Science Early Career Intramural Research Project 2023-2024 for project entitled, 2 years, 2023-25, Rs 5 Lakhs
4. American Society of clinical Oncology, Conquer Cancer Foundation International Innovation Grant 2023 for project entitled "Role of celecoxib in reducing cognitive impairment in patients receiving definitive chemoradiation for head and neck carcinoma: A phase II randomized placebo controlled trial, Aparna Sharma, American Society of clinical Oncology, Conquer Cancer Foundation, 1 year, 2024, Rs 16 Lakhs
5. Phase II, multi-arm, randomised non-comparative parallel design trial to test efficacy of consolidation chemo therapy in locally advancedcervicalcancer, Dr Babita Kataria, AIIMS, Delhi, 2 years, 2024-26, Rs 10 Lakhs

Completed

1. Olanzapine to improve Quality of life in metastatic solid cancer patients on chemotherapy: A phase II randomised placebo controlled trial, Dr Babita Kataria, AIIMS Delhi &IASCC (Indian Association of Supportive Care in Cancer), 2 years, 2022-23, Rs 4,00,000/-All investigations charges exempted

Departmental projects (including thesis/dissertations)

Ongoing

1. Metformin with neoadjuvant chemotherapy in localized triple negative and HER2neu-positive breast cancer: A prospective phase 2 open label randomised controlled trial (McBETH)

Completed

1. Olanzapine versus fosaprepitant for prevention of chemotherapy induced nausea and vomiting in patients receiving carboplatin (AUC ? 4) containing chemotherapy regimen: A phase 3 randomized, double-blind, placebo-controlled trial

Collaborative projects

Ongoing

1. Designing and implementation of health care model in patients with stage 2breast cancer, Radiation Oncology

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total fundedprojects	0	2	4
Total funding		Rs 4,00,000/-	Rs 96,00,000

PUBLICATIONS

Total Publications: 19;

Journal articles: 15; Abstracts: 3; Chapters in Books: 1

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	01	04	
Journal articles	01	02	15
Abstracts		02	3
Chapters in books		0	1
Books		0	0

PATIENT CARE over past 3 years

Item	2021–2022	2022–2023	2023–2024
OPD consultations	19249	25597	30808
Day Care admissions	11336	23045	31319
Total inpatient admissions	1034	2259	3070

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Aparna Sharma was a part of International Association for study on Lung Cancer (IASLC)/LCFA/BMS Disparities in Clinical Oncology Research Grant 2023 for project entitled "Comprehensive genomic characterization of young onset lung adenocarcinoma in India (YOLA-I study)"; American Society of clinical Oncology, Conquer Cancer Foundation International Innovation Grant 2023 for project entitled "Role of celecoxib in reducing cognitive impairment in patients receiving definitive chemoradiation for head and neck carcinoma: A phase II randomized placebo controlled trial"; Selected as member of the Rare Tumor Committee and Thymic tumor subcommittee of International Association of Study of Lung Cancer (IASLC) for a two-year term beginning 2023.

Dr Babita Kataria received ESMO-ICF Clinical unit visit fellowship 2024 – selected as a fellow for the clinical unit visit program of the International Cancer Foundation at University College of London. **Dr Edward Kennedy Memorial Award** for best oral presentation for abstract "Olanzapine to improve Quality of life in metastatic solid cancer patients on chemotherapy: Phase II randomised placebo-controlled trial" at the 8th World Cancer Congress, New Delhi, India**; International Developing Nations Travel Award** – ESMO World GI Congress 2022 for poster discussion titled 'Three-arm phase II/III randomized controlled trial in patients with unresectable/metastatic gall bladder cancer with poor performance status: Erlotinib or capecitabine v/s best supportive care."; **Outstanding Young Clinician**" at Venus International Healthcare

Awards, 2022, India; Protocol Presentation – "*Consolidation chemotherapy in cervical cancer*" at GCIG KOLGO AIIMS NCI Meeting on 10 February 2024; Research protocol presentation-"*A prospective study to evaluate the role of HPV-ctDNA as a predictive and prognostic marker in locally advanced cervical cancer*" at 50th ICON Golden Jubilee conference, Bhubaneshwar, India (15-17 March 2024; Participated in "*Early career research methodology workshop*" organized by Clinical Research Unit, AIIMS New Delhi (Aug 2023); Participated in "*Grant Writing Workshop*" organized by Clinical Research Unit, AIIMS New Delhi (August 2023); Participated in "Study design and Analysis of Clinical Trials" workshop organized by KolgoTrG (December 2023); Participated in "Statistics for clinical Trials" workshop organized by Translational Health Sciences and Technology Institute (THSTI), Faridabad (Dec 2023); Participated on "REDCap workshop" organized by Clinical Research Unit, AIIMS New Delhi (December 2023).

MEDICAL PHYSICS

Professor and Head
Pratik Kumar

Assistant Professors
RK Bisht Avinav Bharati

HIGHLIGHTS

The first faculty (Dr Avinav Bharati) for Medical Physics, NCI joined in July 2023. The department currently comprises of a faculty and a senior resident. Medical physics provides services for the regulatory aspect of all x-ray equipment as well as use of radiation sources. The department is responsible for radiation safety of patients, staff and public (image quality as well). At present, there are 15 radiation generating equipment (including one X-ray blood irradiator) for which licensing, renewal of licensing, periodic quality assurance, other regulatory affairs etc. is being taken care of by Department of Medical Physics. The department is also providing and managing TLD services to other departments of NCI since January 2023 as and when required as per the regulatory guidelines. The regulatory body Atomic Energy Regulatory Board conducted a surprise inspection at NCI in September 2023. The department is also holding radiation safety and awareness lectures for the staff of NCI, Jhajjar.



EDUCATION

1. Weekly Seminar and Journal club (Jointly held with Medical Physics unit, Dr BRA IRCH, AIIMS)
2. Radiation Safety and Awareness classes for Staff

Lecture Delivered: 1

Avinav Bharati : 1

Avinav Bharati

1. CT Physics and Instrumentation, Lecture at National Institute of Science Education and Research, Bhubaneshwar, 19 October 2023, Online

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
NA	NA	1

PUBLICATIONS

Total Publication: 1;

Journal article : 1

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	NA	NA	
Journal articles			1
Abstracts			
Chapters in books			
Books			

Additional Information:

A patent for development of phantom for characterization of Renal stones was granted in March 2023 by National Research Development Corporation in the name of AIIMS, New Delhi. The work was done by faculty of Medical Physics, Radiology and Urology.

MEDICINE

Assistant Professor
Atindra Narayan

HIGHLIGHTS

Medicine OPD started at National Cancer Institute which is providing comprehensive medical services to cancer patients addressing comorbidities in routine and emergency situations in OPD and IPD. The Department aims to strengthen the services continuously to provide quality care to ever increasing number of cancer patients coming to National Cancer Institute.

PATIENT CARE

(a) Facilities available in the department: Medicine OPD, Emergency department

(b) Community services/camps, etc.-Cancer awareness camps in collaboration with Department of Preventive Oncology

Item	2021–2022	2022–2023	2023–2024
OPD consultations			2437

SIGNIFICANT EVENTS

Atindra Narayan (As Chairperson): Good, bad and ugly of AI in Healthcare, 79th Annual Conference of Association of Physicians of India, 22-25 February 2024; Expectations of Relatives in Emergency Department, 79th Annual Conference of Association of Physicians of India**,** 22-25 February 2024; Doing More Can Be Worse: Common Medical Errors, 79th Annual Conference of Association of Physicians of India**,** 22-25 February 2024

NEUROLOGY

Assistant Professors

Divyani Garg Jasmine Parihar

HIGHLIGHTS

Neurology department is actively engaged in providing clinical services at NCI, Jhajjar. Liaison and emergency services are provided for the benefit of cancer patients with neurological concerns, along with critical feedback in intensive care patients.

EDUCATION

1. Conducted classes for BSc and MSc 2nd year nursing students
2. Took bedside teaching classes for sixth semester MBBS students
3. Supervised seminars presented by DM Neurology trainees
4. Supervised seminars presented by MD Medicine trainee
5. Taken clinical case discussion sessions for DM Neurology trainees

Lectures delivered: 13

Divyani Garg: 8 **Jasmine Parihar: 5**

Divyani Garg

1. Voices that matter, Movement Disorders Society Young Neurologists Course 2023, 27 May 2023, New Delhi
2. Epilepsy Conference Quiz, Epilepsy Conference (ECON) 2023, 22 July 2023, Jaipur
3. Wheel within a wheel: A clinical conundrum, Indian Academy of Neurology conference 2023, 17 August 2023, Madurai
4. Video case: Myoclonus session “Laughter is not the best medicine”, International Parkinson and Movement Disorders Conference 2023, 28 August 2023, Copenhagen, Denmark
5. 4th Annual Conference of Neurocritical Care Society of India (NCSI) 2023 and 4th Annual Neurocritical Care Update (ANCU) 2023, CVT: Current dilemmas in management, 30 September 2023, New Delhi
6. Delhi Neurological Association Conference quiz for neurology residents, Delhi Neurological Association Conference, 4 February 2024, New Delhi
7. Spinocerebellar aaxia update, ChildNeuroCon 2024, 9 February 2024, Vellore
8. Debate: Are autoimmune panels underutilized in movement disorders? Movement Disorders Society of India conference, 25 February 2024, Ahmedabad

Jasmine Parihar

1. Approach to neuropathy, DIABCON 2023, 29 July 2023, New Delhi
2. Diabetic neuropathy, Clinical Cardio Diabetic Society of India (CCDSI)-2023, 17 September 2023, New Delhi
3. Workshop on EEG-convener and talk on the basics of EEG, APICON-2024 Association of Physicians of India Conference-2024, 23 February 2024, New Delhi
4. Management of seizure in emergency, EDECKS 2024, 10 March 24, New Delhi

5. Organized and moderated a public health talk on epilepsy, Public lecture on epilepsy at AIIMS, New Delhi, 31 January 2024, New Delhi

Lectures delivered over past 3 years

2021–2021	2022–2023	2023–2024
NA	NA	13

Oral papers/posters presented: 18

1. Agarwal A, Garg D, Radhakrishnan DM, Rajan R, Garg A, Srivastava AK, Neurodegeneration with brain iron accumulation: A case series from a single center in India, International Parkinson disease and Movement Disorders congress, 30 August 2023, Copenhagen
2. Anand P, Garg D, Agarwal A, Radhakrishnan DM, Srivastava AK, Pandit AK, Non-ataxia manifestations of spinocerebellar ataxia type 12, Movement Disorders Society of India conference, 24 February 2024, Ahmedabad
3. Bhowmick SS, Ganguly J, Garg D, Holla VV, Shah H, Wadia PM, Phenotype and genotype of adult-onset Niemann-Pick C in India: A retrospective study, Movement Disorders Society of India conference, 24 February 2024, Ahmedabad
4. Chandu M, AgarwalA, Garg D, Srivastava MVP, Vishnu VY, Garg A, Malignancy associated stroke-Ambispective cohort study, World Stroke Congress 2023, 11 October 2023, Toronto, Canada
5. Chouhan V, Saini A, Radhakrishnan DM, Agarwal A, Gupta A, Vishnu VY, et al, Genotype-phenotype correlations in PLA2G6-association neurodegeneration in three Indian patients, Movement Disorders Society of India conference, 24 February 2024, Ahmedabad
6. Garg D, Agarwal A, Sharma S, Panigrahi B, Sidharth S, George JA, et al, Decoding the electrophysiological signature of myoclonus in patients with subacute sclerosing panencephalitis, Movement Disorders Society of India conference, 24 February 2024, Ahmedabad
7. Garg D, Kakkar V, Sharma S, Jaw opening myoclonus in Subacute Sclerosing Panencephalitis: A new phenotypic observation which may be a diagnostic clue, International Parkinson disease and Movement Disorders congress, 30 August 2023, Copenhagen
8. Joy S, Agarwal A, Garg D, Garg A, Srivastava AK, The Shrimp Sign: A distinctive radiological marker of cerebellar PML, Delhi Neurological Association Conference, 4 February 2024, New Delhi
9. Joy S, Agarwal A, Garg D, Garg A, Srivastava AK*, Unusual presentation of neurosyphilis as longitudinally extensive transverse myelitis, Indian Committee of Treatment and Research in Multiple Sclerosis, 19 August 2023, New Delhi, India
10. Makharia A, Agarwal A, Garg D, Shamim SA, Yadav R, Mani P, et al, Polyneuropathy unveiling a hidden hepatic plasmacytoma: An extremely rare association, Delhi Neurological Association Conference, 4 February 2024, New Delhi
11. Makharia A, Parihar J, Vibha D, Singh RK, Das A, Tripathi M*, et al., Evolving Phenotypes of CACNA1A Variants: A Mosaic of Neurological Manifestations, Delhi Neurology Association Conference-2024 (DNACON-2024), 3 March 2024, New Delhi
12. Mustafa F, Anand A, Makharia A, Rajan R, Garg K, Singh M, et al, Generalized dystonia due to kernicterus: A case series, Movement Disorders Society of India conference, 2024, 24 February 2024, Ahmedabad
13. Musthafa F, Agarwal A, Garg D, Vishnu VY, Garg A, Srivastava MVP, Lest we forget: Stroke due to cysticercal arteritis, Delhi Neurological Association Conference, 4 February 2024, New Delhi
14. Parihar J, Chandra PS, Doddamani R, Tripathi M, Encephalocele as a cause of Drug-resistant Epilepsy, 13th ILAE School on Pre-Surgical Evaluation for Epilepsy and Epilepsy Surgery (EPODES Advanced II), 26 January 2024, Brno, Czech Republic
15. Prajapati B, Agarwal A, Garg D, Garg A, Srivastava AK, Neurosarcoidosis: The greedy pan-neurological disease, Indian Committee of Treatment and Research in Multiple Sclerosis, 19 August 2023, New Delhi, India
16. Saini A, Radhakrishnan DM, Agarwal A, Garg D, Gupta A, Vishnu VY, et al, Compound heterozygous GLB1 variants in three unrelated families with GM1 gangliosidosis type III, Movement Disorders Society of India conference, 24 February 2024, Ahmedabad
17. Vaingankar A, Makharia A, Garg D, Agarwal A, Radhakrishnan DM, Garg A, Srivastava AK, Infections are a rare, not-to-be missed, group of ataxias: An Illustrative case series, Movement Disorders Society of India conference, 2024, 25 February 2024, Ahmedabad
18. Yadav C, Agarwal A, Garg A, Srivastava AK, Two much positivity isn't always a good thing, Indian Committee of Treatment and Research in Multiple Sclerosis, 19 August 2023, New Delhi, India

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
NA	NA	18

RESEARCH

Funded projects

1. Clinico-genetic and radiological profile of adolescent and adult-onset leukodystrophies, Divyani Garg, AIIMS, 2 years, 2024-26, Rs 10,00,000/-

Departmental projects (including thesis/dissertations)

Ongoing

1. Accuracy of clinical diagnosis of functional dissociative seizures
2. Clinical profile and response to steroids in brachial plexopathy: A prospective cohort study
3. Clinical profile and response to steroids in brachial plexopathy: A prospective cohort study
4. Clinico-demographic and electrophysiological profile of ATT induced peripheral neuropathy in extra-neurological MDR/ XDR tuberculosis
5. Clinicodemographic characteristics and outcome of patients with myasthenic crisis and impending myasthenic crisis-An ambispective study"
6. Correlation of changes in October parameters, Optic nerve sheath diameter and MCA waveform with a visual field in IIH: A Prospective cohort study"
7. Development of severity scale for SCA 12 patients
8. Efficacy and safety of sunlight therapy in stroke patients: A randomised controlled trial
9. Efficacy of smartphone-based digital application to track migraine, offer pill reminders for medication adherence, and community blog for migraineurs in improving headache-related parameters as compared to paper pen diary in patients with migraine-a randomized controlled cross-over trial
10. Etiological study of Hypertrophic pachymeningitis in adults
11. Factors associated with infarct growth rate (igr) in cases of acute ischemic stroke (ais)-prospective cohort study
12. Multimodality evoked potentials and electroretinogram in patients with Wilson's disease.
13. Prevalence of symptomatic nonstenotic carotid disease in embolic stroke of undetermined source
14. Spectrum and clinical profile of movement disorders in autoimmune encephalitis
15. Symptomatic Non-Stenotic Carotid Disease (Sync) In ESUS (Embolic Source of Undetermined Source) Patients-A Prospective Observational Study
16. Transcranial Doppler (TCD) in Tubercular cerebral vasculopathy: a prospective observational study

Collaborative projects

Ongoing

1. A multicenter, international, randomized, placebo controlled, double-blind, parallel group and event driven Phase 3 study of the oral FXIa inhibitor asundexian (BAY 2433334) for the prevention of ischemic stroke in male and female participants aged 18 years and older after an acute non-cardioembolic ischemic stroke or high-risk TIA, Multiple centers across the globe
2. A phase III randomized double blind, efficacy and safety study comparing SCAR442168 to placebo in participants with non-relapsing secondary progressive Multiple Sclerosis (HERCULES), Multiple centers across the globe
3. A phase III randomized double blind, efficacy and safety study comparing SCAR442168 to placebo in participants with primary progressive Multiple Sclerosis (PERSEUS), Multiple centers across the globe

Completed

1. Cultural considerations in daily levodopa equivalent dosage: A study of global population, Multiple centers across the globe

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	-	-	1
Total funding	-	-	Rs 10,00,000/-

Publications

Total Publications: 51;

Journal articles: 40; Abstracts: 11

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**NA**	**NA**	**51**
Journal articles			40
Abstracts			11
Chapters in books			Nil
Books			Nil

PATIENT CARE

Item	2021–2022	2022–2023	2023–2024
OPD consultations	NA	NA	5600
Special clinic consultations	NA	NA	650
Patients provided rehabilitation services	NA	NA	-
Total inpatient admissions	NA	NA	-

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Divyani Garg was selected as Chairperson, Young Neurologists' Forum, Indian Academy of Neurology (2023-24); Selected as Steering Committee member, Women in Movement Disorders Special Interest Group, International Parkinson and Movement Disorders Society; Selected as Steering Committee member, Pediatric Movement Disorders Special Interest Group, International Parkinson and Movement Disorders Society.

Dr Jasmine Parihar was awarded Fellow of the Indian College of Physicians on 23 March 2023.

NUCLEAR MEDICINE

Associate Professors

Abhinav Singhal Kalpa Jyoti Das

HIGHLIGHTS

The year 2023-24 was only the second year of clinical functioning of the department of Nuclear Medicine in NCI, Jhajjar. The department is currently equipped with PET-CT scanner (128 slice CT) and a dual head SPECT-CT gamma camera whose installation was completed in March 2022, marking the start of diagnostic imaging services with ^{18}F-FDG PET-CT and ^{99m}Tc radiopharmaceutical based scintigraphy. In the month of August 2023, ^{68}Germanium-^{68}Gallium generator was procured with

installation of automated synthesizer system thus, expanding the gamut of PET-CT imaging to include ^{68}Ga-DOTANOC and ^{68}Ga-PSMA scans. The construction of a 21-bedded high dose radionuclide therapy ward (the largest such inpatient facility in India) is in full swing and has reached finishing stage. The unit is also actively involved in teaching and research.

EDUCATION

1. Postgraduate students pursuing MD degree in Nuclear Medicine are posted on rotational basis and are trained in conducting and reporting oncological PET-CT and various forms of gamma scintigraphy scans
2. Periodic lectures are taken by the faculty members for the teaching of postgraduate students, technologist, and nursing staff
3. Journal clubs presented by postgraduate students on the last Saturday of every month discussing the landmark research papers in Nuclear Medicine
4. Two postgraduate students pursuing MD in nuclear medicine allotted to each of the faculty member for MD thesis, making it a total of 4 PG students currently doing thesis in the department

Lectures Delivered: 5

Abhinav Singhal: 3 **Kalpa Jyoti Das: 2**

Abhinav Singhal

1. Dissociated response: How to associate? Annual Conference of 'The Society of Nuclear Medicine India-Northern Chapter', 8 April 2023, New Delhi
2. GIP Neuroendocrine tumors, Max Cancer Congress 2023, 29 April 2023, NewDelhi
3. Molecular testing and Lung Cancers**,** 6th Annual Conference of Oncology Forum, Delhi**,** 3 December 2023, New Delhi

Kalpa Jyoti Das

1. RT Planning in Lung Cancer, CME in Nuclear Medicine, 3 April 2022, Guwahati
2. Radiation safety for Occupational exposure, Radiation Safety week, October 2023, Jhajjar

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
2	4	5

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
None	1	None

RESEARCH

Funded projects

Ongoing

1. 18F-FDG PET/CT Radiomics and Radiogenomics profiling of Retinoblastoma, Dr Kalpa Jyoti Das, AIIMS, New Delhi, 2 years, 2022-24, Rs 5,00,000
2. Evaluation of 68Ga-NOTA-Ubiquicidin PET-CT for diagnostic differentiation of infective and malignant lesions in oncology patients, Dr Abhinav Singhal, AIIMS New Delhi, 2 years, 2022-24, Rs 5,00,000

Departmental projects (including thesis/dissertations)

Ongoing

1. Feasibility of blood glucose optimization using intravenous insulin in patients presenting with unexpected hyperglycemia before 18-FDG PET-CT
2. Molecular characterization of breast cancer using pretreatment 18f-FDG PET/CT radiomics

Collaborative projects

Ongoing

1. 18F-FDGPET/CT Radiomics and Radiogenomics profiling of Retinoblastoma, Department of Ophthalmology, RP center, AIIMS, New Delhi

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	None	2	2
Total funding (Rs)		15,00,000	15,00,000

Publications

Total Publications: 4;

Journal articles : 4

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	2	**1**	4
Journal articles	2	1	4
Abstracts			
Chapters in books			
Books			

PATIENT CARE

Diagnostic Scans performed in the Department of Nuclear Medicine from April 2023 to March 2024

PET-CT	2023-24
18F-FDG scans	3046
68Ga-PSMA scans	128
68Ga-DOTANOC scans	23
Gamma scintigraphy (99mTc based)	
DTPA scan with GFR	133
l, l, EC Diuretic renal scan	79
MDP bone scan	68
Thyroid scan	3
Parathyroid scan	3
MUGA scan	1298
Lung perfusion scan	7
Sentinel lymph node procedure	10
DMSA renal scan	1
Hepatobiliary scan with HIDA	1
Meckel Diverticulum	1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Abhinav Singhal was invited to chair a session on Genitourinary tract imaging in the pre-conference workshop of the 21st Annual Conference of Association of Nuclear Medicine Physicians of India – ANMPICON 2023 held from 29 September to 1 October 2023.

Dr Kalpa Jyoti Das did a certified course on "ESMO-EANM Advanced Course on Diagnostic and Therapeutic Applications of Nuclear Medicine in Oncology 2023" held on 4-5 December 2023 in Singapore.

Dr Kalpa Jyoti Das was also invited as a Quiz Master om Two occasions by the society of Nuclear Medicine India-Northern chapter in 2023-2024.

NCO-ANESTHESIA AND PALLIATIVE CARE

Professor and Head
Sushma Bhatnagar

Associate Professors

Anuja Pandit	Saurabh Vig
Shweta Bhopale	Balbir Kumar
Raghav Gupta	Prashant Sirohiya

HIGHLIGHTS

The Department of Onco-Anaesthesia and Palliative Medicine at NCI is being developed under the mentorship of trained faculties of Dr B.R.A. IRCH, AIIMS (Dr Sushma Bhatnagar, Dr Seema Mishra, Dr Rakesh Garg, Dr Nishkarsh Gupta, Dr Vinod Kumar, Dr Sachidanand Jee Bharati). 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 idea of this centre was to have a very specialized and exclusive and all the facilities in the field of cancer research and care. Mission of this department is to be the biggest destination to provide state-of-the-art Healthcare facilities for cancer patients which is very comprehensive and complete in itself is it compulsory Diagnostic to curative to palliative care under single roof.

We at this centre strive hard to provide state of art services in anesthesiology, intensive care, pain and palliative care. 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 currently, Ots running round the clock, 25 bedded intensive care unit which provides care for critically ill patients along with dialysis and 40 bedded dedicated palliative care ward for palliative care of oncology patients along with round the clock 24-hour emergency services. 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 is taking constant efforts in developing protocols and has structured SOPs for better patient management.

EDUCATION

Senior Residents of both, Academic (DM Oncoanaesthesia and MD Palliative Medicine) and non-academic courses are institutionalized at NCI.

Apart from running daily routine and emergency OTs, daily ward rounds and ICU rounds are conducted with bed side teaching.

Simultaneous teaching in pain OPDs is also carried out.

Departmental Seminar: Every Monday and Friday at 8-9 AM (Hybrid Mode)

IRCH Seminar: Every Thursday at 8.30-9.30 AM (Hybrid Mode)

Tutorials: Every Tuesday 3-5 PM (Physical)

Radio Conference: Every Saturday at 9-10 AM (Physical)

Journal Club/Audit/Case discussion: Every Saturday at 10-12 Noon. (Hybrid Mode)

DMG Clinical discussion of OPD cases: DMG Room on daily basis

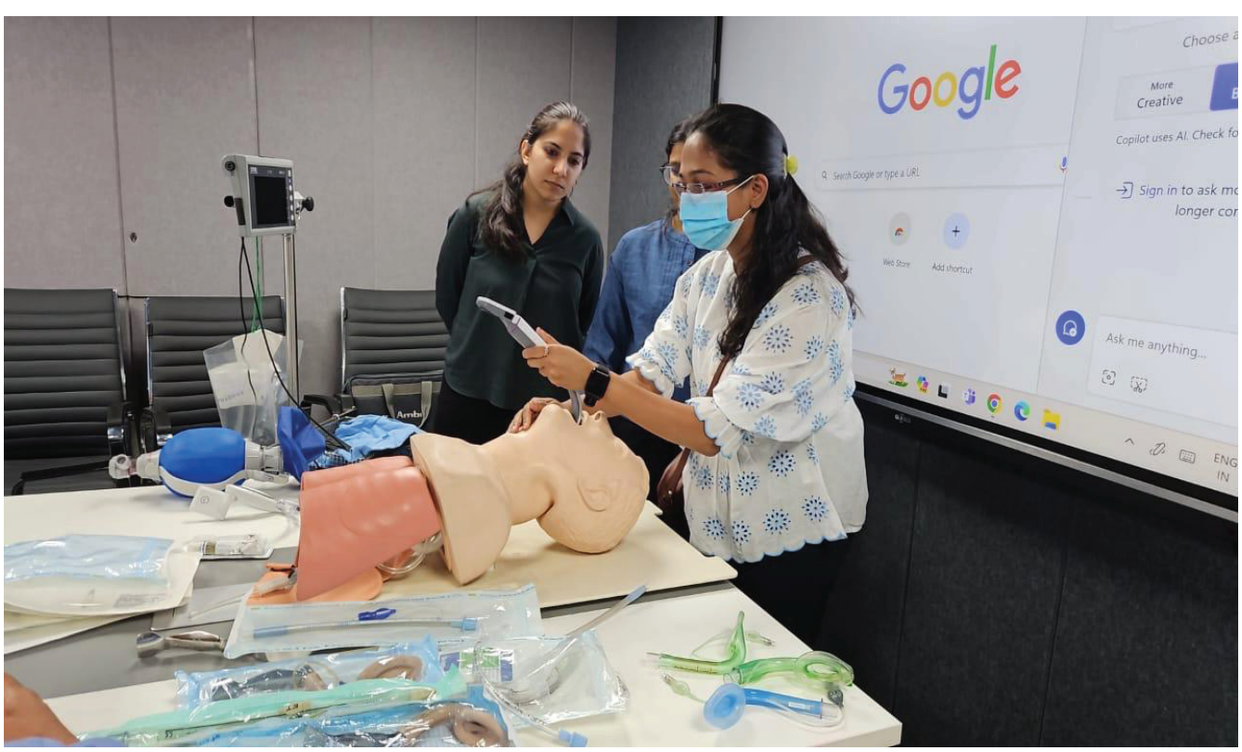











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CMEs/Workshops/Symposia/National and International Conferences

1. I-PCU (Interventions in PCU), 29 January 2023, NCI, Jhajjar
2. SOAPCCON, 25-27 August 2023, AIIMS, New Delhi
3. IAPCCON, 17-19 November 2023, AIIMS, New Delhi
4. Launch of DELHI state chapter of IAPC and CME, 15 April 2023, AIIMS, New Delhi
5. 2nd CME, DELHI state chapter IAPC. Palliative care: Nursing Perspective, 20 May 2023, AIIMS, New Delhi
6. 3rd CME, DELHI state chapter IAPC Nutrition in cancer: Best defense against cancers evil offense, 2 March 2024, AIIMS, New Delhi
7. BLS Course, 30 January 2024 to February 2024, NCI, Jhajjar

Lectures delivered: 42

1. Role of USG Guided Intervention in pain management of Head& Neck Cancer, Work shop in Pain and Palliative Care Update (I-PCU)2023, 28 January 2023, NCI Jhajjar
2. Preoperative Optimization and prehabilitation in thoracic surgeries, Minimally invasive thoracic surgery conference, 1 March 2023, NCI Jhajjar
3. Good Health, Mitigation of fear from cancer, what is Palliative Care, CanSupport, 7 April 2023, New Delhi
4. Introduction of Palliative Care for Nursing, DNip Care ECHO Programme, 22 April 2023, New Delhi
5. Venous thromboembolism, Max Cancer Congress, 29 April 2023, New Delhi
6. Prognostication in advanced stage cancer patients, ICMR Project, 30 April 2023, New Delhi
7. Survivorship, Prognosis and Palliative Care, CHIP Foundation, 1 May 2023, New Delhi
8. Early Palliative Care in Lung Cancer, Medical Education forum, 12 May 2023, New Delhi
9. Anaesthesia for HIPEC surgeries - A true challenge, Caritas Anaesthesia Update 2023, 30 July 2023, Kottayam, Kerela
10. Introduction to Comprehensive, Integrated Palliative Care including Home, Community Based and Career Development Perspectives, DNip Care ECHO Programme, 12 August 2023, New Delhi
11. Workshop On Haemodynamic monitoring, 1st AIIMS Onco-Anesthesiology Update and Annual Conference of the Society of Onco-Anaesthesia and Perioperative Care (SOAPC) SOAPCCON 2023, 25 August 2023, New Delhi
12. Ultrasound guided Regional Anaesthesia workshop, 1st AIIMS Onco-Anesthesiology Update and Annual Conference of the Society of Onco-Anaesthesia and Perioperative Care (SOAPC) SOAPCCON 2023, 25 August 2023, New Delhi
13. Importance of integrated paperless data entry system and monitoring system, Ist AIIMS Onco-Anesthesiology Update & 5th Annual conference of Society of Oncoanesthesia and Peri-operative Care SOAPCCON 2023, 25 August 2023, New Delhi

14. Paperless Data Entry Workshop, SOAPCCON2023, 25 August 2024, New Delhi
15. PBLD (Meet the experts during breakfast session)-Malignant wound care management, SOAPCCON2023, 26 August 2023, New Delhi
16. Panel Discussion-Interesting Head and Neck cancer case for oncology surgery, SOAPCCON 2023, 26 August 2023, New Delhi
17. PBLD (Meet the experts during breakfast)-Prehabilitation, SOAPCCON 2023, 27 August 2023, New Delhi
18. Patient centered care, 1stAIIMS Onco-Anesthesiology Update and Annual Conference of the Society of Onco-Anaesthesia and Perioperative Care (SOAPC) SOAPCCON 2023, 27 August 2023, New Delhi
19. Challenges in Thoracic Anaesthesia, 1st AIIMS Onco-Anesthesiology Update and Annual Conference of the Society of Onco-Anaesthesia and Perioperative Care (SOAPC) SOAPCCON 2023, 27 August 2023
20. Organizing QUIZ, 1stAIIMS Onco-Anesthesiology Update and Annual Conference of the Society of Onco-Anaesthesia and Perioperative Care (SOAPC) SOAPCCON 2023, 27 August 2023, New Delhi
21. HIPEC: Anaesthetic Challenges, 24th Annual Conference-RAJISACON 2023, Udaipur, 30 September 2023, Udaipur
22. Panelist: Paediatric Palliative Care, Delhi IAPCCON 2023, 17 November 2023, New Delhi
23. Meet the Expert Session: Difficult Cancer Pain, Delhi IAPCCON 2023, 17 November 2023, New Delhi
24. Workshop on Physiotherapy in Palliative Care, 1st Annual Conference of Delhi State Chapter of IAPC (Delhi-IAPCCON 2023), 17 November 2023, New Delhi
25. Workshop on Point of Care Ultrasonography, 1st Annual Conference of Delhi State Chapter of IAPC (Delhi-IAPCCON 2023), 17 November 2023, New Delhi
26. Home Based Palliative Care, 1st Annual Conference of Delhi State Chapter of IAPC (Delhi-IAPCCON 2023), 19 November 2023, New Delhi
27. Recent advances in field of POCUS-utility in hospice and home-based care, Delhi IAPCON 2023, 19 November 2023, AIIMS, New Delhi
28. Breaking Bad News, 1st Annual Conference of Delhi State Chapter of IAPC (Delhi-IAPCCON 2023), 19 November 2023, New Delhi
29. Organizing QUIZ, 1st Annual Conference of Delhi State Chapter of IAPC (Delhi-IAPCCON 2023), 19 November 2023, New Delhi
30. Panelist: End of Life Care, ISACON 2023, 25 November 2023, Delhi
31. Panelist (Panel discussion on addiction and Psychiatric disorders of the anesthetist, ISACON 2023, 26 November 2023, Gurugram Haryana
32. Immuno Modulation and Anaesthesia, 70th Annual National Conference of the Indian Society of Anaesthesiologists, ISACON 2023, 26 November 2023, Gurugram
33. Panelist (Panel discussion on cancer Pain management), ISPCCON2023, 16 December 2023, Lucknow (U.P)
34. Pleurocentesis for Pleural Effusion, NBEMS Palliative Medicine Lecture Series, 4 December 2023, Online
35. Cancer Pain: What's New? ISSPCON 2024 Indian Society for Study of Pain, 2 February 2024, Pune
36. NIV in Nursing Critical Care, ISCCM 2024, 28 February 2024, Kolkata
37. ECMO, RRT in Nursing Critical Care, ISCCM 2024, 29 February 2024, Kolkata
38. Non-invasive Monitoring Technologies to Identify Discomfort and Distressing Symptoms in Persons with Limited Communication at the End of Life, Academy of Palliative Medicine Online Lecture Series 1, 18 March 2024, Online
39. Hyperthermic intraperitoneal chemotherapy (HIPEC): ANAESTHETIC CHALLENGES, 23rd Annual Conference of Society of Anaesthesiologist of NepalSANCON 2024, 30 March 2024, Kathmandu, Nepal
40. Sepsis Bundle Approach, SANCON 2024, 30 March 2024, Nepal
41. Difficult Airway Workshop, SANCON 2024, 31 March 2024, Nepal
42. Retrograde Intubation, AIIMS cadaveric airway workshop, 31 March 2024, AIIMS, New Delhi

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
12	25	42

Oral papers/posters presented: 5

1. Ahuja V, Sirohiya P, Ratre B, Roy S, Gupta N, Anaesthesia for 'Awake' Thoracic Surgery, 1st AIIMS Onco-Anesthesiology Update and Annual Conference of the Society of Onco-Anaesthesia and Perioperative Care (SOAPC) SOAPCCON 2023, 26 August 2023, New Delhi
2. Gupta R, Mishra S, Gupta N, Maurya P, Bharati SJ, Kumar V, Garg R, Bhatnagar S, Prospective randomised control trial of Tele PAC Vs face to face PAC at a tertiary care cancer center, ISACON 2023, 25 November 2023, Gurugram
3. Kumar B, Subcutaneous administration of drugs (oral presentation), Project Refreshment Course ICMR, 13 May 2023, New Delhi (online)
4. Mishra A, Kumar B, A study to compare the efficacy of combination regimen of dexmedetomidine and midazolam versus ketofol (ketamine+ propofol) for sedation in awake fiberoptic intubation (AFOI) in head and neck cancer patients-A randomized clinical trial (Poster Presentation), SOAPCCON 2023, 26 August 2023, New Delhi
5. Mishra A, Vig S, Intraoperative pulmonary embolism-case report and management, SOAPCON 2023, 26 August 2023, AIIMS, New Delhi

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
9	7	5

RESEARCH

Ongoing

1. Effect of goal-directed therapy on post-operative neutrophil gelatinase-associated lipocalin profile in Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy: a randomized control study, Dr Raghav Gupta, AIIMS Intramural, Two, 2024, 2026, 5+5 Lakhs, Comparison of pre-oxygenation with a heated humidified high-flow nasal cannula standard technique for induction of general anaesthesia and fibre-optic nasal intubation in patients undergoing head and neck surgery, Dr Balbir Kumar (as a CO-PI), Non funded, 2 years, September 2022, September 2024
2. Epidemiology of sepsis among patients in oncology critical care in a tertiary care hospital. An observational study, Dr Balbir Kumar (as a PI), Non funded, 2 years, October 2022, September 2024
3. To build the capacity of palliative care services in 10 hospitals in North India to reduce suffering in patients with chronic debilitating conditions (As Co-PI), Professor Sushma Bhatnagar, ICMR, 3 years, 2023-26, Rs 2.7 Crores

Departmental projects (including thesis/dissertations)

Ongoing

1. A study to compare the efficacy of combination regimen of dexmedetomidine and midazolam versus ketofol (ketamine+propofol) for sedation in awake fiberoptic intubation (AFOI) in head and neck cancer patients-A randomized clinical trial
2. Comparison of effect of intrathecal hyperbaric bupivacaine (0.5%), hyperbaric levobupivacaine (0.5%) and hyperbaric ropivacaine (0.75%) during interventional brachytherapy: A prospective, double blind randomized control study
3. Comparison of impact of erector spinae plane block versus thoracic epidural analgesia on perioperative quality of recovery in onco-surgical patients undergoing unilateral thoracotomy: a prospective, randomized control, open-label, non-inferiority, preliminary trial (cepet trial)
4. Cricoid ultrasonography and CT scan to predict the size of double lumen tube in the Indian Population.
5. Effect of early integration of palliative care with standard treatment in patients of hepatobiliary cancers: a randomised controlled trial.
6. Predictors of Post-Operative Morbidity and Mortality After Debulking Surgeries For Gynecological Malignancies
7. Quality of Life and Cognitive Function Assessment in patients diagnosed with Brain Metastasis Presenting to the Palliative Medicine Department in a Tertiary Care Center - A Cross Sectional Study
8. Role of empirical antibiotics for asymptomatic leukocytosis in non-haematological malignancy patients admitted to the palliative care ward at a tertiary care centre - an ambispective observational study

9. The Value-Origins of the Palliative Care Movement in India
10. To study the efficacy of palliative surgeries in patients of advanced surgeries in patients of advanced Head and neck and upper GI malignancies facing feeding difficulties: An ambispective observational study
11. To study the potential of a predictive Artificial Intelligence tool to foster early identification of symptoms and criticality in breast and cervical cancers in Indian patients

Completed

1. Calculating 95% effective dose (ED 95) of hyperbaric bupivacaine for intracavitary radiotherapy under sub-arachnoid block in patients with carcinoma cervix: A sequential allocation study
2. Comparison of Macintosh Laryngoscopy in Bed-Up-Head-Elevated Position with Conventional C-MAC Video Laryngoscopy: A Randomized Non-Inferiority Trial
3. Mortality in Two Waves of COVID-19 - a Comparative Analysis of a Tertiary Care Hospital in India

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	1		3
Total funding	14.5 Lakhs		2.17 Crores

PUBLICATIONS

Total Publications: 25;

Journal articles: 17; Chapters in Books: 8

Publications

Item	2021–2022	2022–2023	2023–2024
Total	**27**	**50**	**25**
Journal articles	21	31	17
Abstracts	3	8	-
Chapters in books	3	11	8
Books	-	-	-

PATIENT CARE

Item	2021–2022	2022–2023	2023–2024
OPD consultations	Screening and follow-up OPD Daily	Screening and follow-up OPD Daily	Screening and follow-up OPD Daily
	COVID services (ward + ICU)	COVID services (ward + ICU)	
Operation theatre	2 operation theatres	8 OTs daily Mon-Fri	4 OTs daily Mon-Fri
ICU	ICU rounds for 25 bedded ICU (COVID)	ICU rounds for 25 bedded ICU	ICU rounds for 25 bedded ICU
Palliative care ward	24 bedded	24 bedded	40 bedded
Emergency and periphery services	24 hours	24 hours	24 hours

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Raghav Gupta received Commonwealth Scholarship for MSc Palliative Medicine, Cardiff University, United Kingdom; Honored with Fellowship of International Medical Science Academy; Judge for Oral presentation at Mid Term RSACP CME cum workshop; Organizing committee member in: Delhi IAPC state chapter 1st CME, 2023, Delhi IAPC state chapter 2nd CME & 1st CNE, 2023,- SOPCCON 2023, Delhi IAPC 1st Annual conference, 2023; Certification for Orientation Course on Tobacco Cessation from iCanCare Foundation and Gujarat University; Appointed Associate Nodal Officer for Delhi NCR Local Chapter of NAMS; Resource person for ICMR Project titled: "To build the capacity of palliative care services in 10 hospitals in North India to reduce suffering in patients with chronic debilitating conditions" at Bhagwan Mahavir Hospital and Cancer Research Centre; Third Prize in Scientific Paper Competition by Manipal Hospitals during Pain Awareness Month; Resource person for ICMR Project titled: "To build the capacity of palliative care services in 10 hospitals in North India to reduce suffering in patients with chronic debilitating conditions" at BHU, Varanasi; Dr BB Mishra Young Anaesthesiologist Award at ISACON 2023; Appointed Assistant Editor of ISA Delhi Newsletter; Provided BLS training to Technicians, Nurses and Patient Care coordinators at NCI, Jhajjar; Token of Appreciation Awarded by Department of MoHFW, DGHS Delhi for imparting training to doctors on Palliative Care as part of National Programme for Palliative Care

OPHTHALMOLOGY

Assistant Professors

Sumit Grover Deepsekhar Das

HIGHLIGHTS

Ocular oncology services at NCI started in December 2022.
AIM:

- The aims of the Ocular Oncology Service are to provide expert diagnosis and treatment of ocular tumours, to conserve the health and well-being of patients with an ocular tumour and to prolong life.

Objectives:

- The objectives of the Ocular Oncology Service in NCI are to diagnose and treat ocular tumours in the hope of prolonging life and improving quality of life by conserving the eye and useful vision whenever possible.
- To collaborate with medical and surgical oncologists so as to optimize any opportunities for preventing and treating metastatic disease.

Major activities:

- Ocular oncology clinics catering to all intraocular and orbital tumors
- Epiphora clinic started to evaluate and manage patients developing epiphora as a result of cancer or its treatment
- Comprehensive ophthalmology services for common ailments like Refractive errors, Cataract, Glaucoma and Diabetic Retinopathy etc.
- Community ophthalmology services in collaboration with Preventive Oncology services NCI

EDUCATION

1. Training and teaching of Junior residents/ Postgraduate students of Ophthalmology at Outreach OPD NCI Jhajjar
2. Teaching rounds or Postgraduates students
3. Training of Optometry interns at outreach OPD for community outreach services
4. Undergraduate students teaching classes on basic sciences in Ophthalmology
5. Faculty participated in multiple clinic rounds and case-based teaching of MBBS as well as MD students at RPCentre, AIIMS, New Delhi

CMEs/Workshops/Symposia/National and International Conferences

Webinar on the occasion of "International Childhood Cancer Day" 18 February 2023. Online Event

Lectures delivered: 21

1. Epidemiology of Corneal blindness, 12th National conference on cornea & eye banking, 4 December 2022, Gurugram
2. Retinoblastoma-all about the glow, Panelist in the webinar on the occasion of international childhood cancer day, 18 February 2023, New Delhi
3. NPCB & VI, AIOS ARC PG Refresher course 2023, 25 March 2023, New Delhi
4. Understanding the barriers in utilization of LVA among low vision patients, 3rd National optometry conference IIMT, 27 May 2023, Meerut
5. Inclusion in eye health care, Project ROSHINI meeting as a co-investigator, 5 June 2023, New Delhi
6. Moderator, Evidence generation in Eye Health National session-conference on Community Ophthalmology, 26 August 2023, Neemuch MP
7. Moderator, Community Ophthalmology session-Delhi Ophthalmological Society (DOS) Mid-Term Conference 2023, 3 September 2023, New Delhi
8. Calculating "Effective Refractive error coverage"-novel indicator for UHC, Delhi Ophthalmological Society (DOS) Mid-Term Conference 2023, 3 September 2023, New Delhi
9. Moderator, Practice management session-Delhi Ophthalmological Society (DOS) Mid-Term Conference 2023, 3 September 2023, New Delhi
10. Classification and fundus screening for diabetic retinopathy, WHO-RPC Training program early screening of Diabetic Retinopathy at primary and secondary level, 18 September 2023, Jaipur, Rajasthan
11. Implementing disability inclusive practices at primary level, Training of Delhi state District program Officers DPOs, NPCB &VI and Medical Officers on primary eye care, 9 October 2023, New Delhi
12. Role of NGOs in strengthening primary eye care ", Project Roshini-Partners meet for strengthening primary eye care and initiating 'inclusive eye care', 30 December 2023, New Delhi
13. Expert Faculty, Consensus meeting on Refractive errors & Childhood blindness, 6 January 2024, New Delhi
14. Invited Faculty, Seventh National assembly of Forum of teachers of India (FOTI), 7 January 2024, New Delhi
15. Moderator, "Oculoplasty& oncology session" 57th Foundation Day of Dr RP centre AIIMS, New Delhi, 2 February 2024, Online
16. Moderator, "Ocular Oncology session" 57th Foundation Day of Dr RP centre AIIMS, New Delhi, 2 February 2024, Online
17. Moderator, Vision Spring-RPC-4th Leadership exchange on Public-Private partnerships cross-sector collaborations for clear vision, 5 March 2024, New Delhi
18. Moderator, Practice Management session-Delhi Ophthalmological society DOS Annual meeting, 30 March 2024, New Delhi
19. Screening for Retinoblastoma-Are we there yet!, Ocular oncology session-Delhi Ophthalmological society DOS Annual meeting, 31 March 2024, New Delhi
20. Low vision rehabilitation services at schools for the blind in Delhi, Community Ophthalmology 2 session-Delhi Ophthalmological society DOS Annual meeting, 31 March 2024, New Delhi
21. Community Ophthalmology-The road less travelled!, DOS-YOSI session - Delhi Ophthalmological Society (DOS) Annual meeting, 31 March 2024, New Delhi

Lectures delivered over past 3 years

2022	2023	2024
1	14	21

Oral papers/posters presented: 2

1. Bajaj MS, Das D, Gupta S, A panorama of orbital foreign bodies-Trivial to Substantial, AIOS Midterm, 12 April 2022, Patna
2. Beniwal A, Das D, Niranjana J, Bilateral Cilia incarnata in a breast carcinoma patient receiving Trastuzumab, AIOS Midterm, 21 May 2022, Patna

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
None	None	2

PUBLICATIONS

Total Publications: 3;

Journal articles: 3

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**1**	**12**	**3**
Journal articles	1	9	3
Abstracts	-	-	-
Chapters in books	-	3	-
Books	-	-	-

PATIENT CARE

Special clinics:

1. Ocular Oncology Clinic.
2. Epiphora Clinic for Cancer patients on chemotherapy.

Community Medical Camps attended by Faculty:

1. Attended Annual Medical Camp Organized by Social service league of St. Stephens College (Uni. Of Delhi) in collaboration with sarcoma Care Foundation and Preventive oncology NCI (Jhajjar) on 12 April 2023. Provided services to a total of 125 patients
2. Attended Outreach camp at PHC Badsa with faculty of Preventive Oncology NCI providing comprehensive eye care services and ocular cancer screening on 13 July 2023. Around 150 patients were seen in the camp
3. Participated in 3 days camp Co-organized by AIIMS New Delhi and NGO at Pratapgarh Uttar Pradesh from 15-17 December 2023. A total of 300+ patients were seen during the camp

Item	**2022 (December)**	**2023** January-December	**2024** January-March
OPD consultationsOphthal. Outreach OPD Jhajjar	678	11731	2548
Special clinic consultations	-	960	250
Patients provided rehabilitation services	-	15	6
Total inpatient admissions	-	-	-

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Sumit Grover was nominated as Associate member of scientific committee for Vision 2020-Right to sight India for the year 2023-24.

PEDIATRICS

Assistant Professors

Lalit Takia Rachna Pasi Varsha Mishra

HIGHLIGHTS

Department of pediatrics at NCI is established in November 2022 with initiation of OPD services and routine care for pediatric oncology patients admitted at various departments of NCI. Department is providing clinical/administrative services at cancer emergency of NCI AIIMS-Delhi.

EDUCATION

1. Clinical teaching activities for postgraduates/DM residents of pediatric oncology division/pediatric critical care division of Pediatric department of main AIIMS
2. Clinical teaching activities for postgraduates/senior residents posted at Pediatric emergency of main AIIMS
3. Clinical teaching activities for senior residents of emergency medicine of main AIIMS posted at NCI, AIIMS, New Delhi

Lectures delivered: 9

Lalit Takia: 4 Rachna Pasi: 3 Varsha Mishra: 2

Lalit Takia

1. Suspecting Cardiac Defects with CXR and ECG, 2nd Annual Meeting Society of Pediatric Cardiac Critical Care of (SPCCC-2023), August 2023, Chandigarh
2. Low-Cardiac Output State, 2nd Annual Meeting Society of Pediatric Cardiac Critical Care of (SPCCC-2023), August 2023, Chandigarh
3. Newer Ventilation Modes, AIIMS Pediatric Pulmonology and Intensive Care Course Module 13, July 2023, New Delhi
4. Encephalitis, 6th Pediatric Critical Care Symposium, August 2023, Chandigarh

Rachna Pasi

1. "Diabetes types & Diagnosis", "International conference on Cardio-diabetes and Metabolic Disorders", November 2022, Gorakhpur
2. "National Consultative meet-Tiny to tall", 61stNational Conference of IAP PEDICON, January 2024, Kochi, Kerala
3. Publication Ethics, 2ndInternational conference on Women in multifaceted Research, March 2024, Bihar

Varsha Mishra

1. Steroid refractory Graft vs host disease-current management options, North Delhi pediatric Conference 2023, August 2023, New Delhi
2. Public private partnership model for cancer care in children in India, Best of International Society of Pediatric Oncology (SIOP) 2023, February 2024, New Delhi

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
0	1	9

Oral papers/posters presented: 1

1. Mishra V, Yadav PS, Singh R, Rainchwar S, Palatty RJ, Panda JR, et al., An observational comparative study to determine the quality of life in transfusion-dependent thalassemia patients on low-dosethalidomide therapy vs standard care of treatment, 26th Annual Pediatric Hematology Oncology Conference 2023, 25 November 2023, Chennai

Oral/poster presentations over past 3 years

Presentation	2021–2022	2022–2023	2023–2024
Oral/poster	0	0	1

PUBLICATIONS

Total Publications: 17;

Journal articles: 13; Abstracts: 2; Chapters in Books: 2

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**-**	**4**	**17**
Journal articles	-	3	13
Abstracts	-	0	2
Chapters in books	-	1	2
Books	-	0	0

PATIENT CARE

Item	2021–2022	2022–2023	2023–2024
OPD consultations	0	20	100
Special clinic consultations	0	0	4
Patients provided rehabilitation services	0	0	0
Total inpatient admissions	0	0	0

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Lalit Takia has been included as associate fellow of National Academy of Medical sciences. He is member of National Academy of Medical sciences, Pediatric critical Care-Intensive care Chapter. He is instructor of Pediatric Advanced Life Support-IAP.

Dr Rachna Pasi has contributed in module preparation of "Adolescent Nutrition" under UNICEF PARC; member of technical report preparation of UNICEF PARC (II); Faculty/Judge for e-poster paper presentation at scientific program of 61st National Conference of IAP PEDICON 2024 at Kochi, Kerala in January 2024; certified national trainer for "OPSIS" training program under IAP Presidential Action plan; chaired session as chairperson at 2nd international conference on Women in multifaceted Research (ICWMR-2024) organized at Bihar held in March 2024; initiated special clinic, Pediatric Onco-Nutritional Clinic (PONC) at NCI AIIMS-Delhi since March 2024; member of IAP-NRC (National Respiratory Chapter) & IAP-MEC (Medical Education Chapter).

Dr Varsha Mishra is faculty for blood component therapy in pediatric oncology – national training project in practical pediatric oncology held in September 2023.

PLASTIC SURGERY

Assistant Professor
Aparna Sinha

1. Chairperson, APFSRM 2024, 19 March 2024, Gurugram
2. Velopharangyl insufficiency, Nbems webinar for plastic surgery residents, 13 February 2024, online

Lectures delivered: 6

Aparna Sinha: 6

Aparna Sinha

1. Dr Aparna Sinha, Dr Raja Tiwari, Dr Maneesh Singhal, Partial breast reconstruction using latissimus dorsi flap, BRASCON 2023, 17 November 2023, Lucknow
2. Dr Aparna Sinha, Dr Raja Tiwari, Dr Maneesh Singhal, Total Breast reconstruction using autologous tissue following mastectomy, RAJ APSICON 2023, 5 August 2023, Jodhpur

3. Dr Aparna Sinha, Dr Shashank Chuahan, DrShivangi, Dr Maneesh Singhal, Our experience of Allograft in extensive paediatric burns, NABICON 2023, 17 February 2024, Ranchi
4. Dr Aparna Sinha, Dr Shashank Chuahan, Dr Maneesh Singhal, Use of Free Flaps Following Post Burn Contracture Releases, APFSRM 2024, 7 March 2024, Gurugram
5. Dr Aparna Sinha, Dr Shashank Chuahan, Dr Maneesh Singhal, Management of tracheo-cutaneous fistula due to electric burn, APFSRM 2024, 8 March 2024, Gurugram
6. Dr Aparna Sinha, Dr Raja Tiwari, Dr Maneesh Singhal, Total Breast reconstruction using autologous tissue following mastectomy, BRASCON 2023, 17 November 2023, Lucknow

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
	2	6

PREVENTIVE ONCOLOGY

Associate Professors

Hari Krishna Raju Sagiraju

Jitendra Kumar Meena

Senior Resident

Somya Grover

HIGHLIGHTS

In addition to routine clinical services for oral, breast and cervical cancer the department expanded screening services for other cancers i.e prostate, colorectal and hereditary etc. In coordination with other specialties, DMGs services i.e tobacco cessation, HPV DNA testing were integrated in outpatient services (~1500 attendees in 2023-24).

Similarly, expansion of community screening services (3500 screened in 2023-24) was done through community reachout programs in Delhi, Haryana (Jhajjar, Gurugram) district and capacity building initiatives i.e. CARE program for training of medical officers in nine districts of Haryana.

Several health promotion programs to create awareness for cancer risk reduction and early detection were routinely organized at NCI (patient, attendants and staff) and in rural and urban community settings

The department started several academic activities i.e. PhD program training of health workers in cancer prevention and early detection in offline/online mode. The department acquired several research grants for community based delivery of oral, breast cancer screening services from ICMR.











EDUCATION

1. Weekly seminar presentations and discussionsmoderated by faculty and delivered by resident, PhD student and research staff (medical social worker, staff nurse etc.)
2. Offline and Online training of Healthcare workers in Cancer Prevention & Early Detection

Lectures Delivered: 15

Hari Krishna Raju Sagiraju: 6 **Jitendra Kumar Meena: 9**

Hari Krishna Raju Sagiraju

1. Breast cancer screening and prevention, International Virtual conference on Preventive Oncology, 5 April 2023, Virtual
2. Two way translational research to combat cancer, Guest lecture, Mailman School of Public Health, Columbia University, 20 April 2023, New York, USA
3. Basic Epidemiology and prevention of cancer:, Sensitization Training for ESIC Medical officers of Delhi NCR. Organized by National Training Academy of ESIC, 4 October 2023, Delhi
4. Barries for Cancer prevention and early diagnosis: Individual level and health system level, National Cancer Awareness Day Event, 7 November 2023, Jhajjar, Haryana
5. Cancer Screening and Epidemiology, CMIE Bootcamp in Oncology, NCI-AIIMS, 31 January 2024, Jhajjar, Haryana
6. Role of Cancer awareness & education in prevention, Early detection and Reducing Diagnostic and treatment, Cancer Awareness program, Centre for Integrative Oncology (CIO) at All India Institute of Ayurveda (AIIA) New Delhi, 9 February 2024, Delhi

Jitendra Kumar Meena

1. Current Status of Oral Cancer Screening in India, 5th Annual National Multidisciplinary Conference of Association of Medical Updates (AMUCON), GMCH, 7 October 2023, Udaipur, Rajasthan
2. Evidence-based screening strategies for major NCDs, International Course on Public Health Approaches to Non-Communicable Diseases (Supported by WHO-INDIA), AIIMS PGIMER Chandigarh, 1 March 2024, New Delhi

3. Lifestyle & Cancer, Max Cancer Congress 2023, Max Institute of Cancer Care, 29 April 2024, New Delhi
4. Preventive Oncology Services: AIIMS New Delhi's Experience, Preventive Oncology Workshop. Nepalese Society For Primary Care under Nepal Medical Association at Birat Medical College, 15 September 2023, Biratnagar, Nepal
5. Oral Cancer Screening & Prevention, International Conference on Preventive Oncology by NSS, GMCH Chandigarh (virtual), 5 April 2023, Chandigarh
6. Critical appraisal of published research articles, 67th Annual National Conference of Indian Public Health Association (IPHACON), 8 April 2023, Kolkata, West Bengal
7. Cancer Screening and Epidemiology, CMIE Bootcamp in Oncology, NCI-AIIMS, 31 January 2024, Jhajjar, Haryana
8. Scope of Preventive Care Services in Survivorship/End of Life Care Planning, End of Life Care: Bridging Health Care Professionals and Society Perspectives, AIIMS Jodhpur-NAMS, 24 February 2024, Jodhpur, Rajasthan
9. Statistical Aspects of a Manuscript, Scientific Writing Skills-How to write and publish a research article, RNTMC, 6 October 2023, Udaipur, Rajasthan

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
3	8	15

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
	2	

RESEARCH

Ongoing

1. Assessment of Breast cancer risk profile and factors implicit in differential incidence rates within rural and urban populations in India by developing a machine learning-based risk prediction tool, Dr Jitendra Kumar Meena, ICMR, 3 years, 2023-26, Rs 48.5 Lakhs
2. Assessment of Second-hand Tobacco smoke (SHS) exposure and evaluation of m-Health promotion strategy among attendants of cancer patients at a tertiary cancer hospital, Dr Jitendra Kumar Meena, AIIMS (Intramural), 2 years, 2021-23, Rs 1.5 Lakhs
3. Cancer Awareness and Referral Engagement (CARE) program for medical-officers/Specialists in selected district hospitals of Haryana, Dr Hari Sagiraju, Medical Educational Grant. Pfizer India Ltd, 3 years, 2021-24, Rs 29.5 Lakhs
4. Life Course Approach to Women's Health: A Sustainable Strategy for Effective Cancer Prevention in India, Dr Jitendra Kumar Meena, HEFA, Ministry of Education, GoI, 3 years, 2024-27, Rs 59.5 Lakhs
5. Oral Potentially Malignant Lesion Atlas Project: Validating the efficacy of a novel, Point-of-Care diagnostics and developing an integrated multidimensional, prognostic nomogram, Dr Hari Sagiraju, ICMR, Phase 1 – 3 yrs Phase-2: 2 years, 2023-28, Rs 1.89 Crores
6. Screening for risk factors of head/neck and prostate cancers in geographical areas near NCI-AIIMS, Dr Hari Sagiraju, Bayer Pharmaceuticals India Pvt Ltd, 5 years, 2022-27, Rs 9.25 Crores

Completed

1. Cancer Awareness and Referral Engagement (CARE) program for medical-officers/Specialists in selected district hospitals of Haryana, Dr Hari Sagiraju, Medical Educational Grant. Pfizer India Ltd, 3 years, 2021-24, Rs 29.5 Lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. Multilevel study of factors determining Access to Breast cancer care among patients and their family members (PhD thesis protocol)

Collaborative Projects

Ongoing

1. Generate Medical imaging datasets (MIDAS) for tobacco induced oral lesions to enhance research in health in India, Oral Pathology, CDER, AIIMS, Investigate the use of fluorescence based micro endoscopy, developing image repository and artificial intelligence based deep learning to detect oral squamous cell carcinoma and dysplasia in the Indian population, Oral Pathology, CDER, AIIMS
2. The SWOAR Trial: A Phase III trial evaluating sparing of swallowing and aspiration-related organs at risk & submandibular gland with Intensity-modulated radiotherapy versus standard IMRT in Head and neck squamous cell carcinomas, Radiation Oncology, NCI, Jhajjar

Completed

1. Hypofractionated Adjuvant Radiation Therapy in Head and Neck Malignancies: a Randomized Phase II Study of Hypofractionated Adjuvant Radiation Therapy in Head and Neck Cancer, Radiation Oncology, NCI Jhajjar

Research over past 3 years

Research project	2021-2022	2022-2023	2023-2024
Total funded projects	2	3	6
Total funding (Project Year specific)	31 Lakhs	1.51 Crores	2.55 Crores

PUBLICATIONS

Total Publications: 17;

Journal articles: 13; Abstracts: 2; Chapters in Books: 1; Books: 1

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total	**14**	**28**	**17**
Journal articles	10	20	13
Abstracts	3	8	2
Chapters in books	0	0	1
Books	1	0	1

PATIENT CARE

Item	2022	2023	2024 (ongoing)
OPD Services (Total Attendees)	**269**	**1140**	**671**
Consultations	164	537	416
Registrations	105	603	155
Special clinic consultations (Tobacco cessation clinic)	22	143	69
HPV DNA testing	93	416	102
Individuals screened through community Screening Camps	**158**	**2726**	**1273**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Hari Sagiraju was recipient of the Yusuf Hamied Fellowship award under which attended a short term fellowship in the Department of Epidemiology at Mailman School of public health, Columbia University, New York, USA.

RADIATION ONCOLOGY

Associate Professors

Aman Sharma Supriya Mallick

Assistant Professors

Karun Kamboj Yousra Izzuddeen KN

HIGHLIGHTS

Department of Radiation Oncology at NCI is equipped with state-of-the-art linear accelerator, 4D CT Simulator, and 20-channel brachytherapy system. The department provides a wide array of treatment including SRS, SRT, SBRT, Arc therapy, IGRT, IMRT, 3DCRT, ISBT, ICRT, Mould brachytherapy etc. We have adopted a variety of techniques for internal organ motion management including, Surface guided radiotherapy, Deep inspirational breath hold, 4D CT, RPM, RGSC etc. These techniques enable us achieving precision for the treatment of tumour even in very critical location.

At present, the department delivers treatment in two shifts (nearly 15 hours daily) and treat more than 80 patients in each LINAC. Along with we perform, 3-5 brachytherapy OT for applicator placement, Brachytherapy treatment, CT simulation for 10-15 cases daily.

Year	Linac 1 (Fractions of Treatment)	Linac 2 (Fractions of Treatment)	CT Simulation	Brachytherapy	Ward	OPD New Patient's	OPD F/U Paients's	New+F/U	ISBT (APBI/ MUPIT)	ICRT	SORBO (IVBT/ VCB)
2019	726	596	226	83	0	0	0	0	6	66	11
2020	7082	6639	811	360	310	554	3965	4519	19	277	66
2021	8390	8304	1183	289	3866	886	6082	6968	53	188	86
2022	11829	11733	1796	488	8377	1210	8303	9513	42	319	93
2023	18984	19336	3378	887	17240	2000	16392	18392	18	318	162
2024 (Jan-Mar)	4808	4783	1180	200	4337	298	4318	4616	56	100	44

Table 01: Number of cases treated at NCI by different modalities of radiation

EDUCATION

Alongside patient care, the department has started MD teaching program and at present four student are pursuing MD degree here at NCI. We are also involved in teaching program of MSc nursing oncology, BSc Nursing etc. Students of the department has been awarded at various national and international platform for outstanding scientific research work in the field.

A number of well-designed investigators initiated, intramural and extramural research projects are ongoing in the department and we are also working in different multidisciplinary collaborative research project as well.

Lectures delivered: 8

Aman Sharma: 3 Supriya Mallick: 3 Karun Kamboj: 2

Aman Sharma

1. Case Based panel discussion: Molecular testing & Head and Neck cancer, 6th Annual Conference of Oncology Forum, Delhi, 2 December 2023, New Delhi
2. Case Based panel discussion: Molecular testing & Lung Cancer, 6th Annual Conference of Oncology Forum, Delhi, 2 December 2023, New Delhi
3. Judge: Poster viewing session clinical Neurooncology, 15th Annual National Conference of Indian Society of Neuro-oncology (ISNOCON 2024), 5-7 April 2024, Chandigarh

Supriya Mallick

1. Adjuvant Radiotherapy can be omitted in early breast cancer in elderly patients, NZAROICON 2023, 8 April 2023, Rishikesh
2. Evolving Paradigms in Management of Sarcomas, 44th ICRO-SUN PG Teaching Program, 2 September 23, Amritsar

3. Contentious issues in adult brain tumours-Case-based Discussion, AROICON 2023, 5 November 2023, Mumbai

Karun Kamboj

1. Molecular Markers in carcinoma Endometrium, 6th Annual Conference of Oncology Forum, Delhi, 2 December 2023, Hotel The Lalit, New Delhi India
2. Brachytherapy in recurrent vulvar carcinoma, 10th Annual Young Radiation Oncologists Conference (YROC), 19 January 2024-21 January 2024, AIIMS Jodhpur

Oral papers/posters presented: 5

1. Hypo-fractionated Post operative Radiotherapy in Head & Neck Carcinoma (Oral presentation), 9th World Congress of the International Academy of Oral Oncology, 1-4 November 2023, Incheon, South Korea
2. Kamboj K, Sharma DN, Sharma A, Mallick S, Izzuddeen KN Video presentation on recurrent vulvar brachytherapy, 10th Annual Young Radiation Oncologists Conference (YROC), 12 April 2023, AIIMS, Jodhpur
3. Swallowing-Sparing Hypo-fractionated Adjuvant VMAT in Oral Cavity Carcinoma: A Dosimetric Evaluation (Oral presentation) (Thesis Chief guide/ Talk by Dr Adrija Gosh thesis student), 9th World Congress of the International Academy of Oral Oncology, 1-4 November 2023, Incheon, South Korea
4. Treatment outcomes of stage IV B (N3) head & neck cancer treated with Concurrent chemoradiotherapy (Poster presentation), Annual Meeting-JSMO2024, 24 February 2024, Nagoya, Japan
5. Treatment outcomes of swallowing sparing VMAT in HPV negative Head and Neck Carcinoma patients (Oral presentation), ESTRO Asia 2024, 23-25 August 2024, Kuala Lumpur, Malaysia

Oral/poster presentations over past 3 years

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
		5

Publications: 1

Abstracts published in journals: 1

RESEARCH

Ongoing

1. A phase II trial to evaluate Prophylactic cranial radiation for patients with high-risk Triple-negative breast cancer and correlation with circulating tumour cells in peripheral blood and cerebrospinal fluid, Dr Supriya Mallick, ICMR, 3 years, 2024-27, Rs 60 Lakhs
2. Designing and implementation of health care model in patients with stage 2 breast cancer, Dr Supriya Mallick, ICMR, 3 years, 2024-27, Rs 1.2 Crores
3. HYPCON Trial: Hypo-fractionated adjuvant radiation therapy vs conventional fractioned adjuvant radiotherapy in head and neck malignancies: a randomized phase II study, Thesis Chief guide, NA, 2 years, 2020-24, Nil
4. Stereotactic Body Radiotherapy (SBRT) Boost versus Simultaneous Integrated Boost (SIB) to pelvic nodes among patients receiving radical chemoradiation in Carcinoma Cervix: A Prospective Phase II Single Arm Study comparing safety profiles, Dr Karun Kamboj, Intramural, 2 years, 2023-25, Rs 6.5 Lacs
5. The Eliminate Trial: A Phase II/III randomized rial evaluating omission of radiotherapy to regional lymphatic's in pN0/N1 neck for Oral Cavity carcinomas" (CTRI REF/2021 June 044351), Dr Aman Sharma, NA, 3 years, 2021-24, Nil
6. The SWOAR Trial: A Phase III trial evaluating sparing of swallowing and aspiration related organs at risk & submandibular gland with Intensity modulated radiotherapy versus standard IMRT in Head and neck squamous cell carcinomas"(CTRI REF/2021 May 043810), Dr Aman Sharma, NA, 3 years, 2021-24, Nil

Completed

1. Cervical cancer tumour micro-environment immune-profiling and effect on early response to standard chemoradiotherapy in Indian patients, Dr Supriya Mallick, AIIMS intramural, 2 years, 2020-22, Rs 5 Lakhs
2. Optimum radiation dose for palliation in head and neck Squamous cell carcinoma-A phase 3 randomized controlled trial (OpRaH), Dr Supriya Mallick, ICMR, 3 years, 2021-24, Rs 22 Lakhs
3. Phase II study of hypo-fractionated accelerated radiotherapy with concurrent and maintenance temozolomide in newly diagnosed IDHwt Anaplastic Astrocytoma (NCI-R January HyRAA), Dr Supriya Mallick, AIIMS intramural, 2 years, 2020-22, Rs 5 Lakhs

Departmental Projects (Thesis/dissertations)

1. A phase II single arm study to evaluate the impact of stereotactic ablative radiotherapy tooligoprogressive/ oligorecurrent/oligoresidual sites in patients with advanced breast cancer
2. Curative approach treatment with SABR in bone only oligometastatic breast cancer
3. HYPCON II Trial: Concurrent hypofractionated adjuvant radiation therapy vs conventional fractioned concurrent chemo-radiotherapy in head and neck malignancies: a randomized phase II study
4. HYPCON Trial: Hypo-fractionated adjuvant radiation therapy vs conventional fractioned adjuvant radiotherapy in head and neck malignancies: a randomized phase II study

PUBLICATIONS

Publications: 13;

Journal articles: 8; Abstracts: 4; Chapters in Books: 1

Publications over past 3 years	
Journal articles	22
2021-22	7
2022-23	7
2023-24	8
Abstracts	
2021-22	2
2022-23	3
2023-24	4
Chapters in books	
2021-22	17
2022-23	15
2023-24	1
Books	
2021-22	1
2022-23	0
2023-24	0

Awards, Honours and Significant Events

1) AIIMS Oncology Research Award 2021-First Prize
2) Scientific committee member for AROICON 2022 at New Delhi, Scientific committee member for AIIMS Oncology conclave 2024 at New Delhi

RADIOLOGY

Assistant Professor
Sanjay Kumar Meena

Lectures delivered: 3

Sanjay Meena: 2 **Prince Das: 1**

Sanjay Meena

1. Panel discussion on-"Adnexal masses-What a gynecologist must know? "NARCHICON 2023" organized by National Association of reproductive and child health in Lady Hardinge Medical College, New Delhi, 26 November 2023, New Delhi
2. Case based panel discussion – "Molecular testing and head and neck cancers", "6 Annual Conference of Oncology Forum, Delhi; OFCON-2023", 2 December 2023, New Delhi

Prince Das

1. Case based panel discussion – "Molecular testing and GI cancers", "6 Annual Conference of Oncology Forum, Delhi; OFCON-2023", 3 December 2023, New Delhi

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
		3

Oral papers/posters presented

1. Das P, Rana P, Meena SK, Purthi H, Poster on "Computed tomography imaging characterization of retroperitoneal tumor", International conference KCR 2023, Seoul, Korea, 20-23 September 2023, Seoul, Korea
2. Das P, Rangarajan K, Rana P, Poster on "Growing Teratoma Syndrome-a case report", International conference KCR 2023, Seoul, Korea, 20-23 September 2023, Seoul, Korea

Oral/poster presentations over past 3 years

2021-2022	2022–2023	2023–2024
-	-	2

RESEARCH

Collaborative projects

Ongoing

1. Genomic characterization of young onset lung adenocarcinoma in India (YOLA-I study). It has been selected as a recipient of the 2023 LCFA/BMS/IASLC Disparities in Clinical Research Grant, Department of Medical oncology, NCI

2. Intraglandular Botulinum Toxin (BoNT) Injection for Postoperative Head and Neck Fistula Healing: An Open Label Randomized Controlled Trial, Department of Otorhinolaryngology and Head Neck Surgery, NCI
3. Metabolic imaging of Neoplastic Liver using 31P MRS, Department of NMR, AIIMS, New Delhi
4. Radiological Pathological Correlation in Image Guided Breast Interventions, Department of Pathology and Surgical Oncology, IRCH
5. Standardizing sequence of Adjuvant Radiation and Systemic therapy for breast cancer STARS A Phase III randomized controlled trial, Department of Radiation oncology, NCI

Publications: 3

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total			**3**
Journal articles			
Abstracts			
Chapters in books			
Books			

PATIENT CARE

Item	2021–2022	2022–2023	2023–2024
Image guided biopsies (USG and CT)			1692
CT scans			6586
DRF			166
Color doppler			439
Mammography			1543
USG			6499
X-rays			21518
Digital substruction angiography (DSA) Including both vascular and nonvascular procedures			459
MRI scans			1098
Radiofrequency ablation (RFA)			2

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Sanjay Kumar Meena was Organizing committee member in "AIIMS Oncology Conclave 2024" held at NCI and discussed various collaboration ideas with the other AIIMS/INI's faculties; Participated and demonstrated functioning of various modalities of Radiology department "Healthcare Innovation Bootcamp on Oncology" held at NCI, organized by Centre for Medical Innovation and Entrepreneurship (CMIE); was elected as council executive for "Indian society of vascular interventional radiology (ISVIR)" Delhi chapter.

SURGICAL ONCOLOGY

Professors and Head
Sunil Kumar
SVS Deo (Ex-Head VRS, till 31 January 2024)
Professor
Mukurdipi Ray

Associate Professors
Ashutosh Mishra, Sandeep Kumar Bhoriwal, Jyoti Sharma (NCI, Jhajjar)

Assistant Professors
Babul Bansal, Naveen Kumar (NCI, Jhajjar), Jyoutishman Saikia (NCI, Jhajjar)

Amitabh Mandal, Raghuram K (NCI, Jhajjar)

HIGHLIGHTS

During the year 2023-24 the Department of Surgical Oncology contributed significantly for patient care, training and research. The department has expanded surgical services at NCI and started advanced and complex cancer surgical services and comprehensive endoscopy services at NCI. The faculty of the department participated in various cancer registry, cancer awareness and prevention activities in collaboration with Govt. organizations and NGOs. A total of **2636** complex major cancer surgeries were performed during the current year along with **10137** diagnostic and therapeutic endoscopy procedures and minor procedures.

Activities/Steps taken to improve patient care services, education and research:

1. Successfully performed more than **13000** major and minor cancer surgeries at IRCH and NCI with excellent outcomes. (Morbidity and Mortality benchmarks at par with best global outcomes)
2. Initiated a special drive to decrease the waiting time for common cancer surgery patients at AIIMS (IRCH and NCI)
3. Implemented ERAS program for decreasing hospital stay of surgical patients and optimize hospital resource utilization
4. Implemented Departmental Quality Control Program including morbidity and Mortality audit and quality metric evaluation
5. Implemented a robust clinical data base program and captured patient related data in a computerized structured format
6. All residents including M.Ch and non-academic SRs were assigned Organ specific clinical databases and mentored by faculty for data analysis of presentations in conferences and publication in journals
7. Started hybrid teaching programs to connect two campuses (IRCH and NCI)
8. The Department has initiated a number of RCTs, collaborative research projects with prestigious national and International scientific organizations like IIT, ICMR, DBT and IISc
9. The Department organized international and national scientific events
10. Year 23-24 was highly productive as far as research is concerned and we managed to publish more than 40 articles in high impact scientific journals with many international presentations

Action Plan for Coming Year:

The department is committed and determined to expand and strengthen cancer patient care activities further during year 2024-25. Our vision is to introduce emerging surgical technologies like robotic surgery, navigational surgeries, and IORT and improve patient care services through introduction of tale-oncology services, computerized clinical data bases, implementation of ERAS and fast track surgery programs. The faculty of the department is also planning a number of innovative research projects applicable to Indian cancer patients.

Summary: Overall in the year 2023-24, the department of surgical oncology set-up the new standards by performing the highest number of complex oncology procedure in comparison to previous years. The department conducted various activities that helped in patient care, academics and research.

EDUCATION

a. Undergraduate teaching: The faculty was involved in undergraduate teaching by giving didactic lectures and by participating/ moderating seminars on oncological topics.

b. Post graduate teaching: The faculty was involved in teaching and training of 17 M.Ch surgical oncology students and 12 surgical oncology senior residents, DM medical oncology residents and MD radiotherapy junior residents by giving didactic lectures, moderating seminars, journal clubs etc. & clinical teaching during ward rounds and in special cancer clinics of IRCH. The faculty acted as guide and co-guide for M.Ch Surgical oncology, DM medical oncology, MD radio diagnosis, MD radiation oncology thesis projects and PhD projects from various dept. of BRA-IRCH & AIIMS. The faculty was also involved in teaching & training of general surgery &dental surgery residents and MCh Breast & Endocrine surgery trainees, M.Ch Gynecology Oncology trainees on rotation.

c. Para clinical teaching/training: The faculty was involved in the teaching of the MSc nursing oncology students.

CMEs/Workshops/Symposia/National and International Conferences

1. The Department has organized OFCON-2023, 6th Annual Conference of Oncology Forum Delhi on 2-3 December 2023 on the theme "Impact of Molecular Oncology and real world practice"
2. Fluorescence imaging in Surgical Oncology: workshop, 18-19 April 2023, IRCH, AIIMS
3. Co-hosted Breastics 24 an international webinar-24 September 2023
4. Oncology Forum mid term meeting, 14 March 2024

Lectures delivered: 88

Sunil Kumar: 7	**SVS Deo: 15**	**MD Ray: 11**
Ashutosh Mishra: 31	**Sandeep K Bhoriwal: 4**	**Jyoti Sharma: 4**
Naveen Kumar: 4	**Babul Bansal: 6**	**Jyoutishman Saikia: 1**
Amitabh Mandal: 4		

Sunil Kumar

1. ERAS protocols in esophagectomy, CME & Workshop in Thoracic Oncology, 29 April 2023, KGMC, Lucknow
2. Lymphadenectomy in esophageal cancer surgery, CME & Workshop in Thoracic Oncology, 29 April 2023, KGMC, Lucknow
3. Management of synchronous lung primaries, Delhi Oncology Group, 25 September 2023, New Delhi
4. Panel moderation-Management of oligometastatic lung cancer (Panel moderation), Indian Cancer Congress, 4 November 2023, Jio World Convention Center, Mumbai
5. Upfront surgery in stage III lung cancer, IO-CON 2024, 10 February 2024, Hotel Taj Mansingh, New Delhi
6. Lung cancer screening in India: feasibility, AIIMS Pulmocrit 2024, 24 February 2024, AIIMS, New Delhi
7. Meet the Experts: perioperative care in thoracic surgery, Delhi IAPCON 2023, 17-19 November 2023, AIIMS, New Delhi

SVS Deo

1. Talk "Learning Curve" & Training opportunities, PSM Conference, 13-15, TMC kolkota
2. Chair-Oration by Paul Sugar Baker, PSM Conference, 13-15, TMC kolkota
3. Chief Faculty and organizer-ICG Training course and Observer ship, ICG Training course and Observer ship program; Six visiting faculty lectures & Live surgery demo, 18-19 April 2023, AIIMS, New Delhi
4. Video Presentation-Breast ICG, Max Cancer Congress-23, 29-30 April, Delhi
5. Moderator-Breast Debates-Intensive follow-up for high risk BC, Max Cancer Congress-23, 29-30 April, Delhi
6. Presidential Oration-Changing landscape of BC, ABSICON 2023, 27-29 July 2023, Ahmedabad

7. Panel moderation-BC in Tier 2 & 3, ABSICON 2023, 27-29 July 2023, Ahmedabad
8. Oration-" Peritoneal Surface Malignancies, NASOCON, 1-3 September 2023, Shillong
9. Talk on " Implant Based Reconstruction", KGMU Breast Conference-, 9 September 2023, Ahmedabad
10. Talk-Workshop Implant Reconstruction; Risk Reducing Surgery using Implant, Workshop Implant Reconstruction, 10 September Chennai
11. Talk-Surgical Oncology Training & Education, ICC Mumbai, 2-5 November 2023, Mumbai
12. Moderated a panel on LABC, ICC Mumbai, 2-5 November 2023, Mumbai
13. Talk-De-escalation of Breast Surgery, AMUCON Udaipur, 7-8 October 2023, Udaipur
14. Talk on "Risk Reducing Surgery-What Surgeons need to know", IASO MIDCON Hubballi, 1-3 March 2024, Hubballi
15. Talk on "Colorectal Cancer Database Development", Aster Oncology Conference, November 23, Bengaluru

MD Ray

1. Surgery in advanced ovarian cancer, CME & Annual Meeting of Obst. &Gynaecological Society of Northern India, 9 April 2023, Chandigarh
2. As Panellist, Topic-COLORECTAL CANCER Speaker-Molecular research on ovarian cancer from AIIMS Delhi, Annual Update in Peritoneal Surface Malignancies by INDEPSO and ISPSM, 13-15 April 2023, Kolkata
3. Speaker-CRS AND HIPEC-ALL ROUND EXPERIENCE FROM AIIMS, DELHI, Annual Update in Peritoneal Surface Malignancies by INDEPSO and ISPSM, 13-15 April 2023, Kolkata
4. Expert comment in Session Primary Ovarian Cancer, Title-Role of HIPEC in interval CRS in upfront ovarian cancer setting, Max Cancer Congress (MCC) 2023, 29-30 April 2023, New Delhi
5. As Panelist in 'Post-operative care of cancer patients: Emphasis on functional recovery, rapid rescue and survivorship', 1STAIIMS Onco-Anesthesiology Update and Annual Conference of the Society of Onco-Anaesthesia and Perioperative Care (SOAPC) SOAPCCON 2023, 25-27 August 2023, New Delhi
6. As Keynote Speaker, Title-Does NACT reduce the overall burden in advanced Epithelial Ovarian Cancer, despite of increasing CRS rate? Scholars 2nd Edition International Conference on Gynecology, Obstetrics & Women's Health, Gynecology Conference 2023, 23-24 October 2023, Tokyo, Japan
7. As guest lecturer, Title-Advancement in CRS in advanced ovarian cancer and Role of HIPEC, Gynecologic Oncology Peruvian Society, Medical Center Auditorium in Edgardo Rebagliati Martins National Hospital, Peru, 26 January 2024, Peru
8. As guest lecturer, Ttile-Cancer Prevention and Work Life Balance, Universidad Peruana Cayetano Heredia, Lima, Peru, 30 January 2024, Lima, Peru
9. As Panelist, Topic: Colorectal Cancer: From Research to Practice-1. Pathology and biomarkers, 2. Colorectal Peritoneal Metastasis, 22nd Annual meeting on 'Evidence Based Management of Cancers in India: EBM-2024', 29 February to 3 March 2024, Mumbai
10. Artificial Intelligence (AI) in Oncology, 8th Edition World Cancer Congress-2024, 20 March 2024, New Delhi
11. As Faculty, International Society for Study of Pleura and Peritoneum (ISSPP) certified PIPAC Training Course and Workshop, 23-24 March 2024, Bengaluru

Ashutosh Mishra

1. Panelist-Cancer care in LMIC, World Cancer Leaders' Summit, 16-17 October 2023, Long Beach California (USA)
2. Dr V B Bhatnagar Memorial Lecture-Robotics, Spy Cameras (ICG), HIPAC AND PIPAC-The Changing Face of Cancer Surgeries, Oncocon 2024, Meerut, 24-25 February 2024, Meerut
3. Speaker-SLNB by ICG & Methylene Blue (Video), ABSICON 2023-11th Annual Conference of Association of Breast Surgeons of India, 28-30 July 2023, Ahmedabad
4. Speaker-Breast flap perfusion by ICG (Video), ABSICON 2023-11th Annual Conference of Association of Breast Surgeons of India, 28-30 July 2023, Ahmedabad
5. Panelist-Partial breast reconstruction, ABSICON 2023-11th Annual Conference of Association of Breast Surgeons of India, 28-30 July 2023, Ahmedabad
6. Make in India: Low-cost Innovations & Breast cancer breakthroughs, ABSICON 2023-11th Annual Conference of Association of Breast Surgeons of India, 28-30 July 2023, Ahmedabad

7. Speaker-No doppler Single position LICAP flap, Breastics 24th 2023-An International 24 hour Webinar (Collaboration of world 9 breast societies), 23-24 September 2023, International Webinar
8. Speaker-Breast cancer burden in India-Looking into cancer statistics, Management of Breast Cancer Oncology Forum, 29 October 2023, Trivandrum
9. Moderator-Management of LABC, AMUCON, 7 October 2023, Udaipur
10. Speaker-Educational Video-Sentinel Lymph Node Biopsy, ASICON 2023-ABSI section, 15-16 December 2023, Vishakhapatnam
11. Panelist-Updates in Early breast cancer, ASICON 2023-ABSI section, 15-16 December 2023, Vishakhapatnam
12. Speaker-Educational Video-Perforator flaps based breast reconstruction, ASICON 2023-IASO section, 15-16 December 2023, Vishakhapatnam
13. Panelist-Cased based discussion in LABC, ASICON 2023-IASO section, 15-16 December 2023, Vishakhapatnam
14. Speaker-Molecular Markers in Breast Cancer, OFCON 2023, 2-3 December 2023, New Delhi
15. Panel-Management of Axilla, Indian Cancer Congress-2023, 4-5 November 2023, Mumbai
16. Robotic Surgery, FARIS 2023, 29 September 2023, Chennai
17. Panelist-Interesting HIPEC case for oncology surgery, SOAPCCON-5th Annual Conference of Society of Oncoanesthesia and peri-operative care, 25-27, August 2023, New Delhi
18. Exploring the versatility of ICG Moderator: Live-Mastectomy surgery, Stryker "Envision" oncology live surgery workshop, 5 August 2023, New Delhi
19. Moderator:-Live-ICG application in gynae surgery, Stryker "Envision" oncology live surgery workshop, 5 August 2023, New Delhi
20. Panelist-Incorporating ICG in improving surgical practice, Stryker "Envision" oncology live surgery workshop, 5 August 2023, New Delhi
21. Speaker-Deep Drive Ovarian Cancer-"Role of surgery in recurrent ovarian cancers"-, Max Cancer Congress 2023, 2-4 April 2023, New Delhi
22. Panelist-'Synergy' Symposium-Breast cancer Case Based Panel Discussion, Max Cancer Congress 2023, 2-4 April 2023, New Delhi
23. Speaker-Breast Oncology Video Workshop-LICAP flap-, Max Cancer Congress 2023, 2-4 April 2023, New Delhi
24. Speaker-Video workshop on ICG in Oncology-, Max Cancer Congress 2023, 2-4 April 2023, New Delhi
25. Panelist-Post lumpectomy Breast Conserving Surgery-Challenges and Outcomes, Focused studies in Breast Cancer-Live webinar, 18 August 2023, Live webinar
26. Genetic testing and Risk reducing surgery-Indian Perspective, ABSI-MIDCON 2024 (Associations of Breast Surgeons of India), 15-16 February 2024, Pondicherry
27. Panelist-Updates in Neoadjuvant Therapy and Surgical Implications-Case based Panel Discussion, ABSI-MIDCON 2024 (Associations of Breast Surgeons of India), 15-16 February 2024, Pondicherry
28. Keynote speaker-Level 2 Oncoplasty-Perforator flaps LICAP, MICAP, AICAP, Cadaveric workshop on breast Oncoplasty and reconstructive surgeries, 27 January 2024, Bhopal
29. Video based lecture-Role of ICG in breast surgery, IASO-MIDCON Hubballi 2024, 1-3 March 2024, Hubballi
30. Moderator-Fertility Preservation in Gynaecological Malignancies, IASO-MIDCON Hubballi 2024, 1-3 March 2024, Hubballi
31. Panelist-Managing Breast cancer-Case based discussion, Oncocon 2024, Meerut, 24-25 February 2024, Meerut

Sandeep Kumar Bhoriwal

1. Talk-Breast Oncoplasty, Oncology Update, 30 September 2023, Rohtak
2. Panelist-Palliative surgery, SOAPCCON-5th Annual Conference of society of Oncoanesthesia and peri-operative care, 25-27 August 2023, New Delhi
3. Speaker-Updates on molecular oncology in Pancreatic Cancer, OFCON 2023, 2-3 December 2023, New Delhi
4. Panel-Intersphincteric resection in Rectal Cancer, Indian Cancer Congress-2023, 4-5 November 2023, Mumbai

Jyoti Sharma

1. Master video on Breast Implant Reconstruction, ABSICON 2023, 28 July 2023, Ahmedabad
2. Management of Axilla, NASOCON 2023, 2009-2023, Shillong
3. Breaking barriers & Building bridges: empowering women in HPB surgery for a thriving surgical future: Panel discussion, A-PHPBA 2023, 27 September 2023, Bangalore
4. Breast oncoplasty panel discussion, ICC 2023, 3 November 2023, Mumbai

Naveen Kumar

1. Three field lymphadenectomy in esophagectomy, 5th NECASICON-Annual Conference North East State Chapter, 17-18 November 2023, India
2. HIPEC: Unleashing the journey, Navigating the complexity of cancer care: Multidisciplinary approach, 19 March 2023, India
3. Cancer Management: Prevention, Challenges and Opportunities, Cancer control Challenges and Opportunities, 20 March 2023, India
4. Cancer screening and prevention, All India Institute of Ayurveda,, India

Babul Bansal

1. Panellist in a Panel Discussion on 'Interesting thoracic case for oncology surgery' moderated by Dr Raj Sahajanandan, SOAPCCON 2023, 2023, New Delhi
2. Panellist in a Panel Discussion on 'Melanoma with regional lymphadenopathy-Operate or Medicate?' moderated by Dr Anand Raja, MAX Cancer Congress, 2023, New Delhi
3. Panellist in a Panel Discussion on 'Oligometastatic Breast Cancer-How aggressive to go?' moderated by Dr Vedant Kabra, 2nd Metro-OncoCon, 2023, Faridabad
4. Panellist in a Panel Discussion on 'Rare Adrenal Tumors', 3rd Indian Cancer Congress, 2023, Mumbai
5. Oral presentation titled 'Making breast cancer care affordable', ABSI Midcon, 2024, Puducherry
6. Panellist in a Panel Discussion on 'Updates in neoadjuvant therapy and surgical implications' moderated by Dr Vijay Devanhalli, ABSI Midcon, 2024, Puducherry

Jyoutishman Saikia

1. Panelist-Management of Thyroid cancer, ASICON 2023, 16-17 December 2023, Vishakhapatnam
2. Moderator-Updates on Lung Cancer, Midterm conference of Oncology Forum, 14 March 2024, New Delhi

Amitabha Mandal

1. Panel discussion on the practical aspect of minimally invasive esophagectomy, NASOCON 2023-Annual conference of NASO, 2-3 September 2023, Shillong
2. Panel discussion-Practical aspects of the management of thyroid cancer, ASICON-Annual conference of ASI, 13-16 December 2023, Visakhapatnam
3. Panel discussion-Management of recurrent and metastatic head and neck cancer, Oncology Review, 16-17 December 2023, Vivanta, Faridabad
4. Panel discussion on gastrointestinal stromal tumor, MIDCON-Midterm conference of IASO, 1-3 March 2024, Hubli

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
64	71	87

Oral papers/posters presented: 50

1. Bansal B, Deo SVS, Oral presentation titled 'Reoperative Thyroid Surgery for Recurrent or Persistent Differentiated Thyroid Cancer', World Congress on Thyroid Cancer, 2023, London, UK

2. Bansal B, Ray MD, Deo SVS, Mishra A, Goel D, Poster presentation titled 'Validation of surgical Peritoneal Cancer Index (sPCI) as a prognostic marker in ovarian cancer patients undergoing Interval Cytoreductive Surgery & Hyperthermic Intraperitoneal Chemotherapy (ICS-HIPEC): An Indian Collaborative Study', PSOGI 2023, 2023, Venice
3. Bansal B, Ray MD, Deo SVS, Mishra A, Poster presentation titled 'Validation Of Surgical Peritoneal Cancer Index (SPCI) As A Prognostic Marker In Ovarian Cancer Patients Undergoing Interval Cytoreductive Surgery & Hyperthermic Intraperitoneal Chemotherapy (ICS-HIPEC)', ESGO Congress, 2023, Istanbul
4. Banthia P, Kumar N, Kumar S, ORAL PAPER: Comparative Analysis of Short-Term and Long-Term Outcomes: Tertiary Cancer Care Centre. Experience with McKeown and Ivor Lewis Esophagectomy in Lower Esophageal Squamous Cell Carcinoma, MIDCON, Hubbali, 1-3 March Hubbali
5. Banthia P, Ray MD, Bansal B, POSTER: A tertiary care cancer centre experience of Secondary Cytoreductive Surgery + HIPEC in recurrent ovarian cancer; a retrospective analysis of surgical and oncological outcomes in an Indian public healthcare setting, INDEPSO, 2023, 13-15 April 2023, Kolkata
6. Banthia P, Ray MD, Bansal B, Poster: Examining cytoreductive surgery and hipec in platinum resistant recurrent ovarian cancer: a retrospective analysis of surgical and oncological outcomes at an Indian public healthcare tertiary care cancer centre, OFCON, 2023, 2-3 December 2023, Delhi
7. Bhukkal B, Deo SVS, Kumar S, Sandeep, Manish; Madiwalesh, Oral Presentation: Lymph Node Dissection in Malignancies of Oral Cavity-Are Current Guidelines Optimal? An Analysis of 1926 Cervical Lymph Node Dissections, Max Cancer Congress: 2023, 29 April 2023, Delhi
8. Bhukkal B, Deo SVS, Sunil, Naveen, Amitabaha, Poster Presentation: D2 lymphadenectomy in 199 patients for gastric cancer; A study of feasibility, morbidity, mortality, recurrence pattern and survival, 6th OFCON: 2023, 2-3 December 2023, Delhi
9. Bhukkal B, Deo SVS, Sunil, Sandeep, Naveen, Amitabaha, et al., Oral Presentation: Demographic profile, surgical outcome, recurrence pattern, and long-term survival of 123 Gastroesophageal junction tumors from a tertiary cancer care center in North India, 6th OFCON: 2023, 2ND and 3 December 2023, Delhi
10. Deo SVS, Sonvane* S, Ashutosh, Jeena, Is young breast cancer biologically different and aggressive?-A retrospective comparative study, Max cancer congress, 30 April 2023, Delhi
11. Divyam, Ray MD, Deo SVS, Mishra A, Bansal B, Bhoriwal S, Premanand, POSTER : Perioperative outcomes of CRS and HIPEC in PSM: an experience from tertiary referral oncology centre, PSMcon, 15 March 2023, Kolkata
12. Divyam, Ray MD, Venu, Oral paper : CRS with HIPEC in colorectal peritoneal metastasis-a clinical retrospective observational study from a tertiary cancer care centre, EBM 2024, 1-3 March 2024, Mumbai
13. Haraesh, Ashutosh, VIDEO Presentation: SLNB in Carcinoma Ovary using ICG, Max Cancer Congress 2023, 29-30 April 2023, Delhi
14. Haraesh, Bhoriwal S, Amitabha, Harsha, POSTER: Comparison of minimally invasive versus open oesophagectomy, AIIMS-NCI Minimally Invasive Thoracic Surgical Oncology Workshop, 2 March 2023, Delhi-Jhajjhar
15. Haraesh, Bhoriwal S, Video Presentation: Laparoscopic Low anterior Resection, 3rd Indian Cancer Congress, 2-5 November 2023, Mumbai
16. Haraesh, Deo SVS, Video Presentation: Skin-sparing mastectomy with implant reconstruction, 3rd Indian Cancer Congress, 2-5 November 2023, Mumbai
17. Haraesh, Raghuram, Deo SVS, Kumar S, ORAL PAPER: Recurrence patterns of carcinoma gall bladder, 3rd Indian Cancer Congress, 02 November 2023 to 05 November 2023, Mumbai
18. Haraesh, Raghuram, Deo SVS, Kumar S, POSTER: Lymph node involvement as the worst prognostic factor in survival in carcinoma gall bladder, OFCON 2023, 2-3 December 2023, Delhi
19. Haraesh, Kumar S, Kumar N, ORAL PAPER: Role of ICG fluorescence in intraoperative assessment of gastric conduits during oesophagectomies, 3rd Indian Cancer Congress, 2-5 November 2023, Mumbai
20. Kumar N, Mondal A, Bhoriwal S, Pramanik R, Sharma A, Das P, et al., An Analysis Of Exome And Transcriptome For Mutational Landscape Of Squamous Cell Carcinoma Of The Esophagus, JSMO-2024, 22-24 February 2024, Nagoya, Japan
21. Mandal A, Deo SVS, Saikia J, Mishra A, Sharma J, Bhoriwal S, Synthetic Mesh As a Low-Cost Alternative To Acellular Dermal Matrix for Implant-Based Breast Reconstruction-Initial Experience, ABSICON 2023-Annual conference of ABSI, 28-30 July 2023, Ahmedabad

22. Mandal A, Thakur R, Deo SVS, Sharma J, Bhhoriwal S, Mishra A, et al., Low axillary sampling can be replaced by SLNB using Methylene blue in a resource-constrained setting, ABSICON 2023-Annual conference of ABSI, 28-30 July 2023, Ahmedabad
23. Mishra A, Deo SVS, "Modified LICAP Turn-over flap-A simple reconstructive technique for large breast lumpectomy defects in resource constrained environment" titled poster presented in, 3rd Indian Cancer Congress, Mumbai, 2-5 November 2023, Mumbai
24. Mishra A, Deo SVS, Awareness and knowledge regarding Genetic breast cancer in LMIC-A questionnaire-based study of 300 patients, ESMO Breast, Berlin, Germany, 15-16 May 2023, Germany
25. Mishra A, Deo SVS, Pattern of axillary lymph node involvement and scope of post neoadjuvant chemotherapy sentinel lymph node biopsy among breast cancer patients in developing countries, ESMO Breast, Berlin, Germany, 15-16 May 2023, Germany
26. Mishra A, Deo SVS, Ray MD, Bansal B, Prakash R, Khanna S, et al., An Exploratory Study to Identify Circulating Free and Tumor DNA as a Surrogate Markers of Ovarian Cancer-A Novel Approach, Society of Surgical Oncology (SSO-2024), 20-23 March 2024, Atlanta, Georgia (USA)
27. Mishra A, Deo SVS, Ray MD, Bansal B, Prakash R, Khanna S, et al., An Exploratory Study to Identify Circulating Free and Tumor DNA as a Surrogate Markers (IASO-SSO Fellowship Award 2023), 3rd Indian Cancer Congress, Mumbai, 2-5 November 2023, Mumbai
28. Pathak B, Raghuram K, Deo SVS, Kumar S, Bhoriwal S, Sharma A, et al., Oral Paper: Is Incidental gall bladder cancer in endemic region truly incidental? Long-term oncological outcomes of Incidental gall bladder cancer patients following curative resection, OFCON 2023 6th Annual Conference of Oncology Forum, Delhi, 2-3 December 2023, Delhi
29. Pathak B, Sharma J, Deo SVS, Kumar S, Head and Neck Sarcomas: Does Margin Matter? ESMO Sarcoma and Rare Cancers, 14-16 March 2024, Lugano Switzerland
30. Pathak B, Sharma J, Deo SVS, Sunil, Poster: Head and Neck Soft Tissue Sarcoma: Does margin matter? 3rd Indian Cancer Congress, 2-5 November 2023, Mumbai
31. Pathak B, Sharma J, Deo SVS, Sunil, Poster: Predictive Nomogram for Post-Treatment Local Recurrence Risk in Extremity Soft Tissue Sarcoma, ESMO Sarcoma & Rare Cancers Congress 2024, 13-16 March 2024, Lugano, Switzerland
32. Prakash R, Deo SVS, Mishra A, Bansal B, Oral Paper: Comprehensive Study of Clinical Profile, Treatment Patterns and Outcomes of Orbital Tumors Tertiary Care Centre Experience of 112 Cases, 3rd Indian Cancer Congress, 2-5 November 2023, Mumbai
33. Prakash R, Deo SVS, Mishra A, Bhoriwal S, Bansal B, Oral Paper: Re-Operative Surgery for Differentiated Thyroid Cancer Single Center Experience of 194 Cases, 3rd Indian Cancer Congress, 2-5 November 2023, Mumbai
34. Prakash R, Kumar S, Kumar N, Poster: Analysis of Mediastinal Tumours-Operated with CTVS Support - An Institutional Experience, AIIMS-NCI Minimally Invasive Thoracic Surgical Oncology Workshop, 2 March 2023, Delhi-Jhajjhar
35. Ray MD, Bansal B (presenting author), Deo SVS, Premanand, Ravi V, Poster presentation titled 'Effect of Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy on Peripheral FOXP3 Treg and ROR? Th17 Cells in Patients with Ovarian Cancer', PSOGI 2023, 2023, Venice
36. Ray MD, Does CRS+ HIPEC alter the immune tumor microenvironment in advanced Epithelial Ovarian Cancer?-A study on Treg (FOXP3), TH17 (ROR?) cells and interleukins, 13th International Congress on Peritoneal Surface Malignancies, PSOGI-2023, 4-6 October 2023, Venice, Italy
37. Ray MD, Pseudo cytoreductive surgery is a hard reality in advanced ovarian cancer management - Experience from pattern of referral to our tertiary oncology center India, 13th International Congress on Peritoneal Surface Malignancies, PSOGI-2023, 4-6 October 2023, Venice, Italy
38. Ray MD, Sonvane* S, Deo SVS, Premanand, Thilluri H, Patterns and Predictors of recurrence in peritoneal carcinomatosis after Cytoreductive surgery (CRS) and Hyperthermic intraperitoneal chemotherapy: From a from a tertiary care center experience, INDEPSO, 13-15 April 2023, Kolkata
39. Saikia J, Malik P, Jain KS, Madan D, Sachidanand KN, Deo SVS, et al., Is it time to ring an alarm among young adults with NSCLC? A decade of follow up from an Indian cohort? BTOG, Belfast, 2023, 26-28 April 2023, Belfast, UK
40. Sharma J, Deo SVS, Kumar S, Bhoriwal S, Saikia J, Bakhshi S, et al., Pulmonary Metastases in patients with Soft Tissue Sarcomas: Tailoring the Treatment, ICC 2023, 3-5 November 2023, Mumbai

41. Sharma J, Deo SVS, Mishra A, Bhoriwal S, Gogia A, Batra A, et al., Can Neoadjuvant Chemotherapy Improve Breast Conservation Rate in Luminal A Breast Cancer Patients? ICC 2023, 3-5 November 2023, Mumbai
42. Shivani, Jyoutishman, Kumar S, Poster: Impact of COVID-19 on presentation, staging and treatment of lung malignancies in Northern India, OFCON 2023, December 2023, Delhi
43. Shivani, Prathap, Kumar S, Kumar N, Poster: Pulmonary Neuroendocrine Tumors: Surgico-Pathological Characterization and Survival of Patients Treated at Tertiary level Oncology Center in India, Max Cancer Congress, 29 April 2023, Delhi
44. Shivani, Prathap, Kumar S, Kumar N, Poster + Oral Paper: Pulmonary Neuroendocrine Tumors: Surgico-Pathological Characterization and Survival of Patients Treated at Tertiary level Oncology Center in India, AIIMS-NCI Minimally Invasive Thoracic Surgical Oncology Workshop, 2 March 2023, Delhi-Jhajjhar
45. Shwetal, Ray MD, Ashutosh, Raghuram, Does CRS and HIPEC alter the immune tumor microenvironment in advanced epithelial ovarian cancer? A study on TREG(FOXP3), TH17(RORy) Cells and Interleukins, Ofcon Delhi, 3 December 2023, Delhi
46. Singh G, Raghuram K, Deo SVS, Kumar S, Bhoriwal S, Sharma A, et al., Poster: Do All the Gall Bladder Cancer Patients with Stage IV Have Similar Outcomes? and Prognostic Factors Affecting the Survival of Surgically Treated Gall Bladder Cancer Patients, 6th OFCON, 2023, 2-3 December 2023, Delhi
47. Singh G, Deo SVS, Sultania M, Kar M, Muduly D, Kumar S, et al., Poster: Role of metronomic therapy for advanced oral cancers and predictors of response: Multi-institutional feasibility study, 3rd Indian Cancer Congress, 2-5 November 2023, Mumbai
48. Singh G, Deo SVS, Sharma J, Kumar S, Sharma DN, Bhakshi S, Poster: Functional outcomes of extremity soft tissue sarcoma patients who underwent limb salvage surgery at tertiary care cancer center, 9th IMSOS 2023, 9 March 2023, Chennai
49. Singh G, Deo SVS, Sultania M, Anadakar M, Muduly D, Kumar S, Mishra A, Majumdar S, Oral Paper: Role of metronomic therapy for advanced oral cancers and predictors of response: Multi-institutional feasibility study, 6th OFCON, 2023, 2-3 December 2023, Delhi
50. Sonvane S, Chhebi M, Deo SVS, Bhoriwal S, Mishra A, Sharma J, Clinical Outcomes of Infratemporal Fossa Involvement in Oral Cavity Malignancy-Experience from a Tertiary care Institution, IASO Jodhpur, 11-12 December 2022, Jodhpur

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023-2024
26	54	50

RESEARCH

Funded Projects

Ongoing

1. "Understanding the impact of gut microbiome dysbiosis and metabolic alterations in the pathogenesis of early onset (EOCRC) Colorectal Cancer (CRC)", Jyoti Sharma, AIIMS, 2 years, 2021-23, Rs 10,00,000/-
2. A randomized trial comparing neoadjuvant chemotherapy vs upfront surgery and adjuvant chemotherapy for gastric cancer, Sunil Kumar, DST (Multicentric), 3 years, 2022-24, Rs 10 Lakhs
3. Evaluation of peri-operative efficacy of Divya-Cystogrit-Diamond capsules as Immunonutrient in patients with Advanced Ovarian Cancer undergoing Cytoreductive Surgery and HIPEC: A Double-blind Randomized Placebo-controlled Pilot study, Prof M D Ray, Patanjali Research Institute, Haridwar, 2 years, 2023-25, Rs 5,39,000
4. CompletedHBCR & Pattern of care and survival studies in breast, head &neck and cervical cancer, SVS Deo, ICMR, NCDIR, 8 years, 2014, Ongoing, Rs 47,00,000/-/Year
5. Indian Breast Cancer Genome Atlas (An ICGA Project), SVS Deo, CSIR Multi-centric, 3 years, 2023-26, Rs 50 Lacs, Cognitive approach based analysis of genomic information in blood plasma for diagnosis of cancer, Sunil Kumar, IIIT, Delhi, 2 years, 2023-24, 9 Lakhs
6. Pattern of Recurrence and Clinico-Molecular correlation in Relapsed Epithelial Ovarian Cancer patients undergoing Secondary CRS+ HIPEC, Prof MD Ray, ICMR DHR, 3 years, 2023-26, Rs 35,67,858

7. Patterns of Care and Survival Studies on Head & Neck, Breast and cervical cancers under ICMR-National Cancer Registry Programme (NCRP), Sunil Kumar, ICMR, 3 years, 2023-26, Rs 31 Lakhs
8. Pilot study on imaging parameters and metabolomic profiling in breast cancer patients, Dr Jyoti Sharma, AIIMS, New Delhi, 2 years, 2023-25, Rs 15,36,000/-
9. POCSS for PBCR-Head &Neck, Breast and Cervix cancers, SVS Deo, ICMR, NCDIR, 7 years, 2019-23, Rs 200000
10. Role of circulating tumour DNA (Ct-DNA) as a surrogate marker in ovarian cancer - A pilot study, Dr Ashutosh Mishra, AIIMS, 2 years, 2021-24, Rs 10,00,000/-

Completed

1. Comparison of pulmonary metastasis detected with PET-CT vs NCCT chest with surgical pathology, Dr Sunil Kumar, AIIMS, New Delhi, 2 years, 2020-22, On actual cost basis
2. Designing of Self retaining Vascular Forceps, Prof MD Ray, PRISM of DSIR, DST, 1.5 years, 2021-23, Rs 6,00,000/-
3. Oral Cancer Awareness Drive, Prof MD Ray, DST, 1.5 years, 2022-23, Rs 16,95,600/-
4. Patterns of Care and Survival Studies on Gall Bladder Cancer under ICMR-National Cancer Registry Programme (NCRP), Sunil Kumar, ICMR, 5 years, 2019-23, Rs 13 Lacs
5. Predicting the response to neo-adjuvant chemotherapy by analysis of exome and transcriptome in squamous cell carcinoma of esophagus, Dr Sunil Kumar, 4BaseCare, 2 years, 2020-22, On actual cost

Departmental projects (including thesis/dissertations)

Ongoing

1. A comparative prospective clinical observational study in HIPEC vs NIPAC in the management of advanced epithelial ovarian cancer.
2. A Phase II Randomised controlled trial comparing pulmonary complications in retrosternal vs posterior mediastinal gastric conduit placement in patients undergoing Esophagectomy
3. A pilot study to evaluate fluorescence uv imaging for assessment of malignant and potentially malignant disorders in oral cavity and update and analysis of tongue cancer database."
4. A prospective study evaluating the optimal margins in extremity soft tissue sarcomas and ambispective analysis of computerized clinical database of soft tissue sarcomas
5. A Prospective study on microbiome dynamics and gut dysbiosis in early onset colorectal cancer patients And A prospective study on critical anatomical evaluation of sphincter complex in low rectal cancer patients
6. A Prospective study to assess the role of Contrast Enhanced Mammography in evaluation of multifocal and multicentric breast carcinoma in comparison with Conventional Imaging Modalities and Update and analysis of breast cancer.
7. Ambispective study of orbital and salivary gland tumours for clinical profile, surgical management, morbidity and outcome analysis and update and analysis of thyroid cancer database.
8. Comparison of efficacy between neoadjuvant chemotherapy and neoadjuvant concurrent chemoradiation in squamous cell carcinoma esophagus: A pilot randomized control study
9. Comparison of PET-CT and Endobronchial ultrasound with surgical histopathology for Mediastinal nodal staging of Non-small cell lung cancer in patients undergoing surgery
10. Cytoreductive Surgery and HIPEC in Relapsed Epithelial Ovarian Cancer - A Phase III Randomised Control Trial and Descriptive Study to Evaluate Effect of HIPEC in HRD/BRCAWT Genomic Profile
11. Feasibility and Accuracy of SLNB In Primary Epithelial Ovarian Cancer (PEOC) (FIGO Stage I-III)-A Prospective Pilot Study And Retrospective analysis to evaluate the prognostic and predictive significance of Ki-67 and p53 in treated primary advanced epithelial ovarian cancer.
12. Phase 2 randomised controlled trial in operable oral cavity cancer with oral metronomic therapy with surgery vs surgery alone. long with p53 anlaysis of chemotherapeutic response
13. Randomised controlled trial comparing NACTRT vs NACT in SCC esophagus, The feasibility of implementation and compliance of "enhanced recovery after surgery (ERAS)" protocol in cytoreductive surgery (CRS) with Hyperthermic intraperitoneal chemotherapy (HIPEC) at a tertiary care centre - a prospective cohort study and audit and analysis of ovarian cancer database.

Completed

1. A pilot study to assess role of preoperative chemoradiotherapy in locally advanced/recurrent extremity soft tissue sarcoma & audit of soft tissue sarcoma database
2. A study evaluating MIS for colorectal cancer patients and learning basic laboratory techniques of molecular biology for miRNA extraction in colon and rectal cancer patients
3. Ambispective study comparing perioperative outcomes between Hyperthermic Intraperitoneal Chemotherapy (HIPEC) and Early Postoperative Intraperitoneal Chemotherapy (EPIC) with audit and analysis of peritoneal surface malignancy database
4. Feasibility and Accuracy of SLNB In Radiologically Node Negative Primary Advanced Epithelial Ovarian Cancer (PAEOC) (FIGO Stage II-III) - A Prospective Pilot Study and Retrospective Analysis to Evaluate the Prognostic and Predictive Significance of Ki-67 and p53 in treated primary advanced epithelial ovarian cancer.
5. Feasibility study of indocyanine green fluorescence dye for intraoperative assessment of gastric or colonic conduit perfusion in oesophageal cancer surgeries-a prospective validation study and update and analysis of hepatobiliary and pancreatic cancer database
6. Functional recovery and Return to work after Thoracic surgery in patients with Malignant thoracic Diseases: A Prospective study
7. Nomogram for predicting health related quality of life in esophageal cancer patients after esophagectomy
8. Pilot study to evaluate the role of Toluidine Blue Dye and Narrow Band Imaging for assessment of malignant and potentially malignant disorders in oral cavity and update and analysis of Oral Cancer Database
9. Prospective study of in person versus online cancer genetic counseling andAmbispective evaluation of patients undergoing risk reducing surgery.
10. Prospective study on the expression of cancer-testis antigen (CT45) in the patients of advanced epithelial ovarian cancer undergoing Hyperthermic Intraperitoneal Chemotherapy and its correlation with response to platinum based chemotherapy
11. The feasibility of implementation and compliance of “enhanced recovery after surgery (ERAS)” protocol in cytoreductive surgery (CRS) with Hyperthermic intraperitoneal chemotherapy (HIPEC) at a tertiary care centre - a prospective cohort study and audit and analysis of ovarian cancer database.
12. The prevalence of BRCAness related somatic mutations in uterine leiomyosarcoma

Collaborative projects

Ongoing

1. A Pilot Study on the Evaluation of Genetic Predisposition to Breast, Ovarian, and Prostate Cancer in South Asia, Medical Oncology
2. Addition of low dose Pembrolizumab to capecitabine for residual triple negative breast cancer post neoadjuvant chemotherapy: A phase 3 randomized double blinded placebo controlled clinical trial, Medical Oncology, ICMR
3. Addition of_low-dose pembrolizumab to capecitabine for residual triple negative breast cancer post neoadjuvant chemotherapy: An investigator initiated multicentric open labelled phase III randomized controlled clinical trial, Medical Oncology
4. Adherence and compliance to treatment, diet, physical activity, Obesity, alternative medicine for breast cancer patients and correlation with outcome (ACTION), RO, ICMR
5. An integrated metabolomics and lipidomics approach for identifying biomarkers for early diagnosis and histological subtyping of the Non-small cell lung cancer, Department of NMR
6. An investigator-initiated phase II randomized controlled trial of low-dose pembrolizumab in addition to standard neoadjuvant chemotherapy in patients with triple negative breast cancer, Medical Oncology
7. DBT-AIIMS-partnership Clinical & Translational Research Centre at NCI campus, Biochemistry
8. Elucidation of the role of long non-coding RNA-Ginir as a biomarker in lung tumorigenesis, Department of Medical Oncology
9. Establishing A Hereditary Breast-Ovarian Cancer (HBOC) Registry and Germline DNA Repository At AIIMS, New Delhi, Medical Oncology
10. Establishing a Registry and Germline DNA Repository of Breast and Ovarian Cancers with Hereditary Predisposition at AIIMS New Delhi, Medical Oncology

11. Evaluation of regulation of programmed death-ligand 1 (PD-L1) expression by microRNA in lung cancer, Department of Medical Oncology
12. Genome wide analysis of microRNA mediated regulation of Cancer Testis Antigen POTE in Triple Negative Breast Cancer, Biochemistry, DBT
13. Identification of Lipid Based Biomarkers as a potential tool for diagnosis and prognosis of breast cancer and their clinic-pathological correlation, Amity
14. Indian Breast Cancer Genome Atlas (IBCGA)-A Multicentric Study, CSIR-IBIG
15. Metformin with neoadjuvant chemotherapy in localised Triple negative and Her2 neu positive breast cancer-a prospective investigator initiated phase-2 open label randomized controlled trial, Medical Oncology
16. Molecular and Genetic Analysis of TNBC, Department of Pathology
17. Paired targeted genomic profiling of triple negative breast cancer to understand the mechanisms of chemoresistance and develop novel treatment targets, Medical Oncology
18. Predicting the response to neo-adjuvant chemotherapy by analysis of exome and transcriptome in squamous cell carcinoma of esophagus, Surgical oncology, medical oncology, Pathology
19. Prevalence and Association of Microsatellite Instability and Lynch Syndrome Pan-cancer and Development of a Personalised Cancer Risk Prediction Tool for Lynch Syndrome Carriers in India, Medical Oncology
20. Prostate, Head & Neck Cancer Screening in Geographic areas near NCI-AIIMS, Preventive Oncology
21. Role of R2TP Complex in Thyroid Cancer, Pathology
22. To determine the Immunogenic potency of Prostate, Ovary, Testis, and Embryo (POTE) family members in ovarian cancer, Biochemistry
23. Tumour Immune Microenvironment of follicular cell derived carcinomas across different grades utilizing gene expression and spatial proteomic profiling, Pathology

Collaborative projects

Completed

1. 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, Department of Onco-Anesthesia
2. Outcomes of Metastatic Colorectal cancers over 15 years-experience from tertiary care centre, Department of Medical Oncology

Research over past 3 years

Research Projects	2021–2022	2022–2023	2023–2024
Total funded projects	11	11	10
Total fund	16590480	Rs 24990480	21542000

PUBLICATIONS

Total Publications: 57;

Journal articles: 44; Chapters in Books: 8; Books: 1; Abstracts: 4

Publications over past 3 years

Item	2021–2022	2022–2023	2023-2024
Journal articles	27	33	44
Chapters in books	2	1	8
Books	1	7	1
Abstracts			4
Total	30	41	57

PATIENT CARE

Facilities available in the Department:

1. Inpatient Beds 45 (BRA-IRCH) & 64 (NCI)
2. Major Operation theaters – 4 (IRCH) & 3 (NCI)
3. Endoscopy and Minor OT Complex – 1 each at IRCH and NCI
4. MDT Organ Based Special Clinics and OPDs (10 each at IRCH and NCI)

Special Advanced Oncology Programs

1. Thoracic oncology clinic
2. Hepato-biliary and pancreatic clinic
3. Peritoneal Surface Malignancy & HIPEC program
4. Minimally Invasive Surgical Oncology Program
5. Cancer Genetics and Risk reducing Surgery Program
6. Palliative Surgical Oncology Program
7. Navigational surgery (ICG)
8. Oncoplasty and Reconstructive Oncology program

Census (Patient Care Services)

Item	2023-2024		
	IRCH	NCI	Total
OPD consultations	28920	16504	45424
Total Number of Major Surgeries	1474	1162	2636
Total number of endoscopies & Minor surgeries/ Procedures	2022	8115	10137

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor SVS Deo was appointed as member AIIMs-DHR ICMR – policy for faculty innovation and entrepreneurship; Appointed Member Lancet Oncology Commission – Cancer Surgery; awarded Rolling Stone Award – IDEPSO & ISPSM; gave oration at NASOCOM and Delhi – IAPM; signed MoU with Society of Surgical Oncology (USA) as IASO President; signed MoU with Brazilian Society of Surgical Oncology as IASO President; Elected as President of Indian Association of Surgical Oncology; was elected as President of "Association of Breast Surgeons of India"; elected as EC member Oncology forum; was elected as Member Scientific Committee "Breast Surgery International", Switzerland; was elected as President "Indian Society of Peritoneal Surface Malignancies"; was elected as President "NCR oncology forum".

Dr Ashutosh Mishra was elected as Editorial Secretary, Indian Association of Surgical Oncology; Elected as Digital Secretary, Indian Association of Surgical Oncology; elected as Executive member Association of Breast Surgeons of India; elected as Executive Member and UICC Coordinator, Oncology Forum, Delhi; selected as Member Abstract Review Committee 2024-UICC, Geneva; appointed as Board of Directors-Breastics 24; nominated as Associate editor-Annals of Breast Diseases; participated as invited guest in Worlds Cancer Leaders Summit (UICC), California.

Community Service

Professor Sunil Kumar is providing free cancer care services and student awareness for Cancer in Bihar & Jharkhand through an NGO, Chandrakanti Devi Cancer Foundation; has provided services as Surgical Oncologist as a part of the AIIMS team providing clinical care and personal training in Leh (Laddakh) through Ashoka Mission, September 2023.

TRANSFUSION MEDICINE

Associate Professor
Diptiranjan Rout

HIGHLIGHTS

The centre is committed to promoting voluntary blood donations to ensure safe blood for all. Over the past year, the center has conducted **320 outdoor voluntary blood donation drives** with an average of 50+ voluntary blood donations per day, rendering *replacement donation free transfusion services* at NCI for all the cancer patients.

The center has successfully commissioned a molecular biology lab at the blood center to carry out molecular immunohematology work-ups like Blood group genomics, mutation analysis and lymphocytic and thrombocyte antigenic typing due to which a small pool of typed voluntary blood donors dedicated to plateletpheresis have been reserved for cancer patients with platelet refractoriness at NCI as the need arises.

To encourage the community support for fostering our commitment, the center felicitated 20 of our esteemed voluntary blood donor organizers on the 5th NCI Foundation Day on 12 February 2024.



EDUCATION

Postgraduate teaching for MD (Transfusion Medicine) students.

Lectures delivered: 2

Diptiranjan Rout: 2

Diptiranjan Rout

1. Common misconceptions and barriers to Voluntary blood donation, CME on Blood Transfusion Services and Safe Practices, 1 October 2023, Delhi Cantt, New Delhi
2. Role of automation in the evolution of first paperless Blood Center in India, Transmedcon 2023, 3 November 2023, Chandigarh

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
0	3	2

Oral papers/posters presented: 2

1. Rout D, P005: Assessment of the environmental and financial impact of the implementation of automation in blood component separation, 34th Regional Congress of the ISBT, 18-21 November 2023, Cape Town, South Africa
2. Rout D, P007: Workload Indicators of Staffing Needs (WISN) tool for calculating the manpower requirement of an Indian Blood Center, 33rd Regional Congress of the ISBT, 18-20 June 2023, Gothenburg, Sweden

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
8	4	2

RESEARCH

Funded projects

Completed

1. Exploratory study for prediction of an association of clinically significant blood group antigenic allelic polymorphism with development of alloimmunization in Thalassemia patients, Diptiranjan Rout, AIIMS, 2 years, 2021-23, Rs 5 Lakhs

Departmental projects (including thesis/dissertations)

1. Assessment of platelet storage lesion and aggregability of platelets derived from euglycemic healthy diabetic blood donors

Collaborative projects

Ongoing

1. Molecular insights into the tumor niche of Indian triple negative Breast cancer patients and map genes associated with local, regional, and systemic disease progression, Radiation Oncology
2. The SWOAR Trial: A Phase III trial evaluating sparing of swallowing and aspiration related organs at risk and submandibular gland with Intensity modulated radiotherapy versus standard IMRT in Head and neck squamous cell carcinomas, Radiation Oncology

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	0	0	1
Total funding	0	0	Rs 5 Lakhs

PUBLICATIONS

Total Publications: 1;

Journal article: 1

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**0**	**1**	**1**
Journal articles	0	0	1
Abstracts	0	0	0
Chapters in books	0	1	0
Books	0	0	0

PATIENT CARE

Facilities available in the department (including special clinics and/or special laboratory facilities)

The centre provides round-the-clock transfusion services to all the patients with leukoreduced blood components as a standard of care. Following are the routine facilities available at the centre:

1. Walk-in voluntary donation facility.
2. Mobile Blood donation van for outdoor donation drives.
3. 24 x 7 blood component issue facility.
4. Automated Blood Component Separation facility.
5. Automated Immunohaematology by serology and advanced molecular techniques.
6. Automated Infection screening facility by serology and molecular techniques.
7. Quality control facility for blood components.
8. Walk-in Cold storage facility (4°C and 30°C) for blood components.
9. Irradiation facility (100% irradiated platelets and need based irradiated cellular products).
10. Clinically significant rare blood group antigen typing facility.

Community services/camps, etc.

The centre is driven forward with the mission to ensure "Safe Blood For All". The centre conducts numerous voluntary donation drives in collaboration with various local organisation and social workers to collect blood units through voluntary activities. The last few years have witnessed a surge in the number of such drives, thus, facilitating better and safer transfusion services to all the cancer patients in NCI.

Item	2021-22	2022-23	2023-24
Camps conducted	3	187	320

Patient care

Item	2021-22	2022-23	2023-24
Total Donations	1723	11391	20219
Voluntary Donations	426 (24.72%)	10711 (94.03%)	20183 (99.82%)
Replacement Donations	1297 (75.28%)	680 (5.97%)	36 (0.18%)
Total crossmatches and Issues	3137	16949	29521
Total patients catered	865	2681	3176
Blood Components prepared and discarded			
LR-PRBC + FFP + PC	5169	34173	60657
Surplus plasma supply for fractionation	131.98 Liters	2005.7 Liters	2852.7 Liters
Total unit discard (Reactive units) (%)	70 (4.06)	422 (3.70)	867 (4.28)
Total unit discard (Undercollected units) (%)	40 (2.32)	119 (1.04)	171 (0.84)
Total component discard (RCC/ Lipemia) (%)	33 (0.63)	109 (0.31)	221 (0.35)
Total component discard (Leak/ Break) (%)	7 (0.13)	62 (0.17)	108 (0.17)
Total component discard (QC fail) (%)	4 (0.07)	25 (0.07)	49 (0.08)
Total component discard (Expiry) (%)	125 (2.41)	18 (0.05)	19 (0.03)

Transfusion Transmissible Infection (HIV, HBV, HCV, Syphilis, Malaria) Screening Tests			
Chemiluminescence	8615	56955	101095
NAT	5169	34173	60657
HIV (%)	3 (0.17)	27 (0.23)	90 (0.44)
HBV (%)	26 (1.50)	132 (1.15)	271 (1.34)
HCV (%)	15 (0.87)	114 (1.00)	183 (0.90)
Syphilis (%)	24 (1.39)	134 (1.17)	269 (1.33)
Malaria (%)	0 (0)	0 (0)	0 (0)
NAT Reactive (%)	2 (0.11)	15 (0.13)	53 (0.26)
Immunohaematology (Routine-Advanced-Molecular)			
ABO Blood grouping, Antibody Screening for donors	3446	22782	40438
Extended Rh [Cc/Ee]-Kell Phenotyping for donors	0	14695	101095
Minor Blood group antigen typing for donors	0	0	1800
ABO Blood grouping, Antibody Screening for patients	1702	12600	16066
Extended Rh [Cc/Ee]-Kell Phenotyping for patients	0	11810	11115
Minor Blood group antigen typing for patients	0	0	948
Antibody Screening of patients	2295	3745	6419
Leucocytic antigen typing by SSP method	0	0	73
Leucocytic antigen typing by SSOP method	0	0	70
Molecular resolution of Blood group discrepancy	0	0	14

UROLOGY

Assistant Professors

Sridhar P Prashant Singh

HIGHLIGHTS

The Urology department at NCI Jhajjar campus offers comprehensive cancer care for patients diagnosed with genitourinary malignancies. Our services cover a wide range of organs such as the kidneys, ureters, urinary bladder, prostate, testes, adrenal, urethra and genitalia. The department focuses on early detection through advanced screening methods, accurate diagnosis, and employs state-of-the-art surgical techniques, including advanced endourological and laparoscopic approaches aimed at enhancing oncological outcomes and patients' quality of life. Currently the department comprises two faculty members and runs weekly two OPDs (on Wednesdays and Fridays). Additionally, it runs four dedicated uro-oncology operation theatres every week. Notably, there has been a significant increase of 2.5 times in the influx of patients visiting the outpatient department of Urology compared to the previous year.

EDUCATION

The faculty members of the department actively participated in and delivered lectures in continuing medical education programs during the year 2023-2024. The faculties of the department catered lectures to both undergraduate and nursing students (BSc and MSc). Further, the department provided comprehensive training for postgraduates pursuing MCh in Urology as well as post M.Ch fellows specializing in minimally invasive urology (laparoscopy and robotics) and uro-

oncology to enhance their skills in a wide range of urological cancers on a monthly rotational-basis from the main department at New, Delhi AIIMS.

Lectures delivered: 1

Sridhar P: 1

Sridhar P

1. Postoperative sepsis-Definitions, Epidemiology, Risk factors and Diagnosis, USI-ISU Smart Learning Program, 12 March 2024, New Delhi

Oral papers/posters presented: 1

1. Singh P, Sanjay K, Kumar R, Das CJ, Kaushal S, Seth A, Is there a need for pelvic lymph node dissection in patients with localized prostate cancer who have negative lymph node findings on pre-operative ^{68}Ga-PSMA-PET/CT? Indian American Urological Association Annual meeting**,** 28 April 2023**,** Chicago, USA[1]

RESEARCH

Departmental projects (including thesis/dissertations)

Ongoing

1. Lymphorrhea after lymphatic ligation with titanium clips versus ultrasonic dissector during radical cystectomy: A prospective, double-blinded, randomized trial
2. Outcome of guideline directed pre-operative prophylactic single dose/day vs extended prophylactic antibiotics for urological surgeries: A Randomized controlled study
3. Prediction of bladder cancer histopathology by surgeon during TURBT and its correlation with imaging and final histopathology

Completed

1. Effect of Androgen Deprivation Therapy on Cardiovascular Function in Patients with Advanced Carcinoma Prostate: A Prospective Cohort Study
2. Immediate second resection versus re-stage transurethral resection of bladder tumor: a randomized, noninferiority, pilot trial

Collaborative projects

Ongoing

1. Understanding the role of circular RNAs in prostate cancer progression, Reproductive Biology, AIIMS, New Delhi

Completed

1. Studying the effects of miRNAs on RASSF1A modulation in Urothelial Carcinoma of Bladder, Biochemistry, AIIMS, New Delhi

Publications

Total Publications: 12;

Journal articles: 8; Abstracts : 1; Chapters in Books: 2; Books: 1

Item	2023-2024
Total	**12**
Journal articles	8
Abstracts	1
Chapters in books	2
Books	1

PATIENT CARE:

Item	2021-2022	2022-2023	2023-2024
OPD consultations			
• New cases	-	328	481
• Follow-up cases	-	630	1988
OT Procedures	185	412	332
Total in-patient admissions			
• Admissions			394
• Discharges			397

Details of Surgical Procedures: 332

Open surgery*:*

Radical nephrectomy	1
Radical cystectomy + ileal conduit	7
Nephrectomy + Radical cystectomy + ureterostomy	3
Partial penectomy	5
Total penectomy	2
High inguinal orchidectomy	8
B/L orchidectomy	19
Wedge biopsy of penis	2
Open Cystolithotomy	1
Urethral caruncle excision	1

Laparoscopic:

Radical nephrectomy	5

Endourology:

TURBT	219
CPE/RGP/DJS/DJR	56

USG guided procedures:

PCN insertion	1
SPC insertion	1

Prostate biopsies:

Finger guided	1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Sridhar P received (in July 2023) "Best Paper Award of the year 2022" by the Asian Journal of Urology for his paper titled '*Nerve-sparing robot-assisted radical prostatectomy: Current perspectives'* [doi: 10.1016/j.ajur. 2020 May 2012].

Dr Prashant Singh, secured second prize for the best poster session at the Indian American Urological Association Annual meeting in April 2023, hosted in Chicago, USA.

9.23 Nuclear Magnetic Resonance

Professor and Head

Rama Jayasundar

Professors

S Senthil Kumaran | Uma Sharma | Virendra Kumar

Scientists

Sujeet Kumar Mewar | Pawan Kumar | Dushyant Kumar

HIGHLIGHTS

The clinical MRI facility is functioning 24x7, with two 3 Tesla MRI and one 1.5 Tesla MRI machine. A total of 14387 MRI scans of patients were carried out from April 2023 to March 2024. The department organized "The 5th Annual Scientific Meeting of the Asian Society of Magnetic Resonance in Medicine: Quantitative MR Imaging & AI (ASMRM 2023)" conference from August 25 to 27, 2023. The department was part of the organizing committee of "The 2nd ISMRM Workshop on Accessible MRI", 16 to 18 February 2024, INSA, New Delhi

EDUCATION

The faculty and scientists participated and delivered lectures for courses titled "Course 10: Structural Biology and NMR Technology", "Course 11: Bioinformatics and Molecular Medicine", of M Biotech programme of the Department of Biotechnology, AIIMS; M.B.B.S. Course Third Semester and MD Physiology Course.

International Conference

1. The 5th Annual Scientific Meeting of the Asian Society of Magnetic Resonance in Medicine, 25-27 August 2023, New Delhi, India.

Lectures delivered: 30

Rama Jayasundar: 26 **S Senthil Kumaran: 2** **Uma Sharma: 2**

Lectures delivered over past 3 years

2021–2022	2022–2023	2023-2024
24	20	26
4	5	2
3	0	2
0	0	0

Oral papers/posters presented: 40

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023-2024
17	24	40

RESEARCH

Funded projects

Ongoing

1. An integrated metabolomics and lipidomics approach for identifying biomarkers for early diagnosis and histological subtyping of the Non-Small-Cell-Lung Cancer, Uma Sharma, ICMR, Govt. of India, 3 Years, 2024-27, Rs 100.67 Lakhs
2. Elucidating pathophysiology of rheumatoid arthritis and identification of biomarkers of response using metabolomics and proteomics, Uma Sharma, ICMR, Govt. of India, 3 Years, 2021-24, Rs 44.23 Lakhs
3. Elucidating the structural, neurobiological changes and identification of non-invasive biomarkers using magnetic resonance imaging and spectroscopy in major depressive disorder, Uma Sharma, SERB, Govt. of India, 3 Years, 2020-23, Rs 33.08 Lakhs
4. Exploring Auditory Perception in House Crows using Functional Magnetic Resonance Imaging and Neuroanatomical Techniques, S. Senthil Kumaran, SERB, Govt. of India, 4 Years, 2020-24, Rs 36.42 Lakhs
5. Exploring cognition and numeracy skills in financial decision making in neurodegenerative disorders using MR techniques, and the effect of Transcranial Direct Stimulation (IDCS) on improvement of cognitive functions, S. Senthil Kumaran, DHR, Govt. of India, 3 Years, 2023-26, Rs 18.78 Lakhs
6. Identification of Metabolic Biomarkers by using Metabolomics and Metagenomics of Prostate Cancer Associated Microbiome to Distinguish Aggressive Prostate Cancer, Virendra Kumar, DHR, Govt. of India, 3 Years, 2022-25, Rs 55.5 Lakhs
7. Identification of prognostic and diagnostic biomarkers in Parkinson's Disease (with juvenile/young onset) using deep learning methods, S. Senthil Kumaran, DHR, Govt. of India, 1 year, 2022-23, Rs 37.40 Lakhs
8. Immunomodulatory effects, protease inhibitory activity and spectroscopic characterisation of select ayurvedic prophylactics and formulations: In vitro studies for novel SARS CoV infections, Rama Jayasundar, Ministry of AYUSH, Govt. of India, 2.5 Years, 2021-24, Rs 67.69 Lakhs
9. Metabolic profiling of prostate cancer to identify biomarkers using Nuclear Magnetic Resonance Spectroscopy and Mass spectrometry, Sujeet Kumar Mewar, AIIMS New Delhi, 2 Years, 2023-24, Rs 8.2 Lakhs
10. Metabolomic fingerprinting to identify serum metabolites in patients with heart valve diseases using 1HNMR spectroscopy, Pawan Kumar, AIIMS New Delhi, 2 Years, 2022-24, Rs 8.2 Lakhs
11. Scientific validation of ayurvedic concepts of guna and anupana by studying its interplay with NMR phytometabolomics and permeability analyses in intestinal and liver cells, Rama Jayasundar, ICMR, Govt. of India, 3 years, 2022-25, Rs. 23 Lakhs

Completed (2022-2023): None

Research projects over past 3 years

Research projects	2021–2022	2022–2023	2023-2024
Total funded projects	8	9	11
Total funding (In Lakhs)	289.93	324.3	433.17

Departmental projects

Ongoing

1. A Study of pathophysiology of rheumatoid arthritis and identification of biomarkers of response using Metabolomics and Proteomics
2. Brain functional changes and metabolic alterations in spinocerebellar ataxia
3. Development of neuro-vascular coupled computational modelling in stroke using multimodal imaging
4. Development of novel Prognostic Biomarkers for Renal Cancer

5. Exploring neuroimaging and metabolomic markers associated with opioid dependence and pharmacotherapy
6. Investigating the Pathophysiology of Treatment-Resistant Schizophrenia Using Multi-Parametric Magnetic Resonance Approaches and Metabolomics
7. Metabolomic NMR fingerprinting of blood to identify metastases of prostate cancer
8. MR and other techniques based on phenotyping and correlation with Prakriti type in healthy population
9. Neuromodulation-Induced Metabolic and Morphological Alterations in an Experimental Model of Parkinson's Disease: An MR Investigation
10. NMR metabolomics and pharmacological assays for functional signatures of medicinal plants used in Ayurveda
11. Understanding the structural and neurobiological changes in patients with major depressive disorder using magnetic resonance imaging and spectroscopy

Completed

1. NMR phytometabolomics and analysis of chemosensory signatures of select ayurvedic medicinal plants
2. NMR spectroscopic analysis and anticancer evaluation of select ayurvedic polyherbal formulations
3. Role of Magnetic Resonance in assessing therapeutic efficacy of Ayurvedic and yoga interventions in stroke

Collaborative Projects

Ongoing

1. Analysis of anti-neurotoxicity of amyloid beta in Alzheimers (AD) disease pathology targeting lipooxygenases, Department of Biophysics, AIIMS, New Delhi
2. Assessment of neuroprotective potential of safinamide treatment in animal model of Ischemic stroke, Department of Pharmacology, AIIMS, New Delhi
3. EEG cortical sources and connectivity of working memory and language processing in attention deficit hyperactivity disorder, Department of Physiology, AIIMS, New Delhi
4. Efficacy of repetitive Transcranial Magnetic Stimulation in children and adolescents (5-18 years) with generalized dystonia: A randomized sham-controlled trial, Department of Pediatrics, AIIMS, New Delhi
5. Evaluation of decanoic acid in ischemia-reperfusion injury in middle cerebral artery occlusion model of stroke in rats, Department of Pharmacology, AIIMS, New Delhi
6. Evaluation of the effect of safinamide on microglial polarization shift in permanent and transient models of acute ischemic stroke in rats, Department of Pharmacology, AIIMS, New Delhi
7. Functional MRI and October Angiography changes pre and post-occlusion therapy in Anisometropic Amblyopia, Dr RPC Ophthalmic Sciences, AIIMS, New Delhi
8. Gene Expression Profiling by RNA Seq. and Metabolomic Signatures in post-COVID Pulmonary Fibrosis, Department of Physiology, AIIMS, New Delhi
9. Immunomodulatory effects, protease inhibitory activity and spectroscopic characterisation of select ayurvedic prophylactics and formulations: In vitro studies for novel SARS Cov infection, Department of Biochemistry, AIIMS, New Delhi
10. Modulation of AMPA receptor: Effect on post-stroke damage after focal cerebral ischemia reperfusion injury in rats, Department of Pharmacology, AIIMS, New Delhi
11. Multimodal evaluation of neural network and neuroinflammatory nexus of Electrical status epilepticus in sleep (ESES) in children, Department of Pediatrics, AIIMS, New Delhi
12. NMR phytometabolomics and studies of chemosensory signature of ayurvedic medicinal plants, Department of Ocular Harmacology and Pharmacy, AIIMS, New Delhi
13. Quantitative analysis of MR images for Characterization and Diagnostic Assessment of Prostate cancer, Biomedical Engineering, IIT, Delhi

14. Role of advanced MRI in the prognostication of urinary bladder cancer, Department of Radiodiagnosis, AIIMS, New Delhi
15. Scientific validation of ayurvedic concept of guna and anupana by studying its interplay with NMR Phytometabolomics and permeability analysis in intestinal and liver cells, Department of Biochemistry, AIIMS, New Delhi
16. Serum and Saliva Metabolomic Profiling and Identification of Potential Biomarkers in Periodontitis by Nuclear Magnetic Resonance Spectroscopy, Center for Dental Education and Research (CDER), AIIMS, New Delhi
17. Serum Metabolomics Profiling and Identification of Potential Biomarkers in Periodontitis by Nuclear Magnetic Resonance Spectroscopy, Center for Dental Education and Research (CDER), AIIMS, New Delhi
18. Study of vaginal microbiome and metabolome in women with bacterial vaginosis (BV) and healthy controls, Department of Dermatology, AIIMS, New Delhi
19. Synthesis & characterization of manganese ferrite nanoparticle for T2 contrast agent for high field MRI, Jawaharlal Nehru University, New Delhi.
20. To evaluate the role of donor and recipient blood metabolomics in the monitoring and prognostication of pediatric patients undergoing hematopoietic stem cell transplantation, Department of Pediatrics, AIIMS, New Delhi

Completed

1. Elucidating the pathobiology of classical ayurvedic interventions in post-stroke recovery using Magnetic Resonance and other technique-based structural, functional and chemical, biomarkers, Department of Neurology, Department of Neuroradiology, AIIMS, New Delhi
2. Role of advanced ultrasound and advanced MRI in evaluation of prostate cancer, Department of Radiodiagnosis, AIIMS, New Delhi.
3. Spectroscopic analysis of medicinal plants for standardization and quality assessment, Department of Ocular Pharmacology and Pharmacy, AIIMS, New Delhi

PUBLICATIONS

Journals: 18

Publications over past 3 years

Item	2021–2022	2022–2023	2023-2024
Total			
Journal articles	27	14	18
Abstracts	1	0	0
Chapters in books	2	1	0
Books	0	0	0

Students/Trainees registered in the Department past 3 years

Students/Trainees	2021–2022	2022–2023	2023-2024
Students/Trainees	8	11	11

PATIENT CARE

The department has three MRI scanners (two 3.0 Tesla and one 1.5 Tesla scanners) for patient care and research. The department provides continuous patient care MRI (24x7) services. The details of the number of patients scanned during the period April 2023 to March 2024 are:

Clinical Diagnostic MRI Scan - 14387 patients

Item	2021–2022	2022–2023	2023-2024
Clinical MRI Diagnostic Scans	6604 patients	11884 patients	14387 patients

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rama Jayasundar was Nominated member of the S20 (Science Forum) of G20, Govt. of India; Nominated member of the Traditional Medicine Group of G20, Govt. of India; Adjunct Professor Post in Koita Centre for Digital Health, IIT Bombay; Nominated member of the Curricular Area Groups, NCERT, Ministry of Education, Govt. of India; Nominated Chairperson for the committee on Neuroimaging Facility, NBRC, Manesar; Selected for a filmed on-camera interview on IKS for AICTE, Ministry of Education, Govt. of India; Felicitation by MP Council of Science & Technology, Govt of Madhya Pradesh for contributions to the field of Biomedical MR and Scientific Research in Ayurveda.; Government of India's Nominee to Governing Body of National Council of Science Museums (NCSM); Government of India's Nominee as Chairperson of the Executive Committee of Northern Zone of NCSM; Honourable President of India's nominee for selection committee at Department of Biosciences & Bioengineering, IIT Bombay; Honourable President of India's nominee for selection committee at the Department of Biomedical Engineering, IIT, Hyderabad; Nominated member of the Scientific Advisory Committee, International Research Institute of Ayurveda, Government of Kerala.; Nominated member of the Scientific Advisory Committee, NBRC, Manesar.; Nominated Adjunct Professor in the Department of Heritage and Technology, IIT, Hyderabad.; Nominated member of the Madhya Pradesh Ayurveda Task Force, Government of Madhya Pradesh; Honorary Vice-President of Shakti, which works for the empowerment of women through Science and Technology.; Nominated Governing Body member, National Institute of Technology, Jamshedpur, MHRD, Government of India; Nominated member of the Society of the Indian Institute of Advanced Study, Ministry of Education; Nominated Governing Body member of the Forum on Indian Traditional Medicine by Research and Information System, Ministry of External Affairs; Nominated member of the Academic Council for Annual Refresher Program in Teaching Course in History of Indian Science and Technology, Jawaharlal Nehru University.; Reviewer for (i) J Medical Physics, (ii) J BioSciences, (iii) Food Biophysics, (v) Biomed J, (vi) J Ayu Integ Med, (vii) J Comp Med Res, (xiii) PLOS one; Twenty invited/keynote lectures.

Professor S Senthil Kumaran was President, ISMRM Indian Chapter.

Professor Uma Sharma was AIIMS Excellence Research Award 2022; Editorial Board panel of Current Metabolomics and Systems Biology, Bentham Science and World Journal of Gastroenterology; Reviewer for Journals: Scientific Reports, Journal for Magn. Reson Imaging, Frontiers in Neurosciences, Biochemistry and Biophysics Report, NMR in Biomedicine, PLOS ONE, Frontiers in Neurology; Thesis examiner for Delhi University.

Professor Virendra Kumar was 2023 Stanford-Elsevier List of World's Top 2% Scientists; External Expert, Board of Studies (BoS), Department of Bio-Science, Manipal University, Jaipur; Reviewer for Journals: Scientific Reports, Springer Nature; Cancer Imaging, Springer Nature; Computers in Biology and Medicine, Elsevier; PLOS One; IEEE Access; BMC Urology; Frontiers in Oncology.

9.24 Nuclear Medicine

Professor and Head
CS Bal

Professors
Rakesh Kumar
Chetan D Patel (CNC)
Madhavi Tripathi
Anil K Pandey (Medical Physics)

Additional Professors
Nishikant A Damle
Shamim A Shamim

Associate Professor
Bangkim Chandra Khangemam

Highlights

The Department of Nuclear Medicine at the All India Institute of Medical Sciences (AIIMS), New Delhi, is renowned for its excellence and innovation in medical imaging and therapeutics. Over the years, it has achieved remarkable milestones, making significant contributions to patient care, education, and research.

At the heart of its success is its cutting-edge infrastructure and advanced imaging technologies. Equipped with state-of-the-art SPECT-CT and PET-CT scanners, the department offers a wide range of diagnostic and therapeutic services, enabling precise imaging and localization of diseases like cancer, cardiovascular disorders, and neurological conditions. This leads to accurate diagnosis and personalized treatment plans.

In addition, the department is a leader in medical education and training. It runs specialized training programs for postgraduate students pursuing MD degrees in Nuclear Medicine (24 in number) and MSc degrees in Nuclear Medicine Technology (30 in number). Through rigorous academic curriculum and hands-on clinical experience, it shapes the next generation of nuclear medicine professionals, ensuring high standards of patient care and research excellence. Notably, it pioneer in Therapeutic Nuclear Medicine and produces experts in therapeutic procedures through its DM program (11 in number), the first of its kind globally. A robust PhD program ensures the development of future medical researchers in radioisotope technologies.

The department's research contributions are equally impressive, with 107 peer-reviewed publications and 63 published abstracts in national and international journals. Its research spans various topics, from developing novel radiotracers and imaging techniques to conducting clinical studies exploring nuclear medicine's role in different disease conditions. These efforts deepen our understanding of disease mechanisms and pave the way for innovative diagnostic and therapeutic approaches. Notably, the department's work is recognized on the cover pages of prestigious international journals like "THYROID" (ATA Official Journal) and JNMMI (Society of Nuclear Medicine, North America).

Moreover, the department's Nuclear Medicine division at the Cardiothoracic Centre specializes in diagnostic nuclear cardiology procedures. The upgrade to a dedicated cardiac CZT camera in August 2023, ensures high-quality imaging for myocardial perfusion assessment and other cardiac studies. Collaborating in multinational projects like the "Transthyretin Amyloid Cardiomyopathy study (iTAC study)" and the "International Study on Imaging in Cardio-Oncology Study (iCOS)", funded by the International Atomic Energy Agency, Austria, further underscores its global impact.

In conclusion, the Department of Nuclear Medicine at AIIMS, New Delhi, stands as a beacon of excellence in patient care, education, and research. With its commitment to innovation and collaboration, it continues to advance the field of nuclear medicine, making significant contributions to healthcare both nationally and internationally.

Special Mention

In recognition of seminal work in the field of Therapeutic Nuclear Medicine Professor Dr CS Bal has been elected as a fellow of Indian National Science Academy (INSA) and awarded a fellowship of Indian Thyroid Society (ITS).

Lectures delivered: 64

CS Bal: 9	**Rakesh Kumar: 26**	**Chetan D Patel: 7**
Anil K Pandey: 3	**Madhavi Tripathy: 5**	**Nishikant A Damle: 6**
Shamim A Shamim: 4	**Bangkim Chandra Khangemam: 1**	

Lectures delivered over past 3 years

2021–2022	2022–2023	2023-24
24	33	61

Oral papers/posters presented: 43

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023-24
29	61	43

RESEARCH

Funded projects

Ongoing

1. A Prospective, Randomized, Controlled, Open-label, Multicenter Trial to Evaluate Efficacy, Safety and Patient-reported Outcomes of Peptide Receptor Radionuclide Therapy (PRRT) with Lutetium (177Lu) Edotreotide compared to Best Standard of Care in Patients with Well-differentiated Aggressive Grade 2 and Grade 3, Somatostatin Receptor? positive (SSTR+), Neuroendocrine Tumors of Gastro Enteric or Pancreatic Origin (COMPOSE), Dr CS Bal, ITM, 4 Years, 2021 to Ongoing, Rs 12 Lakhs
2. A randomized, double-blinded, placebo-controlled phase III study to evaluate the efficacy and safety of dabrafenib plus trametinib in previously treated patients with locally advanced or metastatic, radioactive iodine refractory BRAFV600E mutation-positive differentiated thyroid cancer. 2022 to ongoing, Dr CS Bal, NOVARTIS, 5 Years, 2022-ongoing, Rs 1.5 Lakhs
3. Clinical efficacy of 177Lu-FAPi radioligand therapy in metastatic Breast Cancer (mBC) patients, refractory to other conventional treatments (ICMR funded project), Dr Shamim A Shamim, ICMR, 3 Years, 2024-27, Rs 59 Lakhs
4. Comparison of Alpha Emitting 225Ac-DOTATATE Versus Beta Emitting 177Lu-DOTATATE Therapy in Advanced End-stage Gastroenteropancreatic Neuroendocrine Tumor (GEP-NET) Patients, Dr CS Bal, ICMR-ICRC, 5 Years, 2020-24, Rs 150 Lakhs
5. Comparison of Re-188-HDD Lipiodol Transarterial Radionuclide Therapy (TART) with Re-188-DEDC Lipiodol TART in the Management of advanced Hepatocellular Carcinoma: A Randomized control trial, Dr Shamim A Shamim, ICMR, 5 Years, 2019-24, Rs 47,56,910/-
6. Diagnostic Accuracy of 68GaPSMA-11 PET/CT and Conventional Imaging for Initial Staging of Intermediate and High-risk Prostate Cancer Patients (the PROCA Study)" funded by the ', Dr Rakesh Kumar, International Atomic Energy Agency (IAEA), Vienna, Austria, 2022-25
7. Efficacy of low dose lenvatinib as adjuvant therapy to radioiodine in advanced metastatic differentiated thyroid cancer: A randomized control trial, Dr CS Bal, Intramural, 2 Years, 2022-ongoing, Rs 8 Lakhs
8. International study on imaging in Cardio-Oncology Study (iCOS), Dr Chetan D Patel, International Atomic Energy Agency (IAEA), 5 Years, September 2019 -ongoing, 25,000 Euros
9. Role of 177Lu-PSMA therapy in patients with Adenoid Cystic Carcinoma, Dr Shamim A. Shamim, Intramural Funding, 1+1+1, 2021-24, Rs 10,00,000/-
10. Transthyretin Amyloid Cardiomyopathy study (iTAC study), Dr Bangkim Chandra (PI) & Dr Chetan D Patel (co-PI), International Atomic Energy Agency (IAEA), 5 Years, 2021- ongoing, 25,000 Euros

11. Utility of Radiolabelled Antibiotics as Imaging Agents in Establishment of a Decision Support Algorithm in Patients with Pyrexia of Unknown Origin (PUO) caused by Infection and its Impact on Short Term and Long Term Clinical Outcomes, Dr Nishikant A Damle, ICMR, 2019-24, 4 Years, Rs 36 Lakhs

Completed

1. Prospective single arm post-marketing phase IV study to assess the safety and efficacy of lenvatinib in subjects with locally advanced in radioiodine refractory differentiated thyroid cancer patients, Dr CS Bal, ESAI.CLIANTHA, 5 Years, 2018-23,
2. Gastric Emptying Scintigraphy using a Standard Vegetarian Meal: Establishment of Reference Values in Post-Sleeve Gastrectomy Patients on Mid-Term Follow-Up, Dr Khangembam Bangkim Chandra, AIIMS, New Delhi, 2 Years, 2021-23, Rs 2.0 Lakhs INR

Departmental projects (including thesis/dissertations)

Ongoing

1. A machine learning approach to classify skeletal metastasis in bone scintigraphy
2. A study on the correlation between inflammatory markers in blood and 18F-FDG uptake in bone marrow and spleen in patients with pyrexia of unknown origin(Chief Guide)
3. Assessment of labelling efficiency, dosimetry and safety profile of 188Re-N-DEDC/lipiodol trans-arterial radionuclide therapy in hepatocellular carcinoma
4. Automatic classification of Ga-68 PSMA-11 PET/CT scan for the diagnosis and staging of patients with Prostate cancer
5. Comparison of diagnostic accuracy of Contrast-Enhanced Ultrasound (CE-US) with Sestamibi/SPECT for localisation in Primary Hyperparathyroidism (PHPT): A pilot study (Co-Guide)
6. Comparison of Emory, Cedar Sinai, 4D-MSPECT and Myometrix software for the assessment of Left Ventricular Ejection fraction & Left ventricular volumes using Tc99m-MIBI on CZT SPECT: Correlation with 2D-Echocardiography
7. Comparison of Ga-68 DOTANOC PET-CT with F-18 FDG PET-CT in diagnosis of Cardiac Sarcoidosis
8. Comparison of normal field of view and extended field of view in obese patients undergoing myocardial perfusion SPECT on CZT camera
9. Design and methods of the YOGICAD study- A probe trial to evaluate the efficacy of yoga-based cardiac rehabilitation in Post PCI patients
10. Diagnostic accuracy of 68 Ga-FAPI-46 PET/CT in Multiple Myeloma patients: A Comparative analysis with 18 F-FDG PET/CT
11. Diagnostic accuracy of 68Ga-NODAGA-JR-11 PET/CT in Neuroendocrine tumor
12. Establishment of normal values of left ventricular ejection fraction on Tc-99m MIBI myocardial perfucion CZT spect in the indian population:a correlative analysis with four cardiac software platforms and 2D echocardiography
13. Evaluation of 68 Ga DOTANOC PET/CT in the diagnosis of sarcoidosis in patients with PUO Chief Guide)
14. Evaluation of Newer Diagnostic Modalities inIndeterminate Thyroid Nodules (Co-Guide)
15. FDG-PET/MRI co-registration in non-lesional drug-refractory epilepsy.
16. Immune microenvironment of Anaplastic Thyroid Carcinoma(DC member)
17. Mesial temporal SUVR on Tau PET in ADD, non-AD dementias & control groups
18. Normal Database of F-18 FDG PET/CT for age group 20-40 Years
19. Normative data of per cent colonic transit and its correlation with colonic geometric center
20. Personnel dosimetry during fdg-pet image guided automated robotic arm-assissted biopsies
21. Prediction of high-volume disease in treatment naïve prostate cancer patients undergoing PSMA PET/CT: a machine learning approach

22. Prediction of high-volume disease in treatment naïve prostate cancer patients undergoing PSMA PET/CT: a machine learning approach
23. Predictive value of 99mTc Mebrofenin Hepatobiliary Scintigraphy in evaluating liver function and volumetry in pre- and post- radioembolization in hepatocellular carcinoma (HCC) patients
24. PSMA PET Radiomics for prostate cancer risk stratification: a machine learning approach
25. Radionomics for prostrate cancer risk stratification: a machine learning approach
26. Role of F-18 FDG PET CT in the management of Chordoma
27. Role of FDG-PET guided biopsy in PUO
28. Role of pre-processing before compression nuclear medicine image in dicrete cosine transformation.
29. Role of Transarterial Embolisation in Metastatic Lung Lesions
30. SPECT Image enhancement using fuzzy logic INT operator
31. Texture analysis for characterization of carcinoma prostate based on 68Ga-PSMA PET/CT
32. Texture analysis to characterize Renal Cell Carcinoma with 18F-FDG PET/CT
33. To evaluate FAPI as a potential theranostic in soft tissue sarcoma using 68Ga-FAPI-46 PET/CT and 177Lu-FAPI 46 therapy
34. Treatment response evaluation using 68Ga-PSMA-11 PET/CT in Patients with metastatic castration-resistant prostate cancer using Percist 1.0 and pswg3 criteria
35. Utility of 99m-Tc Ubiquicidin in differentiation of infective and noninfective lesions (Chief Guide)
36. Visual versus spm evaluation of FDG PET study in drug-refractory epilepsy

Completed

1. 68Ga-PSMA PET/CT in Metastatic Renal Cell Carcinoma
2. A randomized double-blind sham-controlled trial for evaluating effectiveness and tolerability of high-definition transcranial direct current stimulation in depression(Co-Guide)
3. Assessment of correlation between 2-hour radioactive iodine uptake and 99m Technetium pertechnetate (99m TcO4?) uptake on thyroid scintigraphy in patients with thyrotoxicosis(Chief Guide)
4. Assessment of disease extent and tumour burden via metabolic indices and textural analysis of tumour in 68Ga-DOTANOC PET/CT in pediatric patients with neuroblastoma-role of 68Ga-DOTANOC PET/CT in comparison to 131I-mIBG SPECT/CT
5. Comparison of whole-body MRI with 18-FFDGPET/CT in pediatric lympho-histiocytic neoplasms(Co-Guide)
6. Dynamic salivary scintigraphy: normal pattern and reference values in Indian Population
7. Hepatobiliary scintigraphic evaluation of gallbladder ejection fraction using a fatty meal protocol: establishment of reference values in the Indian population
8. Incremental value of CT over planar and SPECT alone in evaluating solitary lesion on Bone Scintigraphy
9. Mesial temporal SUVR on tau PET in AD and non-AD dementias and control groups
10. Normal database of 18F FDG PET/CT in the age group 20 to 40 Years
11. Role of 99mTc- Ethambutol Scintigraphy In Diagnosis of Pulmonary and Extra Pulmonary Tuberculosis (Chief Guide)
12. Role of 99mTc-MDP SPECT/CT bone scan in evaluation of vertebral lesions and its advantage over planar bone scintigraphy
13. Role of 99mTc-Pyrophosphate Imaging in detection of transthyretin cardiac amyloidosis (ATTR-cardiac amylodosis) in high risk population
14. Role of 99m-Tc-Ubiquicidin scintigraphy in diagnosis of orthopaedic implant infection (Chief Guide)
15. Role of F-18 FDG PET/CT in assessment of treatment response to neoadjuvant chemotherapy in primary extraocular retinoblastoma

16. Role of F-18 Fluoride PET/CT in diagnosis and assessment of response to radiofrequency ablation in Osteoid Osteomas
17. Role of PET-CT in assessment of treatment response to neo-adjuvant chemotherapy in primary extraocular retinoblastoma
18. Role of SPECT-CT bone scan in evaluation of vertebral lesions and its advantages over planar bone scintigraphy
19. Study of PD-L1 expression in parathyroid carcinoma (Co-Guide)
20. Study of prevalence of concomitant Transthyretin Amyloidosis in elderly patients with severe aortic stenosis by PYP scan
21. To study the clinical profile, investigations and outcome of patients undergoing parathyroidectomy: A retrospective and prospective experience (Co-Guide)
22. Validation of dynamic stochastic resonance for converting a low-count nuclear medicine image into a high-count image: a phantom study
23. Validation of Dynamic stochastic resonance for converting a low-count nuclear medicine image into a high-count image: a phantom study

Collaborative projects

Ongoing

1. A comparison of modulating effect of cTBS and low-frequency rTMS on cortical excitability in children and adolescents aged 5-14 Years with Lesional Drug refractory Epilepsy (Focal epilepsy or electrical status epilepticus in sleep): An open-label randomized non-inferiority crossover study", Pediatric Neurology
2. A cross-sectional study to assess the severity of neurogenic bowel dysfunction, quality of life, functional status, and whole bowel transit in spinal cord injury, Department of Physical Medicine and Rehabilitation, AIIMS, New Delhi
3. A Phase III, Open-label, Multicenter, Randomized study evaluating the safety and efficacy of Polatuzumab Vedotin in combination with Rituximab plus Gemcitabine plus Oxaliplatin (R-GEMOX) versus R-GEMOX alone in patients with relapsed/refractory diffuse large B-cell lymphoma, Dr Sameer Bukshi, Medical Oncology
4. Aortic and lung inflammation following COVID: a marker of cardiac event an Indo-Australian joint project- funded by Department of Science & Technology, Cardiology
5. Comparing the diagnostic utility of 18F-FDG PET/CT with bone marrow biopsy in detecting bone marrow metastases in newly diagnosed Neuroblastoma, Department of Pediatrics, Division of Pediatric Oncology, AIIMS, New Delhi
6. Comparison of 68Ga PSMA PET/CT scan with Multiparametric MRI of the prostate for loco-regional staging in patients with intermediate to high-risk prostate cancer, Dr Sanjay Kumar, Urology
7. Comparison of Suprascapular Nerve Block and Capsular Hydrodilatation in Adhesive Capsulitis of Shoulder: A Randomized Controlled Trial, Department of Physical Medicine and Rehabilitation, AIIMS, New Delhi; Department of Radiodiagnosis and Interventional Radiology, AIIMS, New Delhi
8. Diagnostic Accuracy of 68Ga PSMA-11 PET-CT and conventional Imaging for Initial staging of Intermediate and High Risk Prostrate cancer Patients (PROCA study), Urology
9. Efficacy of yoga-based cardiac rehabilitation in Post-PCI patients: A prospective randomized, open-label, blinded end-point trial- funded by Ministry of AYUSH, CIMR, Cardiology
10. Evaluating the spectrum of etiologies for rapidly progressive dementias in a tertiary care setting, Neurology
11. Inflammatory Cardiomyopathy: A study using Artificial Intelligence to validate a diagnostic algorithm combining novel proteomic biomarkers, non-contrast MRI and somatostatin receptor-based PET/CT, Cardiology, Cardiac Radiology
12. Minimally invasive nano-enabled targeted technology for Sentinel Lymph Node SLN detection, Dr Alok Thakkar ENT
13. The effect of a structured home-based exercise program on the functional outcome in patients with knee osteoarthritis and its predictors for successful outcome, Department of Physical Medicine and Rehabilitation, AIIMS, New Delhi
14. The role 68Ga PSMA PET/CT scan as a single staging modality in prostate cancer', Dr Sanjay Kumar, Urology

Completed

1. A prospective multimodal evaluation of Subacute Sclerosing Panencephalitis in children, Pediatric Neurology
2. A randomized double-blind sham-controlled trial for evaluating effectiveness and tolerability of high-definition transcranial direct current stimulation in depression, Psychiatry
3. A study to determine the prognosis of patients with cardiac involvement with sarcoid: development of diagnostic and treatment algorithms, Cardiology, Cardiac Radiology
4. Advanced Neuroimaging techniques in drug-resistant focal Epilepsy, Neuroimaging and Interventional Neuroradiology
5. Comparative assessment of PET and ASL-MR perfusion techniques along with usefulness of novel MRI markers for early detection of primary dementia, Neuroimaging and Interventional Neuroradiology
6. Efficacy of repetitive transcranial magnetic stimulation(rTMS) therapy in ESES in children: A single-arm interventional study, Pediatric Neurology
7. Efficacy of repetitive transcranial magnetic stimulation(rTMS) therapy in children with dystonia: A single-arm interventional study, Pediatric Neurology
8. Evaluation of factors impacting prognosis in skull base osteomyelitis, ENT
9. Gastric Emptying Scintigraphy using a Standard Vegetarian Meal: Establishment of Reference Values in Post-Sleeve Gastrectomy Patients on Mid-Term Follow-up, Surgery

Research over past 3 years

Research projects	2021–2022	2022–2023	2023-24
Total funded projects	11	10	11
Total funding	Rs 187 Lakhs + 35,000 Euros	Rs 620 Lakhs + 69,000 Euros	Rs 323.5 Lakhs + 50,000 Euros

PUBLICATIONS

Total Publications: 172; Journal articles: 107; Abstracts: 63; Chapters in books: 2

Publications over past 3 years

Item	2021–2022	2022–2023	2023-24
Total			
Journal articles	120	100	107
Abstracts	28	50	63
Chapters in books	4	1	2
Books	-	-	-

Diagnostic Scans and Radionuclide Therapies Administered in the Department of Nuclear Medicine and PET from April 2023 to March-2024

PATIENT CARE	2023-24
Therapeutics	
I-131 Therapy	450
131I-Therapy for Hyperthyroidism	184
177Lu – DOTATATE therapy	129
177Lu- PSMA-617 therapy	153
177Lu--FAPI therapy	170

225Ac-DOTA-TATE therapy	19
225Ac- PSMA-617 therapy	20
225Ac-DOTA-GA-FAPI therapy	5
Lu-177 GPC	22
131I-MIBG-Therapy	9
Diagnostics	
F-18 FDG-PET	9725
Ga-68 DOTANOC PET	814
Ga-68 PSMA PET	464
Ga-68 FAPI PET	148
Plain CT-Scans	840
Ga-68 NOTA UBI	12
Ga-68 RAYZ8009	44
Ga-68 GAC	4
Ga-68 GAS	4
Ga-68 GAD	35
GFR	2229
RAIU	424
Diagnostic I-131 WBS	817
Blood pool studies	17
DMSA Scan	1399
DRCG	123
ECD-SPECT	458
GER	191
GET	117
GHA SPECT	5
HIDA	380
Lymphoscintigraphy	295
MDP Bone scans	1149
MIBG-Diagnostic	183
Meckel's Scan	98
PTH SPECT	405
Renal Dynamic scans	3814
Sentinal Lymphoscintigraphy	5
Thyroid Scan	627
Tc-99m TRODAT	193
Myocardial perfusion studies	993

RNV study	32
Cardiac PET	220
Perfusion studies (V/Q scan, 1st pass) + Tc99m-PYP scans	65

Patient care ***(other items may be added/removed as per activity of department)***

Item	2021–2022	2022–2023	2023-24
OPD consultations	8148	10771	14688
Total inpatient admissions	322	446	348

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Oration Award/Other Awards

Professor CS Bal was Second place winner Therapy Center of Excellence Young Investigator Award for abstract on "Efficacy and safety of [177Lu]Lu-DOTAGA.FAPi dimer radionuclide therapy in patients with radioiodine resistant follicular cell-derived thyroid cancers" June 2023, SNMMI Annual Meeting; Maurits W. Geerlings Next Generation Award. Awarded To Outstanding Research And Contribution To Actinium-225 Radiopharmaceuticals. ICPO FOUNDATION, October 2023; Theranostics World Congress: Edwaldo Camargo Award Winner. 7th Theranostic World Congress, Chile Santiago.

Professor Chetan Patel was Editor of the Indian Journal of Nuclear Medicine (Official Journal of Society of Nuclear Medicine, India)*(Held this position till December 2023)*; Reviewer for national and international academic journals; Executive Member, Nuclear Cardiological Society of India; External examiner for MD Nuclear Medicine examination at AIIMS, Rishikesh on 20 May 2023; Subject expert for faculty interview at King George's Medical University (KGMU), Lucknow, UP on 16 October 2023; Thesis evaluation for MD Nuclear Medicine, AIIMS, Rishikesh, September 2023; Paper Setter for MD Nuclear Medicine, SVIMS, Tirupati, August 2023; External examiner for PG Diploma in Radiation Medicine (DRM) Annual Examination-2024 (Batch-2021) held on 1 & 2 February at INMAS, Timarpur, Delhi; Member Store Purchase Committee of Center for Integrative Medicine & Research (CIMR); Chairman, Selection Committee for recruitment of core staff at CIMR under COE Scheme, AYUSH.

Professor Anil Kumar Pandey - Hal Anger Oration; 8th Annual Conference of Nuclear Medicine Physicist Association of India (NMPAICON 2024) 23-24 February 2024; Shri Mata Vaishno Devi Narayana Superspeciality Hospital (SMVDNSH), Katra, at Jammu.

Dr Shamim Ahmed Shamim - Smt. Shakuntala Krishnamurthy Award 2023 for Best paper Award in Nuclear Hepatology in SNM, India 2023, held at AIIMS, Jodhpur from 16-19 November 2023.

9.25 Obstetrics and Gynaecology

Professor and Head

Neerja Bhatla (Till 31 January 24)		Neena Malhotra (From 01 February 24)

Professors

Vatsla Dadhwal	JB Sharma	Neeta Singh
K Aparna Sharma	Garima Kachhawa	Reeta Mahey

Additional Professors

Vidushi Kulshrestha		Seema Singhal
Rajesh Kumari	Jyoti Meena	Juhi Bharti

Associate Professors

Nilanchali Singh		Richa Vatsa
Deepali Garg	Archana Kumari	Anju Singh
Neha Varun	Soniya Dhiman	Anubhuti Rana

Assistant Professors

Sushree Monika Sahoo	Swati Tomar

Scientists-I

Arun Kumar	Monika Saini

HIGHLIGHTS

The Department is devoted to delivering exceptional patient care in women's health while also nurturing innovations in education and research. After shifting to Mother and Child Block, the scope and quality of services have further improved in all aspects of Obstetrics and Gynaecology besides sub-specialities including Reproductive Medicine, Maternal-Fetal Medicine, Minimally Invasive Surgeries, Gynae Oncology and Urogynaecology. The department has expanded into Yoga, Birth Planning and Respectful Maternity care initiatives such that patient care is now beneficial with optimal outcomes. Additionally, training sessions on contraceptive implants were organised, further enhancing comprehensive care for our patients. The Department provided regular obstetrics and gynaecology services at CRHSP, Ballabgarh and OPD services in Jhajjar. Gynae Oncology OPD and OT services were provided at NCI, Jhajjar. The Department has expanded its specialized oncology fertility services to cater to the unique needs of younger women diagnosed with cancer. The department has been awarded the award of "Forerunner in Respectful Maternity Care cascading" for the achievement of "LaQshya" in the state. The Department was visited by Infosys Chair in Oncology "Dr Asima Mukhopadhyaya" from James Cook University UK.

EDUCATION

Undergraduate Teaching:

Undergraduates are posted in the department for clinical postings from 4th semester onwards. Didactic lectures are taken for 6th and 8th-semester students. The list of didactic lectures delivered during this period is as follows:

Total UG lectures- 41

6th Semester

1. Physiology of menstruation; Normal & abnormal puberty; adolescent problems
2. Physiology & diagnosis of pregnancy, maternal adaptation to pregnancy

3. Antenatal care & diagnosis of high-risk pregnancy, prenatal care and counselling
4. First-trimester complications
5. Physiology of labour; induction & augmentation of labour
6. Hypertensive disorders of pregnancy
7. Gestational diabetes mellitus
8. Antenatal &intranatal fetal monitoring
9. Infertility & assisted reproductive technology
10. Anemia in pregnancy
11. Antepartum haemorrhage
12. ost partumhaemorrhage
13. Reproductive tract infections, genital tuberculosis
14. Malignant Ovarian Tumours
15. Benign Ovarian Tumours, Approach to adnexal mass
16. Contraception - Medical methods
17. Contraception - LARC, Sterilisation, PPIUCD
18. Preterm labour, PPROM
19. Abnormal uterine bleeding
20. Contraception - I (Medical methods)
21. Contraception II (LARC &Sterilisation), PPIUCD
22. Malignant ovarian tumours

8th Semester

1. Hepatitis & HIV in pregnancy
2 Fetal growth restriction &oligoamnios
3. Puerperium and its complications
4. Rhesus incompatibility & non-immune hydrops
5. Multiple pregnancy and hydramnios
6. Heart disease in pregnancy
7. Postdatism and IUD
8. Amenorrhoea& Hirsutism
9. Disorders of sexual differentiation and genital tract malformations
10. Endometriosis and Adenomyosis
11. Gestational trophoblastic neoplasia
12. Pelvic organ prolapse & genital fistulae
13. Benign lesions of the uterus
14. Premalignant & malignant lesions of the uterus
15. Benign & premalignant lesions of the cervix
16. Malignant lesions of the cervix
17. Menopause, postmenopausal bleeding

18. MTP Act and PCPNDT Act
19. Obstetric emergencies

Postgraduate teaching

Total lectures/seminars: 37

1. Detailed anatomy of the anterior abdominal wall and abdominal incisions
2. Non-epithelial ovarian malignancies
3. Sutures and needles in OBGYN
4. Management of ART pregnancies
5. Menopausal replacement therapy in cancer survivors
6. Health programs: Recent updates
7. Hereditary gynecological malignancy
8. Hereditary gynecological malignancy
9. Cloacal Injuries
10. Adnexal mass in adolescents
11. Vulval skin lesions and vulvodynia
12. Management of Rh isoimmunised pregnancy
13. Thromboembolism in gynaecological patients
14. Obesity and its complications in relevance to obstetrics and gynaecology
15. Surgical management of postpartum hemorrhage
16. Cloacal Injuries (Perineal Injuies)
17. ART bill
18. Congenital heart disease in pregnancy
19. Labour care guidelines
20. SLE in pregnancy
21. Interpretation of CTG
22. Intrahepatic cholestatsis of pregnancy
23. Surgical management of postpartum haemorrhage
24. Adenomyosis
25. Thromboembolism in gynaecological patients
26. Preterm Labour and tocolysis
27. Birth planning and respectful maternity care
28. Male factor infertility
29. Carcinoma cervix: Recent Updates
30. Carcinoma endometrium: Recent updates
31. Obesity and its complications in relevance to obstetrics and gynaecology
32. Aneuploidy screen
33. Monochorionic twin pregnancy
34. Female fertility preservation

35. Mesh types and its use in gynaecology
36. Perioperative fluid management obstetrics and gynaecology
37. MTP rule and amendments

Innovations in teaching techniques

1. Skill lab and simulation training activities have been augmented for undergraduate and postgraduate students to ensure adequate skills for increased batch size
2. New sessions have been added to teaching schedule to enhance practical and surgical skills
3. Weekly classes for students of sub-specialities in the department (Reproductive Medicine/Gynae Oncology/ Urogynaecology/Minimally Invasive Gynaecology/Fetal Medicine)
4. Morning 8-9 am journal clubs initiated to discuss landmark trials in the field of Obstetrics and Gynaecology
5. Regular audit of gynaecological procedures in addition to perinatal and caesarean audit
6. Interns were posted in specific areas such as labour rooms, wards, OPD and OT for clinical exposure and to enhance their skills. Competency-based training in comprehensive abortion care was also organized for the interns.
7. Orientation program for residents and staff nurses was introduced at the beginning of labour room posting to ensure optimal adherence to SOP related to intrapartum care, obstetric emergencies and respectful maternity care
8. Classes on basics of ultrasound in obstetrics and gynaecology for better understanding and enhancing the skills in ultrasound
9. Small group discussions for respectful abortion care involving faculty, senior and junior residents and staff nurses
10. SOPs were drafted by department to streamline the clinical care provided to patients
11. Training residents, nurses and technicians in basics and application of technology in endoscopic surgery

CMEs, Workshops, Symposia, National and International Conferences

The following programmes were organized by Department faculty members:

1. Preventive Oncology Workshop, 45th Annual Conference of AOGD & FOGSI PG Conference, 18 August 2023, Gurugram
2. Pre-Conference Hands-on Workshop, Interventional Obstetrics - PPH: What, When, Why and How? 36th Annual AICC RCOG Conference, 28 September 2023, New Delhi
3. Pre-congress Workshop in Oncofertility for FERTIVISION 2023, 19th Annual Conference of Indian Fertility Society, 8 December 2023, AIIMS, New Delhi
4. Pre-Congress workshop in Fetal Med for Fetal Cardiocon 2023, 18 August 2023, AIIMS, New Delhi
5. Workshop on respectful maternity care in collaboration with AOGD, NARCHI Delhi and Directorate of Family Welfare, 15 April 2023, Burari Hospital, New Delhi
6. Workshop on respectful maternity care in collaboration with AOGD, NARCHI Delhi and Directorate of Family Welfare, 29 April 2023, Safdarjung Hospital, New Delhi
7. Workshop on respectful maternity care in collaboration with AOGD, NARCHI Delhi and Directorate of Family Welfare, 19 May 2023, Satyawadi Raja Harish Chandra Hospital, Narela
8. Workshop on respectful maternity care in collaboration with AOGD, NARCHI Delhi and Directorate of Family Welfare, 8 June 2023, Dr Hedgewar Arogya Sansthan
9. Pre-congress Workshop on respectful maternity care for AOGD 2023, 18 August 2023, Gurugram
10. Live Demonstration Workshop FetalMed2023, 18 August 2023, AIIMS, New Delhi
11. Workshop on respectful maternity care in collaboration with AOGD, NARCHI Delhi and Directorate of Family Welfare, 26 August 2023, Mata Gujri Medical Centre, New Delhi
12. Pre-Conference Workshop on Interventional Obstetrics- Postpartum haemorrhage during 36th Annual Conference of AICC RCOG, 28 September 2023, AIIMS, New Delhi

13. Fertility Preservation in Women are We In 2023, 8 December 2023, AIIMS, New Delhi
14. Workshop on respectful maternity care in collaboration with AOGD, NARCHI Delhi and Directorate of Family Welfare, 20 January 2024, Indira Gandhi Hospital
15. Essence of Gynae Endocrinology 2023, organised by Gynae Endocrine Society of India (GESI), under aegis of Gurugram Gynaecological Forum**,** 23 April 2023, Gurugram
16. Training of Trainers on subdermal single rod contraceptive implants, organized by the Department of Obs Gynae in collaboration with the Directorate of Family Welfare and WHO Country Office for India (Organizing Committee Member), 20-21 February 2024, AIIMS, New Delhi
17. Workshop on Intrapartum care (in collaboration with Maternity Foundation), May 2023, New Delhi
18. Pre Conference workshop on Familial Gynaecological Cancers in AGOICON 2023, 24 November 2023, Bhubaneswar, Odisha

Short & Long-Term Training

1. Dr Vinita Singh, AIIMS, Raipur, 6 weeks, 1 June 2023 to 12 July 2023, Fetal Medicine
2. Dr Nilima Sinha, NW Railway, Jaipur, 3 months, 17 July 2023 to 16 October 2023, Laparoscopic Gynaecologic Surgeries
3. Dr Natasha Gupta, AIIMS, Jammu, 2 weeks, 1 August 2023 to 14 August 2023, Obstetrics &Gynaecology
4. Dr Meeta Gupta, AIIMS, Jammu, 2 weeks, 18 August 2023 to 31 August 2023, Obstetrics &Gynaecology
5. Dr Renu Sharma, AIIMS, Jammu, 2 weeks, 17 August 2023 to 31 August 2023, Obstetrics &Gynaecology
6. Dr Navdeep Kumar Ghuman, AIIMS, Jodhpur, 1 week, 18 September 2023 to 23 September 2023, Rep Medicine
7. Ms Kirti Garg, Univ of Zurich, Switzerland, 4 Weeks, 4 September 2023 to 29 September 2023, Obstetrics &Gynaecology
8. Dr Nilaj Bagde, AIIMS, Raipur, 1 month, 17 November 2023 to 16 December 2023, Reproductive Medicine

List of Residents in sub-speciality

1. Dr Monika Rajput, 12 July 2021 to 11 July 2024, DM (Reproductive Medicine)
2. Dr Juhi Bharti, 2 August 2021 to 1 August 2024, DM (Reproductive Medicine) **(in service Faculty)**
3. Dr Supriya Kumari, 4 January 2022 to 1 July 2025, DM (Reproductive Medicine)
4. Dr Aarthi K Jayraj, 2 January 2023 to 1 January 2026, DM (Reproductive Medicine)
5. Dr Snigdha Soni, 12 January 2023 to 11 January 2026, DM (Reproductive Medicine)
6. Dr Nisha, 1 July 2023 to 30 June 2026, DM (Reproductive Medicine)
7. Dr Archana Kumari, 17 July 2023 to 16 July 2026, DM (Reproductive Medicine) **(in service Faculty)**
8. Dr Raksha Soni, 8 January 2024 to 7 January 2027, DM (Reproductive Medicine)
9. Dr Rekha R, 31 January 2024 to 30 January 2027, DM (Reproductive Medicine) **(Sponsored)**
10. Dr Chandrima Ray, 12 July 21 to 11 July 2024, M.Ch Gynae Oncology
11. Dr Saroj Rajan, 20 January 2022 to 19 January 2025, M.Ch Gynae Oncology
12. Dr Suday Halder, 24 January 2022 to 23 January 2025, M.Ch Gynae Oncology **(Sponsored)**
13. Dr Carolin Solomi V, 11 July 2022 to 10 July 2025, M.Ch Gynae Oncology
14. Dr Suvidya Singh, 10 January 2023 to 09 January 26, M.Ch Gynae Oncology
15. Dr Bhawna Arora, 16 January 2023 to 15 January 2026, M.Ch Gynae Oncology
16. Dr Sholanki Halder, 11 July 2023 to 10 Jun 2026, M.Ch Gynae Oncology
17. Dr Shivangi Mangal, 1 January 2024 to 31 December 2026, M.Ch Gynae Oncology

18. Dr Tanya Satija, 2 January 2024 to 1 January 2027, M.Ch Gynae Oncology
19. Dr Baishali Roy, 3 January 2024 to 2 January 2027, M.Ch Gynae Oncology
20. Dr Richa Garg, 8 January 2024 to 7 January 2027, M.Ch Gynae Oncology
21. Dr MeenalBhati, 9 January 2024 to 8 January 2027, M.Ch Gynae Oncology
22. Dr Shaloo Priya, 10 January 2024 to 9 January 2027, M.Ch Gynae Oncology
23. Dr Nisha, 12 July 2023 to 14 July 2025, Uro - Gynaecology
24. Dr Deoghare Manasi Kamlakar, 11 January 2024 to 10 January 206, Uro - Gynaecology
25. Dr Ashita Aggarwal, 11 January 2024 to 10 January 2026, Uro - Gynaecology
26. Dr Muntaha, 31 January 2024 to 30 January 2026, Uro - Gynaecology
27. Dr Deepti Dahiya, 14 February 2023 to 11 August 2024, Maternal Fetal Medicine
28. Dr SrikarYedlapalli, 11 July 2023 to 10 July 2025, MIS
29. Dr Khushbu Bashir, 17 January 2024 to 16 January 2026, MIS

Lectures delivered: 170

Neerja Bhatla: 30
JB Sharma: 10
Garima Kachhawa: 6
Seema Singhal: 12
Juhi Bharti: 2
Deepali Garg: 2
Anubhuti Rana: 2
Neena Malhotra: 21
Neeta Singh: 4
Reeta Mahey: 6
Rajesh Kumari: 2
Nilanchali Singh: 6
Neha Varun: 12
Vatsla Dadhwal: 5
K Aparna Sharma: 22
Vidushi Kulshrestha: 11
Jyoti Meena: 13
Richa Vatsa: 1
Soniya Dhiman: 3

Lectures delivered over past 3 years

2021-22	2022-23	2023-24
266	200	170

Oral Papers/Posters Presentions: 123

Oral/poster presentations over past 3 years

2021-22	2022-23	2023-24
106	142	123

RESEARCH

Funded projects

Ongoing

1. Evaluation of self-collection with an Indigenous device and Point of Care HPV test for cervical cancer screening (Self-Care Cervix study), Dr Seema Singhal, ICMR, 3 years, 2024-26, Rs 1,09,00,000
2. 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®), Dr Neerja Bhatla, Serum Institute of India Pvt. Ltd, Pune, 6 Years, 2018-24, Rs 1,11,01,576

3. A prospective cohort study on trajectories of postpartum weight, risk factors associated with weight retention and its relationship with metabolic derangements till 18 months post-delivery among women in India, Dr Archana Kumari, DHR, 3 Years, 2023- 2026, Rs 7,72,392
4. A randomised controlled trial to study the outcome of 'Routine episiotomy' versus 'No episiotomy' on perineal injury and pelvic floor dysfunction during normal vaginal delivery among primigravida women: A pilot study, Dr Archana Kumari, AIIMS intramural grant, 3.5 Years, 2021- 2024, Rs 8,80,000
5. A Randomized controlled trial of Autologous Rectus Fascia Pubovaginal sling versus Mid-Urethral Slingversus Burch Colposuspension procedure in women with stress urinary incontinence, Dr J B Sharma, ICMR, 5 years, 2019-24, Rs 70,000,00
6. A randomized controlled, assessor blind, parallel groups, multicenter trial in India comparing the efficacy and safety of FE999049 (follitropin delta) with follitropin alfa (GONAL-F) in controlled ovarian stimulation in women undergoing an assisted reproductive technology programme, Dr Neena Malhotra, Ferring Pharmaceuticals, 2 Years, 2022-24, Rs 25,00,000
7. A Randomized, Multi-Center, Assessor-blind Phase 3 Study to Compare the Efficacy, Safety and Ease of Use of Two FSH – R (by BSV and Gonal-f® by Merck Serono) in Subjects Undergoing COH for ART, Dr Reeta Mahey, Bharat Serum and Vaccines, 2 Years, 2022-24, Rs 20,00,000
8. App-Based Intervention for Improving Cancer Knowledge among Gynecological Cancer Patients- GYNACANCER App, Dr Nilanchali Singh, AIIMS Intramural grant, 1 Year, 2023-24, Rs 2,00,000
9. Assessment of markers of Preeclampsia after delivery and correlation with future risk factors of cardiovascular disease in women, Dr Garima Kachhawa, ICMR, 3 Years, 2022-25, Rs 40,40,092
10. Augment cognition of adolescent girls and community on menstrual health and hygiene on prototype through the integration of state-of-the-art tools and emerging technologies with Behaviour Change and Participatory Communication for sustainable development, Dr K Aparna Sharma, DST, 3 Years, 2022-25, Rs 49,98,000
11. Characterization of the uterine microbiota from women with unexplained infertility and recurrent implantation failure planned for in-vitro-fertilization (IVF)- a pilot study, Dr Neena Malhotra, AIIMS Research Grant, 2 Years, 2022-24, Rs 10,00,000
12. Circulatory exosomal microRNA as marker of endometriosis- A Pilot study, Dr Juhi Bharti, Intramural-AIIMS, Ongoing, 2018, ongoing, Rs 10,00,000
13. Comparison of combined diffusion-weighted and non-contrast MRI with contrast-enhanced MRI in staging of endometrial carcinoma, Dr Swati Tomar, AIIMS Early Career Intramural Grant, 2 Years, 2024-26, Rs 4,68,000
14. Counseling of Clients for HPV Self Sampling by ASHAs (Accredited Social Health Activists) and by Physicians: A Randomized, Open-Labelled, Non-inferiority Trial (ASHA-CHAPTER Trial), Dr Nilanchali Singh, Science Education and Research Board (SERB), 2 Years, 2023-25, Rs 19,86,297
15. Development and Validation of phone-based App, Swasth Garbh, for improving antenatal care (ameliorating maternal and fetal health), Dr Vatsla Dadhwal, ICMR, 3 Years, 2022-25, Rs 12,81,594
16. Development of Gynae Cancer Care app to improve patient experience, Dr Seema Singhal, AIIMS UG grant, 1 Year, 2023-24, Rs 2,00,000
17. Development, Validation, and Feasibility Assessment of an Artificial Intelligence-Based System for First Trimester Fetal Ultrasound Imaging and Interpretation: A Retrospective Multi-Center Study Fetal Ultrasound Imaging and Interpretation: A Retrospective Multi-Center Study, Dr K Aparna Sharma, Origin AI, 1 Year, 2024-25, Rs 9,00,000
18. Diagnostic and prognostic value of cell-free DNA (cfDNA) in Epithelial ovarian cancer - A cohort study, Dr Seema Singhal, ICMR-ICRC grant, 3 Years, 2023-25, Rs 78,00,000
19. Effect Of Modifiable Lifestyle Factors on Sperm Quality in Male Seeking For Infertility Treatment: Cross-sectional Study, Dr Neeta Singh, Institute Funding, 1 Year, 2024-25, Rs 2,00,000
20. Effect of Yoga on maternal and perinatal outcome in Pregnancy, Dr J B Sharma, DST Ayush, 3 years, 2020-24, Rs 37,00,000
21. Effectiveness and safety of 2 vs 3 doses of HPV vaccine in preventing cervical cancer: An Indian Multi-centre randomized trial, Dr Neerja Bhatla, WHO-IARC, 17 Years, 2009-26, Rs 3,03,35,807

22. Effectiveness of an individualized lifestyle intervention in PCOS women who wish to conceive- A multicentred randomized controlled trial, Dr Neena Malhotra, ICMR, 5 Years, 2023-28, Rs 8,10,17,350 for the whole project. Sanctioned Rs 1,74,22,835 for AIIMS, Delhi

23. Effectiveness of yoga in reducing anxiety and depression and its impact on reproductive outcome in women undergoing IVF/ICSI: Randomized Control Trial, Dr Neeta Singh, Institute Funding, 1 Year, 2024-25, Rs 5,00,000

24. Evaluation of newer molecular methods and antigen-based diagnostic modalities against RNTCP recommended methods in early diagnosis of Female Genital Tuberculosis, Dr J B Sharma, Central TB Division, Ministry of Health and Family Welfare, 4 Years, 2020-24, Rs 67,000,00

25. Evaluation of stress biomarkers in pregnancy and correlation with maternal and foetal outcomes, Dr Anju Singh, AIIMS Early Career Intramural Project, 2 Years (extended), 2020, Ongoing, Rs 5,00,000

26. Expression of immune checkpoints in circulation and at the maternal-fetal interface and its correlation with whole exome sequencing-based genetic variants in pre-eclampsia Patients, Dr Deepali Garg, ICMR, 3 years, 2023-26, Rs 82,19,543

27. Implementation of WHO ANC Model using the web-based application in primary, secondary and tertiary healthcare levels by trained healthcare providers, semi-skilled healthcare providers and community health workers, Dr K Aparna Sharma, DST, 3 Years, 2022-25, Rs 66,69,320

28. Landscape of somatic mutational profile in Epithelial Ovarian Cancer, Dr Neerja Bhatla, Shobha Seth Wenger Distinguished Professor in Gynae Oncology, 1 Year, 2023-24, Rs 12,00,000

29. National Registry of COVID-19 infected pregnant women and their neonates, Dr Vatsla Dadhwal, ICMR, 5 Years, 2020-25, Rs 2,01,345

30. Ovarian tissue cryopreservation for fertility preservation in young cancer survivors - Comparison of slow freezing and vitrification, Dr Neena Malhotra, ICMR, 4 Years, 2020-24, Rs 87,70,133

31. Prospective evaluation of etiological factors, trajectory of comorbidities and, efficacy and safety of various therapeutic agents among Indian women with Polycystic ovary syndrome (PCOS): A Multicentric ICMR-PCOS Cohort Study Phase-II, Dr Neena Malhotra, ICMR, 5 Years, 2023-28, Rs 1,46,94,720

32. Rapid point of Care Detection of HPV-Associated Malignancies, Dr Neerja Bhatla, NCI, USA through Arizona State University, USA, 5 Years, 2017-24, Rs 3,68,70,042

33. Role of Autologous Stem Cells and Platelet-rich plasma therapy for regenerating endometrium in women with Asherman's syndrome and atrophic endometrium - A Pilot study, Dr Neena Malhotra, ICMR, 3 Years, 2023-2026, Rs 1,02,00,000

34. Role of Serum Autotaxin in Intrahepatic Cholestasis of Pregnancy in Indian Women, Dr Soniya Dhiman, Institute Intramural Grant, 2 Years (extended), 2021, ongoing, Rs 9,00,000

35. SAHELI: Study and Action on Hysterectomy: Evidence on Women's Health through the Life Course in India, Dr Archana Kumari, DBT-Wellcome, 5 Years, 2024-29, Rs 31,36,350

36. Smartphone App for Management of Gestational Diabetes Mellitus in Urban and Rural settings in India: A randomised controlled trial, Dr Deepali Garg, ICMR, 3 Years, 2022-25, Rs 65,80,354

37. Study of Effects and Safety of Gold IUD Copper T375 Au, Dr Neerja Bhatla, SMB, Mumbai, 5 Years, 2021-26, Rs 2,00,000

38. Targeted bile acid metabolomics in patients with intrahepatic cholestasis of pregnancy and its correlation with perinatal outcomes: A prospective observational cohort study, Dr Sushree Monika Sahoo, AIIMS Eary Career Intramural Grant, 2 Years, 2024-26, Rs 10,00,000

39. To study the sequential changes in maternal corticotropin-releasing hormone levels during the course of pregnancy and correlate with the outcome of its role as an endocrine mediator of parturition, Dr Neha Varun, AIIMS Early Career Intramural Project, 2 Years (extended), 2020, Ongoing, Rs 5,00,000

40. Use of pyruvate kinase M1 and M2 biomarker in predicting coexistent carcinoma endometrium, in cases of atypical endometrial hyperplasia, to facilitate choice of fertility-sparing surgery, Dr Richa Vatsa, AIIMS Intramural Grant, 2 Years (extended), 2020, Ongoing, Rs 10,00,000

41. Validation of the performance of multiparametric risk prediction models for preeclampsia in early pregnancy and determination of the best-fit model for the Indian Population, Dr K Aparna Sharma, AIIMS-THSTI, 2 Years, 2024-26, Rs 10,00,000

42. Validation study of Indigenous HPV tests for cervical cancer screening (i-HPV), Dr Neerja Bhatla, BIRAC (GCI), 1 Year, 2024-25, Rs 73,00,000

Funded projects

Completed

1. A Cross-sectional Study to Screen for Psycho-sexual Health Disorders and Measure Neurochemical Correlates in Gynaecology Cancer Survivors, Dr Nilanchali Singh, AIIMS, 2 Years, 2021-23, Rs 5,00,000
2. A prospective, open-label, single-centre, single-arm, post-marketing study to evaluate the efficacy and safety of Dchiro inositol and myoinositol combination on ovarian function and metabolic factors in women with polycystic ovarian syndrome (PCOS), Dr Garima Kachhawa, Ambrosia Life Sciences Pvt Ltd, 3 Years 8 months, 2019-23, Rs 17,96,900
3. A randomised controlled trial to study the outcome of 'Routine episiotomy' versus 'Noepisiotomy on perineal injury and pelvic floor dysfunction during normal vaginal delivery among primigravida women: A Pilot Study, Dr Archana Kumari, AIIMS (IRG), 2 Years, 2021-23, Rs 5,00,000
4. Assessing & creating fertility awareness among youth in premier Indian Technical Institutions, Dr Neeta Singh, Milinda & Gates Foundation, 4 Years, 2020-23, Rs 5,00,000
5. Creating catalysts for change for respectful care in RMNCH-A services: SARTHaC initiative, Dr K Aparna Sharma, WHO, India, 1 year, 2022-23, Rs 19,16,750
6. Demographic Profile and Tumor Markers in Women presenting with Adnexal Masses and their effect on Outcome: A pilot study, Dr Nilanchali Singh, AIIMS (UG Mentorship), 2 Years, 2021-23, Rs 50,000
7. Development of Augmented Reality (AR)-enabled tool for guidance in Cervical Cancer screening by Visual Inspection method in Single Visit Approach, Dr Seema Singhal, DST SERB, 3 Years, 2020-23, Rs 38,54,750
8. Diagnostic and Prognostic role of oncometabolites in Endometrial cancer, Dr Seema Singhal, AIIMS Intramural grant, 2 Years, 2021-23, Rs 10,00,000
9. Evaluation of paternal RhD zygosity and fetal RhD genotype using circulating cell-free fetal DNA from maternal plasma in the antenatal monitoring of alloimmunized pregnant women, Dr Anubhuti Rana, AIIMS Intramural, 2 Years, 2021-23, Rs 9,85,000
10. 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, Dr Neena Malhotra, ICMR, 5 Years, 2018-23, Rs 1,26,00,000
11. Expression of erbB receptor family and estrogen receptors in endometrium and ectopic lesions during ovarian endometriosis, Dr Deepali Garg, AIIMS, New Delhi intramural early career grant, 2 Years, 2021-23, Rs 9,60,000
12. Implementation of non-invasive pre-implantation genetic testing for aneuploidies using next-generation sequencing (NGS) on spent culture media, Dr Neeta Singh, DHR, 3 Years, 2020-23, Rs 30,00,000
13. Longitudinal follow-up of pregnant women and their infants after COVID-19 exposure in pregnancy, Dr K Aparna Sharma, AIIMS-UCL, 1 year, 2021-23, Rs 5,00,000
14. Prevalence of psychological stress in female infertility and its correlation with cytokines levels, Dr Deepali Garg, AIIMS, New Delhi UG grant, 2 Years, 2022-24, Rs 2,00,000
15. Review of Facility-Based Data and Provider Capacity Building for Gender-Based Violence Study during COVID-19, Dr Vatsla Dadhwal, WHO, 3 Years, 2020-23, Rs 19,86,600
16. Role of telemedicine in the training of Accredited Social Health Activists (ASHA) in counselling women for HPV self-sampling for cervical cancer screening, Dr Nilanchali Singh, AIIMS Intra mural, 1 year, 2022-23, Rs 5,00,000
17. Study of psycho-social and behavioral responses and concerns of peripartum women during COVID-19 pandemic and developing Comprehensive Counselling Module for Obstetricians and General Practitioners for enhancing their holistic well being, Dr Archana Kumari, AIIMS (IRG), 2 Years, 2021-23, Rs 5,00,000
18. The TRACK Trial - Role of Telemedicine in the Training of Accredited Social Health Activists (ASHA) in Counseling Women for HPV Self-Sampling for Cervical Cancer Screening, Dr Nilanchali Singh, American Society of Clinical Oncology (ASCO), 2 Years, 2021-23, USD 20000

19. Understanding the ANC Services Prevalent in Urban Health Care Settings with respect to the WHO Recommendations of an Eight-Visit Model, Dr K Aparna Sharma, WHO, India, 1 year, 2022-23, Rs 6,00,000

Total number of funded projects	Total amount of funding
Ongoing	Rs 27, 09, 52, 091
Completed	Rs 3, 34, 14, 059

Departmental projects (including thesis/dissertations)

Ongoing

1. A double prospective randomized controlled trial comparing pregnancy rates between conventional benchtop incubator v/s time lapse imaging in women undergoing IVF/ICSI non donor cycles
2. A Multicentre Randomised Trial of Screening with sFlt1/PlGF and planned induction delivery to prevent preeclampsia at term
3. A Prospective Study To Develop Nomograms Of Fetal Brain Structures In The North Indian Population And Assess These Fetal Brain Structures In Growth Restricted Fetuses Using The Developed Nomograms
4. A Randomized controlled trial on efficacy of single dose of intraoperative dexamethasone in reducing post operative pain in caesarean section
5. A Randomized Controlled Trial to study the effect of autologous intrauterine Platelet Rich Plasma infusion on pregnancy outcomes in women with previous Implantation failures undergoing Frozen Thawed Embryo Transfer Cycles
6. A study to assess midbrain measurements in appropriate for gestational age fetuses in second and third trimester
7. Adverse Perinatal Outcomes in Pregnancies with Small for Gestational age fetuses as compared to Growth Restricted fetuses as per the Delphi consensus and appropriately grown fetuses
8. Assessment of pelvic floor function in postmenopausal women by transperineal ultrasonography
9. Cabergoline as an adjunct to Ovulation Induction in infertile Women with Endometriosis: An Open-label Randomized Study
10. Comparision of conventional versus spaced induction with dinoprostone gel in pregnant females with unfavourable cervix
11. Comparison between intravenous patient controlled analgesia with fentanyl and multimodal parental analgesia in reducing pain during second trimester medical termination of pregnancy: A Randomized Controlled Study
12. Comparison of cervical shear wave elastography, bishop score, and transvaginal cervical length measurement for prediction of successful labor induction: A pilot study
13. Comparison of modified WHO partograph and labour care guide during labour: A prospective randomized control trial
14. Comparison of Oral versus Intramuscular Vitamin B12 Therapy in Antenatal Women with Anaemia with Vitamin B12 Deficiency: An Open Label, Non-inferiority Randomized Controlled Trial
15. Comparison of the impact of telegenetics and in-person genetic counselling on patient satisfaction and acceptance of genetic testing in women with Epithelial Ovarian Cancer
16. Comparison of three techniques for skin closure in caesarean delivery (subcuticular sutures, non-absorbable nylon sutures, surgical staplers): A randomized controlled trial
17. Correlation of CA 125 KELIM (ELIMination rate constant K) and chemotherapy response score (CRS) score in patients with High grade serous epithelial ovarian cancer undergoing interval cytoreductive surgery
18. Correlation of CA 125 KELIM (ELIMination rate constant K) and CRS score in EOC patients undergoing Interval cytoreductive surgery after neoadjuvant chemotherapy
19. Correlation of clinical symptoms of adenomyosis with revised MUSA criteria
20. Correlation of serum inflammatory biomarkers with the feto maternal outcome in cholestasis during pregnancy, a pilot study

21. Development and validation of A Predictive Model for vaginal birth after caesarean section based on demographic, clinical and ultrasound based factors
22. Does rTMS (Repetitive transcranial magnetic stimulation) improve the outcome of in vitro fertilization in infertile women with moderate to severe depression: A Pilot Randomized Controlled Trial
23. Effectiveness of an individualized lifestyle intervention in infertile women with PCOS: A Randomized Controlled Trial
24. Emotional Response and Mental health of women Undergoing second trimester medical termination of pregnancy for fetal anomalies
25. Expression of immune checkpoints in circulation and at maternal-fetal interface and its correlation with whole exome sequencing-based genetic variants in pre-eclampsia patients
26. Immature platelet parameters in pregnancies identified as screen positive for pre-eclampsia: a prospective comparative study
27. Multiparametric evaluation of bone health in women with premature ovarian insufficiency: A prospective cross-sectional study
28. National Registry of COVID-19 infected pregnant women and their neonates
29. Nutritional assessment of Indian women with gynaecological cancers using GLIM criteria and impact of focused pre-habilitation protocol on nutrition and perioperative outcomes in women undergoing interval debulking surgery
30. Progesterone-primed versus conventional antagonist stimulation during the luteal phase in poor ovarian responders undergoing DuoStim protocol-A Pilot Study
31. Role of 3-Dimensional cinematic rendering of CT imaging for pre-operative evaluation of disease extent in epithelial ovarian cancer
32. Role of Ethanol Sclerotherapy on Ovarian Reserve and Reproductive Outcome in Women with Endometrioma: An observational study
33. Role of Maternal cardiovascular markers in predicting adverse outcomes in women with pre-eclampsia
34. Role of Serum Estradiol levels in letrozole-FET versus HR-FET cycle: A pilot randomized controlled trial
35. Smartphone app for management of gestational diabetes mellitus in urban and rural settings in India: A randomized controlled trial
36. Soluble E-selectin level in women with Polycystic Ovarian Syndrome and its Comparison with QRISK-3 Score as a marker of Cardio-Vascular Risk
37. Sub-endometrial instillation of Platelet Rich Plasma in women with thin endometrium undergoing In-vitro Fertilization cycles-A feasibility study
38. The effect of Cabergoline and dienogest on Pro-Inflammatory markers in Endometriosis: A Pilot Study
39. To compare slow freezing and vitrification techniques in ovarian tissue cryopreservation for fertility preservation in cancer survivors
40. To compare the effect of laparoscopic ovarian drilling versus step-up gonadotropin therapy in anovulatory infertile PCOS women undergoing ovulation induction cycles-a randomised controlled trial
41. To compare the efficacy of Stop GnRH agonist-antagonist protocol with conventional IVF stimulation protocols (GnRh antagonist protocol and long GnRh agonist protocol) in terms of IVF outcomes: A randomized controlled trial
42. To compare the patient-reported outcomes during infertility workup after introducing an evidence-based three-dimensional/four-dimensional Hysterosalpingo-Contrast Sonography over conventional Hysterosalpingography technique: A Randomized Controlled Trial
43. To evaluate the gonadotropic effect of GnRH agonist therapy in women undergoing cytotoxic therapy for hematological diseases
44. To study the efficacy of lignocaine in distension medium in improving pain score during office hysteroscopy: A randomized controlled trial
45. To study the incidence of obstetrics anal sphincter injuries (OASIS) in postpartum women using introital ultrasound.

46. Use of soluble human leukocyte antigen (sHLA-G) as potential biomarker of embryo quality for clinical outcomes in women undergoing IVF ICSI non-donor cycles: A Prospective Observational Study
47. Validation of performance of multiparametric risk prediction models for preeclampsia in early pregnancy and determination of the best fit model for Indian Population

Completed

1. A Pilot Study to Evaluate the Role of POTEE Gene and Machine Learning as Preoperative Diagnostic and Prognostic Prediction Tools for Epithelial Ovarian Cancer
2. Assessment of fetal cardiac morphometry and functioninmaternal diabetes using conventional and speckle trackingechocardiographyand its association with neonatal outcome
3. Comparison between patient-controlled analgesia with fentanyl and multimodal parenteral analgesia in reducing pain due to second trimester medical termination of pregnancy: A randomized controlled trial
4. Comparison of sexual outcome after hysterectomy through open versus laparoscopic routes for benign uterine disorders
5. Correlation of Visceral Adiposity Index (VAI) and Lipid Accumulation Products (LAP) with metabolic and endocrine markers in women with Polycystic Ovary Syndrome (PCOS)
6. Effect of chronic pancreatitis and recovered acute pancreatitis on women's menstrual and reproductive behavior
7. Effect of preoperative & postoperative counselling on prevalence of depressive symptoms, anxiety and stress in women planned for gynaecological surgeries
8. Efficacy and feasibility of Enhanced Recovery after Surgery (ERAS) protocol on functional recovery in women undergoing elective caesarean delivery: A randomized clinical trial
9. Efficacy of Levonorgestrel intrauterine system in reducing menstrual blood loss in women with haematological disorders
10. Evaluation of extra-cellular micro-RNA profiles in follicular fluid of women with and without Polycystic Ovarian Syndrome(PCOS) and their correlation with IVF outcomes Case-Control Study
11. Evaluation of newly recommended antral follicle count (AFC) cut-off in the diagnosis of various PCOS phenotypes and comparison of low AFC and high AFC groups in terms of clinical, metabolic and endocrine parameters
12. Evaluation of role of cardiotopography based short-term variability in prediction of adverse perinatal outcome in late small for gestational age and appropriately grown fetuses
13. Exploring male factors in recurrent pregnancy losses: A multiomics approach
14. Factors affecting pregnancy and neonatal outcome after Frozen Embryo Transfer (FET) cycles-A retrospective analysis / audit Characterization of Parasite ligand host receptor interactions in Plasmodium vivax infections
15. Prediction of ovarian function in reproductive age women with breast cancer undergoing gonadotoxic chemotherapy using ovarian reserve bio-markers-A prospective cohort study
16. Psychosocial stress in female infertility and its correlation with cytokine levels
17. Role of intra-ovarian instillation of autologous platelet-rich plasma in premature ovarian ageing: A prospective pilot study.
18. Role of Targeted metabolites as diagnostic and prognostic biomarkers in Endometrial Cancer
19. Role of transvaginal 3D Power Doppler Ultrasound and Hysteroscopy for Endometrial Evaluation in Patients with Postmenopausal Bleeding
20. To evaluate the rule of serum D-dlmer, neutrophil/Lymphocyte Ratio, Platelet/Lymphocyte ratio and CA125 in assessment of ovarian masses
21. To study the diagnostic performance of IOTA Simple rules, IOTA ADNEX, GIRADS and ORADS reporting systems in evaluation of adnexal masses

Collaborative Projects

Ongoing

1. A descriptive cross-sectional study to assess Knowledge, Attitude and Practice regarding contraceptives among pregnant women coming to Gynae OPD AIIMS, Delhi, College of Nursing
2. A Phase 3, Double Blind Placebo-Controlled, Multicenter Clinical Study comparing Chemo-Immnotherapy (Paclitaxel-Carboplatin-Oregovomab) versus Chemotherapy (Paclitaxel-Carboplatin-Placebo) in Patients with Advanced Epithelial Ovarian, Fallopian Tube or Peritoneal Carcinoma (FLORA 5), Dr BRAIRCH
3. A prospective cohort study to assess the breast-feeding rate and analyze the predictors of low milk volume among mothers of preterm admitted in a tertiary care facility, College of Nursing, AIIMS, New Delhi
4. Artificial Intelligence in Oncology: Harnessing big data and advanced computing to provide personalized diagnosis and treatment for Cancer patients, Biochemistry
5. Assessment of female sexual dysfunction in remote postpartum period in Indian females: A cross-sectional study, ICMR
6. Bone marrow sparing extended field CRT with ddNACT in stage IIIC2 carcinoma cervix: A phase 2 study, Radiation Oncology
7. Characterization of the uterine microbiota from women with unexplained infertility and recurrent implantation failure planned for in-vitro-fertilization (IVF)-a pilot study, Department of Microbiology
8. Comparative evaluation of sphenopalatine ganglion block and dexmedetomidine nebulization for treatment of post-dural puncture headache in obstetrics patients: A randomised trial, Department of Anesthesiology, Pain Medicine & Critical Care
9. Detection of HPV circulating tumour DNA in cervical cancer patients before and after chemoradiotherapy by droplet digital PCR, Preventive Oncology, IRCH
10. Development of a metabolite-based point-of-care test for diagnosis of bacterial vaginosis in Indian women, Department of Dermatology and Venereology
11. Effect of structured yoga on polycystic ovarian syndrome (PCOS), Department of Anatomy
12. Evaluation of coagulation status in postpartum females, Department of Lab Medicine
13. Evaluation of salivary biomarkers as compared to established serum biomarkers in predicting pre-eclampsia: A nested case control study, Department of Lab Medicine
14. Exploring proteomic and genomic factors associated with idiopathic recurrent pregnancy losses in male partner of affected couples, Department of Biophysics
15. Exploring the potential of Exosomes derived from Endothelial Colony Forming Cells (ECFCs) primed with Mesenchymal Stromal Cells (MSCs) as a cell-free therapy for Cardio-Vascular Diseases (CVDs), Department of Cardiac Biochemistry
16. First-trimester quadruple test and its correlation with fetomaternal outcome, ICMR
17. Genetic determinants of premature and primary ovarian failure, Department of Anatomy
18. Identifying Dysregulation of miRNAs and their targets in Idiopathic Recurrent Pregnancy Loss, Department of Biophysics
19. Late-night salivary cortisol levels among pregnant and postpartum women and in women using oral contraceptive pills, Department of Endocrinology
20. Molecular characterization of Endometrial Cancer and correlation with Clinicopathological features, Department of Pathology
21. Molecular Mechanisms involved in the development of insulin resistance by the environmental exposure of phthalates, Department of Ocular Pharmacology
22. Nurse-led Genetic counselling in improving Awareness and implementation of screening services for hereditary women's cancer (NuGenA), KoLGO TRG
23. Point-of-care test development for Bacterial Vaginosis (BV): Bench to bedside (Clinical validation of proof-of-concept), Department of Microbiology
24. Predictors of breastfeeding failure in late preterm infants at 6 weeks of postnatal age: A prospective cohort study, Department of Pediatrics

25. Role of Spalt-like transcription factor 4 (SALL4) in cervical oncogenesis and its correlation with clinicopathological parameters, NICPR-ICMR, Noida
26. SMARCE 1 mediated mechanisms of transcriptional modulation in trophoblast cell invasion during placentation and their status in preeclampsia, Department of Anatomy
27. Soluble E-selectin level in women with Polycystic Ovarian Disease and its Comparison with QRISK-3 Score as a marker of Cardio-Vascular Risk, Department of Reproductive Biology
28. Study of oxidative stress on sperm Shelterin expression and Chromatin function in infertile males, Department of Reproductive Biology
29. Study of oxidative stress on sperm Terra expression and chromatin function in infertile males, Department of Reproductive Biology
30. To compare the opioid sparing effects of combination of dexamethasone, paracetamol and ketorolac (DexPak) VS paracetamol, ketorolac (PaK) in patients undergoing total laparoscopic hysterectomy: A prospective double blind randomized controlled trial, Department of Anaesthesiology, Pain Medicine & Critical Care
31. To establish mother-offspring-spouse cohort of women with history of gestational diabetes mellitus to study the vertical and horizontal influence on cardiovascular risk factors, Department of Endocrinology & Metabolism
32. To evaluate combination of biochemical and biophysical marker in prediction of preeclampsia, Department of Physiology
33. To evaluate the effectiveness of lifestyle intervention program in overweight/obese women [within 2 Years of last child birth] when delivered to them along with their spouse as compared to them alone: Two arm parallel Randomized Control Trial, Department of Endocrinology & Metabolism
34. To evaluate the role of ultrasonography and MRI in the Mapping of deep pelvic endometriosis using the idea protocol, Department of Radiodiagnosis
35. To generate normative data using continuous glucose monitoring system for glycemia in pregnancy at 24 to 32 weeks of gestation in women defined as normal by IADPSG (International Association of Diabetes and Pregnancy Study Groups) Criteria, Department of Endocrinology & Metabolism
36. To investigate metabolic perturbations in Endometrial Cancer by targeted transcriptomics approach in Indian Cohort, Department of Pathology
37. Understanding the impact of a ketogenic diet and yoga therapy on the gut microbiome and serum metabolites in polycystic ovary syndrome (PCOS) : A case control study, Department of Anatomy

Collaborative Projects

Completed

1. A cross-sectional study to screen for psycho-sexual health disorder and measure neurochemical correlates in gynaecology cancer survivors, Department of Psychiatry
2. Abnormal metabolism and gonadotropin-imbalance: Exosomal metabolomic profiles in Granulosa cells and follicular fluid of polycystic ovary syndrome patients with and without insulin resistance, Deptt. of Zoology, University of Delhi.
3. Augmenting Cervical Cancer Elimination Effectively in a Region utilizing Affordable TEchnology (ACCELERATE) to enhance cervical cancer screening services for achieving WHO Target goals in the North-East Region of India, FOGSI FIGO
4. Exploring male factor in recurrent pregnancy losses: A genomic & proteomic based approach, Department Of Biophysics
5. Psychological Trauma in Pregnancy Loss: Development of a Multidimensional Assessment Tool and a Group Intervention Module, Department of Psychiatry
6. Psychosocial dynamics of pregnancy loss: development of a multidimensional scale & development efficacy (a Randomized Control Trial)-ICMR, Department of Psychiatry
7. Role of Aptamer technology for detection of Sialidases of Bacterial Vaginosis (BV) associated bacteria, Department of Microbiology

8. The Every Woman Study in Low-and Middle-Income Countries: identifying challenges and opportunities to improve survival and quality of life for women with ovarian cancer, KoLGO TRG

Research over past 3 years

Research Projects	2021-22	2022-2023	2023-24
Total funded projects	42	40	42
Total funding	Rs 12,86,42,029	Rs 27,10,90,639	Rs 30,43,66,150

PUBLICATIONS

Total Publications: 167; **Journal Articles: 110;** **Abstracts: 27;**

Chapters in books: 28; **Books/Monographs: 2**

Publications over past 3 years

	2021-2022	2022-2023	2023-2024
Journal Articles	133	68	110
Abstracts	16	20	27
Chapters in books	20	7	28
Books/Monographs	5	1	2

PATIENT CARE

In addition to services at AIIMS Main Hospital, Gynae Cancer Clinics are running at IRCH thrice weekly. The department provides round the clock obstetrics and gynaecology services to patients at CRHSP, Ballabhgarh. The complete range of gynecological oncology services is being provided at NCI, Jhajjar.

a. Facilities available in the department (including special clinics and/or special laboratory facilities)

- Antenatal clinic
- High risk pregnancy clinic
- Postnatal clinic
- Family Planning clinic
- IVF Clinic
- Gynae Cancer Clinic (at IRCH)
- Preventive Oncology services
- Gynae endocrinology clinic
- Menopause clinic
- Urogynaecology clinic
- OPD at National Centre for Ageing
- Diet and Yoga classes for antenatal women

b. Community Services/Camps

- No-Scalpel Vasectomy (NSV) Camp was organized by the Family Planning Unit from 17-21 July 2023 & 12-16 February 2024. A total of 10 (27) NSVs were done
- The department celebrated "POSHAN PAKHWARA" from 20 March to 4 April 2023 which included a "Health talk on Importance of Millet in diet during Pregnancy and Lactation Period".
- International Yoga Day was celebrated in the department on 21 June 2023

- Implementation of U-win portal (MoHFW) was done which consist of registration & vaccination details of each pregnant woman, birth dose of new-born and subsequent vaccination events with the features of individualized tracking of beneficiaries for vaccination status
- Prenatal Meditation - Yoga classes are organized on every Monday/Wednesday/Friday from 2.00 PM to 4.00 PM in Mother & Child Block, New Delhi
- On the occasion of World Population Day, 11 July 2023, patient education and awareness-related posters were displayed in patient care areas by the family planning unit
- Display Information Education Communication (IEC) activities like Nukkad Natak, promoting reproductive health and reducing maternal, infant and child mortality and morbidity are organized from time to time (Family Planning, NSV, Anemia Mukt Bharat etc)
- Orchestrated a successful "Sewa Pakhwada" from 17 September to 2 October 2023, aligning with the Ayushman Bhava Programme of the Ministry of Health and Family Welfare. Included a comprehensive cleanliness drive across the Obstetrics &Gynaecology department facilities
- Directed the celebration of Male participation in Family Planning and Vasectomy Fortnight from 21 November to 4 December 2023, with a focused theme on "Swasth maa, swasth bachcha, jab pita ka ho parivaar niyojan mein yogdan achchha"
- Department of Obstetrics and Gynaecology, AIIMS conducted a Cervical Cancer Awareness and Screening program on 17 November 2023. 30-40 ASHAs were invited for counseling and training sessions as a part of WHO Cervical Cancer Awareness Day of Action
- Special Screening of 100th Episode of 'Mann Ki Baat', by Prasar Bharati, Raj Niwas, Delhi, 30 April 2023.
- Free Medical Camp at the Main Temple of his Holiness the Dalai Lama, by Patient Care Trust, Dharmshala, Himachal Pradesh, 1 September 2023
- Talk on Lets talk about the perimenopause and postmenopause, Ladies Club, Vasant Vihar, New Delhi, 13 September 2023
- Talk on Cervical Cancer Prevention by HPV Vaccination and Screening, ISKCON, New Delhi, 27 September 2023

Details of procedures carried out during 2023-24

Year	**2023-2024**	**2022-2023**	**2021-2022**
Benign Gynecological Surgeries			
• Hysterectomy	405	509	412
1. Laparoscopic (TLH)	113	184	175
2. Abdominal	201	246	201
3. Vaginal	91	79	36
Ovarian Cystectomy/Oophorectomy (including dermoid and endometriosis)	**171**	**129**	**162**
• Open	24	20	5
• Laparoscopic	66	87	159
• Oophorectomy	81	22	8
Ectopic pregnancy • Open • Laparoscopic	20 13 7	13	24 17 7
Pre-IVF Salpingectomy		-	

Cerclage	46	23	18
• Abdominal	6	2	2
• Vaginal	36	20	16
• Laparoscopic	4	1	
Myomectomy /adenomyomectomy	116	149	92
• Open	37	51	20
• Laparoscopic	53	56	42
• Hysteroscopic	19	36	28
• Adenomyomectomy	7	6	2
Vaginoplasty • Mc-Indoe • Laparoscopic (Davydov's)	22	57 18 39	13 6 7
Gynaecological Cancer Surgeries (Total)	220	314	207
Carcinoma Uterus	62	11	47
Carcinoma Ovary	137	262	149
Carcinoma Cervix	14	13+19	3
Carcinoma Vulva	7	9	8
Daycare Surgeries			
Hysteroscopic Adhesiolysis	47	30	24
Hysteroscopic IUCD Removal	74	20	19
Hysteroscopy + Mock ET	15	43	9
Hysteroscopic Placenta Removal	2	2	1
Diagnostic Laparoscopy + Hysteroscopic Adhesiolysis			27
Laparoscopy + Hysteroscopic Cannulation	78	3	2
Laparoscopy + Hysteroscopy + CT Fimbrioplasty	146		6
Laparoscopic Salpingectomy/ Clipping	126	75	98
Laparoscopic Ovarian Drilling	17	13	19
Laparoscopic Rudimentary Horn Excision	16	11	6
Laparoscopic Gonadectomy/ Gonadopexy	14	10	5
LNG-IUS Insertion	176	130	7
Other Vaginal surgeries			
McDonald's cerclage	Repeat	20	16
CPT repair	18	29	5

TVT-O	15	6	5
Sacrospinous fixation	15	10	5
Manchester repair	3	6	3
Fothergill's operation	4	3	1
Vesicovaginal fistula repair	4	12	3
Rectovaginal fistula repair	2	4	1
Labial mass excision	1	-	1
Vaginal cyst excision	1	6	1
PFR	19		
SLING SURGERY	10		
Fetal Medicine			
Amniocentesis	456	341	194
Chorionic Villus Sampling (CVS)	273	303	208
IUT (Intrauterine Transfusion)	269	195	100
RFA (Radiofrequency Ablation)	25	32	22
Cordocentesis	43	20	18
Selective fetal reduction	15	16	13
Amnio reduction	9	12	7
Pleural fluid aspiration/shunt	1	-	4
Ovarian cyst aspiration	1	-	4
Pericardiocentesis	3	-	2
Laser	17	-	2
Vesicocentesis	1	-	1
Fetal cyst aspiration		3	-
Cephalocentesis	1	1	-
Laser fetoscopy		1	-
Thyrorire/ MTA pnitillation	3		
Minor Procedures			
Bartholin cyst excision	13	20	13
Excision of scar endometrioma	2	17	7
Transverse vaginal septum excision	7		5
Examination under anaesthesia	16	12	5
Pap Smear	8025	17803	6236
HPV tests	1775	1631	1521
VIA	290	284	208
Cervical biopsy	31	795	456

Colposcopy	558	523	321
Thermal ablation	3	18	25
LEEP	23	24	10
Vulval biopsy	69	33	13
Vaginal biopsy	11	7	7
Vault biopsy	8		3
Labial cyst excision/labial biopsy	11	3	7
Pyometra/hematometra drainage	45	33	26
Mould change	17	41	28
Granulation tissue removal/barb suture removal	4	-	1
EA + ECC + polypectomy	55		11
EA + ECC	1094		888
3 Swab test	5		3
VA-CC	98	133	49
HSG	750		196
Conization	7	5	
Obstetric			
Total No. of deliveries	2985	2833	1931
Total Vaginal delivery	1340	1411	921
Total Caesarean sections	1645	1422	1010

Family planning programme is one of the important National programmes in India with the objectives of achieving population stabilization, promoting reproductive health and reducing maternal, infant and child mortality and morbidity.

The department continued uninterrupted Family planning OPD 6 days a week to provide the following services:

- Postpartum/interval ligation
- Postabortion ligation
- Medical Termination of Pregnancy
- Contraceptive methods- IUCD, Implant, LNG-IUS insertions
- Follow-up of patients for monitoring/managing the complications due to IUCD and postpartum IUCD
- Counselling and referring male patients for Non-Scalpel Vasectomy (NSV)
- Regular post-natal clinics along with antenatal clinics

Various contraceptives available free of cost, with newly introduced contraceptives: Injectable Contraceptive, MPA (Medroxyprogesterone acetate) under Antara program and Chhaya (earlier marketed as Saheli) also available. Implanon insertion training was imparted to department faculty members and services are now in place for insertion of Implanon as a contraceptive to admitted patients.

Number of family planning methods given in 2023-24

Method	**Numbers (2023-2024)**	**Numbers (2022-2023)**	**Numbers (2021-2022)**
MTP	573	633	418

Oral contraception (pkt)	2114	2643	2031
DMPA	254	264	76
Interval Cu-T	319	360	240
PPIUCD	529	682	356
Post-abortion IUCD	103	95	58
LNG-IUS insertion	161	131	-
Tubal ligation	381	418	457
Vasectomy	27	26	14
Implanon	198	35	

AWARDS, HONORS AND SIGNIFICANT EVENTS

Professor Neerja Bhatla got IARC Award for Women in Cancer Research, WHO International Agency for Research on Cancer, Lyon, France, October 2023; Life Time Achievement Award at 48th Convocation, 21 August 2023, AIIMS, New Delhi; **AGOI Oration** on Cervical Cancer Elimination Target 2023: The Gynecologic Oncologist's Perspective; was Head, WHO Collaborating Centre for Cervical Cancer Prevention and Research, AIIMS; Council Member of National Academy of Medical Sciences (NAMS), 2022-2024; Vice President-Elect, FOGSI North Zone (2024); Member, Governing Body, National Health Systems Resource Centre, MOHFW, 2022-24; Technical Advisory Group (TAG) of the India Cancer Research Consortium (ICRC), July 2023; Member, Technical Resource Group for Emergency Room, DGHS; FOGSI Cell Meeting, Mumbai, September 2023; Expression of Interest (EOI) on Implementation Research to Accelerate Screening, Early Diagnosis and Treatment of Cancer, ICMR, September 2023; Chairperson, ICMR-NIRRCH Scientific Advisory Committee; HPV Vaccine Trial, ICMR, December 2023; Medical Expert Panel National Human Rights Commission, New Delhi, December 2023; Interactive meeting of ICMR experts and PIs on "Implementation Research to Accelerate Screening, Early Diagnosis and Treatment of Cancer", ICMR, January 2024; **Expert in Regional WHO Meetings**: Participated in WHO Director-General's Expert Group on Cervical Cancer Elimination, September, 2023, Geneva, Switzerland, virtual.

Professor Neena Malhotra got Short Term ICMR-DHR International Fellowship for Senior Indian Biomedical Scientists 2022-23 and availed the fellowship for a period of 3 months with Professor Michael Grynberg, Hospital Antoine Beclere 157, France from 31 March 2023 to 30 July 2023 (3 Months); was Senior Vice President of Indian Fertility Society April 2022-2024; Member of NCI Coordination Committee at NCI Jhajjar, w.e.f. 2024; Chairperson Make in India exemption for Machinery and Equipment; Member Teaching Schedule Committee for Phase II/III for the MBBS, w.e.f. 2024; Technical Expert Committee Member - Women and Child Health Programme (DBT).

Professor Vatsla Dadhwal was Central executive committee member, Society of Fetal Medicine; Vice-President, Delhi Chapter of Society of Fetal Medicine**;** Member of AEFI committee; Chairperson of Medical Board for late termination of pregnancy; Member Institute Ethics SAE committee.

Professor JB Sharma was FOGSI Dr Kumud P Tamaskar **Prize** winner - Female Genital Tuberculosis: An Important Cause of Infertility in India.

Professor Neeta Singh received the IFS Master Achiever Award 2023, ISAR Distinguished Service Award 2023, 'ISAR Appreciation Award 2024'; Governing Council Member, ICMR; President of IVF Research Society; Secretary of Fertility Preservation Society of India (FPSI) 2021-2023; Participated as an Expert at the Technical Expert Group Meeting on 'Infertility Care in India' conducted by WHO India in partnership with ICMR on 2-3 November 2023.

Professor K Aparna Sharma completed the International Master in Maternal Fetal Medicine program in 2023 organized by Fetal I+D Education Barcelona. This Master is approved and certified by the Institute of Continuing Education (IL3) of the University of Barcelona.; Completed the 2022-Inaugural India Cohort of the Women Lift Health Leadership Journey, supported by Stanford University and the Bill and Melinda Gates Foundation; Completed Advanced Training in the field of Medical Science & Management for AIIMS and relevant Institutes - Medical Device Development and Social Implementation from Osaka University, Japan***;*** Received the Shakti Prerna Puraskar of the year 2023 on SHAKTI Sthapna Diwas, 2023 (SHAKTI Foundation Day) on 19 April 2023, by INDRAPRASTH SHAKTI DELHI (A National Movement for Women).

Professor Garima Kachhawa was MD Mentorship: First prize (Torrent Young Scholars Award TYSA Award) for Efficacy of Levonorgestrel Intrauterine system in reducing menstrual blood loss in women with haematological disorders at AIIMS, New Delhi held on 16 December 2023 (Dr Jai Shree).; Member of Committee Referral Policy among the hospitals of Delhi NCR, DGHS, Delhi**;** Designated nominate Central Public Information Officer since 1 September 2023 till date**;** Chairperson for Medical Board for examination of cases under legal purview.

Professor Reeta Mahey received Dr Mangla Telang's Best Research Paper Award for oral paper presentation at FERTIVISION (Annual Conference of Indian Fertility Society), December 2023.

Dr Vidushi Kulshrestha was co-author for research work on myoinositol in treating polycystic ovary syndrome which was awarded the ISSN International Research Award 2023 (IIRA-2023); co-author for research work on serum bile acids in intrahepatic cholestasis of pregnancy which was awarded the Best Researcher Award by the International Congress for Research Excellence (ICRE) 2024; Felicitated for contribution as a master trainer in the field of newer contraceptives Implanon.

Dr Seema Singhal got ICOG Usha Saraiya Oration award 2023; LLRM Dronacharya award 2023; was M.Ch mentor to students (Academic Senior residents Gynae Oncology) who won First prize during Quiz competition at AOGIN 2023 and AGOI 2023; was Treasurer AOGIN India (2022-24), member Oncology committee of AOGD (Association of Obstetricians and Gynaecologists of Delhi), 2023-24 and Executive member AGOI (Association of Gynae Oncologists of India) 2022-24; Associate Editor Indian Journal of Medical Research (ICMR); Subject Expert committee member CDSCO for the evaluation of clinical trials, new drugs and new medical devices; National Co-Ordinator Dr NB Gynae Oncology weekly virtual classes for Gynae Oncology super specialty students.

Dr Jyoti Meena was Member of Education Committee of ASGO and was invited as a discussant in the 41st webinar of ASGO and as a speaker during 8th Biennial conference of ASGO held in Taiwan.; Expert for a policy consultation meeting to develop a comprehensive menstrual hygiene policy framework, Ministry of Health and Family Welfare, Delhi.

Dr Juhi Bharti was pursuing the course of DM Reproductive Medicine at AIIMS, New Delhi as service sponsored candidate.

Dr Nilanchali Singh was selected as the 'IPVS Early Career Working Group' of the International Papilloma Virus (IPVS), 2023-25; received International Gynecological Cancer Society (IGCS) Travel grant to attend IGCS annual Conference, SEOUL, South Korea, 2023; won debate on, "Cosmetic Gynecology is here to stay; Against' at the AICC RCOG Congress, New Delhi in September 2023; Prize in Slogan writing competition held on the occasion of World AIDS Day at FOGSI 2023-24 on 1 December 2023.

Dr Deepali Garg received Felicitation from Indian Medical Association East Delhi Branch on 2 July 2023; was Member of FOGSI family welfare Committee 2024.

Dr Neha Varun was Awarded with Kamini Rao Oration award in AICOG January 2024; got Appreciation award as a master trainer of Implanon at State Family Planning Summit (Oct'23); was Member of Committee, AOGD endoscopy Committee (2023-2025), AOGD Fetal Medicine Committee (2023-2025), FOGSI Family Welfare Committee (2022-2024), FOGSI Clinical Research Committee (2024-2026), and FOGSI Medical disorders in pregnancy Committee (2024-2026).

Dr Anubhuti Rana was Member, Expert group to discuss India-specific formulation of multiple micronutrient supplements (MMS) for use in a multicenter study in pregnant women.

Dr Swati Tomar attended WHO International Agency for Research on Cancer (IARC) Summer School 2023 Module on 'Implementing Cancer Prevention and Early Detection' at Lyon France from 26 to 30 June on full scholarship.

List of Visiting Faculty in Department of Obstetrics & Gynaecology

S. No.	Name	Designation	Date	Institution
1	Dr Subhabrata Mitra	Associate Professor & Consultant Neonatologist	19 July 23	Neonatology, University College, London
2	Dr Rajnish H. Tiwari	Consultant	26 July 23	S.J Patel Hospital, Gandhinagar

3	Dr Kailash Narayan	Honorary Consultant Obs and Gynae	2 August 23	Peter Mac Callum Cancer Centre & Icon cancer, Melbourne, Australia
4	Dr Sangeeta Agnihotri	Consultant	1 February 24	Barts Health NHS Trust, London
5	Dr Asima Mukhopadhyay	Consultant Gynaecological Oncology and Lead in Cytoreductive Surgery	20 November 2023 to 3 December 2023 & 11 January 2024 to 29 January 2024	James Cook University Hospital, UK

Guest Lectures

S. No.	Name	Date	Topic	Institution
1	Dr Steve Levett, Professor (Embryology)	7 December 2023	Best Practices in Embryo Transfer	Director of Clinical Applications, Cooper Surgicals, U.K.
2	Dr Subhabrata Mitra	19 July 2023	Developing Digital Biomarkers for Fetoplacental Monitoring: Saving Babies & Families from Preventing Harm	Neonatology, University College, London
3	Dr Rajnish Tiwari, Consultant	26 July 2023	My surgical endeavours from basic to advanced laparoscopic gynaecologic procedures	Palyad Trust Hospital, Gandhinagar & Eva Women's Hospital & Endoscopy Centre, Ahmedabad
4	Professor Kailash Narayan Senior Radiation Oncologist	1 August 2023	Selection of adjuvant therapy for patients with endometrial cancer: A perspective based on patterns of failure	University of Melbourne, Australia
5	Dr Kavita Mundey Ratarasarn	2 August 2023	Circadian Rhythms, Dinacharya and Health	AIIMSONIAN now in America, who has worked extensively on Ayurveda
6	Dr Janesh Gupta Professor	30 November 2023	Current diagnosis and management of abnormal uterine bleeding and how to conduct research, write a paper and get published	University of Birmingham, UK
7	Dr Asima Mukhopadhyay	January 2024	Setting up cytoreductive surgery programme and quality indicators	James Cook University Hospital, UK
8	Dr Subhabrata Mitra, Associate Professor	18 March 2024	Shining light to improve perinatal outcomes	Neonatology, University College, London
9	Dr Subhabrata Mitra, Associate Professor	19 March 2024	Optican Neuromonitoring: Current state and recent advances	Neonatology, University College, London

9.26 Orthopaedics

Professor & Head

Ravi Mittal

Professors

Shah Alam Khan
Bhavuk Garg
Vijay Kumar
Mohd Tahir Ansari

Additional Professors

Vijay Kumar Digge
Vivek Shankar
Venkatesan Sampath Kumar
Vikrant Manhas

Assistant Professor

Arun M Swamy

HIGHLIGHTS

The Department of Orthopaedics in AIIMS has doctors with specializations in the field of joint replacement, sports medicine, hand surgery, musculoskeletal oncology, paediatric orthopaedics, spine surgery and treatment of complex trauma. The recent innovations in orthopaedics surgery such as minimally invasive joint replacement, surface replacement arthroplasty, revision hip and knee replacements, minimally invasive spine surgery, vascularised grafting for non-unions, limb reimplantation, arthroscopic PCL and shoulder surgery are all being practiced here. The department also has dedicated research labs namely 3D printing lab, Genetic lab, Gait lab, which provided them both national and international recognition. ICMR and CSIR funded research projects are also being carried out.

EDUCATION

Full term post-graduate residency program of MS (Ortho) for three years- 23 students

Nonacademic Senior resident – 14

The following fellowship courses are being conducted at the Department:

Fellowship in Arthroscopy

Fellowship in Musculoskeletal Oncology

Fellowship in Arthroplasty

Short & long-term training programs are also being conducted in the department regularly

CMEs/Workshops/Symposia/National and International Conferences

1. 2nd AIIMS International Spine Deformity Course, 1 April 2023, New Delhi
2. 41st Annual Conference of the North Zone Orthopaedic Association (NZOACON 2023), 12-14 May 2023, New Delhi
3. Current Concepts in Arthroplasty (CCA 2023) 1-3 December 2023, New Delhi
4. 3rd AIIMS International Spine Deformity Course, 21-23 March 2024, New Delhi

Lectures Delivered: 138

Ravi Mittal: 20
Shah Alam Khan: 4
Vijay Kumar: 61
Bhavuk Garg: 22
Mohd Tahir Ansari: 5
Vijay Kumar Digge: 14
Venkatesan Sampath Kumar: 6
Vivek Shankar: 2
Vikrant Manhas: 4

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
57	95	138

Oral papers/posters presented: 35

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
6	28	35

RESEARCH

Funded projects

Ongoing

1. A comparative study between pentoxifyline and Teriparatide for the treatment of postmenopausal osteoporosis: A randomized controlled Trial, Dr Bhavuk Garg, ICMR, 3 years, 2022-25, Rs 80 Lacs (1st & 2nd Year)
2. A comparative study to evaluate the Immunoporotic effect of first-line therapies (Bisphosphonates, Teriparatide and denosumab) in Osteoporosis, Vikrant Manhas, Intramural interdisciplinary (Intramural funded), 1 years, 2023-24, Rs 10 Lacs
3. A Post Market Follow-Up (PMCF) study to evaluate the Safety and Performance of Knee Arthroscopy System, Dr Vijay Kumar D, Auxein Medical Pvt. Ltd, 2 years, 2024-26, Rs 8.7 Lacs
4. A Prospective single arm multi-centric post marketing clinical follow-up study to evaluate the safety and performance of pedicle screws in patient with spinal disorders, Dr Bhavuk Garg, Auxien Medical Private Limited, 2 yeras, 2023-24, Rs 73.0 Lacs
5. A Randomized controlled trial to evaluate the efficacy of multimodal Ayurveda interventions in Jaanu Sandhigatavata (Primary Knee Osteoarthritis), Dr Uma Kumar' Dr Vijay Kumar' Dr Danveer Badu' Dr RK Arya' Dr BD Chaudhary, Ayush, 3 yeras, 2022-25, Rs 98.6 Lacs
6. Comparative evaluation of genetic and cytokines profile in age-matched North Indian subjects with and without knee Osteoarthritis: A follow up study, Dr Bhavuk Garg, ICMR, 3 years, 2021-24, Rs 124 Lacs
7. Cross sectional hospital based study to assess prevalence of knee deformities in children and its correlation with Nutritional status and regulators of bone metabolism, Dr Venkatesan Sampath Kumar, ICMR, 3 years, 2023-26, Rs 36.04 Lacs
8. Determination and safety of feasibility of Thoracic Laminar Screw through morphometric analysis and cadaveric use followed by the development of a commercially viable complete laminar screw insertion system, Dr Bhavuk Garg, ICMR, 3 years, 2023-26, Rs 13.6 Lacs (1st Year)
9. Development of wireless imaging system and wireless light source for arthroscopy, Ravi Mittal-AIIMS, Delhi Jay Dhariwal-IIT delhi, AIIMS, IIT, 2 years, 2022-24, Rs 5 Lacs
10. Gait pattern analysis of children with bilateral genu valgum deformity of lower limbs, Vikrant Manhas, Intramural, 1 year, 2023-24, Rs 20 Lacs
11. Identification of diagnostic biomarkers based on transcriptomics in periprosthetic joint infection. Dr Vijay Kumar Dr Dipendra Kumar Mitra, AIIMS, 2 years, 2023-25, Rs 10 Lacs
12. Integrated Surgical Platform with Navigation, Robot, Simulation & Training for Total Knee Arthroplasty, Professor Mohanasankar Sivaprakasam, IIT Madras Subodh PS, CDAC Thiruvananthapuram, Dr Vijay Kumar, AIIMS, New Delhi, Ministry of Electronics and Information Technology (MeitY), 4yrs and 6 months, 2024-28, Rs 34.05 Crores
13. Integration and application of artificial intelligence in care of patients with scoliosis, Dr Bhavuk Garg, ICMR, 3 years, 2023-26, Rs 84.63 Lacs

14. Investigate the Immunoporotic role of Bisphosphonates in treating postmenopausal osteoporosis, Vikrant Manhas, Intramural, 1 year, 2023-24, Rs 50 Lacs
15. Obesity-A risk factor for intervertebral disc degeneration: An exploratory study by biochemical parameters, Dr Vivek Shankar, ICMR, 3 years, 2023-26, Rs 35.09 Lacs
16. Prospective Randomized controlled trial to assess the effectiveness of Yoga vs Standard Physiotherapy and to validate Yoga as a standard rehabilitation program in anterior cruciate ligament reconstruction patients, Dr Vijay Kumar D, DST, 3 years, 2022-25, Rs 23.52 Lacs
17. Skeletal muscle regeneration following total knee arthroplasty: limitations of the intrinsic stem cell pool, Vikrant Manhas, AIIMS-UCL Collaboration, 2 years, 2023-25, Rs 10 Lacs/Year
18. To develop low cost Indigenous Magnetic Growth Rod for Early onset Scoliosis patients, Dr Bhavuk Garg, ICMR, 3 years, 2021-24, Rs 80 Lacs
19. Yoga Intervention in treating post traumatic limb fractures which develop Complex Regional pain syndrome (CRPS 1) and assessment of their quality of life, Prof Vijay Sharma, ICMR, 04 years, 2020-24, Rs 50 Lacs

Completed

1. Assessment of bone health in Transgender population of India, Dr Bhavuk Garg, ICMR, 3 years, 2018-21, Rs 72 Lacs
2. Designing of patient specific Total Elbow Replacement prosthesis for Indian Population, Dr Bhavuk Garg, ICMR, 3, 2019-22, 130 Lacs
3. Study of osteogenic humoral factors on fracture healing in patients with head injury: Decoding the mystery, Dr Vijay Kumar D, DST, 3 years, 2018-21, Rs 46.3 Lacs
4. Intra-articular injection of Autologous adipose tissue-derived stromal vascularfraction (SVF) or Hyaluronic acid for treating symptomatic knee osteoarthritis: A randomised control trial, Vikrant Manhas, Intramural, 1 year, 2022-23, Rs 5 Lacs
5. To investigate the long-term impact of COVID-19 on bone health, Dr Bhavuk Garg, AIIMS, 2 years, 2021-23, Rs 10 Lacs
6. To investigate the regulatory potential of Estrogen in modulating differentiation and function of regulatory B cells: Implications in bone remodelling, Dr Bhavuk Garg, AIIMS, 2 years, 2021-23, Rs 10 Lacs

Ongoing

1. A Randomised Control Study of preoperative Oral Carbohydrate loading versus non caloric drink in patients undergoing Total Knee Replacement Surgery
2. A randomised control trial to compare the radiological and functional outcomes of comminuted distal radius fractures 2r3c3.1 and 2r3c3.2 treated with only volar plating versus combined volar and dorsal plating
3. An Ambispective study evaluating the Clinical and functional patient-related Outcomes following arthroscopic Anterior cruciate ligament Reconstruction using five stranded technique
4. Assessment of risk factor associated with intraoperative fall in evoked potentials in deformity correction surgery
5. Comparison of Analgesic efficacy of PENG block vs QL3 block in adults patients undergoing THRs
6. Comparison of Analgesic efficacy of pericapsular block versus Quadratus Lumborum Type III Block in adult patients undergoing unilateral Hip Arthroplasty: A Randomised Control Trial
7. Comparison of Dexamethasone vs dexamethasone and dexmeditomedine on the duration and quality of ultrasound guided sciatic nerve block via popliteal approach in orthopaedic below knee surgeries: a double blind randomized controlled trial
8. Evaluation of complex regional pain syndrome of hand in patient presenting in a tertiary care centre
9. Evaluation of Outcomes following sequential Bilateral TKA done at Short interval Retrospective outcome analysis for THA in acetabular protrusio
10. Gait Analysis in adolescent symptomatic flexible flat foot following Subtalar Arthroereisis: A prospective cohort study

11. Prospective study to assess the correlation of SPECT/CT and clinical functional scores in patients undergoing HTO pre-operatively and 6 months post-operatively
12. Prospective study to assess the correlation of SPECT/CT and Clinical Functional Scores in Patients undergoing HTO Pre-Operatively and 6 Months Post Operatively
13. Retrospective Analyses of Outcomes of Revision Total Hip Arthroplasty Using Prefabricated Porous Coated Flanged Acetabular Cup having Caudal hook for obturator foramen and flanges for ilium fixation
14. Role of CT Angiography and Preoperative Permanent Embolization or Temporary Balloon Catheter Placement to Prevent Vascular Complication in Case of Revision THR with Intrapelvic Cup Migration
15. To dissect the role of "Gut-Immune" axis in regulating Bone Health
16. To study the analgesic effectiveness of Anterior Femoral Cutaneous nerve Block in addition to Proximal Adductor Canal Block and Local Infiltration Analgesia in patients undergoing unilateral Primary Total Knee Arthroplasty: A randomised Control Trial
17. Triple Randomised Controlled Trial Comparing The Accuracy And Safety Between Free Hand, O-Arm Navigated And Robot-Assisted Pedicle screw Placement In Thoracolumbar Spine
18. Unicompartmental knee arthroplasty vs high tibial osteotomy for anteromedial osteoarthritis of the knee in young patients-a randomised controlled trial

Completed

1. Ambispective study on epidemiology and functional outcome of ACL reconstruction
2. An ambispective study on the clinical, functional and radiological assessment of scoliotic patients preoperatively and postoperatively
3. Comparative study between Arthroscopic bone grafting to nonvascularized bone grafting for nonunion of the scaphoid fracture: A Non Randomized Control Trial
4. Correlation of instrumented gait analysis in patients of primary osteoarthritis of knee with functional and outcome score and radiograph grade in Indian population
5. EffectivenessofUltrasoundguidedinterventionsforsofttissuepaininfootandankle
6. Factors associated with avascular necrosis of hip in patients who had COVID 19 infection
7. Gait analysis of anterior talofibular ligament (ATFL) injured patients managed conservatively or surgically: A prospective cohort study
8. Preoperative MDCT evaluation of bipolar bone loss in recurrent anterior instability of shoulder joint
9. To compare the sedative effect of subarachnoid block with and without intravenous midazolam using BIS monitoring in patients undergoing lower limb surgeries-A randomized controlled trial
10. To study the clinical and radiological outcome of posterior and posterolateral decompression and instrumented interbody fusion using locally harvested bone graft in traumatic fracture dislocation of thoracolumbar spine
11. Tough Self-healing hydrogel for Cartilage Regeneration
12. Transdermal Buprenorphine patch versus Ketoprofen patch for postoperative pain management after total knee and hip arthroplasty: a randomised control trial

Collaborative projects

Ongoing

1. A Randomized controlled trial to evaluate the efficacy of multimodal Ayurveda interventions in Jaanu Sandhigatavata (Primary Knee Osteoarthritis), Rheumatology
2. Analgesic efficacy and safety of Clonidine as an additive to 0.25% Ropivacaine for Stellate Ganglion block for the treatment of complex regional pain syndrome. A prospective randomized single blindstudy, Department of Anaesthesia/AIIMS, New Delhi

3. Clinical Research to assess efficacy of repetitive transcranial magnetic stimulation along with neurotrophic coated nanoparticles in complete spinal cord injury patients, DBT
4. Comparison Between Kit Based and In House Preparation of 99mTc-Ubiquicidin, Department of Nuclear Medicine/ AIIMS, New Delhi
5. Comparison of Analgesic efficacy of pericapsular block versus Quadratus Lumborum Type III Block in adult patients undergoing unilateral Hip Arthroplasty: A Randomised Control Trial, Anesthesia
6. Effect of nicotine replacement therapy on peri-operative opioid requirement in abstinent tobacco smokers undergoing spinal fusion, a double blind randomized controlled trial, ICMR
7. Femoral Alignment Guide System "AlignAssure" In Total Knee Arthroplasty, IIT, Delhi
8. Fluorosis mitigation in scheduled caste community in Bihar through intervention and counselling, Department of Anatomy, AIIMS, New Delhi
9. Identification of diagnostic biomarkers based on transcriptomics in periprosthetic joint infection. Intramural, Deptt of Transplant immunology and immunogenetics
10. Integrated Surgical Platform with Navigation, Robot, Simulation & Training for Total Knee Arthroplasty, IIT Madras, CDAC Thiruvananthapuram
11. Pattern of Metacarpal Fractures in Patients, Presenting to a Tertiary Care Centre in North India, Department of Plastic Surgery/AIIMS, New Delhi
12. Randomized Controlled Trial Evaluating the Efficacy of Transcatheter Arterial Embolization in Moderate Medial Knee Pain Refractory to Optimal Non-Surgical Management-A Pilot Study, Department Of cardiac radiology, AIIMS
13. Role of 99m-Tc-Ubiquicidin scintigraphy in diagnosis of orthopaedic implant infection, Department of Nuclear Medicine/AIIMS, New Delhi
14. Role of biomarkers in patients undergoing major musculoskeletal tumor surgery andits correlation with different anesthetic techniques and peri-operative outcomes, Department of Anaesthesia/AIIMS, New Delhi
15. To delineate the Immunoporotic role of Regulatory and Effector B cell (Breg-Beff) axis in the pathophysiology of osteoporosis, Department of Biotechnology, AIIMS
16. To study the analgesic effectiveness of Anterior Femoral Cutaneous nerve Block in addition to Proximal Adductor Canal Block and Local Infiltration Analgesia in patients undergoing unilateral Primary Total Knee Arthroplasty: A Randomised Control Trial, Anesthesia
17. To study the analgesic effectiveness of Anterior femoral cutaneous nerve block in addition to Proximal adductor canal block and Local infiltration analgesia in patients undergoing unilateral primary total knee arthroplasty, Department of Anesthesiology, Pain Medicine and Critical Care, AIIMS
18. Trans-arterial Embolization for Clinical Improvement in Adhesive Capsulitis, Department Of cardiac radiology, AIIMS
19. Trans-arterial Embolization for the management of Achilles tendinitis, Department Of cardiac radiology, AIIMS
20. Trans-arterial Embolization for the management of Early hip arthritis, Department Of cardiac radiology, AIIMS

Completed

1. Establishing the Ideal time point for imaging of tuberculous lesions using 99mtc-Ethambutol scintigraphy, Department of Nuclear Medicine, AIIMS
2. The comparison of clinical and radiological outcomes of total hip arthroplasty with direct anterior approach versus posterior approach-A randomized control trial, Department of Orthopaedics, AIIMS
3. To compare the Forgotten Joint score, clinical, radiological outcomes and gait parameters in patients undergoing total knee arthroplasty with ultra-congruent bearing versus cruciate-retaining bearing: A Randomized control trial, Department of Orthopaedics, AIIMS

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	7	28	19
Total funding (Lakhs)	Rs 295	Rs 1172.1	Rs 4089.7

PUBLICATIONS

Total Publications: 56; **Journal articles: 46;**

Abstracts: 3; **Chapters in books: 7**

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**39**	**83**	**56**
Journal articles	37	74	46
Abstracts	1	0	3
Chapters in books	1	9	7
Books	0	0	0

PATIENT CARE

Under the title: Patient care/supportive activities: please include information regarding:

(a) facilities available in the department (including special clinics and/or special laboratory facilities)

(b) community services/camps, etc.

Please also provide data wherever appropriate.

Patient care *(other items may be added/removed as per activity of department)*

Professor Mohd Tahir Ansari- I have been involved with treatment of general orthopaedic patients and hand related illness patients in general orthopaedic OPD and Hand Clinic.

Dr Vikrant Manhas Co-ordinating Rotary Medical Mission Camps for last two years. Medical Mission Camp Baripada, 2023.

Item	2021–2022	2022–2023	2023–2024
OPD consultations	66,025	2, 23, 498	2, 01, 192
Special clinic consultations	NA	3063	4400
Patients provided rehabilitation services	NA	NA	66, 717
Total inpatient admissions	5312	8869	9365

CLINIC NAME	Number of Patients Catered
Tuberculosis Clinic	32

Scoliosis Clinic	798
Hand Clinic	628
CTEV Clinic	2900
Sports Clinic	20
FFC &FLS	05
Bone & Soft tissue tumor clinic	17

	Unit- I	**Unit- II**	**Total**
Major OT Procedures	1984	2109	4093
Minor OT procedures	1146	1402	2548
Admissions	4353	5012	9365

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shah Alam Khan was Delivered Plenary lectures (Two) at important sessions of the Annual conference of the Indian Orthopaedic; Association held in Lucknow between 14-17 December 2023; Invited as a fellowto the Annual Conference of the British Indian Orthopaedic Society at their annual meeting in London on 7-9 July 2023.

Professor Bhavuk Garg was DMA-Distinguished Medical Services award in the field of Orthopaedics 2023 was Featured in global 2% top researchers list released by Stanford University 2023, youngest among 9 names in India.

Dr Vijay Kumar Digge was Received EMEQ Award from DST, Govt. of India; Fellowship in Foot, Ankle & Sports Surgery at University of Texas Medical Branch, Austin, Texas; Fellowship in Ankle Foot surgery at Ramaiah Medical College Hospital, Bangalore, Karnataka; Fellowship in Foot & Ankle Surgery at Nara Medical University, Japan; Part of organizing team for CCA-2023 held in AIIMS, Delhi; Moderated a Live Surgery on – Single Row Cuff Repair at IASCON 2023 at Lucknow; Chaired a Session as National Faculty on Topic – Young Surgeon's Forum – AVN in Foot & Ankle; Trained two Fellows in Ankle Foot Surgery from periphery medical college.

Dr Venkatesan Sampath Kumar was Completed ACGME accredited Musculoskeletal Oncology Fellowship at Memorial Sloan Kettering Cancer Center, New York, USA; Awarded MSTS Onkos Fellowship to MGH Musculoskeletal Oncology Program, Boston, USA; Received Best Paper Award at IMSOS 2023, Chandigarh; Best Oral Presentation Award won by our PG student in CCA 2023.
5. Deputed as Faculty-in-charge of Outsource Cell, AIIMS, New Delhi.

Dr Vikrant Manhas Received "IAA Gold Medal" award in IAACON-2023; Completed a clinical and research fellowship in the field of hip and knee replacement and preservation surgery in Austria. I visited three major Orthopaedic centres i.e, Orthopedisch Spital Speising, Medical University Vienna and Medical University Graz; Completed one cadaveric workshop on extensile approaches to the hip at Medical University Graz, Austria*;* Review committee member of the committee constituted by AIIMS for Rashtriya Arogya Nidhi (RAN); Review committee member for examination and approval of medicines disbursed for OPD patients in the Department of Orthopaedics by Free Generic Pharmacy at AIIMS, New Delhi; Office in charge of GEM (Unit- I) in the Department of Orthopaedics; Office-in charge (Unit- I) of Disability assessment and certification in the Department of Orthopaedics.

VISITING SCIENTISTS

Provide the name, activity, institutional affiliation, city and country of person visiting.

Dr Kapil Kumar from University of Aberdeen delivered talk on "Shoulder trauma" on 8 February 2024.

Dr Mandeep S Virk from Department of Orthopaedics, New York University delivered a talk on "Reverse Shoulder Arthroplasty with Computer Navigation for Rotator Cuff Tear Arthropathy with Bone Defects" on 21 February 2024.

9.27 ENT

Professor and Head
Alok Thakar

Professors

Rakesh Kumar	Kapil Sikka	Chirom Amit Singh

Additional Professors

Rajeev Kumar	Prem Sagar	Arvind Kumar Kairo
Shuchita Singh Pachaury		Hitesh Verma

Assistant Professors

Poonam Sagar	Anup Singh	Smriti Panda
Manish Verma		Manaswita Roy

HIGHLIGHTS

The department was committed to providing quality education to its own residents, students, fellows, and other delegates both online and offline. Department conducted various conferences and meetings including cochlear implant workshop and International Head and Neck cadaveric hands-on workshop Department also conducted an Otology workshop. The second SK Kacker Oration was delivered by Prof Mohan Kameswaran, MERF, Chennai. The oration was attended by various ENT specialists from India and Abroad and many students of Prof SK Kacker.

EDUCATION

The formal lecture schedule for the MBBS students is included in the 6th and 8th semesters and consists 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 common ENT diseases and learn 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. Bedside teaching and case discussion on common ENT conditions like CSOM, Deviated Nasal septum, Nasal polyps, Cancer larynx etc
3. They are also exposed to common ENT procedures

For postgraduates, major goals are patient care, teaching, research ability, and teamwork.
PG students have to do presentations of seminars/papers, research writing, and acquire Clinical decision-making ability & 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, they are posted for 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 visits other wards with senior colleagues to attend call/consultations from other departments. They also participate in the teaching sessions in ward for bedside clinical aspects, 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 MCh Head and Neck Surgery super speciality course and fellowship in Skull Base surgery. The MCh residents have been allocated duties in the respective specialties in OPD, and 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 encouraged to participate in research projects jointly with faculty members. They present Seminars and Journal clubs by rotation. MCh residents are also posted in NCI Jhajjar for clinical and academic duties.

The department also organizes workshops and conferences for benefit 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.
Online teaching schedules continued over virtual platforms during the pandemic.

The department recently hosted Prof Terry Jones, Liverpool and Prof Kyung Tae, Seoul, South Korea. Collaborations helped us take further our intents of Biobank establishment and minimal invasive thyroid surgery further.

Short Term Training:

- Dr Darwin, Additional Professor, Department of ENT, AIIMS, Jammu, two weeks, 29 January 2024 to 10 February 2024
- Dr Piyush Tripathi, ENT Surgeon, District Hospital, Dehradun, 45 days, 22 December 2023 to 5 February 2024
- Dr Shruti Ogra, Sr. DMO/Northern Railway Central Hospital, six weeks, 20 November 2023 to 30 December 2023
- Dr Amardeep Singh, Faculty (ENT), AIIMS, Jammu, two weeks, 17-31 August 2023
- Ms Shabnam and Mr. Yograj, Nursing staff, Government Medical College, Jammu, two weeks, 26 June 2023 to 10 July 2023
- Ms Ruchi Sharma, Audiologist and Speech Therapist attended the RUAS Unit of ENT Department, AIIMS, New Delhi on 3 April 2023, 6 April 2023 and from 1-20 May 2023 (except Wednesdays) for speech disability assessment training

Elective training:

- Department had observers and rotation postings from Departments of Emergency Medicine, Radiation Oncology, Neurosurgery, Pediatrics and Physiology
- Internship observership posting of students of Bachelor's in Audiology and Speech-Language Pathology (BASLP), AYJNISHD, Regional Centre, Noida

CMEs/Workshops/Symposia/National and International Conferences*

1. 5th AIIMS- Facial Plastics & Rhinoplasty Workshop, 21-23 April 2023, New Delhi
2. AOI Meeting, 28 July 2023, New RAK OPD, New Delhi
3. Head & Neck Oncology CME, 11 August 2023, New Delhi
4. Microvascular Anastomosis Workshop, 12-14 October 2023, New Delhi
5. AIIMS Otology Update, 20-22 October 2023, New Delhi
6. Lecture of Dr Dinesh Chetri, 5 December 2023, AIIMS Board Room, New Delhi
7. Temporal Bone Dissection Course, 8-9 March 2024, New Delhi

Lectures delivered: 148

Alok Thakar: 27	**Rakesh Kumar: 18**	**Kapil Sikka: 25**
Chirom Amit Singh: 9	**Rajeev Kumar: 21**	**Prem Sagar: 10**
Arvind Kumar Kairo: 8	**Shuchita Singh Pachaury: 5**	**Hitesh Verma: 21**
Poonam Sagar: 6	**Anup Singh: 4**	**Smriti Panda: 18**

Lecture delivered over past 3 years

2021-22	2022-23	2023-24
95	154	148

Oral papers/posters presented: 28

Oral/poster presentation over past 3 years

2021-22	2022-23	2023-24
1	36	28

RESEARCH

Funded projects

Ongoing

1. A study on frailty, cognitive dysfunction and associated comorbidities with Hearing loss in Geriatric population, Kapil Sikka, ICMR, 3 Years, 2024-27, Rs 30.9 Lakhs
2. Centre for Medical Innovation and Entrepreneurship, Alok Thakar, (AIIMS BioNEST), 4 Years, 2020-Ongoing, Rs 4.75 Crores
3. Clinical validation of the effectiveness of automated speech therapy for stuttering delivered by digital means, Shuchita Singh Pachaury, BIRAC, 2 Years 3 months, 2020-22, Rs 10 Lakhs
4. Development of single-cell derived clonal spheroids as a tool for drug discovery in cancer research with focus on Head and Neck Cancer, DR RP SINGH/DR HITESH VERMA, DST, 4 Years, 2019-23, Rs 3 Crores
5. Device fabrication and clinical validation of a novel mechanical handheld suction device for tracheostomy tube cleaning: a pilot study, Dr Prem Sagar (chief guide), Dr Ritu Dudi (PG thesis candidate), AIIMS, New Delhi, 2 Years, 2023-25, Rs 2 Lakhs
6. Exome sequencing and molecular characterization in juvenile nasopharyngeal angiofibroma (Collaborative Project), Hitesh Verma/ Dr Bhupinder Verma, AIIMS, 2 Years, 2021-23, Rs 20 Lakhs
7. Intraglandular Botulinum Toxin BoNT Injection for Postoperative Head and Neck Fistula Healing-A Pilot Study, Smriti Panda, Intramural early career grant, 2 Years, 2024-26, Rs 5.85 Lakhs
8. Local application of specific Unani drug for medical management of oral submucosal fibrosis (OSF) a randomized clinical control trial, Arvind Kumar Kairo, CCRUM, 2 Years, 2023-24, Rs 35 Lakhs
9. Phased pilot study to assess baseline serum level of Prestin in healthy individuals and in patients of definite Meniere's disease and ototoxicity as a biomarker of cochlear outer hair cell functional status, Dr Prem Sagar, AIIMS, New Delhi, Intramural project, A-832, 3 Years, 2020-23, Rs 4.5 Lakhs
10. Phased pilot study to assess the baseline of serum level of Prestin in healthy individuals and in patients of definite Meniere's Disease as a biomarker of cochlear outer hair cell functional status, Dr Prem Sagar, AIIMS, Rs 5 Lakhs
11. Prevention of Radiotherapy Induced Xerostomia by intraductal administration of N-Acetyl Cysteine in patients with Oropharyngeal malignancies: A Randomized Clinical Trial, Arvind Kumar Kairo, ICMR, 4 Years, 2020-24, Rs 36 Lakhs
12. Prospective study to evaluate the role of Systemic Bevacizumab therapy in patients with aggressive and complex laryngotracheal and pulmonary recurrent respiratory papillomatosis., Dr Rajeev Kumar, AIIMS Intramural Collaborative Research Project, 2 Years, 2021-23, Rs 20 Lakhs
13. Study to determine the role of mTOR pathway in the pathogenesis of juvenile nasopharyngeal angiofibroma, Dr Rajeev Kumar, AIIMS Intramural Research Project, 1 Year, 2021-23, Rs 5 Lakhs
14. To determine the efficacy of outpatient antimicrobial therapy (OPAT) with Liposomal amphotericin B in invasive sinonasal mucormycosis, a randomised controlled trial, Dr Poonam Sagar, Research section, AIIMS, Delhi, 2 Years, 2024-26, Rs 10 Lakhs
15. To evaluate nasal eosinophilic miRNAs as potentially diagnostic, prognostic and predictive biomarkers in allergic rhinitis, Dr Shuchita Singh, AIIMS, 2 Years, 2022-24, Rs 5 Lakhs
16. Transorbital approach to infratemporal Fossa-A cadaveric exploratory Study, Dr Anup Singh, AIIMS, 1 Year, January 2024, Rs 5 Lakhs

Completed

1. ACE-2 receptor expression in sino-nasal mucosa in patients with COVID-19 associated mucormycosis, Hitesh Verma, AIIMS, 2 Years, 2021-23, Rs 3.7 Lakhs
2. An evaluation of HLA, phagocytic function and trace elements in cases of sinusitis, invasive fungal sinusitis and non-invasive fungal sinusitis, Hitesh Verma, AIIMS, 4 Years, 2019-23, Rs 10 Lakhs
3. Evaluation of factors impacting outcomes of cochlear implants in pediatric population, Kapil Sikka, ICMR, 3.5 Years, 2029-23, Rs 35.3 Lakhs
4. Sound4All: Re-Engineering High end audiometric devices for robust and affordable audiological testing phase II, Kapil Sikka, IGSTC (Indo German Science and Technology Center), 4 Years, 2019-23, Rs 36 Lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. A comparative study to evaluate functional outcomes following tongue reconstruction with radial artery forearm free flap and infrahyoid myocutaneous flap
2. A pilot study to assess the effect of intraductal N acetylcysteine on swallowing and voice outcomes of patients with oropharyngeal cancer undergoing radiotherapy
3. A prospective cohort study to evaluate the feasibility and accuracy of fetal vibroacoustic stimulation as a prenatal hearing screening tool
4. A prospective study to evaluate role of various frailty screening instruments in predicting surgical complications in geriatric head-neck cancer patients.
5. A prospective study to evaluate the role of various frailty screening instruments in predicting surgical complications in geriatric head-neck cancer patients.
6. A prospective study to measure the objective, subjective and aesthetic Outcomes in patients undergoing Septorhinoplasty
7. A Prospective study to measure the objective, subjective and aesthetic outcomes in patients undergoing Septorhinoplasty
8. A randomised control trial on the effectiveness of anti-fungal and steroid nasal douching in allergic fungal rhinosinusitis: a clinical, radiological and biochemical correlation
9. A Randomized Control Trial to compare the outcomes of endoscopic and microscopic stapes surgery
10. A single institutional prospective audit of type-1 tympanoplasty and evaluation of factors affecting the outcome.
11. A Study analysing “Back to Normalcy” in Oral Cavity Cancer Survivors
12. Adversity and QOL Post Treatment of Laryngeal and Hypopharyngeal Cancer and Impact of Novel AIMS-IIT-TEP in its Mitigation.
13. Ambispective study to assess Universal Newborn Hearing Screening Program
14. Ambispective study to assess various primary tumour and ipsilateral nodal factors associated with contralateral nodal metastasis in patients with OCSCC
15. Analysis of voice outcomes after radiation or chemoradiation in carcinoma larynx and the effect of N acetylcysteine on voice parameters
16. Assessment of pre-cervical (perimarginal and lingual) lymph nodes as first echelon for squamous cell carcinoma of oral cavity
17. Comparative analysis of qPCR, mRNA ISH and p16 IHC for detection of high-risk HPV on fine needle aspirates and core needle biopsies in patients with metastatic squamous cell carcinoma in cervical lymph nodes
18. Comparative evaluation of CAD-CAM planning versus traditional free fibula planning in surgical outcomes in mandibular reconstruction-A prospective study
19. Comparative study evaluating Ex-Vivo US aided deep margin assessment with fresh frozen section analysis in T1-T3 tongue carcinoma: Feasibility study
20. Correlation of Depth Of Invasion with Lymph node Metastasis in Laryngeal and Hypopharyngeal carcinoma

21. Descriptive study of the anatomical variations of the superficial temporal artery and the posterior auricular artery in patients with unilateral microtia and its implications on the surgical outcomes in auricular reconstruction surgery
22. Descriptive study of the anatomical variations of the superficial temporal artery and the posterior auricular artery in patients with unilateral microtia and its implications on the surgical outcomes in auricular reconstruction surgery
23. Device fabrication and clinical validation of a novel mechanical handheld suction device for tracheostomy tube cleaning: a pilot study
24. Effect of intranasal corticosteroids and antihistaminics v/s omalizumab on adenoid hypertrophy
25. Effect of Palatal Morphology on Eustachian Tube Function in Children with Adenoid Hypertrophy: an Observation Study
26. Evaluating the effectiveness of Barbed suture versus Vicryl for pharyngeal closure after total laryngectomy in PCF reduction: A Randomised controlled study
27. Evaluation of respiratory and voice outcomes in patients with unilateral vocal cord palsy post-injection laryngoplasty
28. Evaluation of short-term and long-term effects of cochlear implantation on vestibular function
29. Exome sequencing and molecular characterization in juvenile nasopharyngeal angiofibroma
30. Impact of NACT on surgical decision and perioperative outcome in patients with very advanced buccal cancer
31. Prospective analysis of predictive factors for tracheal stomal stenosis after total laryngectomy for laryngeal and hypopharyngeal malignancies (2021-2023, Non funded study)
32. Prospective assessment of auditory and cognitive performance in children undergoing ear surgeries: A comparative study
33. Prospective audit of tympanoplasty and evaluation of factors affecting the outcome
34. Prospective study to correlate rhinomanometry in DNS patients with endoscopy, NOSE score and NCCT PNS study
35. Prospective study to evaluate the efficacy of PNN as treatment modality in patients with PAR along with medical management
36. Role of Adjuvant Therapy in Early-stage Oral Cavity Squamous Cell Carcinoma: An Ambispective Analysis
37. Role of preoperative nutritional intervention in improving surgical outcome of patients with oral squamous cell carcinoma
38. Role of ultrasound in predicting the depth of tumour invasion and lymph node metastasis in early tongue carcinoma. (2017 to date, Non-Funded Study)
39. Sentinel lymph node detection in oral squamous cell carcinoma with negative neck: comparison between [99mTc] Sulphur colloid AND [99mTc] DTPA ANTICytokeratin-Collagenous Nanoparticle (DC-Col NP)
40. Serum prestin and otolin-1 as markers of cisplatin-induced ototoxicity in cervical cancer patientsThesis
41. Short & Long term effects on vestibular apparatus of cochlear implant
42. Study evaluating the effectiveness of Barbed suture versus Vicryl suture for pharyngeal closure after total laryngectomy in PCF reduction
43. To assess the outcomes of lateral skull base lesions who have been surgically operated on with special reference to quality of life
44. To compare different Cochlear Implantation outcome scores with auditory cortical activity seen on functional near-infrared spectroscopy in prelingual profound SNHL patients after Cochlear Implantation
45. to compare post-cochlear implant outcomes in candidates with and without residual hearing (RH)
46. To evaluate poor prognosis factors in laryngotracheal stenosis: An ambispective study
47. To evaluate prospective auditory cortical activity changes on functional near-infrared spectroscopy in prelingual profound snhl patients undergoing cochlear implantation

Completed

1. A cohort study on determining the effect of preoperative residual hearing on post-cochlear implant outcome
2. A prospective pilot study to evaluate the effect of Supraglottoplasty on Tracheomalacia in pediatric patients with Congenital Laryngotracheomalacia

3. A prospective study to determine early predictive factors of hypocalcemia in patients undergoing total or completion thyroidectomy
4. A Prospective Study to evaluate the impact of Oral Sub mucous Fibrosis (OSMF) on occult and overt lymph nodal metastases in Gingivo-buccal complex carcinomas (GBCC) (T1-T4a) of Oral cavity
5. Ambispective study to evaluate the utility of Supraclavicular artery island flap [SCAIF] reconstruction in Head and Neck Cancers
6. An ambispective cohort control study to evaluate the incidence of SARS CoV-2 infection in post-Adenoidectomy/ Adenotonsillectomy patients
7. Comparison Of Suction Verses Microdissection Method For Harvesting Supporting Cell From Inner Ear
8. Observational study to correlate site of obstruction in OSA with eustachian tube dysfunction and reflux disorders
9. Prospective pilot study to assess the effectiveness of novel Forehead Knuckle Tapping method in localisation of better or worse hearing ear as compared to conventional tuning fork testing

Collaborative projects

Ongoing

1. A Phase II trial of Pentoxiphylline and alpha-tocopherol (PAT) in prevention of radiation-induced dysphagia in head and neck squamous cell carcinoma, Radiotherapy
2. A Phase III prospective randomised trial comparing dysphagia-aspiration-related structures & submandibular gland sparing Intensity-modulated radiotherapy (SWOAR-IMRT) versus standard IMRT (s-IMRT) paring in locally advanced oropharyngeal and laryngeal carcinomas, Radio-therapy
3. A Phase III, Randomized Controlled Study of Utility of Pectoralis Major Myofascial Flap in Reducing Pharyngocutaneous Fistula Rates After Salvage Total Laryngectomy, TMH
4. A randomised, sham-controlled, double-blind study to evaluate the efficacy of and safety of intra-thecal OAV101 in patients with later onset type-2 spinal muscular atrophy who are ? 2 to < 18 years of age, treatment-naive, sitting, and never ambulatory, A phase 3 Clinical trial (STEER) by Novartis Pharmaceuticals. ClinicalTrials.gov Identifier: NCT05089656
5. A study on the effect of genetic manipulation on mammalian inner ear cells, Department of Biochemistry
6. Analysis of circulating DNA for BRAF (T 1799A) mutation as a futuristic non-invasive tool for diagnosis, prognostication, targeted therapy and follow-up of papillary thyroid cancer, Pathology
7. Clinical validation of the effectiveness of automated speech therapy for stuttering delivered by digital means, BIRAC
8. Comparative analysis of qPCR, mRNA ISH and p16 IHC for detection of high-risk HPV on fine needle aspirates and core needle biopsies in patients with metastatic squamous cell carcinoma in cervical lymph nodes, Collaborative Intramural, AIIMS
9. Comparison of pulsed radio-frequency versus conventional radio-frequency in secondary glossopharyngeal neuralgia: a randomised controlled trial, Department of Anaesthesiology, AIIMS, New Delhi
10. Effect of Cochlear implantation on middle ear and saccular function, Collaborative project with AIISH, Mysuru
11. Evaluation of Machine Learning Techniques including Deep Learning for the Identification of Malignancy in Tissue Samples., AIIMS-IIT Delhi Joint Collaborative Funding 019-2021, Pathology-PI
12. Evaluation of specific molecular alterations and tumor immune microenvironment for detection of clinically actionable targets in high-grade salivary gland carcinomas, ICMR Funded, Department of Pathology
13. Exome sequencing and molecular characterization in juvenile nasopharyngeal angiofibroma, Biotechnology/AIIMS
14. Inter-institutional program for maternal neonatal and infant science: A translational approach-interdisciplinary group for advanced research on birth outcome, DBT India initiative (GARBH-Ini-Phase II)
15. Molecular Basis of Mucormycosis infection, Department of Biotechnology
16. Molecular characterization of olfactory neuroblastomas for classification into prognostically and therapeutically relevant subgroups., Department of Pathology

17. Perioperative anaesthetic management of paediatric congenital laryngomalacia-A retrospective study, Department of Anaesthesiology, AIIMS, New Delhi
18. Phase IIb/III Study to determine efficacy of curcumin and Metformin to reduce the incidence of Second Primary tumors of Aero-digestive tract in patients with history of head and neck squamous cell carcinoma, National Cancer Grid
19. Potentially malignant lesion atlas project: Validating the efficacy of a novel, Point-of-care diagnostics and developing an integrated multidimensional, prognostic nomogram, ICMR funded, Department of Preventive Oncology, NCI AIIMS
20. Prevalence and pattern of traumatic dental injury in children and adolescents with severe to profound hearing impairment reporting to a tertiary care centre in North India, Pediatric Dentistry, CDER, AIIMS, New Delhi
21. Role of celecoxib in reducing cognitive impairment in patients receiving definitive chemoradiation for head and neck carcinoma: A phase II randomized placebo-controlled trial, Department of Medical Oncology
22. The SWOAR trial: A phase III trial evaluating dysphagia-aspiration-related structures & submandibular gland sparing Intensity-modulated radiotherapy (SWOAR-IMRT) versus standard IMRT in Head and neck squamous cell carcinoma, Department of Radiotherapy
23. The tumour immune microenvironment of follicular cell-derived thyroid carcinomas across different grades utilizing gene expression and spatial proteomic profiling, Department of Pathology
24. To evaluate the role of Kit-based Loop-Mediated Isothermal Amplification (TB-LAMP) assay in the diagnosis of Extra-pulmonary tuberculosis (EPTB), Medicine Department
25. Ultrasonographic assessment of tonsillar volume in children undergoing tonsillectomy: a predictor of postoperative morbidity, Anaesthesiology

Complete

1. A cohort study to assess the feasibility of WHO ICOPE approach in tertiary health centres, Department of Geriatrics, AIIMS, New Delhi
2. A longitudinal Survey to assess Patient Satisfaction for Nurse Initiated Follow Up Tele-Consultation among patients discharged from a selected tertiary care hospital, Nursing department
3. A phase II study of EMF (Erlotinib + Methotrexate + Celecoxib) in platinum-refractory recurrent/metastatic head neck squamous cell carcinoma, Department of Medical Oncology
4. An OMR-based feed-back survey on in-patient satisfaction regarding various hospital services in a selected tertiary care hospital, Nursing department
5. Assessment of Oral Microbiome and its significance in upper aerodigestive tract cancers, Department of Medical Oncology
6. Comparison between kit-based and in-house preparation of Tc-99m Ubiquicidin, Department of Nuclear Medicine
7. Evaluation of genetic profile of olfactory neuroblastoma, Department of Pathology
8. To Understand the Biochemical and Molecular Basis of Mucormycosis in COVID-19 Patients, Department of Biotechnology
9. Utility of 99m Tc-Ubiquicidin scintigraphy in diagnosis of sinonasal mucormycosis, Department of Nuclear Medicine
10. Utility of Ga-68-NOTA-UBI in infectious and non-infectious lesions, Department of Nuclear Medicine

Research over past 3 years

Research project	2021-22	2022-23	2023-24
Total funded projects	20	16	21
Total funding	Rs 14.86 Crores	Rs 9.7 Crores	Rs 10.59 Crores

PUBLICATIONS

Total Publications: 154; Journal Articles: 72; Abstracts: 7; Chapters in Books: 74; Books: 1

Publications over past 3 years

Item	2021-22	2022-23	2023-24
Total	128	92	154
Journal articles	107	72	72
Abstracts	4	10	7
Chapters in books	16	10	74
Books	1	-	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: 3323*

*Long admissions: 2818

*Short Admissions: 505

Number of patient operated

Main OT: *Major cases- 4490 *Minor Cases- 303

Total – 4793

Minor OT OPD procedures: 33849

Number of patient seen in OPD

New patients- 41420 Old registration - 77431

Total - 118851

Total Number of Patients seen in RUAS: 6412

New Patients: 2919 Old Registrations: 3493

Total audiological tests done (PTA + Tympanometry + FFA + BERA + OAE + ASSR): 25060

Medical Board

Total number of Medical Board : 39

UDID (Unique Disability ID)

Total number of certificate Issued: 423

No. Of cases in Specialty Clinics

S. No.	Clinic	New Cases	Old cases	Total
1	Vertigo	134	253	387
2	Otology and Skull Base	65	34	94
3	Cochlear Implant	127	120	247

4	Voice	255	125	380
5	Rhinology	140	35	175
6	Head and Neck Cancer	1247	5742	6989
7	HNRC (Head and Neck Rehabilitation Clinic)	273	330	603
8	Radiology Conference	950	-	950
9	Neonatal Hearing Screening	2606	200	2806
10	FEES	556	-	556

NCI (Jhajjar)

Number of patients seen in OPD: 9437

New patients- 1109 Old registration – 8328

Number of patients seen in IPD: 1617

Number of patient operated

Major cases – 1013 Minor Cases: 641

Community service clinics

Twice-weekly clinics in community hospital in Ballabhgarh with once-a-week operating facilities.

Weekly clinics in primary health center in Gurgaon

Weekly clinics in community hospital in IIT Delhi

The department is providing daily OPD services at Outreach OPD Jhajjar. And thrice a week OT Services.

Item	2021-2022	2022-2023	2023-2024
OPD consultations	40733	96497	118851
Special clinic consultations	5345	10379	13187
Patient provided rehabilitation services	2059	6513	6412
Total inpatient admissions	4030	1810	3323

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Alok Thakar was Centre for Medical Innovation & Entrepreneurship (CMIE)- Project In-charge; National Health Authority- Lead Expert for ENT; Consultant (ENT) to the Honourable Vice President of India; Member- Expert committee for Review of National Program for Prevention and Control of Deafness; Co –Chairperson-Subcommittee for Medical Devices, Standing National Committee on Medicines; Asia-Pacific Society of Thyroid Surgery (APTS) - Council Member; Advisory Board member - Global Healthy Hearing Ears; WHO Regional Expert Group on Hearing Care for South-East Asia Region- Member; National Board of Examinations - Head-Neck Oncology Specialty Board Member; UChicago-UCMS Webinar Series on Head-Neck OncoSurgery- Scientific Director; Named Orations; DAYARAM ACHARYA ORATION (2023) - SOUTH ZONE Association of Otolaryngologists of India Conference, 6-8 October 2023; FOUNDATION ORATION (2023) - Annual Meeting of the Foundation for Head-Neck Oncology, 21-24 December 2023; 3 Keynote Lectures; 1 Patent published > 50 publications; > 600 Citations.

Professor Rakesh Kumar was Oration on ”Cochlear implant- Journey and lesson learnt” at Punjab AOI from 15-17 March 2024 held at Amritsar***;*** Chairperson of MHD-4 of BIS for looking after standards of ENT surgical instruments in India; Honorary Vice President, Otorhinolaryngologic Research Society of AIIMS (ORSA); Honorary Consultant at Department of Otorhinolaryngology and HNS, IGIMS, Patna; Honorary Visiting Consultant at Department of Otorhinolaryngology and HNS, AIIMS, Rishikesh; Member of the studies of the Department of Otorhinolaryngology, Faculty of Medicine of Aligarh Muslim University.; Starting new facilities at other places in India-; Cochlear implant programme at various Govt. Medical college Hospitals in India.; Starting facial plastics and Rhinoplasty at AIIMS, Bhopal; Organizing co

chairman "AIIMS Otology Update 2023" held from 20 October -22 October 2023 at AIIMS, New Delhi; Organizing chairperson 5th AIIMS Facial Plastics Workshop 2023 held from 21-23 April 2023 at AIIMS, New Delhi; Chairman scientific committee 45th Annual conference of Delhi AOI Branch, Delhi.

Professor Kapil Sikka was Reviewer, Indian J Otology, Indian J Otolaryngology, Head and Neck Surgery, Indian J Pediatrics, Indian J Cancer, Laryngoscope Investigative Otolaryngology, Indian J Neurology; Joint Secretary, Association of Otolaryngologists of India, Delhi State Branch; Hony Treasurer, Otorhinolaryngologic Research Society of AIIMS (ORSA), 2017; Member of Medical Board, AIIMS; Honorary Treasurer, Foundation for Head Neck Oncology (FHNO), 2023; Member, editorial team for research directory, AIIMS; Internal examiner, AIIMS, MS, Otolaryngology; External Examiner, DNB, National Board of examinations, ENT; Member, Executive Committee, AOI Delhi State Branch; Member, Advisory board for implementation of ADIP Cochlear Implant Program; Empanelled faculty for academic activities of National Board of examinations; Reviewer BMJ innovations; Assistant Editor, Indian Journal of Otology; Nodal Officer, AIIMS, National program for prevention and control of deafness.

Professor Chirom Amit Singh was Scientific Committee FHNO 2023; Conducted Microvascular anastomosis workshop, live rat model, 12-14 October 2023; Technical expert group member of Ministry of Health and Family Welfare; External expert, Selection committee, UCMS, New Delhi; External expert, Selection committee, AIIMS, Rishikesh.

Dr Rajeev Kumar was Awarded first prize in senior consultant paper presentation category in USAESCON 2023 (16th Annual Conference of Uttarakhand State Association of ENT Surgeons) held from 14-16 April 2023 in AIIMS, Rishikesh, Uttarakhand; Awarded 2nd prize in video presentation category in USAESCON 2023 (16th Annual Conference of Uttarakhand State Association of ENT Surgeons) held from 14-16 April 2023 in AIIMS Rishikesh Uttarakhand; Award 3rd Prize in video presentation category on " Open Partial Horizontal laryngectomy type IIa" IAOHNS 2023; 9th Annual conference of Indian Academy of Otorhinolaryngology- Head Neck Surgery held from 3-6 August 2023 at Jammu; Awarded first prize in video presentation for presenting "Vertical Partial Laryngectomy" during 45th annual conference of AOI, Delhi branch (AOICON-2023) held on 22-24 September 2023 at LHMC, Delhi; Awarded 3rd prize in poster presentation on "Efficacy of relative intact parathormone levels in predicting hypocalcemia after total thyroidectomy" during IFHNOS Head and Neck Cancer Summit 2024 held from 16-18 February 2024, Chennai, India; Member of the following National and International Scientific Bodies and Associations; Indian Society of Otology (ISO/LM/1134); The Association of Otolaryngologists of India (LM - 4070); Foundation for Head and Neck Oncology (LM-280); Neuro-Otological & Equilibriometric Society of India; All India Rhinology Society; AOI Delhi State Branch (LM-572); Delhi Medical Council (41154); European Head Neck Society (EHNS); Asia Pacific Thyroid Society (APTS); National Academy of Medical Sciences (MNAMS); Indian Academy of Otorhinolaryngology - Head Neck Surgery (677); Indian Society of Thyroid Surgeons (ISTS; LM -298); Executive editor in ClinicalKey Now, ENT subspecialty, Elsevier (App based); Reviewer in; Reviewer for official publication of Association of Otolaryngologists of India - Indian Journal of Otorhinolaryngology and Head & Neck Surgery w.e.f 21 February 2013; Reviewer for Journal of Medical Case Reports; Reviewer for "Indian Journal of Radiology and Imaging"; Reviewer for "Clinical Otolaryngology"; Reviewer for " World Journal of Paediatric Surgery"; Reviewer for "BMJ Case reports"; Cureus.

Dr Prem Sagar received Second prize in senior consultant award paper "Effect of supraglottoplasty on tracheomalacia in patients with laryngotracheomalacia: in Uttarakhand State Association of ENT Surgeon's Annual Conference, organized by Department of ENT & Head Neck Surgery, AIIMS, Rishikesh on 14-16 April 2023; Third prize in Video presentation for video titled "Labyrinthectomy for intractable Meniere's disease" in in ISOCON 2023, Annual conference of Indian Society of Otology on 24-26 November 2023 in JW Marriot, Pune; Member of Expert group for review of Health Benefit Packages for ENT under AB-PMJAY, Ministry of Health and Family Welfare, Govt. of India.; Specialist in the Medical Cell of National Health Authority under the project/task on standard treatment guidelines, Health Benefit Packages, Quality Assurance, Govt. of India; Co-opt Member of the panel on ENT Sectional Committee looking after and setting up the standard of ENT Surgery Instruments, MHD 04 by Bureau of Indian Standards; Member of National Academy of Medical Sciences (MNAMS); I have applied for patent of my invention "A system for cleaning tracheostomy tube" (Indian patent application No- 202311022027); Member of the following National and International Scientific Bodies and Associations; Foundation for Head and Neck Oncology (LM-281); Neuro-Otological and Equilibriometric Society of India (LM-617); All India Rhinology Society (LM-749); Facial Reconstructive & Cosmetic Surgery Trust (India) – LM 55; Indian Society of Otology (ISO/LM/1603); Association of Otolaryngologists of India, Delhi State Branch (LM 577); Cochlear Implant Group of India- LM-720; Society of Ear Nose and Throat Advancement in Children, Philadelphia, USA (SENTAC); **Executive editor** in ClinicalKey Now, ENT subspecialty, Elsevier (App based); Reviewer in; ORL, Karger publishers; Annals of Otology, Rhinology & Laryngology, Sage Journals; Indian Paediatrics Journal, official publication of the Indian Academy of Paediatrics (IAP), Springer Nature Reviewer in International Archives of Otorhinolaryngology; Developmental Medicine & Child Neurology, a Mac Keith Press publication and official journal of the American Academy for Cerebral Palsy and Developmental Medicine (AACPDM) and the British Paediatric Neurology Association (BPNA).; Indian Journal of Otolaryngology and Head Neck Surgery; International Archives of Otorhinolaryngology (IAO), Thieme

publication; Allergy & Rhinology, Sage Journals; Trends in Anaesthesia and Critical Care, Elsevier Inc; Journal of International Medical Research, SAGE Journals; BMJ Innovations, BMJ Journals; BMJ Case Reports; Frontiers in Surgery, section Otorhinolaryngology & Head Neck Surgery; Cureus Journal of Medical Science; LIFE journal; Indian Journal of Medical Research; Journal of Clinical Medicine, Otolaryngology section; Children.

Dr Arvind Kumar Kairo received 1st prize in senior consultant award paper for my original research on Feasibility of functional near-infrared Spectroscopy (FNIRS) in Cochlear implants and its correlation with cochlear implant outcome scores in 9th Annual Conference of the Indian Academy of Otorhinolaryngology Head and Neck Surgery (IAOHNS) 4-6 August 2023.

Dr Shuchita Singh Pachaury Have been invited to be a global partner in the collaborative effort of UCLA Global Health Seed Grant Program concerning HPV-related cancers to assess physician, trainee, and medical student knowledge and attitudes regarding HPV and HPV vaccination, as well as creation of educational activities and follow-up of HPV-related malignancies.; Have been involved as a Co-investigator in a nationwide oral screening project by Atom360, an Indian Artificial Intelligence Startup and winner of Elevate 2018 by Govt. of Karnataka. The project title is "Analysis of Image-Based Diagnosis using Artificial Intelligence and Pathological Correlation".

Dr Hitesh Verma was Judge in competitions; Senior resident award paper. 14-16 April 2023, USAESCON, AIIMS, Rishikesh; Poster presentation. 9th IAOHNS, 4-6 August Jammu; Resident paper. Bangalore 4-7 January AOICON 2024; Treasurer, DELHI AOICON 2021-23; Best traditional food prize. 2nd AIIMS Master Chef, 23 April 2023; Hearing problems & Solutions. Panelist for DD Kisan 6 May 2023, 5 PM. Adjunct faculty, Special Centre for Systems Medicine (SCSM), JNU; Member, Institutional Ethical Board, JNU; External expert, instrument purchase, AIIMS, Raebarali; Nodal officer Content provider, AIIMS, New Delhi; Nodal officer, PMJ Ayusman Bharat Scheme for ENT department, AIIMS, New Delhi; Reviewer for Laryngoscope, BMJ Open, BMJ case reports, Journal of the American Society of Maxillofacial Surgeons, Medicine, Journal of Thyroid Research, SN Comprehensive Clinical Medicine, BMC Anesthesiology, Annals of Medicine, Indian Journal of Otolaryngology Head & Neck Surgery.

Dr Poonam Sagar was Organized 5th AIIMS, Facial Plastic Workshop 21-23 April 2023; Faculty in charge CRHSP Ballabhgarh for Community Otorhinolaryngology services; Nodal officer for the National program for Prevention and control of Deafness since March 2024.

Dr Smriti Panda was Member-Foundation of Head and Neck Oncology (FHNO) Fellowship Education Committee; Reviewer- Indian Journal of Otolaryngology**;** Reviewer- MDPI journals.

VISITING SCIENTST

Kyung Tae, MD, PhD**,** Director, Hanyang University Hospital Cancer Center, Seoul, Korea visited the Department from 28 March 2024 to 6 April 2024 and was awarded the Infosys Chair in Oncology under AIIMS Endowment Fund.

Professor Mohan Kameshwaran, Managing Director and Chief ENT Surgeon, Madras ENT Research Foundation (P) Ltd., Chennai visited the Department on 20 October 2023 and was awarded the 2nd Professor SK Kacker Oration.

Professor Terence M Jones, Professor of Head and Neck Surgery, Director Liverpool Head & Neck Centre, Liverpool University Hospitals NHS Foundation Trust visited the Department from 26 March 2023 to 1 April 2023 who was awarded the Infosys Chair in Oncology under AIIMS Endowment Fund.

9.28 Pediatrics

Professor and Head

Arvind Bagga
(till 30 September 2023)

Sushil Kumar Kabra
(up to 30 November 2023)

Madhulika Kabra
(From 1 December 2023 to till date)

Pankaj Hari
(Pediatric Nephrology Division)

Sheffali Gulati
(Pediatric Neurology Division)

Rakesh Lodha
(Pediatric Pulmonology and Intensive Care Division)

Rachna Seth
(Pediatric Oncology Division)

Ramesh Agarwal
(Neonatology Division)

Vandana Jain
(Pediatric Endocrinology Division)

Additional Professors

Aditi Sinha
(Pediatric Nephrology Division)

Neerja Gupta
(Genetics Division)

M Jeeva Sankar
(Neonatology Division)

Kana Ram Jat
(Pediatric Pulmonology and Intensive Care Division)

Jhuma Sankar
(Pediatric Pulmonology and Intensive Care Division)

Biswaroop Chakrabarty
(Pediatric Neurology Division)

Rajni Sharma
(Pediatric Endocrinology Division)

Anu Sachdeva
(Neonatology Division)

Prashant Kumar Jauhari
(Pediatric Neurology Division)

Rohan Malik
(Pediatric Gastroenterology Division)

Jagdish Prasad Meena
(Pediatric Oncology Division)

Narender Kr Bagri
(Pediatric Rheumatology Division)

Aditya Kumar Gupta
(Pediatric Oncology Division)

Associate Professor

Ankit Verma
(Pediatric Neonatology Division)

Assistant Professors

Menka Yadav
(Pediatric Nephrology Division)

Deepika Kainth
(Neonatology Division)

Jitendra Meena
(Pediatric Nephrology Division)

Scientists

Madhumita Roy Choudhary	Rashmi Shukla	Amita
Kajal Jain		Lata Singh

Other Staffs

Sumita Gupta	Pallavi Mishra	Savita Saini: Senior
Physiotherapist	Biochemist	Technical Officer
D Yadav	Neena Mehta	Sushila Yadav
Medical Social Service Officer	Medical Social Service Officer	Technical Officer
	Suresh Kumar Laboratory Technician	

HIGHLIGHTS

The Department of Pediatrics shifted to the Mother and Child Block in January 2023, where it is providing comprehensive patient care services. The department offers multidisciplinary and comprehensive clinical care to a large number of patients through its outpatient and specialty clinics, and inpatient and outreach services.

Centers of Excellence: The Division of Neonatology has recently been redesignated as the WHO Collaborating Centre (WHO-CC) for Training and Research for the next four years, from 2023 to 2027, for the eighth consecutive time. Three Divisions continue to contribute as ICMR Centres of Advanced Research in Pediatric Nephrology, and Pulmonology.

Education: The department is directly involved in undergraduate training for medical and nursing students. It continues to have one of the best postgraduate (MD) programs in the country and manages 7 DM programs (Endocrinology, Neonatology, Neurology, Nephrology, Pulmonology & Intensive Care, Medical Genetics, and Oncology). In collaboration with the WHO, Geneva, and India Country Office, the department organized the field testing of the Essential Newborn Care Course (ENCC) course in India from 3-12 August 2023. A total of 10 facilitators, 26 pre-service, and 27 in-service candidates attended the field testing.

Research: Department faculty members continue to attract considerable extramural and intramural funding for multidisciplinary research projects. The department's work is recognized and well-cited by national and international agencies.

Clinical services: The Division of Genetics, in collaboration with Divisions of Neonatology and Pediatric Endocrinology, Departments of Pediatric Cardiology, ENT, Ophthalmology, Pediatric Surgery, and Obstetrics and Gynecology, initiated an expanded newborn screening program by incorporating 'Dried blood spot' based testing for more than 50 conditions using MS/MS. Newer therapies (gene therapy, exon skipping, and antisense oligonucleotides) for DMD and SMA as part of global compassionate access programs are being provided to patients. Complex procedures like half-matched and unrelated donor HSCT for pediatric patients with malignant and non-malignant disorders are being performed. Two patients underwent HSCT for Cerebral Adrenoleukodystrophy this year.





Future action plan

The department would endeavor to maintain its leadership in the country as well as regionally through focused attention on issues pertaining to clinical service, education, and promoting prospective research.

EDUCATION

- For the MBBS teaching program, the Department has contributed to the development of skill modules for undergraduate medical students, including pulse oximeter, chest compression and pediatric resuscitation, neonatal orogastric feeding, and lumbar puncture for the SET facility.
- The Pediatric Nephrology Division organized an online weekly webinar series as part of the Pediatric Nephrology Core Curriculum titled, 'Nephrology Education from a Pediatric Residents Outlook (NEfPRO)' led by the Division faculty as part of activities of the Indian Society of Pediatric Nephrology (ISPN). The online series included 32 weekly webinars from March-October 2024 and is led by nationwide experts in pediatric nephrology and attended by ~200 postgraduate students in paediatrics across India.
- The Pediatric Neurology division in association with the Association of Pediatric Neurology conducted a webinar on Cannabidiol in Epilepsy and in association with the AOCN, 44 webinars have been conducted with attendees from >48 countries.
- The Neonatology Division is currently using e-learning to disseminate evidence-based practices on newborn health for healthcare professionals. The website (www.ontop-in.org) offers three e-learning courses on sick newborn care, newborn nursing, and CPAP. This year, 20th sick newborn and 11th essential newborn care courses have been completed. The Preterm Baby Care Package, which provides evidence-based management of preterm infants, is also available online and has been completed by 5000 healthcare professionals (www.pretermcare-eliminatingrop.org). The division has also contributed to the development of different workflows for DHR-ICMR on all common newborn conditions. The Division of Neonatology conducted the workshop to train the healthcare professionals in conducting a formal developmental assessment of children using the Bayley Scale of Infant Development-IV edition on 2-3 February 2024. A total of 20 healthcare professionals (from different hospitals in Delhi) were trained during the workshop that spanned over two days.
- The Pulmonology Division organizes Telemedicine-based academic sessions with PGIMER Chandigarh, AIIMS Jodhpur and AIIMS Bhubaneswar.
- Regular joint academic sessions with Pediatric Endocrinology fellows and faculty at the University of Michigan, Ann Arbor and PGI Chandigarh were initiated by the Division of Pediatric Endocrinology. A postgraduate masterclass in Pediatric Endocrinology (a series of 7 lectures and PG Quiz sessions) was started for the postgraduates in the Department of Pediatrics in March 2023.

Trainees

1. Long-term trainees

- Dr Sufia Nasreen, 16 January 2023 to 15 July 2023, 6 months, Molecular Genetics, DBT UMMID program
- Dr Jamil Mohammad, Assistant Professor, Department of Biochemistry, RNT Medical College, Udaipur, Rajasthan, 15 May to 16 November 2023, 6 months, Molecular & Biochemical Genetics, DBT UMMID Program
- Dr Arghya Banerjee, NRS, Kolkata, 15 November 2023 to 15 April 2024, 6 months, Molecular Genetics & Cytogenetics, DBT UMMID Program
- Dr Hardik Mahant, 29 December 2023 to 5 May 2024, 6 months, Biochemical Genetics
- Molecular Genetics, DBT UMMID Program
- Dr Sheetal. Safdarjung Hospital, New Delhi, 1 December 2023 to 31 April 2024, 6 months, Molecular Genetics, Biochemical Genetics & Cytogenetics, DBT UMMID Program

2. Short-term trainees

- Myra Kunte (Elective Training), 1 June 2023 to 15 June 2023, 15 days, Elective Training, Queen Marry University of London, UK
- Parikh Himil Jignesh, Senior resident, Hemato-Pathology, 21-30 May 2023, 10 days, Department of Pediatrics, Genetics, Prof M Mahapatra, Department of Hematology, AIIMS, New Delhi
- Dr Rajkumar Mandal MD, 22 August 2023 to 12 September 23, 22 days, Department of Pediatrics, Genetics, Professor SS Chauhan, Department of Biochemistry AIIMS, New Delhi
- Dr Sona Fazil MD, 22 August 2023 to 12 September 2023, 22 days, Department of Pediatrics, Genetics, Professor SS Chauhan, Department of Biochemistry AIIMS, New Delhi
- Dr Hemapriya J, Junior Resident, 1-31 December 2023, 31 days, Department of Pediatrics, Genetics, Dr Sudip Kumar Datta, Department of Laboratory Medicine, Dr Pratyusha Gudapati, Senior resident, 1-10 December 2023, 10 days, Department of Pediatrics, Genetics, Prof M Mahapatra, Department of Hematology, AIIMS, New Delhi
- Dr Vijay Kumar, 8-11 March 2024, 4 days, Department of Pediatrics, Genetics, RML Hospital, New Delhi
- Dr Poornima Sharma, 1-31 October 2023, 1 month, All Labs, Dr Geetika Khanna, Principal, VMMC & Safdarjung Hospital, New Delhi
- Dr Shreya Singh, 1-31 October 2023, 1 month, All Labs, Dr Geetika Khanna, Principal, VMMC & Safdarjung Hospital, New Delhi
- Dr Tanushree Sahoo, 1-30 November 2023, 2 months, Clinical and All Labs., Executive Director, AIIMS, Bhubaneswar
- Dr Deepti, 1-31 March 24, 1 month, Clinical, Department of Obstetrics & Gynecology, AIIMS, New Delhi

CMEs/Workshops/Symposia/National and International Conferences

CME events

Division of Genetics

1. **Launch of expanded Newborn screening at AIIMS, New Delhi 21 September 2023.** During the observance of Newborn Screening Awareness Month September 2023, Division of Genetics in collaboration with the Division of Neonatology, Pediatric Endocrinology, Department of Pediatric cardiology, ENT, Ophthalmology, pediatric surgery, and Obstetrics and Gynecology, initiated an expanded newborn screening program by incorporating Dried blood spot-based testing for more than 50 conditions using MS/MS.

Division of Neonatology

1. The division conducted two workshops on the Neonatal Resuscitation Program at SET facility for hands-on skill training of undergraduate students and postgraduate residents of emergency medicine, pediatric surgery, obstetrics, and gynecology in different batches to equip them with basic skills in the resuscitation of newborns. In addition, the division has organized a Standard Treatment Protocol workshop for undergraduates.

2. WHO-CC is dedicated to providing quality improvement education through a variety of methods, including online resources, face-to-face workshops, and the Point of Care Continuous Quality Improvement (POCQI) module. WHO launched the interim version of the second edition of the Essential Newborn Care Course (ENCC) in 2022. In collaboration with WHO headquarters and India country office, we organized the field testing of the course in India from 3 to 12 August at the Mother and Child Block. A total of 10 facilitators, 26 pre-service and 27 in-service candidates from diverse hospitals in Delhi NCR and adjoining states attended the field testing.

3. The WHO-CC AIIMS team conducted the Essential Newborn Care training in Timor Leste from 23-27 October 2023 with the following course objectives: educating healthcare professionals on evidence-based essential newborn care practices, improving skills in resuscitation and essential newborn care techniques, and enhancing understanding of neonatal assessment and management.

4. The WHO-CC team conducted a 'Quality improvement' workshop at AIIMS, Kalyani. The workshop was attended by 27 faculty participants from various departments on 14 January 2023. A follow-up session was conducted four weeks later on 13 February 2023, to provide support for the ongoing projects and track progress online.

5. The WHO-CC team conducted a 'Quality Improvement' workshop at AIIMS, Bathinda, which was attended by 39 faculty participants from various departments.

6. The Centre for Medical Innovation & Entrepreneurship (CMIE) at AIIMS New Delhi and the Neonatal Division organized a Bootcamp entitled "CMIE HEALTHCARE INNOVATION BOOTCAMP ON NEWBORN CARE" from 6-8 November 2023. This event was dedicated to addressing challenges in newborn care, offering opportunities for in-depth interactions with experts, exploring the landscape of new product development, understanding regulatory compliances, and profiling user-specific needs.



Figure 1. Field testing of the WHO Essential Newborn Care Course package in India



Figure 2. Bootcamp on Newborn Care in collaboration with CMIE, AIIMS, New Delhi

Lectures delivered: 351

Madhulika Kabra: 24
Pankaj Hari: 7
Rachna Seth: 19
Neerja Gupta: 25
Jhuma Sankar: 9
Anu Sachdeva: 13
Narendra Kumar Bagri: 11
Ankit Verma: 3
Jitendra Meena: 8
Amita: 1
Arvind Bagga: 1
Sheffali Gulati: 31
Vandana Jain: 17
M Jeeva Sankar: 34
Biswaroop Chakrabarty: 7
Rohan Malik: 6
Jagdish Prasad Meena: 8
Menka Yadav: 1
Madhumita Roy Chowdhury: 2
Kajal Jain: 1
SK Kabra: 27
Rakesh Lodha: 19
Aditi Sinha: 23
Kana Ram Jat: 15
Rajni Sharma: 10
Prashant Kumar Jauhari: 5
Aditya Kumar Gupta: 12
Deepika Kainth: 4
Rashmi Shukla: 3
Yadav Dhaneshwar (M.S.S.O): 5

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
330	342	351

Oral papers/posters presented: 81

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
47	121	81

RESEARCH

Funded projects

Ongoing

1. "Apex skill lab for simulation and skill development MNCH", Dr Anu Sachdeva, UNICEF, 1 year, 2023-24, Rs 22,82,965

2. “Designing a Next-Generation Sequencing Panel for 10 Common Genetic Disorders with Large and Complex Genes: A cross sectional study”, Madhumita Roy Chowdhury, AIIMS, Intramural Research, 2 years, 2024-26, Rs 5 Lacs

3. A Brain Machine Interface enabled Biomedical Assistive Communication System for severely motor disabled., Sheffali Gulati, MeitY, 3 years, May 2022, May 2025, Rs 53.72 Lakhs

4. A Double Blind, Placebo-Controlled, Multicentre Study with an Open-Label Extension to Evaluate the Efficacy and Safety of 2’O Methyl Antisense Oligonucleotide in Patients with Duchenne Muscular Dystrophy, Sheffali Gulati, Dystrophy Annihilatio n Research Trust, 3 years, December 2021, December 24, Rs 16,50,000

5. A Multicenter, Safety and Efficacy Study of Taliglucerase Alfa in Subjects with Type 3 Gaucher Disease, Madhulika Kabra, ShaareZedek Medical center Israel, 3 years, 2021-23, Rs 27.67 Lacs

6. A multimodality assessment of brain metabolism, microstructural organization and neuroinflammation in Subacute Sclerosing Panencephalitis: a cross- sectional observational study, Prashant Jauhari, AIIMS UG Mentorship Grant, 2 years (Extension), 2021-24, Rs 2,00000

7. A phase - 2B multi-centered 30-week, prospective, cross-over, double blind, randomized, placebo controlled study followed by a 52-week open label extension study to evaluate the efficacy and safety of basimglurant adjunctive to ongoing anti-convulsive therapy in children, adolescents and young adults with seizures associated with tuberous sclerosis complex, Sheffali Gulati, Noema Pharma, 3 years, 2023-26, Rs 28,52,675

8. A Phase III Multicenter, Randomized, Double-Blind, Double-Dummy Study to Evaluate Safety and Efficacy of Ocrelizumab in Comparison with Fingolimod in Children and Adolescents with Relapsing-Remitting Multiple Sclerosis, Sheffali Gulati, Roche, 3 years, 2023-26, Rs 98,46,037

9. A Prospective, Open-label, Multicentre, Interventional, Single- arm, Phase IV Study to Evaluate the Safety and Efficacy of Agalsidase alfa (r-DNA origin) (Replagal™) in Indian Children and Adults With Fabry Disease, Neerja Gupta, Takeda, 1 year, 2022-23

10. A Randomized, Double-Blind, Dose Finding and Comparison Study of the Safety and Efficacy of a High Dose of Eteplirsen, Preceded by an Open-label Dose Escalation, in Patients with Duchenne Muscular Dystrophy with Deletion Mutations Amenable to Exon 51 Skipping, Sheffali Gulati, Sarepta, 4 years, 2022-26, Rs 17,07,509/per patient Total Rs 22202765

11. A randomized, sham-Controlled, double-blind study to evaluate the efficacy and safety of intrathecal (IT) OAV101 in patients with later onset Type 2 spinal muscular atrophy (SMA) who are > 2 to <18 years of age, treatment naïve, sitting, and never ambulatory, Sheffali Gulati, Novartis Healthcare Private Limited, 2 years, 27 December 2021, 26 December 23, Rs 17,97,417 per patient (Total 7 patients randomised, Total amount Rs 12581919

12. Adapting WHO’s Essential newborn care course training package for Timor - Leste, Anu Sachdeva, WHO, 1 year, 2023-24, Rs 9,20,000

13. Anti-nephrin antibodies in children with idiopathic nephrotic syndrome, Aditi Sinha, AIIMS-THST I, 1 year, 2023-24, Rs 5,00,000

14. Assessing the microcirculation and its response to different fluid volumes in children with septic shock., Jhuma Sankar, ICMR, 3 years, 2022-25, 1.5 Crores

15. Association of serum antiseizure medication levels with behaviour and cognition in children and adolescents aged 6-17 years with pharmaco-responsive non-lesional epilepsy: An observational study, Biswaroop Chakrabarty, AIIMS UG Mentorship, 1 year, 2021-22, Rs 2 Lacs INR

16. Capacity Building and Quality Assurance for Birth Defects in the SEAR Evaluation of outcomes and Strengthening of the NBBD surveillance system, Madhulika Kabra Neerja Gupta, WHO, 3 years, 2022-23, Rs 12 Lacs

17. Center for advance research in Pediatric Respiratory Diseases. Indian Council of Medical Research, August 2018 to August 2023, Ivestigators: SK Kabra, Rakesh Lodha, Kanaram Jat, Jhuma Sankar, Funds 6.2 Crores Projects as follows (NI 1032) Capacity building or manage ment of chronic respirato ry disorder s in children. a. Cystic Fibrosis in India: Prevalen ce, Mutatio n Profile and Develop ment of Registry b. Interstitial lung disease in children c. Point of care testing for Primary Ciliary Dyskine sia in Children Respirat ory Complic ations of Primary and Acquire d Immuno deficien cy Disorder s in children, S K Kabra, ICMR, 5 years, 20 August 2018, 19 August 2024, Rs 6.2 Crores

18. Center of Excellence & Advanced Research on Childhood Neuro developmental disorders with its projects in 5 thrust areas, Sheffali Gulati, AIIMS GIA (supported by MOHFW) and IIFCL (as part of its CSR), 5 years Extension, December 2017, currently ongoing, Rs 11.3 Crores (6.3 +5)

19. Clinical efficacy of addition of Agastya Haritakiavaleha [Classical Ayurvedic formulation] and Yoga to standard treatment care in the management of Bronchial Asthma in Children and Adolescents. A randomized controlled trial, S K Kabra, ICMR, 3 years, 1 October 2021 to 30 September 2025, Rs 40 Lakhs
20. Comparison of Acetate-based, Lactate-based and Multiple Electrolyte Solution versus saline (MeSLAc trial) in pediatric septic shock- A multicenter randomized controlled trial, Jhuma Sankar, SERB, 3 years, 2023-26, Rs 30 Lakhs
21. 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, April 2018, currently ongoing, Rs 11.2 Crores
22. Culture of nasal epithelial cells for diagnosis of Primary Ciliary Dyskinesia, Kana Ram Jat, ICM R, 3 ye ars, 2024-27, Rs 1.13 Crores
23. Deciphering the complexities of apparently balanced chromosomal rearrangements associated with clinical phenotype by whole genome sequencing, Rashmi Shukla, ICMR, 3 years, 2023-26, Rs 90 Lakhs
24. Developing models based on biomarker signature and clinico-electroencephalo graphic parameters to predict severity and outcome in pediatric status epilepticus: a longitudinal observational study, Biswaroop Chakrabarty, DHR, 3 Years, 2021-24, Rs 53.9 Lacs INR
25. Developing training modules on common clinical procedures in pediatric oncology, Rachna Seth, WHO, 6 monhs, 2024-24, Rs 1132740/-
26. Differentiating monophasic and recurrent acquired demyelinating disorders of childhood and adolescence: an HLA typing, serum and CSF inflammatory biomarkers based longitudinal observational study, Biswaroop Chakrabarty, AIIMS-IRG, 2 years, 2020, (Ext ensi on ong oing), Rs 10,00,000
27. Effect of millet and legume-based complementary feeding intervention from 6mo to 2y of age on growth, aemoglobin, metabolic parameters and body composition in term/near-term low birth weight infants: A randomized controlled trial, Vandana Jain, ICMR, 3 years, November 2023, November 2026, Rs 1.5 Crores
28. Efficacy of IV rituximab versus oral mycophenolate mofetil in sustaining remission in steroid-resistant nephrotic syndrome maintained on calcineurin inhibitors for more than two years:An open-label randomnized controlled trails, Aditi Sinha, DHR, 3 years, 2023-26, Rs 1,52,43,910
29. Efficacy of low dose, short course prednisolone regimen for relapse of steroid sensitive nephrotic syndrome in children: A multicenter, randomized, placebo-controlled trial, Pankaj Hari, DHR, 3 years, 2022-25, Rs 1,45,67,233
30. Empowering children with ASD through the training of master trainers, Sheffali Gulati, Ministry of Social Justice and Empowerm ent, 1 year, 2023-24, Rs 1429890
31. Essential newborn care course field testing in India, Ramesh Agarwal, WHO, 1 year, 2023-24, Rs 2,002,000
32. Ex vivo Correction of ATM Splice Variants Using Antisense Oligonucleotides, Rashmi Shukla (SRF Fellowship awarded to Ms Akhila Sankar), ICMR, 3 years, 2019-23, Rs 16 Lacs
33. Exploring presence of SMN hybrid genes in molecular diagnosed SMA patients, Amita, AIIMS Intramural Grant, 2 years, 2022-24, Rs 10 Lakhs
34. Functional Characterisation and Antisense Oligonucleotide (AON) Mediated Correction of Novel ATM Variants, Rashmi Shukla, ICMR, 3 years, 2021-24, 50 Lakhs
35. Genomics and Clinical Outcome of Pediatric Acute Myeloid Leukemia (AML) Relapse, Jagdish Prasad Meena, ICMR, 3 years, 2021-24, Rs 45,15,354/-
36. Holding hand in magical years - Early childhood development & neuro rehabilitation center, Sheffali Gulati, HANS Foundation, 3 years, 2023-26, Rs 2,31,53,428
37. Host inflammatory response and its correlation with paradoxical worsening in childhood tubercular meningitis, Prashant Jauhari, Intramural Research Grant, AIIMS, New Delhi, 2 years, 2021-24, Rs 10,00,000
38. ICMR Centre for Advanced Research in Children disease, S K Kabra, ICMR, 6 years, 20 August 2018, 19 August 2024, Rs 6 Crore 36 Lakh
39. ICMR Registry for Rare and other inherited disorders, Madhulika Kabra Neerja Gupta, ICMR, 5 years, 2019-25, Rs 1.09 Crores
40. Identification of potential pathogen(s) among neonates with ‘culture-negative sepsis’, Kajal Jain, DBT, GoI, 5 years, 2021-26, Rs 2.41 Crores

41. Improving Nutrition In Children With Cancer, Rachna Seth, Cuddles foundation, ongoing, Rs 11,20,000
42. Improving Survival in Childhood Acute Lymphoblastic Leukemia in India (ISCALL): ICiCLe Implementation Study, Rachna Seth, ICMR, 3 years, 2024-27, Rs 5836469/-
43. Infectious and genetic triggers in children with hemolytic uremic syndrome, Arvind Bagga, ICMR, 3 years, 2021-24, Rs 87,18,671
44. Integration of targeted gene sequencing in "BCR-ABL Like" pediatric acute lymphoblastic leukemia (ALL): Role of specific genetic alterations and their association with clinical presentation, outcomes and clonal diversity at relapse', Rachna Seth, ICMR, 3 years, 2023-26, 79266022/-
45. Intermediate and long term therapeutic efficacy of r TMS in drug refractory focal epilepsy of childhood: A randomised double blind sham controlled study, Prashant Jauhari, ICMR, 3 years, 2023-26, Rs 48,00,000
46. Long-term lung function outcomes in children with intrathoracic tuberculosis: an ambispective observational study, S K Kabra, ICMR, 3 years, 25 January 2024, 24 January 2027, Rs 66 Lakhs
47. Mission Program on Pediatric Rare Genetic Disorders, Neerja Gupta, DBT, 5 years, 2022-27, Rs 1.01 Crores
48. Multimodal evaluation of neural network and neuroinflammatory nexus of Electrical status epilepticus in sleep (ESES) in children, Prashant Jauhari, Interdiscipli nary IMR funding, AIIMS, New Delhi, 2 years, 2021-24, Rs 10 Lakhs
49. NeoAMR Global neonatal sepsis observational study (NeoOBS): a prospective cohort study of sepsis in hospitalized neonates, Kajal Jain, Global Antibiotic Research and Development Partnership (GARDP), 3.5 years, 2021-24, Rs 68 Lakhs
50. Neurocomputing and Cognitive Intelligence, Sheffali GulatI, MeitY IIT Delhi-NIT Durgapur Project, 4 years, 2020-23, Rs 2.31 Lakhs
51. Neurodevelopmental outcomes in infants undergoing surgery for congenital heart defects-A prospective multi-center cohort Study., Sheffali Gulati, ICMR, 4 years, 1 February 2021, 31 January 2025, Rs 2285050
52. Partnership in cancer survivorship optimization (PICASSO), Rachna Seth, Indian cancer society, ongoing, Rs 12,60,000
53. Pharmacokinetic and Dynamic correlation for optimum therapy of NTBC for the Treatment of Indian Patients with Hereditary Tyrosinemia type 1, Neerja Gupta, DST, 3 years, 2023-26, Rs 66 Lakhs
54. Phase 3 randomized open label controlled multiple dose efficacy, safety pharmacokinetic and pharmacodynamic study of etelcalcetide in pediatric subjects 28 days to 18 years of age with secondary hyperparathyroidism and chronic kidney disease receiving maintenance hemodialysis, Aditi Sinha, Amgen, 4 years, 2022-26, Rs 18,27,630
55. Program on complement-mediated kidney diseases: Developing commercial ELISA and pipelines for genetic screening, identifying biomarkers, and refining therapies (IIRPIG-2023-0000119), Aditi Sinha, ICMR, 4 years, 2024-28, Rs 4,25,88,394
56. Programming effect of relative weight gain, fat and fat-free mass gain in infancy on body composition and insulin sensitivity in mid-childhood: Follow-up of a birth cohort", Vandana Jain, ICMR, 3 years, February 2023, February 26, Rs 25 Lacs
57. Prospective study to evaluate the role of Systemic Bevacizumab therapy in patients with aggressive and complex laryngotracheal and pulmonary recurrent respiratory papillomatosis., Kana Ram Jat and Rajeev Kumar, Institute Research Grant, 2 years, 2021-23, Rs 20 Lacs
58. Protocol 15Q-MC-CGAS(f)-A Randomized, Double-Blind, Placebo-Controlled Study of Galcanezumab in Patient 6 to 17 Years of Age with Episodic Migraine- the REBUILD-1 Study, Sheffali Gulati, Eli-Lilly & Company Private Limited, 4 years, 19 August 2021, 30 January 25, Rs 21,39,160
59. Protocol H8h-MC-LAHV (a) Pediatrics Options for Migraine Relief: A Randomized, Double-Blind, Placebo-Controlled Study of Lasmiditan for Acute Treatment of Migraine: PIONEER PEDS1, Sheffali Gulati, Eli-Lilly & Company Private Limited, 3 years, 8 July 2021, 3 December 2024, Rs 16,90,880
60. Protocol H8H-MC-LAHW (a) - A Phase 3, 12-Month, Open Label Study of Lasmiditan in Pediatric Patients with Migraine-PIONEER-PE DS2, Sheffali Gulati, Eli-Lilly & Company Private Limited, 4 years, 8 July 2021, 3 December 2025, Rs 12,17,200
61. Role of Artificial Intelligence (AI) In Autism Spectrum Disorder, Sheffali Gulati, DBT, 2 years, 2023-25, Rs 39.9 Lakhs

62. SAFE ICU: An open Big-Data and Reproducible AI Resource for Early Prediction of Intensive Care Outcomes, Rakesh Lodha, ICMR`, 3 years, 1 November 2023 to 30 October 2026, Rs 64 Lakhs

63. Sankalp: strengthening program Implementation and Monitoring to achieve S ingle-digit Neonatal Mortality., Ramesh K Agarwal, Bill and Melinda Foundation, 3 years, 2024-27, Rs 8.5 Crores

64. Scalable Transdiagnostic Early Assessment of Mental Health (STREAM), Sheffali Gulati, MRC, 1 year, 2019 Started at AIIMS in 2021-25, GBP Rs 36,51,235.42

65. Sepsis-related mortality in neonates in India: A multi-disciplinary, multi-institutional research program for context-specific solutions (DBT, Govt. of India; 46.5 crores), M. Jeeva Sankar, Department of Biotechnolo gy (DBT), Government of India, 5 years, 2021-26, Rs 45.5 Crores

66. Sequencing of Klebsiella, E coli, Acinetobacter, and S aureus isolates in neonates with sepsis, M. Jeeva Sankar, Bill & Melinda Gates Foundation (BMGF), 2 years, 2023-24, Rs 1.9 Crores

67. The differential gain of fat and lean mass during first six months of life in healthy preterm infants: Determinants and impact on subsequent health, Vandana Jain, ICMR, 3 years, October 2021, October 2024, Rs 27.4 Lacs

68. The DNA Methylation Signature and its Correlation with Clinical Outcomes in Pediatric Sarcomas, Jagdish Prasad Meena, SERB, 3 years, 2024-27, Rs 52,28,696.00

69. The effect of low glycemic index diet in the form of traditional Indian millets in obese children: a randomized controlled trial, Rajni Sharma, ICMR, 3 years, 1 July 2021, 30 June 2024, Rs 34 Lacs

70. To determine the clinical and neuroimaging characteristics and outcomes of Febrile Infection-Related Epilepsy Syndrome (FIRES) in children, Sheffali Gulati, AIIMS-UC L collaboration, 1 year, 2020, Ongoing, Rs 5 Lacs to AIIMS

71. To evaluate the feasibility of multigene panel for diagnosis and management of autism spectrum disorder in early neonatal period (< 7days), Sheffali Gulati, ICMR, 3 years, 2020-23, 2.85 Crores (not coming to AIIMS any funds but to Genekart research)

72. To evaluate the role of donor and recipient blood metabolomics in monitoring and prognostication of pediatric patients undergoing hematopoietic stem cell transplantation, Aditya Kumar Gupta, AIIMS, 2 years, 2024-26, Rs 10,00,000

73. To explore the association of Molecular, Genetic and Environmental markers in autism spectrum disorder and other Neuro developmental Disorders including ADHD and Cerebral Palsy: A Cross sectional study, Sheffali Gulati, ICMR, 3 years, 2021-24, 1.38 Crores

74. To explore the role of synovial fluid proteomics in predicting the disease course and subtypes of juvenile idiopathic arthritis, Narendra Kumar Bagri, ICMR, 3 plus extension, 2019, 2023-June 2024, Rs 4212984/-

75. To investigate the clinical utility of maternal biofluids's peptidome for non-invasive prenatal screening of Down syndrome through mass spectroscopy, DHR Young Scientist Fellow Dr Shama Praven Madhulika Kabra (Mentor), ICMR, 3 years, 2021-24, Rs 42 Lakhs

76. Training of Clinicians cum Creation of Genetic Diagnostic unit' in Human Genetics with an Aspirational District component under Unique Methods of Management and treatment of Inherited Disor ders (UMMID) initiative., Madhulika Kabra, Neerja Gupta, DBT, 3 years, 2019-22, Rs 4 Crores

77. Translation Research Consortium for establishing platform Technologies to support Prophylactic and Therapeutic Strategies for Dengue Discovery to Proof-of-Concept, Rakesh Lodha, BIRAC, 5 years, 10 June 2020 to 9 June 2024, Rs 1.61 Crores

78. Use of Biomarkers and Imaging for early detection and treatment of chemotherapy induced cardio toxicity in newly diagnosed children of acute leukemia, Rachna seth, ICMR, 3.5 years, 2019-23, Rs 70,68,462.00

79. Vitamin C versus Placebo in septic shock, Jhuma Sankar, AIIMS, 3 years, 2021-23, Rs 10 Lakhs

80. WHO norms for small and/or sick newborn care (SSNC) in level-2 facilities in low- and middle-income countries (LMIC)., M. Jeeva Sankar, World Health Organizati on (WHO), Geneva, 1 year, 2023-24, Rs 13,11,600

81. Whole exome sequencing to detect the prevalence of monogenic variants in an Indian Paediatric Cohort with Inflammatory bowel disease, Rohan Malik, ICMR, 3 years, 2023-26, Rs 47,00,000

Completed

1. A collaborative, multicenter, national study for newly diagnosed patients with acute lymphoblastic leukaemia (ICiCle), Rachna Seth, ICMR Natio nal cance r Grid, Rs 30,00,000.00 Funds jointly received for Pediatrics & IRCH (Dr Sameer Bakhshi) As both are site PIs
2. A Phase 3, Randomised, Double blind, Placebo-controlle d efficacy, and safety study of Ataluren in Patients with non-sense mutation Duchenne Muscular Dystrophy and Open label extension, Sheffali Gulati, PTC Therapeutics, USA, 2 years, 2019-23, Rs 50 Lakhs
3. Burden of multidrug-resistant neonatal sepsis in district hospitals in India, M. Jeeva Sankar, Bill & Meli nda Gate s Foun datio n (BM GF), 3 years, 2019-21, Rs 9.25 Crores
4. Developmental screening of children in primary health care settings and establishing referral pathways to early intervention services, Sheffali Gulati, WHO, 1 year, December 2022, October 2023, Alloted fund : Rs 19,7,940 Spent amount : Rs 648, 000
5. Gut microbiota and GI dysfunction in critically ill childen, Jhuma Sankar, AIIMS, 1 year, 2021-2022, 2021, Rs 10 Lakhs
6. Mapping the genomic Landscape of Pediatric Juvenile myemomonocytic leukemia patients by whole expme sequencing, Aditya Kumar Gupta, ICMR, 3 years, 2021-24, Rs 44,65,550/-
7. Molecular Epidemiology of Multidrug Resistant (MDR) Acinetobacter Infection in Neonates in India, M Jeeva Sankar, Indian Coun cil of Medical Resea rch (ICM R), New Delhi, 2 years, 2017-19, 2019, Rs 84 Lacs
8. Multi center randomized, Sheffali Gulati, EryDel, S.P.A, Italy, 2 years, 2018-22, Rs 72 lacs, Double blind placebo-controlle d trial to evaluate the effects of intra erythrocyte dexamethasone sodium phosphate on neurological symptoms in patients with Ataxia Telangiectasia,
9. NeoAMR Global Observational Study: a prospective cohort study of sepsis in hospitalized neonates, Ramesh Agarwal & M Jeeva Sankar, DNDi/ GARDP along with ICMR, New Delhi, 2 years, 2018, Rs ~3 Crores
10. Point of care testing for Primary Ciliary Dyskinesia in Children, Kana Ram Jat (Part of ICMR Centre for Advanced Research), ICMR, New Delhi., 5 years, 2018-23, Rs 5.6 Crores (for complete ICMR Centre for Advanced Research)
11. Pro-Adrenomedullin as a Novel Biomarker for Predicting Infections and Response to Antimicrobial Therapy in Febrile Neutropenic Children with Cancer and its Comparison to Procalcitonin, Jagdish Prasad Meena, SERB, 3 years, 2020-23, Rs 42,18,500/-
12. Procalcitonin guided antibiotic, Jhuma Sankar, ICMR, 3 years, 2019-21, Rs 81 lakhs, therapy in children, 1
13. Proposal for ICMR Advanced Centre for Research in Pediatric Kidney Diseases. 1. 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 2. Open label, randomized, controlled trial to compare the efficacy of daily therapy with low dose prednisolon vs. standard therapy on alternate days in patients with frequently relapsing or steroid dependent nephrotic syndrome, Arvind Bagga, ICMR, 6 years, 2017-23, Rs 16,095,653/- 3. Establishing a biorepository& registry for 4. Patients with hemolytic uremic syndrome Whole exome sequencing in patients with non-diarrheal & non-autoimmune formof hemolytic uremic syndrome 5. Pilot study of genetic variations among Indian Children with vesicoureteral reflux Formulating & disseminating evidence-based guidelines for Diagnosis & Therapy of childhood renal illnesses
14. Role of micro-RNA in Pediatric Neuroblastoma, Aditya Kumar Gupta, AIIMS, 2 years, 2021-23, Rs 10,00,000/-
15. Setting up registry and targeted exome sequencing in children with renal tubular disorders, Arvind Bagga, ICMR, 3 years, 2021-24, Rs 1,58,66,760
16. Signs of shock in children, Jhuma Sankar, DST, 3 years, 2019-21, Rs 35 Lakhs, 2021
17. To evaluate the efficacy of oral probiotic supplementation in children with autism spectrum disorders (ASD): A randomized double blind, placebo-controlle d Trial, Sheffali Gulati, ICMR, 3 years, 2019, September 2023 completed, Rs 33,32,868
18. Understanding disease biology and diagnosis of bacterial sepsis in hospitalized neonates: a multi- centre study, Ramesh Agarwal & Krishnamohan Atmakuri, Department of Biote chnol ogy (DBT), India, 2 years, 2015-17, Rs 1.7 Crores
19. WHO guidelines on postnatal care of the mother and the newborn, M Jeeva Sankar, WHO Geneva, 1 year, 2020, Rs 7,14,900

Departmental projects (including thesis/dissertations)

Ongoing

1. A comparison of modulating effect of cTBS and low frequency rTMS on cortical excitability in children and adolescents aged 5-14 years with Lesional Drug refractory Epilepsy (Focal epilepsy or electrical status epilepticus in sleep): An open label randomized non-inferiority crossover study
2. A prospective study to assess the hair changes post induction chemotherapy in pediatric patients with ALL and to study the effects of scalp cooling on ameliorating these changes
3. A Study Of Changes In Gut Microbiome Through Induction and Consolidation Chemotherapy In Children With High Risk Acute Lymphoblastic Leukemia
4. Agreement between home-based videos and in-clinic videos for General Movement assessment in high-risk infants for predicting occurrence of Cerebral Palsy and risk of Autism Spectrum Disorder at 12 months age: A longitudinal observational study
5. Assessing the microcirculation and its response to different fluid volumes in children with septic shock. (PI)
6. Assessing the setting up of a multidisciplinary care model for management of children with Disorders of Sex Development, and its impact on the perceived quality of care: An implementation research
7. Azithromycin as a immunomodulator in children with acute respiratory distress syndrome - randomized double blinded placebo controlled trial
8. Body composition, muscle strength and exercise tolerance in adolescent girls with PCOS: A Case Control Study
9. Changes in selective echocardiographic parameters in preterm neonates less than thirty-four weeks of gestation with fluid refractory shock after initiation of epinephrine infusion: a prospective study
10. Coagulation dysfunction as assessed by thromboelastography in critically sick children with severe sepsis
11. Combination of intravenous fentanyl and ketamine vs intravenous fentanyl for analgesia during laser photocoagulation in retinopathy of prematurity in preterm neonates: A randomized controlled study
12. Comparing the diagnostic utility of 18F-FDG PET/CT with bone marrow biopsy in detecting bone marrow metastases in newly diagnosed Neuroblastoma
13. Comparison of Acetate-based, Lactate-based and Multiple Electrolyte Solution versus saline (MeSLAc trial) in pediatric septic Shock- A Multicenter randomized controlled trial. (PI)
14. Comparison of reconstituted blood with 40 +/- 5% versus 60 +/- 5% hematocrit for double volume exchange transfusion in neonates with hemolytic disease of the newborn: a randomized controlled trial
15. Comparison of risk factor plus sepsis screen-based approach(AIIMS NICU protocol) and the National Neonatology Forum - Clinical Practice Guidelines (NNF -CPG) recommendations for management of asymptomatic neonates with risk factors of early-onset sepsis: An ambispective observational study
16. Comparison of three methods of oxygen supplementation during flexible bronchoscopy in children: A randomized controlled trial
17. Correlation between albumin and protein excretion in spot and 24-hour urine samples in pediatric glomerular diseases (MD thesis)
18. Correlation of ciliary function and structure with specific mutations in patients of Primary Ciliary Dyskinesia
19. Correlation of sleep architecture with cognition, behavior and executive function in children and adolescents aged 5 - 18 years with pharmaco-responsive non-lesional epilepsy: An observational study
20. Cost estimation of neonatal care packages under Ayushman Bharat Scheme
21. Developing a stepwise approach to diagnose pediatric sleep disorders: A questionnaire, actigraphy and polysomnography based observational study
22. Development and validation of a comprehensive module for management of sleep disorders in children with autism spectrum disorder aged 4-10 year: a pre and post intervention study
23. Diagnostic agreement of initial presentation with latest follow up and evaluation of neurobehavioral outcome in Pediatric onset acquired demyelinating syndrome: an ambispective observational study

24. Diagnostic performance of visual assessment of bilirubin and transcutaneous bilirubinometry in detecting rebound hyperbilirubinemia requiring phototherapy re-initiation in neonates
25. Diagnostic utility of serum Inhibin B and Anti-Mullerian Hormone in 46, XY disorder of sex development (DSD)
26. Diagnostic yield of genome sequencing after a negative exome analysis in patients with undiagnosed genetic disorders (DM Thesis)
27. Effect of ambient air pollution on asthma control and quality of life of asthmatic children of Delhi: a prospective study
28. Effect of maternal obesity and post-partum lifestyle intervention on infant adiposity- A Nested RCT within a cohort study
29. Effect of nested multiplex PCR (Biofire ®) on the duration of empirical antibiotics and the risk of treatment failure in asymptomatic neonates with perinatal risk factors for early onset sepsis
30. Effects Of Chemotherapy On CSF and serum Inflammatory Biomarkers and their corelation with neurocognitive function in newly diagnosed children with acute lymphoblastic leukemia
31. Efficacy and safety of oral desidustat in children with anemia of chronic kidney disease (DM thesis)
32. Efficacy of Modified Atkin's Diet as add-on therapy in comparison with standard of care in children with autism spectrum disorder: A Randomized Controlled Trial
33. Efficacy of oral torsemide versus oral furosemide in management of edema in patients with nephrotic syndrome: an open-label superiority randomized controlled trial (DM thesis)
34. Efficacy of repetitive transcranial Magnetic Stimulation (rTMS) as an adjunct to AI enabled remedial Intervention in school going children (aged 6-18 years) having specific learning disorder with dyslexia
35. Estimating the incidence and pattern of paradoxical reactions in CNS tuberculosis
36. Evaluating the role of probiotics in prevention of febrile neutropenia in children receiving intensive chemotherapy: A double blind randomized control trial
37. Evaluating the role of SH2B3 gene in pediatric myeloid malignancies
38. Evaluation of genomic trajectory of pediatric acute myeloid leukemia from diagnosis to relapse.
39. Evaluation of the involvement of selected environmental pollutants on certain neurological disorders
40. Fat gain trajectory from birth to 6 months in healthy term SGA infants, and its effect on serum insulin, IGF-1 and adiponectin at 2 years of age
41. Gender role behavior and puberty-related issues in children and adolescents (8-19 years) with classical 21-hydroxylase deficiency Congenital Adrenal Hyperplasia with 46 XX karyotype: A Cross-sectional analytical study
42. Genetic characteristics of "B-other" acute Lymphoblastic leukemia and impact on early response to chemotherapy
43. Genotype phenotype correlation in Indian children with morquio syndrome (MD thesis)
44. Gut microbiome of very preterm neonates (28 to 31 weeks) receiving mother's own milk versus donor human milk: a prospective cohort study"
45. High (10mg/kg/day) Vs. standard maintenance dose (5mg/kg/day) of caffeine on the incidence of caffeine therapy failure in preterm infants of < 32 weeks gestational age: An Open label, parallel group, superiority randomised controlled trial
46. Hypothalamic Syndrome in pediatric patients treated for Craniopharyngioma: a cross sectional study
47. Improving clinical care delivery by increasing adherence to "Diabetes care index" checklist in children with Type 1 diabetes in an outpatient department: A Quality Improvement study
48. Inadequate weight gain and factors associated with it among exclusively breast fed term neonates by 10-14 days of life: A cross sectional study
49. Incidence And Factors Contributing To Delayed Antibiotics Administration In Febrile Neutropenia In Children Receiving Chemotherapy
50. Ketamine versus fentanyl for sedation during endotracheal intubation in acutely ill children (DM thesis)
51. Long term efficacy and safety of oral dapagliflozin in reducing proteinuria in children with proteinuric chronic kidney disease (MD thesis)

52. Mobile Observed Inhalational Therapy in Poorly Controlled Asthma in Children (MOBIT): A Randomized Controlled Trial
53. Multimodal Management of stage II and III extraocular retinoblastoma : An Interventional pilot study
54. Nebulized salbutamol and hypertonic saline versus nebulized salbutamol and normal saline in the treatment of children with acute exacerbation of asthma: A Randomized controlled trial
55. Neurocognitive outcomes in long term childhood ALL survivors
56. Neurofilaments and Creatinine as Biomarkers in Spinal Muscular Atrophy: An Observational Study (DM thesis)
57. Neurofilaments and Creatinine as Biomarkers in Spinal Muscular Atrophy: An Observational Study (DM Thesis)
58. Neurofilaments and Creatinine as Biomarkers in Spinal Muscular Atrophy: An Observational Study
59. Newborn screening for Spinal muscular atrophy -A pilot study (MD thesis)
60. Oral vs IV antibiotics in low risk Febrile Neutropenia
61. Outcomes of primary vesicoureteric reflux in children, aged 10-18 years (MD thesis)
62. Performance of creatinine and cystatin-based estimated glomerular filtration rate (GFR) equations in children with steroid resistant nephrotic syndrome (MD thesis)
63. Phenotypic spectrum and treatment outcomes of patients with Gaucher disease (MD thesis)
64. Plasma Lyso-Gb1 Concentration by Mass Spectrometry in Gaucher disease: Correlation with Disease Severity and Genotype (DM Thesis)
65. Prevalence and risk factors of functional iron deficiency anemia in CKD 2-5D (MD thesis)
66. Prevalence and risk factors of low bone mineral density in children with juvenile idiopathic arthritis
67. Prevalence of disorders of sodium homeostasis and its association with short-term outcome in children with tuberculous meningitis: A hospital based longitudinal study
68. Prevalence of hypertension in preschool children (2-5 years) born VLBW and predictors thereof
69. Prevalence of immune deficiencies and study of immune reconstitution post autologous hematopoietic stem cell transplant in pediatrics
70. Prevalence of immuno-paralysis in children with severe sepsis
71. Prevalence of Menstrual Irregularity in Adolescent Girls- A Cross Sectional Study
72. Prevalence of Metabolic syndrome in children with Down syndrome (DM thesis)
73. Procalcitonin guided antibiotic therapy in children. Jhuma Sankar. (PI) (completed)
74. Profile of Venous Excess Ultrasound Grading System (VExUS) and its association with acute kidney injury and fluid overload in children with sepsis: A pilot study
75. Prophylactic Romiplostim in pediatric patients post hematopoietic stem cell transplantation for early platelet engraftment: An open-label randomized controlled trial
76. Prophylactic Romiplostim in pediatric subjects receiving myelosuppressive chemotherapy to hasten platelet recovery: An open-label randomised controlled trial
77. Role of Tregs and Thelper cells in bone involvement in Gaucher disease (DM Thesis)
78. Systematic review and meta-analysis: Accuracy of equations for estimating glomerular filtration rate in children with chronic kidney disease
79. Systematic review and meta-analysis: Efficacy and safety of cyclophosphamide in preventing relapses in children with steroid sensitive nephrotic syndrome
80. To analyze the efficacy of Ethosuximide and Perampanel as an add-on therapy in children with DEE-SWAS aged 4 to 12 years: A multi arm, open label parallel design randomized controlled trial"
81. To assess predictors of breastfeeding failure in late preterm infants at 6 weeks of postnatal age
82. To compare the efficacy of Intranasal Dexmedetomidine vs oral Melatonin vs oral Triclofos as procedural sedative for drug induced sleep EEG in children: A double-blind, parallel design, randomized clinical trial
83. Tofacitinib for calcinosis cutis associated with juvenile dermatomyositis: an open label single arm study

84. Transbulbar ultrasound of Optic Nerve Sheath Diameter in critically ill children with and without raised ICP (MD thesis)
85. Ultrasound-guided insertion of umbilical venous catheter: A single-arm interventional study with historical controls
86. Variation of Human milk macronutrient composition with maternal nutritional status: Cross sectional study
87. Whole exome sequencing to detect the prevalence of monogenic variants in an Indian Paediatric Cohort with Inflammatory bowel disease

Completed

1. Assessment of the early heterologous effect of two BCG strains given at birth in preterm neonates born at 30-35 weeks of gestation: An immunological exploratory study
2. Clinical and Molecular Characterization of Congenital Limb Defects Using Genomic Approaches (PhD)
3. Clinical, radiological and molecular profiling of uncharacterized skeletal dysplasias (DM thesis)
4. Comparing safety of two drug regimens for pupillary dilatation for retinopathy of prematurity screening in preterm neonates: A double blinded randomised cross over trial
5. Comparison of body composition at 2.5-4.5 years of age between children born term versus preterm: a follow-up study of two birth cohorts
6. Comparison of efficacy of ketogenic diet and ACTH therapy among children with west syndrome: a pilot randomized control trial
7. Comparison of low dose and standard dose albumin for inducing diuresis in children with nephrotic syndrome and severe edema: a randomized controlled trial
8. Comparison of two methods of estimation of length of umbilical arterial and venous catheter insertion: A Randomized trial
9. COVID-19 in children - post COVID sequelae (IRG project) (PI) (completed)
10. Development of questionnaire-based tool to measure the patient reported outcome in children with epileptic encephalopathy
11. Early antiseizure medication tapering in children and adolescents aged 2-18 years with single granular or calcified parenchymal neurocysticercosis in a low-risk subgroup identified by risk assessment: a single arm intervention study
12. Effect of birth weight and change in body mass index Z-score between birth to mid- childhood on metabolic profile and exercise capacity in mid-childhood: a longitudinal cohort study (MD Pediatrics)
13. Effect of online education programme on carbohydrate counting on glycemic control in adolescents with type 1 diabetes mellitus: a pilot study
14. Effect Of Oral Levofloxacin Prophylaxis In Decreasing The Incidence Of Febrile Neutropenia In Children Receiving Intensive Chemotherapy For Acute Leukemia-A Randomized, Open Label Trial"
15. Effect of Structured Oromotor Stimulation by Mother of Preterm Neonates (?32 weeks) on Time to Reach Full Katori Spoon Feeds - A Randomized Controlled Trial
16. Efficacy and safety of oral dapagliflozin in reducing proteinuria in children with proteinuric chronic kidney diseases
17. Efficacy of cryotherapy in the prevention of oral mucositis in children with acute lymphoblastic leukemia receiving methotrexate-based chemotherapy: A Randomized Trial
18. Efficacy of prolonged release tacrolimus, administered once daily, in maintaining remission of calcineurin inhibitor dependent steroid sensitive nephrotic syndrome in children
19. Efficacy of repetitive transcranial magnetic stimulation in children and adolescents aged 5-18 years with generalized dystonia:A randomized sham control trial
20. Evaluating the role of probiotics in prevention of Febrile neutropenia in children receiving intensive Chemotherapy: a double blind randomized control trial
21. Evaluation of bone mineral density in a cohort of children with inflammatory bowel disease
22. Evaluation of copy number variation analysis on whole exome sequencing data as a tool for improving diagnostic yield in patients with suspected genetic disorders (DM Thesis)

23. Feasibility of an oral hydration regimen during high dose methotrexate administration in children with hematolymphoid malignancies - A single arm interventional pilot study
24. Gastrointestinal dysfunction in children with septic shock (DM thesis) (completed)
25. Genetic modifiers in Spinal muscular atrophy : A genotype-phenotype correlation study (DM Thesis)
26. Hematological and iron status in infants with Rh isoimmunization: a prospective cohort study
27. High speed video microscopy in immotile cilia syndrome (DM thesis) (completed).
28. miRNA 132 expression in serum of children with Down syndrome : A potential marker of severity of Developmental delay (DM thesis)
29. Neurological outcomes in critically ill children (MD thesis) (completed).
30. Prevalence of autoantibodies for common autoimmune disorders and their correlation with PTPN11 variants in patients with Noonan Syndrome (DM thesis)
31. Prevalence of Hypoalbuminemia and its Association with Outcome of Childhood Cancers
32. Role of nerve ultrasound as a prognostic modality in children with Gullian Barre syndrome (age 2-18 years): A prospective observational study
33. Short term efficacy & safety of sucroferric oxyhydroxide in non dialysis dependent pediatric chronic kidney disease with hyperphosphatemia
34. Thromboelastography to assess coagulation disturbances in critically ill children (DM thesis) (completed)
35. Utility of rapid trio whole exome sequencing in critically ill children in the Intensive care unit (DM thesis)
36. Utility of ultrasound in confirming position of endotracheal tube in critically ill children (MD thesis).
37. Validation of BPD clinical prediction models in Indian preterm infants- An ambispective cohort study
38. Video based Direct Observation Physiotherapy (VDOP) in children with cystic fibrosis: A randomized controlled trial.
39. Vincristine and Topotecan versus Carboplatin, Etoposide and Vincristine based chemotherapy for ocular salvage in Group D and Group E Intraocular Retinoblastoma: A randomized, open label trial

Collaborative projects

Ongoing

1. “Study of cryopreservation effects on sperm mitochondrial and nuclear DNA integrity and its influence on fertilization events”, Department of Reproductive Biology
2. A molecular understanding of early-onset inflammatory bowel disease (IBD) using animal models and whole-exome sequencing of paediatric IBD patients, IISc, Banglore
3. 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
4. A multimodality assessment of brain metabolism, microstructural organization and neuroinflammation in Subacute Sclerosing Panencephalitis: A pilot study, AIIMS intramural
5. A study of Etiopathogenesis of Systemic Inflammation in Acute Pancreatitis, its Functional Consequences and Progression to Chronic Pancreatitis, Department of Gastroenterology
6. Adolescent Sexual Abuse: Modification of Multidimensional Scale for Child Sexual Abuse (MSCSA) and a Randomized Feasibility Trial of a Trauma - Focused Cognitive Behaviour Therapy Intervention, Psychiatry
7. Anti-nephrin antibodies in children with idiopathic nephrotic syndrome, Translational Health Science and Technology Institute, Faridabad
8. Association of serum antiseizure medication levels with behavior and cognition in children and adolescents aged 6-17 years with pharmaco-responsive non-lesional epilepsy: An observational study, AIIMS, UG Mentorship Grant
9. Clinical Practice guidelines for management of Juvenile Idiopathic arthritis for South-east Asia, Asia Pacific League Rheumatology, of associations, for
10. Clinico-Sero-Pathological classification and pathogenesis of Idiopathic inflammatory myopathies, Pathology

11. Cortical Transcranial Magnetic Stimulation a Promising Biomarker and therapeutic modality to induce Synaptic Plasticity in Cerebral Palsy Children with Single and Paired Pulses Paradigm., Department of Physiology, AIIMS, New Delhi
12. Cross sectional Hospital based study to assess prevalence of knee deformities in children and its correlation with Nutritional Status and regulators of bone metabolism, Orthopedics
13. Culture of nasal epithelial cells for diagnosis of Primary Ciliary Dyskinesia, JNU, New Delhi, IGIB, New Delhi
14. Cystic Fibrosis in India: Prevalence, Mutation Profile and Development of Registry, Division of Pulmonology Department of Pediatrics, AIIMS, New Delhi, SKIMS, AIIMS, Jodhpur Ongoing
15. Developing models based on biomarker signature and clinico-electroencephalographic parameters to predict severity and outcome in pediatric status epilepticus: a longitudinal observational study, DHR
16. Differentiating monophasic and recurrent acquired demyelinating disorders of childhood and adolescence: an HLA typing, serum and CSF inflammatory biomarkers based longitudinal observational study, AIIMS intramural
17. Effectiveness of a structured paediatric to adult management transition intervention to improve adherence to diabetes care and clinical outcomes among Type 1 Diabetes Mellitus (T1DM) patients in India" - PATHWAY trial, Endocrinology
18. Efficacy of IV rituximab versus oral mycophenolate mofetil in sustaining remission in steroid-resistant nephrotic syndrome maintained on calcineurin inhibitors for more than two years: An open-label randomized controlled trial, Maulana Azad Medical College, Delhi; Vardhaman Mahavir Medical College, Delhi; Lady Hardinge Medical College, Delhi; Chacha Nehru Bal Chikitsalaya, Delhi; AIIMS, Bhopal; AIIMS, Jodhpur; St John Hospital Bengaluru; SAT, Thiruvananthapuram
19. Efficacy of low dose, short course prednisolone regimen for relapse of steroid sensitive nephrotic syndrome in children: A multicenter, randomized, placebo-controlled trial, Maulana Azad Medical College, Delhi; Vardhman Mahavir Medical College, Delhi; Lady Hardinge Medical College, Delhi; Chacha Nehru Bal Chikitsalaya, Delhi; AIIMS, Bhopal; AIIMS, Jodhpur; St John Hospital Bengaluru; SAT, Thiruvananthapuram
20. Evaluation of Artificial neural network for differentiating Iron deficiency anemia and ?-Thalassemia trait in comparison to the conventional methods, Laboratory medicine, AIIMS, Delhi
21. Evaluation of novel dipstick-based molecular techniques for early detection of Gram-negative ESKAPE (KAPE) organism and antimicrobial resistance genes in burn wounds, Department of Plastic Reconstructive and Burns Surgery
22. Evaluation of role of cardiotocography based short term variability in prediction of adverse perinatal outcome in late small for gestational age and appropriately grown fetuses, Obstetrics and Gynaecology
23. Evaluation of the involvement of selected environmental pollutants on certain Neuronal diseases, Ocular Pharmacology and Pharmacy, RPC, AIIMS, New Delhi
24. Evaluation of WHO and intergrowth-21 growth charts in Indian population, Obstetrics and Gynaecology
25. Host inflammatory response and its correlation with paradoxical worsening in childhood tubercular meningitis, AIIMS intramural
26. ICMR Young Diabetes registry, Endocrinology
27. Infectious and genetic triggers in children with hemolytic uremic syndrome, Institute of Liver and Hepatobiliary Sciences, Delhi
28. Infectious and genetic triggers in children with hemolytic uremic syndrome, Institute of Liver and Hepatobiliary Sciences, Delhi
29. Joint Attention and 3D Motion and Depth Perception Using Virtual and Augmented Reality Techniques, IIT, New Delhi
30. KIWI study: Comparision of Kobayashi and Kawanet IVIG resistance scores in a multi-centric European and North Indian cohort of Kawasaki disease, Pediatric Rheumatology European Society
31. Multicentric collaborative study of the national registry for rare disorders in India, ICMR
32. Multimodal evaluation of neural network and neuroinflammatory nexus of Electrical status epilepticus in sleep (ESES) in children, AIIMS intramural
33. National registry on COVID 19 infection among pregnant women and their neonates- A three year ICMR study., Department of Obstetrics and Gynaecology

34. Neuro developmental outcomes in infants undergoing surgery for congenital heart defects - A prospective multi-center cohort study. ICMR study 2020 onwards, Pediatric Cardiology
35. PALISI Global parity study on acute illnesses, Pediatric Acute Lung investigators, USA, Injury and, Sepsis
36. Prevalence of Teething Problems during Eruption of Primary Teeth- A prospective cohort study, CDER
37. Program on complement-mediated kidney diseases: Developing commercial ELISA and pipelines for genetic screening, identifying biomarkers, and refining therapies, Regional Center for Biodesign, Faridabad; ILBS, Delhi; CCMB, Hyderabad
38. Retinoblastoma, Ophthalmology
39. Sepsis-related mortality in neonates in India A multi-disciplinary, multi-institutional research program for context-specific solutions, THSTI, Faridabad; ICGEB, Delhi; NII; JNU; IGIB; CDSA; UCMS & GTB; SJH, Delhi; LHMC, Delhi
40. To compare efficacy and safety of Melatonin and Triclofos in inducing sleep in children posted for sleep deprived sleep EEG: A double blind, parallel design, randomized clinical trial. (CTRI/2020 February 023592), AIIMS intramural
41. To study the effect of yoga in pregnancy on maternal and perinatal outcome, Obstetrics and Gynaecology
42. Understanding Alagille syndrome (ALGS) using vascularized iPSC-liver organoids." In Collaboration as Co-investigator with Dr Deepti Abbey, Kusuma School of Biological Sciences, Indian Institute of Technology, Delhi, IIT Dellhi
43. Use of 'My Whole Child; Child Health and Development Interactive System', a web-based platform for holistic, Chadis, USA, evaluation and management of Indian children and adolescents upto 18 years of age; a tertiary centre pilot study
44. Whole body magnetic resonance imaging in assessment of disease activity and damage in children with JIA, Radiodiagnosis and Interventional Radiology, AIIMS, New Delhi

Completed

1. "A study on development of "Epilepsy care App" and assess its utility and satisfaction among parents of children with Epilepsy reporting at AIIMS, New Delhi" (IRG), Nursing College
2. "An ambispective cross-sectional descriptive study to characterize the cutaneous and histological features in children with Langerhans cell histiocytosis", Dermatology
3. "Role of 18 F FDG PET/CT in assessment of treatment response to neoadjuvant chemotherapy in primaryextraocular retinoblastoma", Nuclear medicine
4. 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, Department of Radiotherapy. AIIMS, New Delhi
5. A study to compare the anxiety, depression, and quality of life (QOL) among caregivers of children with cerebral palsy and those with typically developing children attending Paediatric Neuro OPD at AIIMS, New Delhi, MSc Nursing
6. Caregiver Burden And Quality Of Life Of Parents Of Children With Cancer In A Tertiary Care Centre In India- A Cross Sectional Study, Onco Anaesthesia & Palliative medicine
7. Community based assessment of disability among adult population in Delhi using WHO International Classification of Functioning, Department of Community Ophthalmology, AIIMS, New Delhi
8. Comparison of whole body MRI with FDG PET CT in pediatric lymphoma and histiocytic disorders, Radiodiagnosis
9. Core outcomes set in pediatric critical care, Pediatric Acute investigators, USA, Lung, Injury, and, Sepsis
10. Cortical sources and connectivity in autism spectrum disorder: A QEEG study, Department of Physiology AIIMS, New Delhi
11. Efficacy, safety and tolerability of Modified Atkins Diet in Adolescents and Adults with Drug Resistance Epilepsy: A Randomized Controlled Trial, Department of Neurology, AIIMS, New Delhi
12. Emotion Recognition Ability and Social Adaptive Behaviour in children with autism spectrum disorder (ASD): A Study of Behavioural and Phenotypic linkage, PhD IIT, Kanpur

13. Impact of advanced paternal age and poor lifestyle on sperm epigenome: Possible etiology in autism spectrum disorder, Department of Anatomy, AIIMS, New Delhi
14. Neurodevelopmental outcomes in children with cyanotic congenital heart disease following open heart surgery, Pediatric Cardiology
15. Pediatric Renal Biology Program: Research on nephrotic syndrome, Institute of Genomics & Integrative Biology, New Delhi; Translational Health Sciences & Technology Institute, Govt. of India, Faridabad; Research and Referral Hospital, New Delhi; St. John's Medical College, Bengaluru; Christian Medical College, Vellore
16. Pilot study of genetic variations among Indian children with vesicoureteral reflux, Institute of Genomics & Integrative Biology, New Delhi
17. Proposal for ICMR Advanced Centre for Research in Pediatric Kidney Diseases, Institute of Genomics & Integrative Biology, New Delhi
18. Setting up registry and targeted exome sequencing in children with renal tubular disorders, All India Institute of Medical Sciences, Bhopal
19. Spectrum of adenosine deaminase 2 deficiency (DADA2) in Indian children: a multicentric study, CMC Vellore and other centers
20. Study of cerebral edema, neuroinflammation and blood brain barrier disruption in pediatric traumatic brain injuries., Neurosurgery
21. Understanding disease biology and diagnosis of bacterial sepsis in hospitalized neonates: a multi- centre study, THSTI, Faridabad and NCBS, Bengaluru
22. Whole exome sequencing in patients with non-diarrheal & non-autoimmune form of hemolytic uremic syndrome, Institute of Genomics & Integrative Biology, New Delhi

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	95	80	81
Total funding	Rs 108,20,17, 697	Rs 111,87,63, 683	Rs 117.05 crores

PUBLICATIONS

Total Publications: 365; Journals: 282; Abstracts: 44; Chapters in Books: 32; Books: 7

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	189	204	364
Journal articles	110	125	282
Abstracts	14	4	44
Chapters in books	35	71	32
Books	3	4	7

PATIENT CARE

Under the title: Patient care/supportive activities: please include information regarding:

(a) facilities available in the department (including special clinics and/or special laboratory facilities)

Dr Vandana Jain and Dr Rajini Sharma

- Pediatric Endocrinology Clinic: The common endocrine disorders in children that we manage include Growth Hormone Deficiency, Congenital or acquired hypopituitarism, Hypothyroidism, Type 1 Diabetes Mellitus, Rickets, Pubertal disorders, adrenal insufficiency and excess, Vitamin D and Parathormone deficiency and excess and obesity and metabolic syndrome

- New facility of once-monthly Multidisciplinary clinic for DSD patients has been started in collaboration with Departments of Pediatric Surgery and Psychiatry this year
- Teleconsultations were actively provided to children under follow-up, especially to the children with type 1 diabetes and CAH
- Pediatric Endocrinology Lab: The following hormonal assays are being done in Department of Pediatrics: Growth Hormone, 25 Hydroxy-vitamin D, PTH, Cortisol and Insulin, using Roche Cobas e411 ECLIA equipment (Total number of assays for April 2023 to March 2024: Growth Hormone: N= 430, Insulin, N=350, Cortisol, N=50, PTH, N=135, 25OHD, N=120)
- Pediatric body composition assessment lab: We have the state of the art air displacement plethysmography based system for body composition analysis of newborns and infants (PEAPOD) and Bodpod system with pediatric option for body composition analysis in the 2-18 y age group (n=212 measurements on Peapod and N= 180 measurements on Bodpod in FY 2023-24)

(b) community services/camps, etc.

Dr Vandana Jain and Dr Rajini Sharma

- Division of Pediatric Endocrinology organizes weekly diabetes education group classes. This year, in a new initiative, we collaborated with an NGO from Coimbatore, Idhayangal Charitable Trust, to provide free supply of analogue insulins with pen devices, glucometers and strips to 25 needy children
- Dr Vandana Jain provided inputs on multidisciplinary care of children with DSD to Society of Children with DSD and to IndianAcademy of Pediatric Surgeons (IAPS)
- Dr Vandana Jain presented a talk on improving Nutrition from infancy to adolescence at the Public lecture on Nutrition at AIIMS on 11 October 2023
- Dr Rajni Sharma organized health camps for nutrition and menstrual health in adolescent girls in 2 public schools and 2 government run NDMC schools from October 2023 to February 2024

Lab Services

Number of tests that have been advised and carried out in our different labs are as follows.

2023-2024

Molecular Genetics:

S. no	Test Name	Post natal	Prenatal
1.	Achondroplasia/Hypochondroplasia (FGFR3)	24	4
2.	Apert Syndrome (FGFR2)	2	3
3.	Albinism (OCA)	3	-
4.	5 alpha reductase deficiency (SRD5A2)	15	-
5.	Achondrogenesis (SLC26A2)	1	1
6.	B-Thalassemia (HBB)	170	58
7.	Biotinidase Deficiency (BTD)	3	-
8.	Blau Syndrome (NOD 2)	6	-
9.	Beckwith Wiedemann Syndrome/Silver Russell Syndrome	8	1
10.	Brachydactyly-Syndactyly Syndrome (HOXD13)	6	-
11.	Connexin (GJB2)	40	-
12.	Cystic Fibrosis (CFTR)	57	7
13.	CAH (CYP21A2)	7	-
14.	Citrullinemia (ASS 1)	2	-
15.	Cystinosis (CTNS)	-	-
16.	Caffey Disease (C0L1A1)	2	-

17.	DMD (Dystrophin)	244	23
18.	Diastrophic dysplasia sulfate transporter (SLC26A2)	1	-
19.	Developmental And Epileptic Encephalopathy (ITPA)	2	1
20.	Ectodermal Dysplasia (EDAR)	-	1
21.	Fibrodysplasia ossificans progressive (FOP)	8	-
22.	Fragile-X (FMR1)	247	-
23.	Fructose-1, 6, bisphosphotase (FBP1)	1	
24.	Gaucher disease (GBA)	2	4
25.	Glutaric Acidoria (GA 1)	1	-
26.	Glycogen Storage Disorders III &Ib (AGL & SLC37A4)	0	-
27.	Glactoremia I (GALT)	1	-
28.	Gilbert Syndrome (UGT1A1)	9	-
29.	InconnentiaPigmenti (NEMO)	7	-
30.	Inter-Sex cases	6	-
31.	Krabbe (GALC)	2	1
32.	Leber congenital Amausosis 5 (LCA 5)	-	-
33.	Megalencephalic Leukoencephalopathy (MLC)	3	-
34.	Metachromatic Leukodystrophy (ARSA)	3	2
35.	MPS I/II/III/IV	7	4
36.	Multiple endocrine neoplasias type 2 (MEN2A)	10	-
37.	Multicentric carpotarsal osteolysis (MAFB)	3	1
38.	Neuronal ceroid lipofuscinoses (CLCN6)	1	1
39.	Niemann-Pick disease types A and B (SMPD1)	10	5
40.	Noonan syndrome (PTPN11)	2	1
41.	Prader Willi Syndrome/Angelman Syndrome	36	-
42.	Progressive pseudorheumatoid dysplasia (CCN6/ WISP3)	2	-
43.	Progeria (LMNA)	1	-
44.	Rett Syndrome (MECP2)	37	1
45.	Rubinstein-Taybi Syndrome (CREBBP)	-	1
46.	Spinal Muscular Atrophy (SMN)	92	11
47.	Von Hippel-Lindau syndrome (VHL)	10	-
48.	Pycnodysostosis (CTSK)	9	-
49.	Masa Syndrome (L1CAM)	2	1
50.	X-Chromosome Inactivation	8	-
Total		**1113**	**134**

Molecular testing	**2021–2022**	**2022–2023**	**2023–2024**
Prenatal	104	134	134
Postnatal	575	1364	1113

Rapid aneuploidy & MCC testing by QF-PCR	-	96	175

Biochemical Genetics

TEST	NO. OF PATIENTS
Dual Marker	1100
TEST	**NO. OF PATIENTS**
HPLC	159
TMS	485
New Born Screening	1810
Blood Ammonia	1548
Disorder of Mucopolysaccharidosis (Urine spot Test)	2
Homocysteinuria Test	2
Reducing Substances in Urine	46
DNPH	22
FECL3	3
Sulphite Oxidase	0
GAGS	120
Oligosaccgaride	16
Alkaptonuria	0
UAAG	59

ENZYME ASSAY FOR INBORN ERROR OF METABOLISM TOTAL NO PATIENTS FOR ENZYME ASSAYS: 789

ENZYME ASSAY	DISORDER	NO. OF PATIENTS	DEFICIENT
B-Glucosidase	Gaucher Disease	75	27
Sphingomyelinase	Neimann Pick Disease	58	9
Chitotriosidase	Chitotriosidase	181	125
(PLASMA)	(plasma)		
MPS-I	Hurler (MPS-I)	40	11
MPS-II	Hunter (MPS-II)	27	9
a -N-Acetylglucosaminidase	Sanfilippo B (MPS-III B)	13	5
	Sanfilippo C (MPS-III C)	10	1
Acetyl-CoA: a-glucosaminide N-Acetyltransferase	Sanfilippo D (MPS-III D)	0	0
Galactose-6-SulphateSul phatase	Morque A (MPS -IV-A)	29	23
Gangliosidosis	GM1 gangliosidosis & Morque B (MPS -IV-B)	37	7

Arylsulfatase A	Metachromatic leukodystrophy	40	14
Arylsulfatase-B	MPS -VI	9	3
B-Glucuronidase	Maroteaux -Lamy Syndrome (MPS -VII)	7	4
Hexosaminidase A	Tay -Sach's	21	1
Total Hexosaminidase	Sandoff disease	2	1
Plasma HexA	Mucolipidosis	11	3
Plasma ASA	Mucolipidosis	11	3

ENZYME ASSAY	DISORDER	NO.OF PATIENTS	DEFICIENT
B-Galactocerebrosidase	Krabbe's	19	1
(Krabbes)			
Palmitoyl - protein	INCL -1	20	4
-thioesterase (INCL)			
Tripeptidyl -peptidase.-I	NCL -2	8	6
a-Glucosidase	Pompe	29	4
Fabry	Fabry	6	3
Biotinidase	Biotinidase	50	13
GALT	Galactosemia	63	12
Fucosidase	Fucosidosis	2	1
Manosidase	Manosidosis	3	2

TOTALCVS PND	DISORDER	NO.OF PATIENTS	DEFICIENT
CVS (NIH)	Non -Immune Hydrops	4	-
CVS (ASA)	Metachromatic -Leukodystrophy	2	-
CVS (GM1)	GM1 Gangliosidosis	1	-
CVS (MPS I)		3	1
CVS (MPS II)		2	-
CVS (MPS VI)		-	-
CVS (GAUCHER)		-	-
CVS (NPD)		4	-
CVS (Krabbes)		2	-
CVS (MPS III C)		-	-
CVS (NCL1)		-	-
CVS (NCL2)		-	-

CVS (MPS IV A)		-	-
SANDHOFF		-	-
Cord Blood (GALT)		-	-
Cord Blood (NIH)		-	-
Cord Blood (NIH) POMPE		-	-
CVS (POMPE)		-	-

Biochemical Genetic lab test	2021–2022	2022–2023	2023–2024
Prenatal Enzyme Assay	24	19	18
Postnatal Enzyme Assay	522	618	771
Antenatal Screening	109	492	1100
Urine metabolic Screening	187	264	270
Blood Ammonia	883	1714	1548
Amino acids HPLC	80	191	160
TMS	-	-	485
NBS+SUAC	-	-	1810

Cytogenetics

Cytogenetics testing	2021–2022	2022–2023	2023–2024
Peripheral blood and cord blood culture	303	668	823
Amniotic fluid cultures	116	308	436
Chorionic villi cultures	23	36	45
Rapid aneuploidy testing by QF-PCR	255	405	-

Lab service	2021–2022	2022–2023	2023–2024
Bioinformatics	18	59	Reanalysis: 368 (diagnostic 266 + reanalysis project 102)
Fetal autopsy	62	72	133

Special clinics

1. Pediatric chest clinic
2. TB clinic

Special lab tests

1. High Speed Video Microscopy
2. Sweat chloride estimation
3. Pediatric flexible bronchoscopy
4. EBUS (Endobronchial ultrasound)
5. Spirometry

6. Infant PFT
7. Plethysmography
8. Impulse Oscillometry (IOS)
9. Fractional excretion of Nitric Oxide (FeNO) and nasal Nitric Oxide (NO)
10. Total and specific IgE
11. Exercise testing

Pediatric Rheumatology Clinic every Friday: average attendance 35-40/week Procedures (Annual):

IACS (Intra-articular corticosteroids) joint injections: 380 Nail fold capillaroscopy: 60

Other procedures (arthrocentesis/skin biopsies etc.): 14 Administration of Biologicals and other DMARDs (Daycare): 65
Tele consults (Nurse led supervised service): 476 /year

PATIENT CARE	
Nephrology clinic attendance, and teleconsultations	~17000
Special tests and procedures Kidney transplantation1	15
Hemodialysis2	1270
Sustained low efficiency dialysis	22
Acute or chronic peritoneal dialysis (including automated)	47
Plasmapheresis sessions	410
Continuous renal replacement therapy	42
Temporary hemodialysis catheter placement (internal jugular, femoral)	176
Placement of peritoneal dialysis catheter	80
Renal biopsies	142
Ambulatory blood pressure monitoring	446

Monitored infusions (albumin, cyclophosphamide, rituximab) 1343

ELISA for antibodies to complement factor H 676

[1]Includes two cadaveric transplantations and one ABO incompatible transplant.

[2]Included more than 200 hemodialysis sessions performed outside the hemodialysis unit for critically ill children in various hospital wards, high dependency units, and intensive care areas.

Division of Pediatric Neurology

1) EEG –1591, Video EEG –780, Ambulatory EEG-49 – (Total EEG –2420)
2) NCS and EMG -174
3) Diagnostic TMS- 64, Therapeutic TMS- 138
4) RNST - 14
5) PSG – 82
6) Day CareProcedures: Lumbar Puncture – 81, Skin biopsy –11, Nerve biopsy –1, Muscle biopsy – 24

7) Spinraza treatment to spinal muscular atrophy patients under SIPHAP (SPINRAZA INDIVIDUAL PATIENT HUMANITARIAN ACCESS program given to SMA patients as per protocol: 47 (12 old + 35 new) patients

8) Gene therapy Intravenous infusion-10 patients (admitted in private ward a day prior)

9) Risdiplam 5 patients have been selected for humanitarian access program, 2 have arranged from crowd funding and 6 are receiving the drug.

The toll free 24X7 Child Neurology tele-helpline addressed to issues for 7830 calls (average daily 21) from 1 April 2021 to 31 March 2022

Psychological and Developmental test	
VSMS for SQ (for SQ, Cochlear Implant)	559
Developmental Profile 3	512
Childhood Behavior Checklist	813
Malin's Intelligence Scale for Indian Children	630
Wechsler Intelligence scale for children	07
House Tree Person test	272
Developmental scale for Indian Infants (DASII)	636
Sensory Profile 2	63
DSM-5 for Autism Spectrum Disorder	987
Childhood Autism Rating Scale	457
INCLEN tool for ASD	59
ISAA tool for ASD	55
DSM-5 for Attention Deficit Hyperactivity disorder	35
DSM-5 for Social communication disorder	5
Comprehensive Test of Phonological Processing	31
Child Sleep habit questionnaire	79
Quality of life for children	66
Gassel drawing Test	55
CONNER's rating Scale for ADHD	33
Grade Level Assessment Device	87
NIMHANS battery for learning disorder	79
Total patients = 5520	
Intervention and Counseling	
Total Psychological intervention	
Early stimulation therapy	761
Behavioral Intervention	818

Psychological & personality assessment using HTP (Functional)	117
Psychological counseling for Nocturnal Enuresis	51
Counseling for Tic disorder	14
Cognitive Behavior Therapy	417
Parent's counseling in Ward	66
Parent's counseling in Emergency	18
Tele-Consultation	88
Disability Certification	
Patients evaluated for certification/UDID	Assessment done for 256 patients 29 UDID Certificate issued

2022-23

Total number of procedures done

8) EEG –2090, Video EEG –1839, Ambulatory EEG-76 – (Total EEG –4005) 9) NCS – 336 EMG – 62

10) Diagnostic TMS- 48, Therapeutic TMS- 45 RNST –37

11) PSG –78

12) Day Care Procedures: Lumbar Puncture –258, Skin biopsy –30, Nerve biopsy –2, Muscle biopsy – 75, Muscle biopsy (under Sarepta trial)- 12

13) Spinraza treatment to spinal muscular atrophy patients under SIPHAP (SPINRAZA INDIVIDUAL PATIENT HUMANITARIAN ACCESS program given to SMA patients as per protocol: 47 (12 old + 35 new) patients.

14) Gene therapy Intravenous infusion-10 patients (admitted in private ward a day prior)

15) Risdiplam 5 patients have been selected for humanitarian access program, 2 have arranged from crowd funding and 6 are receiving the drug. Till 28 March 2023.

Psychological and Developmental test	
VSMS for SQ (for SQ, Cochlear Implant)	545
Developmental Profile 3	440
Childhood Behavior Checklist	715
Malin's Intelligence Scale for Indian Children	632
Wechsler Intelligence scale for children	10
House Tree Person test	387
Developmental scale for Indian Infants (DASII)	698
Sensory Profile 2	60
DSM-5 for Autism Spectrum Disorder	770
Childhood Autism Rating Scale	480
INCLEN tool for ASD	354
ISAA tool for ASD	354

DSM-5 for Attention Deficit Hyperactivity disorder	256
DSM-5 for Social communication disorder	12
Comprehensive Test of Phonological Processing	24
Child Sleep habit questionnaire	175
Quality of life for children	175
Gassel drawing Test	165
CONNER's rating Scale for ADHD	165
Grade Level Assessment Device	200
NIMHANS battery for learning disorder	202
10121	
Intervention and Counseling	
Total Psychological intervention	
Early stimulation therapy	600
Behavioral Intervention	750
Psychological & personality assessment using HTP (Functional)	400
Psychological counseling for Nocturnal Enuresis	70
Counseling for Tic disorder	55
Cognitive Behavior Therapy	385
Parent's counseling in Ward	100
Parent's counseling in Emergency	25
Tele-Consultation	125
Disability Certification	
Patients evaluated for certification/UDID	Assessment done for 450 patients 342 UDID Certificate issued

2023-2024

Total number of procedures done

1) EEG –2168, Video EEG –841, Ambulatory EEG-980 – (Total EEG –3989)
2) NCS –257, EMG –68
3) Diagnostic TMS-29, Therapeutic TMS-66 RNST –37
4) PSG –141
5) Day Care Procedures: Lumbar Puncture –162, Skin biopsy –14, Nerve biopsy –4, Muscle biopsy –42, Muscle biopsy (under Sarepta trial)- 15
6) Spinraza treatment to spinal muscular atrophy patients under SIPHAP (SPINRAZA INDIVIDUAL PATIENT HUMANITARIAN ACCESS program given to SMA patients as per protocol: 47 (12 old + 35 new) patients.
7) Gene therapy Intravenous infusion-20 patients (admitted in private ward a day prior)

8) Risdiplam 5 patients have been selected for humanitarian access program, 2 have arranged from crowd funding.

Psychological and Developmental test	
VSMS for SQ (for SQ, Cochlear Implant)	1898
Developmental Profile 3	2192
Childhood Behavior Checklist	2694
Malin's Intelligence Scale for Indian Children	2138
Wechsler Intelligence scale for children	16
House Tree Person test	1066
Developmental scale for Indian Infants (DASII)	2028
Sensory Profile 2	109
DSM-5 for Autism Spectrum Disorder	2230
Childhood Autism Rating Scale	1311
INCLEN tool for ASD	425
ISAA tool for ASD	425
DSM-5 for attention deficit hyperactivity disorder	632
DSM-5 for social communication disorder	57
Comprehensive Test of Phonological Processing	12
Child Sleep habit questionnaire	484
Quality of life for children	554
Gassel drawing Test	610
CONNER's rating Scale for ADHD	610
Grade Level Assessment Device	364
NIMHANS battery for learning disorder	289
Total Patients = 18964+10320 =29284 Including ward and Emergency Patients.	
Intervention and Counseling / Total Psychological intervention	
Early stimulation therapy	2426
Behavioral Intervention	2654
Psychological & personality assessment using HTP (Functional)	327
Psychological counseling for Nocturnal Enuresis	1320
Counseling for Tic disorder	210
Cognitive Behavior Therapy	1480
Parent's counseling in Ward	200
Parent's counseling in Emergency	90
Tele-Consultation	26
Disability Certification	
Patients evaluated for certification/UDID	**Assessment done -800 for patients –607 UDID Certificate issued**

Helpline Tollfree:

The toll free 24X7 Child Neurology tele-helpline addressed to issues for 6690 calls from 1 April 2023 to 31 March 2024, on an average of 18 calls/day.

Our New Initiative:

Recently, we have ventured into a new endeavor and have developed a state-of-the-art early childhood development and neurorehabilitation center titled - **"HOLDING HAND IN MAGICAL YEARS - EARLY CHILDHOOD DEVELOPMENT & NEUROREHABILITATION CENTRE",** to cater to the needs of children with neurodevelopmental impairment, in collaboration with The Hans Foundation, who will be providing the financial support. Our objectives are –

a) To ensure early and appropriate diagnosis followed by provision of comprehensive therapeutic packages to children (0-18 years) with neurological and neurodevelopmental disorders including Autism, Cerebral Palsy, ADHD and SLD and others

b) To integrate screening and diagnostic tools for the diagnosis of neurodevelopmental disorders with artificial intelligence-based applications to provide intervention measures to children who are far off from the facility

c) To upgrade the national training-cum-resource centre for the empowerment of professional and parents being run by Centre of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders, Child Neurology Division, Department of Paediatrics, AIIMS, New Delhi

Data till 31 March 2024: THF Project

No of beneficiaries addressed under the project "Holding Hands in Magical Years" an initiative of COE in collaboration with the Hansfoundation : 1261

Total no. of Beneficiary seen in AIIMS OPD: 1, 197

Total no. of Beneficiary registered at Hans (Holding hand in Magical year) centre : 64

Dr Rachna Seth

Two specialty clinics:

Pediatric Oncology clinic: Annually 375- 400 new cases of solid and liquid tumors are enrolled
Pediatric Cancer Survivor Clinic: Annually about 150-200 new patients are enrolled in the survivor clinic

Item	2021–2022	2022–2023	2023–2024
Special clinic (Oncology) consultations			200 consultations per week
Day care services			Approx. 20-25 day care short admissions per day requiring chemotherapy
Community services Patient education Monthly parent education/interaction forums Support group activities Arranging financial assistance for our cancer patients from state and national assistance, RAN, PM-Jay NGO interface:			

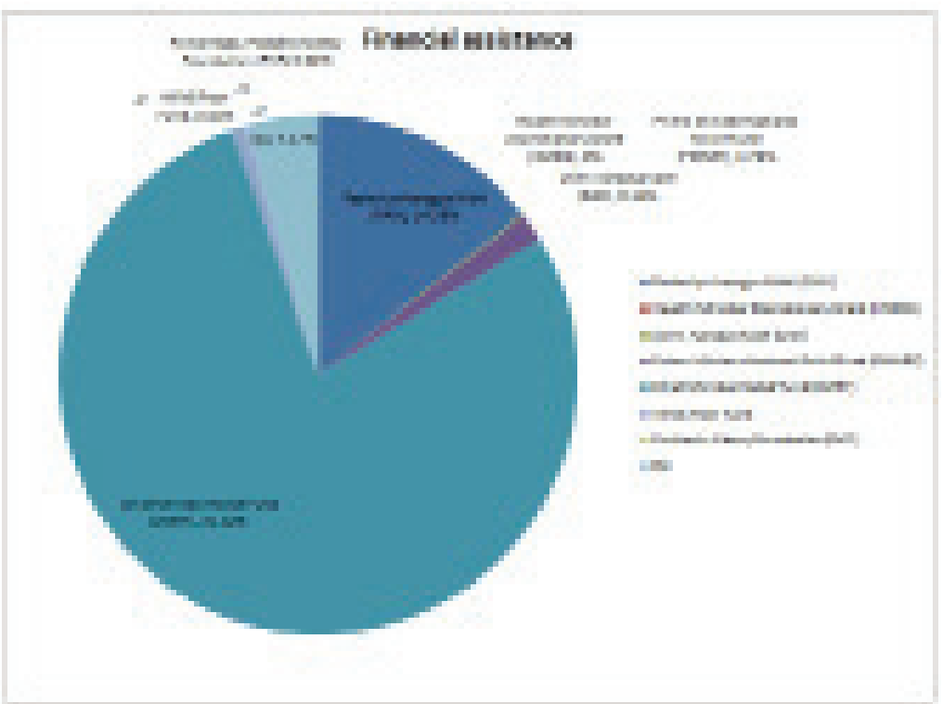
Department of Pediatrics: Patient care details

Item	2021–2022	2022–2023	2023–2024
OPD consultations	8461	16515	124284
Special clinic consultations	281	1210	29317
Patients provided rehabilitation services	118	124	143
Total inpatient admissions	900	850	950

Yadhav Dhaneswar (M.S.S.O)

Estimate of application for financial assistance of poor patients under various schemes during the year 2023-2024

Schemes	No. of Patients	Amount	Percentage
Rashtriya Aarogya Nidhi (RAN)	7	7	14.391%
Health Minister Discretionary Grant (HMDG)	0	0	0%
Delhi Aarogya Kosh (DAK)	1	84, 915	0.141%
Prime Minister National Relief Fund (PMNRF)	2	1, 036, 000	1.72%
Chief Minister Relief Fund (CMRF)	93	4, 69, 32, 923	78.321%
AIIMS Poor Fund	105	4, 98, 500	0.831%
Pediatric Kidney Foundation (PKF)	2	14, 844	0.024%
ESI	7	2, 737, 220	4.567%
Total	**217**	**59, 929, 402**	**100%**



AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Madhulika Kabra was SIAMG 2023 Oral presentation (first prize) The clinical and genetic spectrum of sclerosing bone dysplasias: Experience from a Tertiary care center in India Neerja Gupta, Mounika Endrakanti, Shah Alam Khan, Manisha Jana, Madhulika Kabra**; IJP oral presentation (second prize)**; Delineating the phenotype and genotypic spectrum of Arthrogryposis multiplex congenita using Next generation sequencing Mounika Endrakanti, Shah Alam Khan, M.C. Sharma, Madhulika Kabra, Punit Kaur, Abdul S Ethayathulla, Neerja Gupta**; Research day oral presentation (third prize):** Delineating the phenotype and genotypic spectrum of arthrogryposis multiplex congenita using next generation sequencing Endrakanti Mounika, Sharma Jyoti, Sharma MC, Ethayathulla S Abdul, Kaur Punit, Khan Alam Shah, Kabra Madhulika, Gupta Neerja; Delivered SS Agarwal Memorial Lecture on 5.7.23 SGPGI Lucknow; Delivered Dr IC Verma orarion – National Policy for Rare Diseases: progress & Challenges on 5 November 23 in the 2nd National Symposium on Genetic Diseases organized by "Rare Diseases India Foundation"; Nominated as a member of National Rare Disease Committee; Invited as member of the International Pediatric Association's Program Area Working Group on Rare Diseases for the term 2023-2025.

Professor Arvind Bagga Secretary General, Asian Pediatric Nephrology Association; Assistant Secretary, International Pediatric Nephrology Association (IPNA); Editor: Pediatric Nephrology; Textbook of the IPNA; Editor: Essential Pediatrics; Editor: Asian Journal of Pediatric Nephrology; Frontiers Pediatrics; Editorial Board**:** Pediatric Nephrology; Indian Journal of Pediatrics; Pediatrics & Child Health; World J Pediatrics.

Professor Pankaj Hari Council Member, International Pediatric Nephrology Association; Vice Chair, Best Practices & Standards Committee, International Pediatric Nephrology Association; Member, European Rare Kidney Disease Reference Network (ERKNET) Expert Panel on ERN guidelines; Member, Editorial Board: Asian Journal of Pediatric Nephrology, Indian J of Trauma Emergency Pediatrics, Journal of Pediatric Urol, International Journal of Nephrology and Urology; Reviewer: Clinical Journal of American Society of Nephrology, British Medical J, Pediatric Nephrology, Nephron, Kidney and Blood Pressure Research, Acta Pediatrica, Renal Failure, Indian Pediatrics

Professor Sheffali Gulati American Academy of Neurology, A.B. Baker Teacher Recognition Award 2024: This award demonstrates respect and appreciation for neurologic teaching; Fellow National Academy of Science, India 2023; Fellow, Indian Academy of Neurosciences, 2023; Honorary Distinguished Fellow, Global Association of Physicians of Indian Origin (GAPIO) in recognition of contribution to healthcare in Child Neurology; Dr I A Modi Award (Distinguished Clinician), 2024 – Global Association of Physicians of Indian Origin (GAPIO) for pioneering contributions in Pediatric Neurology in India advancing the field through clinical excellence, research and education; National Women Bio-scientist (Senior Category) Award, DBT 2021-2022 (Declared in 2023) recognition as a senior women scientist for her lifetime contribution performing excellent research in the country.; Editor of Autism (only Asian) – Sage journal, UK (5-year IF – 7.525); Selected as Adjunct Faculty, National Brain Research Center, Manesar, Haryana; President, Association of Child Neurology, India 2023-2025; INSAR (International Society for Autism Research) Global Senior Leader for India 2021-2024, reviewer for INSAR 2024 abstracts; Member, ILAE (International League Against Epilepsy) Equity, Diversity and Inclusion Task Force 2023 onwards; ILAE- contributor for primary care for epilepsy course-competency: Guidance to parents of children with epilepsy; National Delegate – India (Asian Oceanian Child Neurology Association 2023). Vice-chairperson, Technology governance steering committee for health care, All India Council for Robotics and Automation (AICRA); Advisory board member & Lead coordinator for Neurodevelopmental disorders modules-International Child Neurology Teaching Network (ICNTN) of the ICNA (International Child Neurology Association); Site lead - Indo-Canadian Autism Network (I-CAN); Nominated as Indian Co-ordinator for DST's Indo-Israel women conference on Women Medicine 2023 by DST; Expert member of International Expert Panel for consensus in diagnosis and management of children with Sydenham chorea.; Member of various ICMR committees on Stem cells, rare diseases, MD dissertation, ICMR's Working Group HWC Workflow, Indigenized therapeutics for priority rare genetic disorders in India; Co-Chair, Neuromuscular disorders group, National Consortium for Research and Development on Therapeutics for Rare Disease in India, ICMR; Member of Central Technical committee for rare diseases, GOI 2023; Member of committee to formulate a National strategy/guideline under District Mental health program and modalities of a Centre of Excellence in Autism.; Member of Technical Working Group for drafting and finalization of "National Biomonitoring Programme for Chemical Toxicants" NCDC; Member of International STEER Champion task force for SMA; Member of National level expert group to discuss Unmet Need in the Diagnosis and Management of Spinal Muscular Atrophy; Founder President Academy of Pediatric Neurology, IAP-Delhi 2023; Executive Board Member, Indian Epilepsy Society, 2021-2025; Convenor Pediatric Subsection, Indian Academy of Neurology (IAN) 2023; Member of the Advisory Panel (Paediatrics) for Fellowship/Membership of the Academy for the year 2023, National Academy of Medical Sciences; Centre of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders has been working towards research, academics and empowerment of professionals/parents. Toll free 24X7 Child Neurology tele-helpline addresses issues on an average 16 calls/day.; National Coordinator for training Master Trainers across India in diagnosing and

certifying children with Autism (National Trust), selected to develop online training and E-certification.; Award of ICMR for DM thesis Title: - "Comparison of efficacy of ketogenic diet and ACTH therapy among children with infantile spasm: a pilot randomized control trial " for DM Candidate Dr Aakash Mahesan, Chief Guide Dr Sheffali Gulati; First prize "ICNA Pediatrics Disorder Masterclass: Diaphragmatic Flutters- 7-9 July Delhi 2023" for DM Candidate Dr Aakash Mahesan, Chief Guide Dr Sheffali Gulati.

Professor Rakesh Lodha Member of multiple Project Advisory Committees at ICMR; Chaired ICMR Experts PRC on Diagnostic Algorithms for One Health; Nominated member of National Technical Advisory Group on Immunization-STS committee; Member of multiple Guideline development groups at WHO; Co-chaired WHO-GDG on fluid therapy in critically ill; Member of Pediatric Sepsis Taskforce of the Society of Critical Care Medicine, USA; Editor, Indian Journal of Pediatrics.

Professor Rachna Seth Pediatric Oncology division is collaborating with WHO: AIIMS Pediatrics is nominated member to WHO SEARO childhood cancer network (CCN); Expert for making guidelines on NCD in children (for cancer) by MOFFW; Expert for selection committee and DM exit examinations; Partnered with team of class I officers who come on a monthly basis to provide nonnutritive.

Professor Vandana Jain Awarded the Specialty Certificate in Endocrinology and Diabetes in July 2023 by the Federation of Royal College of Physicians, UK and The Society of Endocrinology, UK; Received an ICMR research grant for an RCT on millet-legume based complementary feeding for SGA infants in November 2023; Expert for the development of simplified workflow on adolescent health services for community health officers (CHOs) at Health and Wellness Centres across India. This was an initiative of the ICMR, Niti Aayog and MoHFW; Member of the Technical advisory group (TAG) by ICMR and MoHFW for Development of growth references for 0-18 year old healthy Indian children and adolescents; Nominated as the coordinator for the prestigious Asia Pacific Pediatric Endocrine Society (APPES) Fellows School to be held in Delhi in 2024; Nominated as SAC Expert Committee Member in the area of Child Health and Nutrition of ICMR-NIN; External examiner for DM Pediatric Endocrinology at PGI Chandigarh in May 2023 and December 2023, and for MD Pediatrics exam at JIPMER, Pondicherry in July 2023; Member of Standing Selection Committee for faculty selection and APS for AIIMS Bhubaneswar on 11 April 2024, and for NEIGRIHMS, Shillong, in June 2023 and January 2024. Expert for selection of AP (contractual) at LHMC and associated hospitals, Delhi in September 2023 and December 2023; and for ESIC, Delhi in January 2024; Member ICMR Taskforce on Non-alcoholic Fatty Liver Disease, Youth Onset Diabetes Registry, and Polycystic Ovary Syndrome (PCOS); Served as Associate editor for the international journals, Frontiers in Pediatrics (IF 3.56) and Frontiers in Endocrinology (IF: 5.6) in 2022.

Dr Aditi Sinha Secretary and Treasurer, Indian Society of Pediatric Nephrology (till December 2023); Associate Editor, Asian Journal of Pediatric Nephrology; Section Editor (Nephrology): Indian Journal of Pediatrics; Member, Editorial Board: Pediatric Nephrology, Frontiers in Pediatric Nephrology, Nephrology; Reviewer: Indian Pediatrics, Clinical Journal of American Society of Nephrology, Kidney International, Kidney International Reports, Lancet Adolescent and Child Health, Indian Journal of Nephrology, Indian Journal of Transplantation, Pediatric Researc.

Dr Neerja Gupta Secretary Society of Indian Academy of Medical Genetics 2024-2026; Treasure Indian society of Inborn errors of metabolism 2024-2026; Member of Burden of Birth Defects Technical Working Group; Expert Committee to recommend a framework of conformity between PC&PNDT Act, Artificial Reproductive Techniques (ART) Act and Surrogacy Act.

Dr M Jeeva Sankar Featured in the top 2% of the recently compiled global database of the 150,000 most-cited authors across all scientific fields based on their ranking of a composite indicator using the data for citations in a single calendar year, 2021; Member of the Guideline Development Group (GDG) of the World Health Organization (WHO), Geneva, in 'Maternal and Perinatal Health.'; Member of the 'Technical Advisory Group (TAG)' of the WHO ACTION-III trial on the use of low-dose antenatal steroids in women with preterm labor (funded by the Bill & Melinda Gates Foundation); Expert and Member of the Project Monitoring Committee (PMC) of the BIRAC-DBT-BMGF Grand Challenges India for reviewing the progress of research projects; 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 Editorial Group of 'NNF – Clinical Practice Guidelines'; involved in hand-holding neonatologists across the country to help develop evidence-based guidelines; Member of the Working Committee of the 'Clinical Research Unit (CRU), ' AIIMS, New Delhi, which provides resources and services to advance clinical research in the institute; Member of the Technical Group

overseeing the conduct of the 'Fellowship in Clinical Research Methodology and Evidence-Based Medicine' course at AIIMS, New Delhi; Member of the Expert Consultation Group on the 'STG Development Manual' that facilitates the development of Standard Treatment Guidelines for the MoHFW, Government of India.; Faculty of the Master of Science (MSc) in Clinical Research program conducted by the Translational Health Science and Technology Institute, Faridabad; Submitted and successfully got funding approval from the Bill & Melinda Gates Foundation (~4 million USD) for conducting a stepped wedge cluster RCT on the effect of immediate KMC on neonatal sepsis in district hospitals in Chhattisgarh.; Member of the Scientific Advisory Committee (SAC) of the Indian Council of Medical Research (ICMR) - Regional Medical Research Centre (RMRC), Bhubaneswar.; Member of the Guideline Methodology Group of the 'Evidence-based Guidelines on the Use of Stem Cell Therapy' by the Department of Health Research (DHR), Ministry of Health & Family Welfare, Government of India.; Member of the Editorial Group of 'NNF – Clinical Practice Guidelines'; involved in hand-holding neonatologists across the country to help develop evidence-based guidelines.

Dr Kana Ram Jat was **Thesis evaluation: DM Pediatric Pulmonology, AIIMS, Jodhpur.**

Dr Biswaroop Chakrabarty was AIIMS Research Excellence Awards, 2022-23, Clinical Science Category, 3rd prize; Attended 2 weeks Pediatrics Sleep Training Programme at Northwell Health Pediatric Neurology, USA from 25 March-4 April 2024; Co-convenor for Pediatric Sleep Disorders Workshop at AOCN Annual Conference in Vellore; External examiner for DM Pediatric Neurology exit exam at AIIMS Rishikesh and CMC Vellore; DM Pediatric Neurology Thesis evaluator for PGI Chandigarh, AIMS Rishikesh and Medical College Trivandrum; MD Pediatrics thesis evaluator for B.P.Koirala Institute of Health Sciences, Dharan, Nepal; Expert for recruitment of Assistant Professors for ESIC Medical Colleges; Chaired a session on Pediatric Movement Disorders Masterclass organised by ICNA Member Secretary for AOCN Neuroimmunology SIG and part of the organising team for the Neuroimmunology Sessions held in February 2024.

Dr Rajni Sharma Served as Managing Editor of Journal of Pediatric Endocrinology and Diabetes (official journal of the Indian Society of Pediatric and Adolescent Endocrinology); Served as External examiner for Final MBBS examination at Lady Hardinge Medical College, New Delhi March 2023; Served as External examiner for Indian Society of Pediatric and Adolescent Endocrinology (ISPAE) IDEAL Advanced Diabetes education course for doctors (December 2023); First Prize in Competitive Pediatric Grand Rounds for Senior Residents (Clinical Conundrum of Congenital Adrenal Hyperplasia) organized by the Indian Journal of Pediatrics held at New Delhi on 14 October 2023 mentored by Dr Rajni Sharma.

Dr Anu Sachdeva Member DSMB for the "Effect of India-tailored Multiple Micronutrient Supplementation compared to IFA supplementation during pregnancy on Maternal Anemia & Birth Outcomes: A Multi-Centre Community based RCT"; Chairperson for "Development of evidence based guidelines for care of normal newborn" by NNF India; Chairperson "Committee for Development and dissemination of Small or sick newborn training package" by NNF India; Member "Technical Advisory Group for Implementation Guidance on Universal Newborn Screening, for hyperbilirubinemia at discharge, hearing screening for permanent bilateral hearing loss, and for abnormalities of the eye. Document in public domain; (chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://iris.who.int/bitstream/handle/10665/376356/97892902113 89-eng.pdf?sequence=4&isAllowed=y); Member Technical Advisory Group (TAG) of the Care for Small or Sick Newborns Course training materials.; Member Every Newborn Action Plan (ENAP-C) Technical Working Group; Member of Neonatology group for development of STW for common newborn conditions by ICMR and Department of Health Research, Ministry of Health and Family Welfare, Government of India; released on 12 July 2022; Provided care to the Royal family of Bhutan on request of the Ministry of External Affairs.

Dr Prashant Jauhari

Elected as Treasurer for Association of Child Neurology, India 2023-2025; External examiner for DM Pediatric Neurology exit exam at Amrita Hospital, Kochi; MD Pediatrics thesis evaluator for AIIMS, Rishikesh, AIIMS Jodhpur and PGI Chandigarh; Member of the Organizing Team for Child Neurocon, Vellore, 2024; Presented annual budget of AOCN, India for 2023-24 at ChildNeurocon, 2024 at Vellore; Dr Sakshi Ojha received first prize for her DM thesis under my guidance at ChildNeuron 2024 at Vellore; Convenor for AOCN Neonatal and Fetal Neurology SIG and part of the organizing team for the weekly webinar Sessions held in March 2024.; Moderator for Fetal Neurology Webinar under Neonatal & Fetal Neurology SIG, AOCN India on 20 March 2024.

Dr Narendra Kumar Bagri

Expert member of review committee for formulation of Clinical Practice guidelines for the management of Juvenile Idiopathic arthritis for Southeast Asia under Asia Pacific League of Associations for Rheumatology (APLAR); Member Medical advisory board of Myositis India Medical advisory board. (https://myositisindia.org/patient-registration)

Dr Rashmi Shukla Nominated as expert Member (Life Science Professional) National Commission for Allied and Health Care Professions, Ministry of Health and Family Welfare, New Delhi; Member Curriculum Standardization Committee of the Commission for Allied and Health Care Professionals, Ministry of Health and Family Welfare, New Delhi; Organised a three day Workshop of Gorking group of Experts on Trauma and Burn Care and Medical Laboratory Sciences to discuss, deliberate, review and develop a competency based curriculum for these Allied health professions., AIIMS trauma Center 22-24 November 2024.

Dr Aditya Kumar Gupta Oral presentation and Young Investigator Award at SIOP Asia 2023, Armenia awarded to Dr Sagarika KP for dissertation paper; Feasibility of oral-route supportive care regimen during high-dose methotrexate administration in children with hemato-lymphoid malignancies; Oral presentation and MCM Young SIOP scholarship at SIOP 2023, Ottawa, Canada awarded to Dr Sagarika KP for dissertation paper; Feasibility of oral-route supportive care regimen during high-dose methotrexate administration in children with hemato-lymphoid malignancies.

Dr Ankit Verma Member Technical Advisory Group (TAG) of national action plan on heat related illnesses, National center of disease control, MOHFW, GOI.

Dr Kajal Jain Member of the adjudication committee in ProSPoNS Trial (Phase III, Multicentre, Randomized, Double-blind; Placebo-controlled Study to evaluate Efficacy of Probiotic Supplementation for Prevention of Neonatal Sepsis in 0-2 months old Low Birth Weight Infants in India).

M.S.S.O



On 27 February 2024 Ayushman Suvidha Kendra was started on the ground floor MCB Block with sincere effortand hard work of MSSO. This Ayushman Suvidha Kendra was inaugurated by HOD: Madam Dr Madhulika kabra of our department.

VISITING SCIENTIST

Provide the name, activity, institutional affiliation, city and country of person visiting.

Dr Narendra Kumar Bagri Master Class in Pediatric Rheumatology 2 July 2023 Clinical rounds: 1 July 2023

Professor AV Ramanan FMedSci Consultant Paediatric Rheumatologist Bristol Royal Hospital for Children Upper Maudlin Street, Bristol, BS2 8BJ; Professor of Pediatric Rheumatology, University of Bristol

Dr Mohnish Suri, Consultant, NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST. Copy number variantion and single nucleotide variant analysis.

Indraneel Sahai Consultant Division of Genetics and Metabolism at Massachusetts General Hospital and New England, Newborn Screening Program (NENSP), Newborn screening.

Prof Kerstin Kutsche Full Professor (W3), Deputy Director, Institute of Human Genetics, UKE, Hamburg. dentification of novel disease genes for monogenic disorders, associated phenotypes and functional assays.

Dr Vinod Prasad, Professor & Clinical Director Pediatric Transplant & cell Therapy & Director PTCT fellowship at Duke University visited AIIMS on 13 May 2023 for a guest lecture on 'Cell Therapy and HSCT for Rare Genetic Diseases in the Era of Genomics'.This was accompanied by a discussion on clinical cases with faculty and DM residents.

Dr Deepak Mishra, a DM Resident in Neonatology pursuing DM at BPKIHS, Nepal, completed an observership at AIIMS, New Delhi, from 1 December 2023 to 29 February 2024.

9.29 Paediatric Surgery

Professor & Head

Minu Bajpai
(up to 30 September 2023)

Sandeep Agarwala
(From 1 October 2023 to till date)

Professors

M Srinivas
(Director, AIIMS New Delhi since 24 September 2022)

Additional Professors

Vishesh Jain
Prabudh Goel
Anjan Dhua
Devendra Kumar Yadav

Associate Professor

Ajay Verma

Assistant Professors

Sachit Anand
Gali Divya

HIGHLIGHTS

The Department has successfully transitioned to the new "Mother and Child Block, " consolidating all clinical services (except for emergency operating theatres beyond routine working hours) and enhancing office facilities in a single location. Presently, the ward and neonatal surgical intensive care unit are poised to reach their full capacity, pending the completion of staff recruitment. The move to a specialized tower, which also accommodates the departments of Obstetrics & Gynaecology and Pediatrics, has laid the groundwork for developing all subspecialties. This strategic co-location has also significantly advanced the management of children afflicted with complex malformations, advanced-stage cancers, and other critical illnesses.

EDUCATION

The department is fervently engaged in the pedagogical advancement and instruction of MCh Pediatric surgery trainees and postgraduate and undergraduate students, including those in nursing, BSc., and MSc. Programs. In a progressive endeavor to elevate our department's academic and instructional standards, we have instituted a digital consortium titled "surgery-paedia." this initiative was born out of the need to address the myriad of questions and uncertainties that emerge in everyday clinical practice and academic seminars. To facilitate a collaborative learning environment, these inquiries are assigned to residents who then diligently investigate and circulate their findings on the Google group, thereby enriching the collective knowledge base. The platform has undergone further refinement through the systematic archiving of communications organized by medical systems to streamline the search and retrieval process. Moreover, we have introduced case-based templates to simulate the presentation of pivotal cases, enabling virtual interaction without direct patient contact. This is complemented by a repository of clinical examination footage of significant cases accessible via a cloud storage service. This resource allows all residents and faculty members to benefit from the clinical experiences encountered in the outpatient department (OPD). All these resources are meticulously cataloged in the cloud, ensuring effortless accessibility, even for those with limited technological proficiency.

CMEs/Workshops/Symposia/National and International Conferences

A one-day hands-on training program in "Clinical genetics in congenital uropathies and symposium on pediatric urology" was organized by the department on 16 September 2023. Faculty and delegates from India and abroad participated in the event and contributed to knowledge-sharing.

Lectures delivered: 37

Sandeep Agarwala: 10 **Vishesh Jain: 5** **Anjan Kumar Dhua: 5**

Prabudh Goel: 10 **Devendra Kumar Yadav: 2** **Sachit Anand 3**

Gali Divya: 2

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
21	44	37

Oral papers/posters presented: 40

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
51	32	40

RESEARCH

Funded projects

Ongoing

1. Development of a portable rapidly adjustable camera holding device to minimize image tremor and fatigue of the camera holding assistant during minimally invasive surgery in children- AIIMS-IITD collaboration, Dr Vishesh Jain, AIIMS, 3 years, 2021-24, Rs 10 Lakhs
2. Development of Genetic Panel for Pediatric Solid Tumors, Dr. Prabudh Goel, ICMR, 3 years, 2024-27, Rs. 2 Crores
3. Development of Hypospadias Registry, Dr. Prabudh Goel, ICMR, 3 years, 2023-26, Rs. 50 Lakhs
4. Development of Technology Doctor-Patient Interface to Facilitate Patient Care and Health Research in Paediatric Urology., Dr Prabudh Goel, ICMR, 3 years, 2022-25, Rs 1.25 Crores
5. Discovery of RNA (long noncoding) markers for CAKUT malformations predisposing to renal failure, Dr Devendra Kumar Yadav, ICMR, 3 years, 2024-27, Rs 80 Lakhs
6. Ergonomic challenges faced by surgeons performing laparoscopic surgeries: A comprehensive assessment of work posture, muscle activation, pain, fatigue, discomfort, and workload, Dr Sachit Anand, SERB, 2 years, 6 December 2023-5 December 2025, Rs 30 Lakhs
7. Histopathologic and immunohistochemical findings in the distal rectal pouch of high and low anorectal malformations, Dr Devendra Kumar Yadav, AIIMS, 3 years, 2021-24, Rs 10 Lakhs
8. Influence of Vitamin D-Binding Protein Gene Polymorphisms on Urinary Microbiome-Metabolome Profiles of Children with Congenital Uropathies Prone to Urinary Tract Infections, Dr Sachit Anand, ICMR, 3 years, 1 December 23-30 November 26, Rs 1.06 Crore
9. Infrared Signature of Paediatric surgical wound thermographic profiles and Early-stage test-accuracy study to Predict the surgical site infection and Development of deep learning based artificial intelligence technique for automatic image segmentation, Dr Anjan Kumar Dhua, ICMR, 3 years, 25 March 2023-24 March 2026, Rs 87 Lakhs
10. Metabolomics of Hypospadias, Dr Prabudh Goel, DHR, 3 years, 2024-27, Rs 2 Crores
11. Role of MMP-7 gene expression as a diagnostic marker in biliary atresia, Dr Prabudh Goel, AIIMS, 2 years, 2018, II part not completed yet, Rs 4.75 Lakhs/year
12. Role of Urinary Prohibition and other biomarkers at Diagnosis in children with favourable Histology Wilms tumour in predicting tumour response and risk of recurrence, Dr Vishesh Jain, DHR, 3 years, 2022-25, Rs 29,11,474
13. Study of the clinical significance of genetic alterations and feasibility of adopting Children's Oncology Group (COG) risk stratification of Wilms tumour in Indian Children, Dr Devendra Kumar Yadav, ICMR, 3 years, 2020-23, Rs 35 Lakhs

14. To Evolve Evidence-Based Hypospadias Repair Guidelines for Hypospadias Repair (Urological Condition) in Indian Context, Dr. Prabudh Goel, ICMR, 3 years, 2021-24, Rs 80 Lakhs
15. Whole Exome Sequencing of Hypospadias Patients Family Trios for Identification and Validation of Genetic Markers and Development of a Genetic Panel for Hypospadias Risk Assessment, Dr Prabudh Goel, ICMR, 3 years, 2022-25, Rs 1.5 Crore

Completed

1. Biochemical and enzymatic analysis of bile in choledochal cyst and correlation with histopathological features and expression of immunomodulators, Dr Ajay Verma, AIIMS, ND, 2 years, 2021-23, Rs 9,80,000
2. Cross-sectional Study to establish a normal reference range (nomogram) for Testosterone and Dihydro-testosterone in boys of age group 0-14 years, Dr Prabudh Goel, ICMR, 3 years + 1-year extension, 2019-23, Rs 1.2 Crores
3. Dr Vishesh Jain, ICMR, 3 years, 2021-24, RS. 35,00,000, Patient-Specific Three-Dimensional Printed Models of Aberrant Anatomy for Surgical Planning of Anorectal Malformations, Dr Anjan Kumar Dhua, AIIMS- Intramural, 2 Years, 2021-23, Rs 3 Lakhs
4. Incidence and severity of psychosocial and somatic disorders in survivors of childhood solid malignant tumours.

Departmental projects

Ongoing

1. A descriptive study of intra-operative and early postoperative complications in paediatric abdominal solid tumour surgery in a tertiary care centre in India
2. A pilot project to evaluate the benefits of VR exercises in the improvement of eye-hand coordination in surgical trainees.
3. Evaluation of renal outcomes and compensatory hypertrophy in operated unilateral Wilms' tumour patients

Completed

1. A comparative study of smooth muscle cell characteristics and myofibroblasts in processus vaginalis of pediatric inguinal hernia, hydrocele, and undescended testis
2. A quasi-experimental study to assess the effect of nurse-led intervention program on knowledge and confidence of mothers regarding home-based care of children with solid organ tumours at AIIMS, New Delhi
3. Assessment of Microvessel Density and Growth Factor Levels Between Inner and Outer Preputial Skin in Distal Hypospadias
4. Correlation of hand digit length ratio, anogenital distance, and severity of hypospadias amongst pre-pubertal boys
5. Neonatal tumours: Clinical characteristics management and outcomes.
6. Pediatric laparoscopic excision of Choledochal cysts and Roux-en-Y hepaticojejunostomy- an audit of surgical management
7. Presentation, treatment, and outcomes of children with extra-cranial Malignant Germ Cell Tumour

Collaborative projects

Ongoing

1. A study on a novel urinary biomarker in PUJO (pelviureteric junction obstruction) - PTGR1 (Prostaglandin reductase 1, Biochemistry and Nuclear Medicine
2. Comparison of biliary gastritis in children with Choledochal cyst after laparoscopic Hepaticojejunostomy vs. Hepaticoduodenostomy: a randomised trial, Pathology, Nuclear medicine, Pediatrics
3. Evaluation of renal outcomes and compensatory hypertrophy in operated unilateral Wilms' tumor patients, Pediatrics, Medical Oncology, Radiodiagnosis
4. Impact of an enhanced recovery after surgery (ERAS) protocol on length of stay, perioperative outcomes and complications in paediatric laparoscopic surgeries, Anesthesia, Critical Care and Pain Medicine

Completed

1. Assessment of ureteric jet as a prognostic indicator for long-term follow-up of unilateral PUJO post pyeloplasty and correlation with MCP1, Radiology, Pediatric Surgery, Biochemistry, nuclear medicine
2. comparison of diagnostic modalities (retrograde genitogram, cystourethroscopy and perineal ultrasound) in evaluation of posterior urethra in proximal hypospadias, Radiology, Pediatric Surgery
3. Evaluation of cardiotoxicity related to administration of adriamycin in children with solid tumours, Medical Oncology, Nuclear Medicine, Cardiology
4. Outcome of treatment with ICE (Ifosphamide, carboplatin and etoposide) salvage regime in children with relapsed / recurrent solid tumours, Medical Oncology, Radiation Oncology, Radio-diagnosis, Radiology IRCH
5. Outcome patients of recurrent hepatoblastoma treated with Irinotecan as salvage therapy, Medical Oncology, Radio-diagnosis, Radiology IRCH
6. Prospective study of treatment of children with hepatoblastoma on treatment with Monotherapy and PLADO regime, Medical Oncology, Pediatrics, Radio-diagnosis, Radiology IRCH
7. Prospective study of treatment of children with rhabdomyosarcoma on treatment with IRS-5 regimen, Medical Oncology, Radiation Oncology, Radio-diagnosis, Radiology IRCH
8. Prospective study of treatment of children with Wilms' tumour on treatment with modified NWTS-5 regimen, Medical Oncology, Radiation Oncology, Radio-diagnosis, Radiology IRCH
9. Prospective study on five drug regimen for the management of clear cell sarcoma of the kidney, Medical Oncology, Radiation Oncology, Radio-diagnosis, Radiology IRCH
10. Role of pulmonary metastatectomy in pediatric solid tumours, Medical Oncology, Radiation Oncology, Radio-diagnosis, Radiology IRCH
11. Study of prognostic factors in pelvic PNET, Medical Oncology, Radiation Oncology, Radio-diagnosis, Radiology IRCH
12. Study of prognostic factors in thoracic PNET, Medical Oncology, Radiation Oncology, Radio-diagnosis, Radiology IRCH

Research projects over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	11	11	15
Total funding	**Rs 5, 85, 98, 000**	**Rs. 74,98,900**	**Rs. 11, 96, 86, 474**

PUBLICATIONS

Journals: 45 **Abstracts: 22** **Chapters: 3**

Publications over past 3 years

Publications	2021-22	2022-23	2023-24
Journal Articles	70	33	45
Abstracts	44	10	22
Chapters	12	4	3
Books/ Monographs	NIL	NIL	NIL

PATIENT CARE

Out-patient Department.

Pediatric 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 GI AND HPB-Clinic, (Afternoon)

Tuesday: Antenatal Diagnosis and Follow-up (Forenoon)

Wednesday: **Vascular Malformation Clinic (**Forenoon)

Pediatric Urology Clinic (Afternoon)

Thursday: IRCH: Pediatric Solid Tumor Clinic (Afternoon)

Friday: Pediatric Thoracic Surgery Clinic (Forenoon)

Pediatric Urology Clinic (Afternoon)

Saturday: Pediatric Urology, Intersex and Hypospadias (Forenoon)

Facilities available

- Intensive care unit for neonatal surgical patients
- High dependency area for Pediatric Surgical patients
- Computer-based Urodynamic and uroflowmetry study
- Computer-based Anorectal manometry
- Computer-based Esophageal manometry

Community services

Weekly outpatient clinic and operative session at CRHSP, Ballabhgarh (Services temporarily on hold in view of civil work being done in the premises for renovation)

Attendance in OPD and Specialty Clinics over past 3 years

ATTENDANCE	2021-22	2022-23	2023-24
General OPD	17083	27, 718	29, 593
Hydrocephalus clinic	10	13	05
Pediatric urology clinic (W/T/F)	552	1106	1451
Intersex and urology clinic (DSD+ PISU)	31	37	95
Tumor Clinic (main hospital)	187	539	453
Tumor Clinic (IRCH)	1404	2076	2367
Vascular Malformation Clinic (from 15 January 2024)	NA	NA	54
Craniosynostosis clinic	Nil	Nil	Nil
CRHSP, Ballabhgarh	1297	1673	Nil

Admissions over past 3 years

ADMISSIONS	2021-22	2022-23	2023-24
AB5 WARD	1586	1393	Not applicable
Long Admissions	1233	1077	Not applicable
Short Admissions	353	316	Not applicable
6A ward (Mother & Child block since August 2023)	Not applicable	Not applicable	388

Long admissions	Not applicable	Not applicable	388
Short admission	Not applicable	Not applicable	Nil
6B ward	Not applicable	625	1802
Long admissions	Not applicable	544	1469
Short admission	Not applicable	81	333
New Born Surgical ICU admissions AB5/ICU [6C ICU (shifted to Mother-child block since 13 August 2023)]	154	128	156
Private Ward	--	--	166
Total admissions	**1740**	**2148**	**4702**

Surgical Procedures over past 4 years

SURGICAL PROCEDURES	2020-21	2021-22	2022-23	2023-24
Main OT				
Major Procedures	401	834	1485	2085
Minor Procedures	108	44	16	08
Emergency (Main OT Complex-ward Block)				
Major Procedures	88	327	398	383
Minor Procedures		Nil	1	04
Emergency (Mother and Child Block)				
Major Procedures	NA	NA	NA	195
OPD Procedures				
Total	1011	1648	2367	2048
Biopsies	45	44	66	55
CRHSP, Ballabhgarh*				
Major Procedures	Nil	71	163	--
Minor Procedures	Nil	Nil	6	--

*Services temporarily on hold

Special Investigations over past 3 years

Special Investigations	2021-22	2022-23	2023-24
1. Urodynamic study	245	372	495
2. Uroflowmetry	43	681	810
3. Anorectal manometry	64	110	78

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Vishesh Jain was Examiner for Thesis of multiple candidates from Delhi University; External expert in the selection committee for Specialist (Pediatric Surgery) ESIC December 2023; Member expert National Health Authority; Chairman, Medical Record Committee, Mother Child Block; Member, Committee for Mother and Child Block NABH certification; Member, Committee for Patient Safety and Quality (MCH).

Dr Anjan Dhua was a Member of the Standing Selection Committee for the interview of Faculty posts for Direct Recruitment for North Eastern Indira Gandhi Regional Institute of Health & Medical Sciences; Best Paper award for two oral presentations at the PESICON 2024 meeting held in AGRA; Expert for evaluation of R&D Proposals submitted to the Council of Science And Technology UP; Specialist Board member in the discipline of Paediatric Urology of the National Board of Examinations in Medical Sciences; Member of Annual Report committee for AIIMS annual report for 2022-23; Nodal officer for Compiling Annual Report of Pediatric Surgery Department; Member of Institute Annual Convocation Committee and Examiner for Thesis of multiple candidates from Delhi University.

Dr Prabudh Goel was Member expert National Health authority; CPIO for Department of Paediatric Surgery, All India Institute of Medical Sciences, New Delhi.; Member, TSEC, Department of Paediatric Surgery, All India Institute of Medical Sciences, New Delhi; Chairman, TSEC (Research) for project-related purchases in office of Prabudh Goel, Department of Paediatric Surgery, All India Institute of Medical Sciences, New Delhi; Member of Committee for establishing an internal message communication system for AIIMS, New Delhi; Executive Committee member of the Indian Association of Paediatric Surgeons, India [2023-25]; Executive Committee member of the Association of Paediatric Surgical Oncology, India [2023-25]; Member of Committee to examine the proposal for conversion of Division of Trauma Surgery and Critical Care (JPNATC) to Department of Trauma & Emergency Surgery and Intimation of Postgraduate Degree Program-MS in Emergency Surgery at JPNATC; Expert for evaluation of R&D proposals submitted for funding to Council of Science & Technology, Uttar Pradesh, India; Member of the Expert Group to evaluate the potential implementation of a web application developed by the BMI division to capture Clinical Trials as per World Health Organization's International Standards for Clinical Trial Registries; Invited for a live programme on Doordarshan on Health in Children on 01 April 2023; Centre Supervisor for NORCET 4; Invitation to Guest Edit a Volume in International PUBMED indexed journal Frontiers in Endrcrinology; Invited as Faculty to Live Operative Workshop on Hypospadias in Varanasi; Member of ICMR Research Infrastructure Sharing Ecosystem (iRise) portal; Nodal officer from Department of Paediatric Surgery for grievance redressal and other issues pertaining to outsourcing staff in All India Institute of Medical Sciences, New Delhi.; Invited by V-genomics to functional as Honorary Advisor on their Advisory Board panel; Outstanding Young Researcher Award by Venus International Foundation; Chairman for Negotiation with C-DAC for implementation of e-Sushrut Hospital Management Information System at BMHRC, Bhopal; Member of 2nd Evidence Based Guidelines Development Group on 'Antibiotic Usage in Different Clinical Conditions" (Urinary Tract Infections, Bone & Joint Pains, Acute Diarrheas); Invited for participation in DD Morning Show in February 2024 for a live programme; Nominated as nodal office for local level Multi-Disciplinary Committee for management issues in children with Disorders of Sex Development; Member of the TSEC (Technical Specifications Committee) for the project, "Infrared signature of paediatric surgical wound: thermographic profiles and early-stage test accuracy study to predict the surgical site infection and development of deep learning based artificial intelligence technique for automatic image segmentation; Chairman of multiple project-staff related selection committees; Nominated member of the Departmental Patient Safety & Quality Committee (Pediatrics, Pediatric Surgery, Neonatology & Neonatal Surgery) at All India Institute of Medical Sciences, New Delhi; Chairman of committee to investigate corruption charges against ICMR employees [Details confidential]; Working towards establishing the 'Centre for Medical Device Development' in the All India Institute of Medical Sciences, New Delhi in collaboration with the Government of Japan; Member of the International STROCCS group (for cohort studies); Member of the International SCARE group (for case studies); Member of the International PROCESS group (for case series); Member of the Wet Lab Committee, Department of SET Facility, AIIMS, New Delhi; Expert in the preparation of the draft of Health Research Data Management Policy and

Implementation plan; Member of Editorial Board: Journal of Indian Association of Paediatric Surgeons; National Editor: Journal of Clinical and Diagnostic Research; Guest Editor: Progress in Paediatric Urology/ Hypospadias; Member of Editorial Board: SN Comprehensive Clinical Medicine; Editorial Board member of the Journal of Progress in Paediatric Surgery; Editorial Secretary of Journal of Progress in Pediatric Urology; Section Editor for the book on Disorders of Sex Differentiation; Actively involved with the Simulation Facility at the All India Institute of Medical Sciences, New Delhi: framing of e-learning modules, conduct of simulation classes for under-graduates, training of faculty members (Training of Trainers), etc; Submitted a proposal to initiate Paediatric Solid Tumor Banking in the All India Institute of Medical Sciences, New Delhi; Invited for a public health programme on News 24; Press conference on airway foreign bodies in children; Expert in the preparation of the draft of Health Research Data Management Policy and Implementation plan; Conference.

Dr Devendra K Yadav was Examiner for Thesis of multiple candidates from Delhi University; External expert in selection committee for Specialist (Pediatric Surgery) MAMC, Delhi 2023; Member, Pediatric Surgery, National Board of Examination.

Dr Ajay Verma Received a Travel fellowship of 1, 00, 000 Yen from the Japanese Society of Paediatric Surgery to attend the annual conference in Osaka, Japan, in May 2023; Member Editorial Board in BMC Pediatrics.

VISITING SCIENTISTS

Lucky Gupta, Assistant Professor Pediatric Surgery, AIIMS Vijaypur, Jammu 2 to 14 August 2023

Vijay Kundal, Assistant Professor Pediatric Surgery, AIIMS Vijaypur, Jammu 17 August to 1 September 2023

9.30 Pathology

Professor and Head

Venkateswaran K Iyer

Professors

Ruma Ray (Cardioneurosciences centre)		Sandeep R Mathur
Prasenjit Das	Deepali Jain	Geetika Singh (Dr BRAIRCH)
Sudheer Arava		Asit Ranjan Mridha (Cardioneurosciences centre)

Additional Professors

Shipra Aggarwal	Seema Kaushal	Rajni Yadav
Saumya Ranjan Mallick	Adarsh Barwad	Aanchal Kakkar

Associate Professors

Kavneet Kaur	Aruna Nambiranjan	Ruchi Rathore

Assistant Professors

Rimlee Dutta	Lavleen Singh	Anubhaw Narwal
Balamurugan T	Sonali Dixit	Rachana Meena
Ridhi Sood (Surgical disciplines)		(Surgical disciplines)

Group A Officer

Himender Singh Tomar

HIGHLIGHTS

In the year 2023-2024, Department of Pathology maintained high-level academics and efficient clinical services. The department is engaged in routine diagnostic reporting of Surgical Pathology and Cytopathology, and teaching of undergraduate and postgraduate students in addition to performing high quality research in various areas of pathology. The department provided services to large number of patients by processing approximately 64, 000 surgical pathology and ~30, 000 cytopathology specimens.

The Department is regularly providing advanced molecular tests for routine patient care services related to molecular pathology and cytogenetic work-up, which include *in-situ* hybridization, flow cytometry, tissue microarray, capillary electrophoresis, real-time PCR, etc. The diagnostic and predictive immunohistochemical panel has been expanded and a total of 88,735 slides have been stained and studied during this period.

The molecular testing services are being used for routine diagnostics, as well as for prognostic and predictive purposes in all pathology sub-specialities. A few examples include PIK3CA mutations in breast cancers, *EGFR* gene mutations on tissue as well as liquid biopsies, *ALK* and *ROS-1* rearrangements in lung cancer, TCR clonality assay in lymphomas, multiple gene fusions and other molecular alterations in salivary gland tumors as well as soft tissue sarcomas and *MYCN* amplification in pediatric neuroblastomas.

The department organized 71st Annual conference of Indian Association of Pathologists and Microbiologists (IAPM) (APCON 2023) conducted from 6-10 December 2023 and 11th Annual conference of Molecular Pathology Association of India (MPAICON 2024) conducted from 16-18 February 2024 with overwhelming participation.

The Department faculty have received funding for a total of 45 extramural and intramural projects related to pathology and molecular features of wide spectrum of neoplastic and non-neoplastic diseases. The faculty of the department has presented their research work at various virtual national and international conferences and received awards individually or to their residents. A total of 230 papers have been published in peer reviewed national and international journals.

Prof Venkateswaran K Iyer was awarded the prestigious Ernest Fernandes slide seminar at the 53rd Annual Conference for the Indian Academy of Cytologists (CYTOCON 2023). Professor Sandeep R Mathur was awarded the prestigious "Shobha Seth Wenger' Distinguished Chair in Gynaecologic Oncology under "Mira Seth Corpus Fund" for the period 2024-2026. Professor Deepali Jain became the Fellow National Academy of Sciences (FNASc), India, 2023 and was awarded the AIIMS Excellence Research Award Clinical Sciences, Third Prize. Dr Rajni Yadav went for short-term training in "Digital Pathology" at Kameda Medical Centre, Kamogawa, Japan in January 2024.

We have many faculty members contributing to World Health Organization (WHO) blue books for classification of tumors of various systems edited by International Agency for Research on Cancer (IARC), Lyon, France.

EDUCATION

Postgraduate

2021-22

MD students: 34 Senior Residents: 20
PhD students: 12

2022-23

MD students: 37 Senior Residents: 25
PhD students: 11

2023-2024

MD students: 38 Senior Residents: 21
PhD students: 13

Short term training/Long term training

1. Dr Sowkat Hossain from 1 October 2022 to 15 May 2023
2. Dr Mohd Azali Bin Zakariah from 1 February 2024 to 31 October 2024
3. Lt Col Divya Gupta from 15 January 2022 to 14 January 2024
4. Dr Anjee Maharajan from 1-31 October 2023
5. Dr Isha Gyawali from 1-31 October 2023
6. Dr Shishire Baruwal from 1-31 October 2023
7. Dr Pragya Adhikari from 1-31 October 2023
8. Dr Suchana Baral from 1-31 October 2023
9. Dr Upasana Lamichhane from 1-31 October 2023
10. Dr Safal Yadav from 1-31 October 2023

CMEs/Workshops/Symposia/National and International Conferences

1. 71st Annual conference of Indian Association of Pathologists and Microbiologists (IAPM) (APCON 2023) conducted from 6-10 December 2023 by Department of Pathology, AIIMS, New Delhi
2. 11th Annual conference of Molecular Pathology Association of India (MPAICON 2024) conducted from 16-18 February 2024 by Department of Pathology, AIIMS, New Delhi

Lectures delivered : 130

Venkateswaran K Iyer: 3

Prasenjit Das: 12

Geetika Singh: 17

Asit Ranjan Mridha: 5

Seema Kaushal: 6

Adarsh Wamanrao Barwad: 7

Kavneet Kaur: 2

Ruchi Rathore: 2

Rimlee Datta: 2

Rachana Meena: 1

Ridhi Sood: 3

Saumyaranjan Mallick: 10

Sandeep R Mathur: 12

Deepali Jain: 20

Sudheer Kumar A: 5

Shipra Agarwal: 6

Rajni Yadav: 13

Aanchal Kakkar: 14

Aruna Nambirajan: 1

Anubhav Narwal: 1

Sonali Dixit: 3

Balamurugan T: 2

Lectures delivered over past 3 years

2021–2022	2022–2023	2023-24
77	89	113

Oral papers/posters presented: 107

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023-24
88	48	110

RESEARCH

Funded projects

Ongoing

1. "Health Care System: Early Detection of Bone Cancer using Microwave Imagingand Treatment by Hyperthermia Lens Applicator", Asit Ranjan Mridha, SERB, 3 years, 2023-26, Rs 30,11,778.00
2. A multi centre study on determination of prevalence of incidental gall bladder carcinoma in India, Dr P Das (AIIMS), NCDIR-ICMR, Bangalore, 5 years, 2019-24, Rs 10 Lakhs
3. An integrated genomic sequencing approach to define genetic landscape of non-small cell lung carcinoma in Indian Population, DEEPALI JAIN, Indian Council of Medical Research (ICMR), India, 3 years, 2022-25, Rs 48,00,000
4. Biobanking and quality control of tissue and bodily fluids: biological samples for translational research, DEEPALI JAIN, AIIMS-TSHTI Collaborative Research Section AIIMS, 2 years, 2024-26, Rs 20,00,000
5. Clinical, Pathological and Genetic Characterization of Neonatal Cholestasis, Dr Rajni Yadav, DHR, 3 years, 2022-25, Rs 51,57,604/-
6. Clinicopathological correlation and amyloid subtyping in cases of cardiac amyloidosis: AN observational study, Dr Sudheer Arava, DBT-ICMR, 3 years, 2023-25, Rs 80 Lakhs
7. Clinicopathological spectrum of cystic neutrophilic granulomatous mastitis and role of Corynebacterium as the etiological agent, Ridhi Sood, AIIMS Intramural, 2 years, 2024-26, Rs 5 Lakhs
8. Comparative analysis of host immune and tissue reaction to mucormycosis between SARS-CoV-2 positive and negative patients on surgical specimens, Kavneet Kaur, AIIMS Intramural, 1 year, 2022-23, Rs 500,000

9. Comparative analysis of qPCR, mRNA ISH and p16 IHC for detection of high-risk HPV on fine needle aspirates and core needle biopsies in patients with metastatic squamous cell carcinoma in cervical lymph nodes, Aanchal Kakkar and Chirom Amit Singh, AIIMS interdisciplinary collaborative intramural grant, 2 Years, 2023-25, Rs 20 Lakhs
10. Correlation of traits of tumour immune-microenvironment and response to targeted anti-PD-l1 and anti-VEGF therapy in hepatocellular carcinoma: a prospective, Prasenjit Das & Deepak Gunjan, AIIMS Multidepartment collaboration Project, 2 years, 2023-25, Rs 20 Lakhs
11. Correlation of traits of tumour immunemicroenvironment and response to targeted anti-pd-l1 and antivegf therapy in hepatocellular carcinoma: a prospective study, Prasenjit Das (Pathology) & Deepak Gautam (Gastroenterology, AIIMS), AIIMS Research Section, 1 Year, 2023-24, Rs 5+5 Lakhs
12. Development & Validation of an Explainable Deep Learning Network-based Software for Automated Interpretation & Grading of Duodenal Mucosal Biopsies from patients with Celiac Disease. Proposal ID: 2022-16640, PI Prasenjit Das (AIIMS, Delhi) Mausam (IIT, Delhi) Pratosh AP (ISI, Bangaluru), ICMR, 2 Years, 2023-25, Rs 48 Lakhs
13. Development and characterization of Enteroids from human intestinalbiopsies for ex-vivo studies, Prasenjit Das, DBT Consortium Project on Celiac Disease, 3 Years, 2023-26, Rs 58 Lakhs
14. Development of a multiplexed Nanostring based locus copy number and mRNA expression evaluation assay for classification of Wilms tumor for diagnosis, prognosis and treatment planning, Dr VKI, ICMR, 3 Years, 2021-23, Rs 34.48 Lakhs
15. Development of a Multiplexed Nanostring Based Locus Copy Number and mRNA Expression Evaluation Assay for Classification of Wilms Tumor for Diagnosis, Prognosis and Treatment Planning, VK Iyer, ICMR, 3 Years, 2021-24, Approx. Rs 38 Lakhs
16. Differences in the molecular milieu between inferior & superior human parathyroid glands: potential significance for parathyroid tumor development, Dr Shipra Agarwal, AIIMS, 2 Years, 2023-25, Rs 10,00,000
17. Evaluation of microsatellite instability (MSI) and PDL1expression in molecular subtypes of upper and lower tract urothelial carcinoma, Dr Seema Kaushal, AIIMS, 2 Years, 2022-24, Rs 10 Lakhs
18. Evaluation of novel target antigens in Membranous Nephropathy and their clinical correlation: An attempt to reclassify cases based on target antigens in the Indian population, Geetika Singh, ICMR, 3 Year, 2022-25, Rs 38,00,000
19. Evaluation of prognostic markers del(11q), del(13q), del(17p), trisomy 12, IGHV mutation and TP53 mutation analysis in Small lymphocytic lymphoma, Dr Balamurugan T, AIIMS Intramural Grant, 2 Years, 2024-26, Rs 5 Lakhs + 5 Lakhs
20. Evaluation of specific molecular alterations and tumor immune microenvironment for detection of clinically actionable targets in high grade salivary gland carcinomas, Aanchal Kakkar, ICMR, 3 Years, 2023-26, Approx. Rs 32 Lakhs
21. Gene expression Profile of Alk Positive Anaplastic Large C ell, Dr Saumyaranjan Mallick, ICMR, 3 Years, 2020-23, Rs 35,00,000/-
22. Genomic aberrations and its prognostic impact in Solitary Plasmacytoma, Rachana Meena, AIIMS, New Delhi, 2 Years, 2024-26, Rs 10,00,000
23. Genomic Profile of High grade B cell lymphoma NOS, Dr Saumyaranjan Mallick, SERB, 3 Years, 2022-25, Rs 40,00000/-
24. High mobility group A2 fusion in unclassifiable spindle cell tumors of sinonasal tract, DEEPALI JAIN, JR thesis grant Research Section AIIMS, 2 Years, 2024-26, Rs 2,00,000
25. Histopathological and Molecular Classification of Gastrointestinal Stromal Tumors, Dr Rajni Yadav, AIIMS, 2 Years, 2022-24, Rs 9,98,000/-
26. Identification of novel molecular subtypes of prostate cancer as potential therapeutic targets for immunotherapy, Dr Seema Kaushal, ICMR, 3 Years, 2021-24, Rs 45 Lakhs
27. Liquid biopsy unravelling the treatment resistant mechanisms with risk stratification in EGFR mutated non-small cell lung carcinoma, DEEPALI JAIN, Lady Tata Memorial Trust, 3 Years, 2024-27, Rs 99,00,000
28. Microbiome-metabolome axis in non-small cell lung cancer, DEEPALI JAIN, Lady Tata Memorial Trust, 3 Years, 2023-26, Rs 40,00,000
29. Molecular profiling of adrenocortical carcinoma and its correlation with clinical outcome-A preliminary study, Sonali Dixit, AIIMS Intramural research grant, 3 Years, 2023-26, Rs 10 Lacs

30. Molecular sub-typing of small cell lung carcinoma (SCLC) to unravel the biological heterogeneity in clinical settings: An observational study, DEEPALI JAIN, Indian Council of Medical Research (ICMR), India, 3 Years, 2020-23, Rs 26 Lacs
31. Multiplexed spatially resolved analysis of protein signatures of the invasive front of Oral Squamous Cell Carcinoma, Aanchal Kakkar, ICMR, 3 Years, 2024-27, Approx. Rs 93 Lakhs
32. PDL1 and CD47 expression in Primary Diffuse Large B cell Lymphoma, MBBS Student Porject, AIIMS, 1 Year, 2022-23, Rs 200,000/-
33. Prognostic and molecular biomarkers in thymic epithelial tumors, Aruna Nambirajan, AIIMS Research Section, 2 Years, 2024-25, Rs 10 Lakhs
34. Standardizing technique of detection of anti-goblet cell and anti-enterocyte antibodies by indirect immunofluorescence method in patients having proximal small bowel enteropathies to identify cases of autoimmune enteropathy in a prospective patient cohort, Mentor: Prasenjit Das, AIIMS Undergraduate Mentorship Project, 1 Year, 2023-24, Rs 2 Lakhs
35. Study of evaluation prognostic markers AR V7, PTEN, TMPRSS ERG, BRCA2, Anubhav Narwal, Intramural, 2 Years, 2024-26, Rs 10 Lacs
36. Study of molecular subtypes including actionable targets in gastric carcinoma using surrogate markers, in Indian scenario, Dr Rimlee Dutta, AIIMS (intramural project), 3 Years, 2023-24, 2026, Rs 10 Lakhs
37. Sudden cardiac death in young: An autopsy and molecular study to identify the cause, Dr Sudheer Arava, ICMR, 3 Years, 2019-23, Rs 70 Lakhs
38. Sudden unexplained death in young individuals, Dr Sudheer Arava, ICMR, 2 Years, 2023-25, Rs 3 Crores
39. The Analysis of Placental Cytotrophoblastic Expression of Cell Cycle Related proteins in Preeclampsia Subclasses, Dr Lavleen Singh, AIIMS, 2 Years, 2024-26, Rs 10 Lakhs
40. The tumor immune microenvironment of follicular cell-derived thyroid carcinomas across different grades utilizing gene expression and spatial proteomic profiling, Dr Shipra Agarwal, SERB, 3 Years, 2023-26, Rs 66,80,680
41. To evaluate the genetic association in undiagnosed idiopathic cardiomyopathy patients, Dr Sudheer Arava, ICMR, 3 Years, 2022-25, Rs 86 Lakhs
42. To evaluate the role of R2TP Complex as a novel regulator of PI3K/Akt/mTOR and AR signalling pathway in prostate cancer, Dr Seema Kaushal, DHR, 3 Years, 2021-24, Rs 46 years
43. To identify the genetic landscape of hypertrophic cardiomyopathy (HCM) in Indian Scenario, Dr Sudheer Arava, ICMR, 3 Years, 2024-27, Rs 1.2 Crores
44. To investigate metabolic perturbations in Endometrial Cancer by targeted transcriptomics approach in an Indian cohort, Dr Sandeep R Mathur, ICMR, 3 Years, 2023-26, Rs 18,06,002
45. Utility of Artificial Intelligence in differentiating Non-invasive Follicular Thyroid Neoplasm with Papillary like Nuclear Features from other follicular-patterned thyroid benign and malignant lesions, Dr Shipra Agarwal, DBT, 3 years + 1 Year extension, 2020-24, Rs 52,64,532

Completed

1. A multi centre study on determination of prevalence of incidental gall bladder carcinoma in India, Dr P Das (AIIMS), NCDIR-ICMR, Bangalore, 5 Years, 2019-24, Rs 10 Lakhs
2. Assessment of hypoxia inducible factor-1 alpha pathway activation and its correlation with tumor immune microenvironment and markers of tumor invasiveness in myxopapillary ependymomas, Aruna Nambirajan, AIIMS Research Section, 2 Years, 2022-23, Rs 10 Lakhs
3. Comparative analysis of the activation of EGFR/MAPK/SHH/NFKB pathways and mutation status of USP8/USP48/BRAF genes in clinically functioning and silent corticotroph pituitary adenomas to identify pharmacological targets for medical management of Cushing's disease, Aruna Nambirajan, ICMR, 3 Years, 2021-23, Rs 21 Lakhs
4. Dissecting the molecular pathogenetic mechanisms of COVID-19 by RNA-sequencing of lung tissue from deceased patients, DEEPALI JAIN, Research Section AIIMS, 3 Years, 2020-23, Rs 25,00,000
5. Molecular characterization of Endometrial Cancer and its correlation with Clinicopathological Features, Sandeep R Mathur, AIIMS, 3 Years, 2020-23, Rs 5 Lakhs

6. Molecular characterization of olfactory neuroblastomas for classification into prognostically and therapeutically relevant subgroups, Aanchal Kakkar, Science and Engineering Research Board (SERB), 3 Years, 2020-23, Approx. Rs 47 Lakhs
7. Molecular characterization of salivary gland carcinomas: A comparative study between AIIMS and North-East regions of India, Aanchal Kakkar and Evarisalin Marbaniang, DBT NER, 2 Years, 2021-23, Approx. Rs 86 Lakhs
8. Molecular mechanisms of resistance to EGFR tyrosine kinase inhibitors in EGFR mutant non-small cell lung carcinoma, Aruna Nambirajan, AIIMS Research Section, 2 Years, 2022-23, Rs 20 Lakhs
9. Nanotechnological intervention in dental and bone implants: Tailoring smart, multifunctional interface towards improved osseointegrative and anti-bacterial properties, DR ADARSH BARWAD, DBT, 3 Years, 2021-24, Rs 70 Lakhs
10. Prognostic markers in pulmonary neuroendocrine tumors, Aruna Nambirajan, AIIMS Research Section, 1 Year, 2023-23, Rs 2 Lakhs
11. The Genetic Landscape of Alport Syndrome in India with Phenotypic Correlation, Geetika Singh, ICMR, 3 Years, 2020-23, Rs 50,50,000
12. TO EVALUATE THE MOLECULAR SUBTYPES OF PERIPHERAL T CELL LYMPHOMAs, Dr Saumyaranjan Mallick, AIIMS, 2 Years, 2020-22, Rs 10,00000/-
13. Tumor mutation burden in advanced non-small cell lung carcinomas: Implications for planning treatment strategies, DEEPALI JAIN, DST-SERB POWER fellowship, 3 Years, 2021-24, Rs 30,00,000

Ongoing

1. A Phase II, Randomized, open labeled study to evaluate low dose pembrolizumab plus chemotherapy vs chemotherapy as Neoadjuvent therapy for localized triple negative breast cancer TNBC. Planet trial pembrolizumab low dose in addition to NACT in TNBC
2. A prospective study to assess the role of contrast enhanced mammography in evaluation of multifocal and multicentric breast carcinoma in comparison with conventional imaging modalities and update and analysis of breat cancer Database
3. Addition of low-dose prembrolixumab to capecitabine for residual triple negative breast cancer post neoadjuvant chemotherapy: A phase III randomized double-blinded placebo-controlled clinical trial
4. An Investigator-initiated open-labelled phase III randomized controlled clinical trial to assess the efficacy of the addition of capecitabine to trastuzumab for residual Her 2 positive breast cancer post neoadjuvant chemotherapy.
5. An ultrastructural evaluation of glomerular and peritubular capillary endothelial injury in T cell mediated rejection
6. Analysis of Molecular Biomarkers in ovarian cancer
7. Assessment of tumor budding in head and neck squamous cell carcinoma, and its correlation with clinicopathological parameters
8. Circulatory Exosomal Mi RNA as market of endometriosis a pilot study
9. Clinicopathological and radiological features and MIR 21 levels in cases in interstitial lung disease
10. Clinico-pathological characteristics and survival outcome of patients with mantle cell lymphoma: an ambispective study
11. Clinicopathological correlation and amyloid sub-typing in cases of cardiac amyloidosis: An observational study
12. Comparison of Surrogate Immunohistochemical Markers with Molecular Alterations in Salivary Gland Neoplasms
13. Designing an innovative speculoscope for cervical cancer screening with See and treat Approach: Overcoming the barriers of portable colposcope in community
14. Development of a regional breast cancer data consortium to assess the impact of healthcare delivery related variables on survival in patients with stage I-III breast cancer
15. Development of Quick and Specific Detection System of EWS-FLI1 Type 1 Fusion Protein.
16. Diagnostic Utility of SSX and Fusion-specific Antibody (SS18-SSX) for Synovial Sarcoma.

17. Distribution of aldosterone-secreting cells in adrenal glands from normal subjects and patients of primary hyperaldosteronism
18. Evaluation of 18F-FDG PET-Specific quantitative tumour parameters and sentinel lymph node mapping by radionuclide injection of Tc99m sulphur colloid in management of endometrial cancer.
19. Evaluation of DDR mutations in Prostate Cancer
20. Evaluation of Indocyanine green for Sentinel Lymph Node biopsy in breast cancer: Two arm open Label parallel design non inferiority Randomised control trial
21. Evaluation of M1 and M2 macrophages and tissue reaction in the peri-prosthetic soft tissue of the patients with loosening of artificial implants
22. Genetic changes of TP53 and its role in the treatment management of patients with advanced soft tissue sarcoma.
23. Genetic Landscape of ALK rearranged non-small cell lung cancer (NSCLC)
24. Genomic Landscape Of Intermediate-High And High-Risk Uterine Carcinomas: An Indian Perspective
25. Genomic profiling of Non-small cell lung carcinoma using Liquid Biopsy
26. High mobility group A2 fusion in unclassifiable spindle cell tumors of sinonasal tract
27. Histopathological remission in celiac disease: a long-term follow-up study
28. Histopathological, immunohistochemical and molecular study of appendiceal epithelial neoplasms
29. IgA anti-TG2 deposits in a cohort of cryptogenic cirrhosis to determine association with celiac disease
30. IgA anti-TG2 deposits in a cohort of noncirrhotic portal fibrosis to determine association with celiac disease
31. Immune landscape of thymic epithelial tumors
32. Immune microenvironment of Anaplastic Thyroid Carcinoma
33. Molecular and immunohistochemical characterization of Endometrial stromal sarcoma and their clinicopathological correlation (Protocol 2022)
34. MYBPC3 mutations in idiopathic cardiomyopathies
35. MYD88 L265P Mutational Studies in Characterization of Unclassifiable Mature Small B-Cell Lymphoid Neoplasms
36. PD1 and PD-L1 interaction in undifferentiated pleomorphic sarcoma of soft tissue.
37. Protocol of thesis to be submitted to the faculty of all India institute of medical sciences, New delhi in partial fulfillment of the requirement for the degree of doctor of medicine
38. Role of Transvaginal 3D Power Doppler Ultrasound and Hysteroscopy for Endometrial Evaluation in Patients with Postmenopausal Bleeding
39. SERB-can surgery be avoided for patients with breast cancer? Role of AI and vacuum-assisted biopsy in selecting patients to de-escalate surgery.
40. Study of Basal plasmacytosis and mucosal eosinophilia in differentiating IBD-type and non-IBD-type colitis including iTB: a cohort of 500 cases
41. Study of molecular subtypes of upper tract urothelial carcinoma
42. Study of WNT and Sonic hedgehog signaling pathways in olfactory neuroblastoma
43. Study on the Activation of Alternative Pathway of Complement in Glomerular Diseases
44. Subtyping and study of PI3K/AKT and MAPK signaling pathway in periampullary adenocarcinoma
45. Sudden cardiac death histopathology and molecular study to identify the cause
46. The Analysis of Placental Cytotrophoblastic Expression of Cell Cycle Related proteins in Preeclampsia Subclasses
47. The Genetic Landscape of Alport Syndrome in India with Phenotypic correlation
48. To evaluate the genetic association in undiagnosed cardiomyopathy patients
49. To Evaluate the role of urinary HPV DNA testing using INNO-LIPA genotyping for cervical cancer. A Cross sectional Study

50. Understanding Biological & biochemical Role of R2TP complex in cervical Cancer
51. Utility of Fine Needle Aspiration Cytology assisted with Cell Block in the Diagnosis of Bone and Soft Tissue Tumors.
52. Whole Exome Sequencing based characterization of mutations in the oncogenic pathways of breast cancer among Indian women

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 disease) for transplantation in vitiligo
2. A Study to evaluate the heterogeneity of estrogen receptor (ER) expression in breast cancerusing "F Fluorestradiol (FES) & F" FDG PET/CT"
3. An immunohistochemical and ultrastructural study of glomerular capillary endothelial injury in cellular rejection
4. Assessment of Basal plasmacytosis and mucosal eosinophilia in differentiating IBD-type and non-IBD-type colitis: A systemic review and metaanalysis
5. Assessment of mucosal eosinophilia and mastocytosis in a cohort of small bowel functional dyspepsia
6. Autoantibody associated alternative complement pathway dysregulation in nephrotic syndrome secondary to membranoproliferative glomerulonephritis
7. Determining the accuracy of vacuum-assisted biopsy and machine learning model for predicting pathological complete response in breast cancer
8. Diagnostic performance of IOTA Simple Rules, IOTA Adex, Girads and orads reporting system in Evaluation of adnexal masses
9. Effect of intra-operative topical talc versus povidone iodine for the prevention of post-operative seroma following breast and axillary surgery: A randomized controlled trial
10. Elucidating the relationship between microsatellite instability, immune cell infiltration and expression of OD-L1 in epithelial ovarian carcinoma subtypes and its correlation with clinic-pathologic features, response to chemotherapy and survival (MD Thesis)
11. Evaluation of an Artificial Intelligence Based Device for Screening and Management of Preinvasive lesions of cervix
12. Exploration of breast microbiota, immune repertoire and sex hormonal profile in mastitis patients for etiolofic subeategorization and targeted treatment
13. Exploring the Expression of Ral B PRotien In Saliva fpr Noninvasive Detection of Cervical Cancer
14. Histomorphological and clinical study in patients of ENL reactions
15. Host Tissue Reactions in Invasive Mucormycosis
16. Identification of Molecular Subtypes of T1 Bladder Cancer
17. Long Term Outcomes in breast cancer patients in terms of overall disease-free survival and locoregional recurrence (2 decades of surgical audit of breast cancer patients)
18. Membranous Nephropathy: A study of immunofluorescence, electron microscopy and PLA2R profile with clinical correlation
19. Molecular sub-typing of small cell lung carcinoma (SCLC) to unravel the biological heterogeneity in clinical settings: An observational study
20. Molecular Subtyping of T1 Bladder Cancer
21. MYH7 mutations in idiopathic cardiomyopathies
22. Pazopanib plus oral cyclophosphamide as maintenance theraoy in patients with platinum sentitive relapsed BRCA wild type ovarian cancer: A Double blind, randomized, placebo controlled phase 3 trials
23. PD-L1 and PD1 immunoreactivity in Undifferentiated Pleomorphic Sarcoma of Soft tissue

24. PDL-1 expression and tumor infiltrating lymphocytes in triple negative breast cancer and its correlation with clinico-pathologic features and response to chemotherapy (MD Thesis)
25. Phase III open label randomized control study to evaluate efficacy of oral metronpomic chemotherapy compared with chemotherapy of physician's choice in recurrent cervical cancer.
26. Pilot study establishing feasibility of silicone tube tip for localization of breast cancer after neoadjuvant chemotherapy within patients with breast cancer
27. Role of Contrast-Enhanced mammography in dense breasts
28. Role of PD-L1 in parathyroid carcinoma and its correlation with immune microenvironment
29. Study of Basal plasmacytosis and mucosal eosinophilia in differentiating IBD-type and non-IBD-type colitis including iTB: a cohort of 500 cases
30. Study of galactose deficient IgA1 in glomerular diseases
31. Study of molecular heterogeneity between right and left colonic carcinomas
32. Study on the activation of lectin pathway of complement in membranoproliferative glomerulonephritis

Collaborative projects

Ongoing

1. A cross-sectional descriptive study of clinical, dermoscopic and histopathological features of granulomatous facial skin lesions and their clinical mimics, Department of Dermatology and Venereology, AIIMS, New Delhi
2. A Multi-centric, randomized double-blind placebo-controlled clinical trial to investigate the sunergistic efficacy of metformin and vitamin D as an add-on treatment with chemotherapy in breast cancer patients, Medical Oncology, NCI, Jhajjhar
3. A phase III randomised controlled study comparing xerostomia after tubarial salivary gland sparing IMRT versus standard IMRT in patients with locally advanced oropharyngeal squamous cell carcinoma, Radiation Oncology, IRCH, AIIMS
4. A prospective comparison of mri-inbore targeted biopsy with 12-core systematic transrectal ultrasound biopsy in the diagnosis of prostate cancer, Radiology, AIIMS, New Delhi
5. 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
6. An open label Phase II Randomised trial to evaluate the efficacy of oral metronomic chemotherapy (conventional dose methotrexate + celecoxib) followed by surgery vs upfront surgery (Control arm) in patients with operable squamous cell carcinoma of oral cavity in terms of clinical and pathological response and disease-free survival and overall survival, Surgical Oncology, IRCH, AIIMS
7. Assessment of disease severity in patients with epithelial ovarian cancer by EMT related protein expression and micro RNA 200a, b, c", Gyn & Obs
8. Association of LOX L 2 in cardiac fibrosis, Cardiology, AIIMS
9. Autologous non cultured dermal cell suspension transplantation in treatment of facial volume loss, Dermatology, AIIMS
10. Bio statistical Aspects of Prognostic Factors Including Molecular Parameters in Breast Cancer Patients: An Epidemiological Appraisal, BRA-IRCH
11. Biomarkers based early diagnosis and understanding of breast cancer metastasis by infrared imaging, Biophysics
12. Cervical cancer tumour micro-environment immune-profiling and effect on early response to standard chemoradiotherapy in Indian patients, Radiotherapy
13. Clinicopathological evaluation of viral myocarditis, Cardiology. AIIMS, New Delhi
14. Comparative evaluation of MicroRNA profiling and cytokine profiling analysis in patients with Pulmonary Sarcoidosis and Mediastinal tuberculosis, Pulmonary Medicine, AIIMS
15. Comparative proteomics analysis to identify potential biomarkers during the transformation of premalignant oral conditions to malignant oral squamous cell carcinoma, Biophysics, AIIMS

16. Comparing Ex-Vivo Ultrasound aided and Frozen section analysis of deep margin assessment with Final Histopathology in T1-T3 Carcinoma Tongue: A Prospective study, Otorhinolaryngology and Head Neck Surgery, AIIMS
17. Comparing the diagnostic utility of 18F-FDG PET/CT with bone marrow biopsy in detecting bone marrow metastases in newly diagnosed Neuroblastoma, Pediatric Oncology division, AIIMS
18. Comparison of cold cup versus bipolar biopsy specimens for bladder carcinoma, Urology, AIIMS, New Delhi
19. Consortium task force project on non-alcoholic fatty liver disease, Gastroenterology
20. Correlation of Depth of Invasion with Lymph Node Metastasis in Laryngeal and Hypopharyngeal Carcinoma, Otorhinolaryngology and Head Neck Surgery, AIIMS
21. Correlation of Histological chronicity and activity grading systems with radiological activity indices, Radiology
22. Correlation of Pediatric Liver Tumors histology and radiological findings, Radiology
23. Cryo-Electron Microscope Imaging facility for biological specimens (Cells and Tissue), Anatomy, New Delhi
24. CT texture analysis of renal masses for prediction of histopathology, Radiology, AIIMS, New Delhi
25. Development of a real-time PCR technique using the CotH gene as a target for early diagnosis of Mucormycosis, Microbiology, AIIMS
26. Development of Quick and Specific Detection System of EWS-FLI1 Type 2 Fusion Protein, Anatomy, New Delhi
27. Development of TIRF based microscopic system with smartphone camera as a detector for autofluorescence dependent intraoperative identification of parathyroid tissue, Department of Surgical Disciplines, AIIMS, New Delhi and IIT, Delhi
28. Differences in the Microvessel Density and Growth Factors between the inner and outer preputial skin in Distal Hypospadias, Pediatric Surgery, AIIMS, New Delhi
29. Dynamic contrast enhanced MR perfusion in the assessment of angiogenesis in Juvenile Nasopharyngeal Angiofibroma (JNA), Radiology, AIIMS
30. Electron microscopic and genetic study in primary ciliary dyskinesia, Pediatric pulmonology, AIIMS, New Delhi
31. Estimation of the prevalence of Epstein Barr virus positivity in aggressive mature B-Non-Hodgkin lymphoma in the Indian subcontinent and deciphering the genetic basis of its impact on disease biology and survival, Medical Oncology
32. Estrogen Related Receptor gamma (ERRy) as a potential biomarker and therapeutic target for thyroid cancer and its correlation with iodine handling genes in thyroid cancer, Department of Medical Oncology Lab, AIIMS, New Delhi
33. Evaluation of Immune escape mechanism in RCC, Biochemistry, AIIMS, New Delhi
34. Evaluation of Renal Cell Carcinoma with C11-Methionine PET/CT and comparison with 18FFlourodeoxyglucosw PET/CT, Nuclear Medicine, AIIMS, New Delhi
35. Exploring the phenotypic and functional role of? T cell subsets along with Pattern recognition receptors (PRRs) in the immunopathogenesis of Pemphigus Vulgaris", Pharmacology, AIIMS
36. FBXO4 as a novel Ubiquitin Ligase that targets cyclin D1 in pathogenesis of breast cancer, Biochemistry
37. Genetic Study on Sertoli Cell Only Syndrome, Reproductive Biology, AIIMS, New Delhi
38. Helicobacter pylori and EBV coinfection in patients of gastric carcinoma, Gastroenterology
39. Hippo signaling pathway and its biological function in uveal melanoma, Division of Ocular Pathology, RPC, AIIMS
40. Histopathologic and immunohistochemical study of the distal rectal pouch in high and low anorectal malformations, Paediatric Surgery
41. Identification of molecular therapeutic target leading to development of chemo-resistance in non-GC DLBCL patients in India, Central Drug research Institute, Lucknow
42. Identification of Potential Molecular markers (PRL3 phosphatase, CAV2, LAMA4) in Renal Cell Carcinoma for predicting tumour behaviour, Urology, AIIMS, New Delhi
43. Impact of neo-adjuvant chemotherapy on surgical decision and outcomes in patient with advanced buccal cancers, Otorhinolaryngology and Head Neck Surgery, AIIMS

44. Indian asymptomatic gallstones: Natural course and their predictors, Gastroenterology
45. Metabolic associated liver disease (MAFLD) in lean and obese: search for disease and progression biomarkers, Gastroenterology
46. Phenotypic and molecular characterization of Th17 and Treg cells in renal cell carcinoma, Biochemistry, AIIMS, New Delhi
47. Prevalence of BRCA 1/2 germ line mutations in young Indian women (<40 years) with Triple negative breast cancers, Surgery
48. PSMA nucleotide therapy, Nuclear Medicine, AIIMS
49. Pyruvate kinase M1and M2 biomarker in atypical endometrial hyperplasia as predictor of coexistent endometrial carcinoma, Obs & Gyn
50. R2TP expression and its significance in Thyroid Cancer, Department of Biochemistry, AIIMS, New Delhi
51. Role of Adjuvant Therapy in Early-Stage Oral Cavity Squamous Cell Carcinoma: An Ambispective Analysis, Otorhinolaryngology and Head Neck Surgery, AIIMS
52. Role of B Cells in Urinary Bladder Carcinoma, Biochemistry, AIIMS, New Delhi
53. Role of circulating tumour cells and CXCR1 expression in patients with metastatic RCC, Urology, AIIMS, New Delhi
54. Role of FDG-PET guided biopsy in PUO (Pyrexia of unknown origin), Nuclear Medicine, AIIMS
55. Role of Multiparametric MRI of Nonalcoholic fatty liver disease, Radiology
56. Role of PAQosome Complex in the Regulation of Beta Oxidation during Prostate Cancer Progression, Biochemistry, AIIMS, New Delhi
57. Role of Phosphofructokinase-P (PFKP) in Breast cancer, Med Oncology BRA-IRCH
58. Role of split-bolus dual energy CT in characterization of neck masses with limited MR and DSA correlation, Radiology, AIIMS
59. Role of Tele-consultation of ASHA Workers in counseling women for Cervical Cancer Screening by Self-Sampling for Human Papilloma Virus, Obs & Gyn
60. SCOPE-Surveillance of COVID in PrEgnancyStandardizing data collection and protocol for improving the Quality of evidence on clinical characteristics and outcomes of COVID-19 and Pregnancy, Obs & Gyn
61. Sentinel lymph node detection in oral squamous cell carcinoma with negative neck: comparison between DTPA Cytokeratin-Collagenous Nanoparticle [99mTc] Tc-DC-Col NP and [99mTc] Tc-Sulphur colloid, Otorhinolaryngology and Head Neck Surgery, AIIMS
62. Study of Autophagy associated HMGB-1 and its related molecules in Urothelial Carcinoma of Bladder, Biochemistry, AIIMS, New Delhi
63. Study of cardiac markers, gross findings and histopathological Changes in heart in cases of suspected cardiac death, Forensic Medicine, AIIMS
64. Study of histomorphological, proteomics and collagen in Rheumatic heart valve specimens, CTVS, New Delhi
65. Study of miRNA profile in Sertoli Only Syndrome (SCOS), Reproductive Biology, AIIMS, New Delhi
66. Study of PKC? signaling in Ovarian Serous Carcinoma, Med Oncology BRA-IRCH
67. Study of Sesamol in Bleomycin induced pulmonary toxicity in rat, Pharmacology, AIIMS
68. Study the significance of tumour infiltrating lymphocytes in breast cancer patients, Surgery
69. Study to determine primary tumor factors predicting lymph node metastases in early (T1 and T2) oral cavity squamous cell carcinoma, Otorhinolaryngology and Head Neck Surgery, AIIMS
70. Study to determine the role of mTOR pathway in the pathogenesis of juvenile nasopharyngeal angiofibroma, Otorhinolaryngology and Head Neck Surgery, AIIMS
71. Targeting Nucleolin for Refining Anti-Neoplastic ChemoImmunotherapy and Immunomodulation in B-Cell Lymphoma, Central Drug Research Institute, Lucknow

72. The Eliminate Trial: A Phase II/IIIrandomised trial evaluating omission of post-operative radiotherapy in pathological proven N0/N1 neck for squamous cell carcinomas of the oral cavity, Radiation Oncology, NCI
73. The Role of 68Ga-PSMA-PET/CT Scan as a single Staging Modality in Prostate Cancer, Nuclear Medicine, AIIMS, New Delhi
74. To investigate the significance of Estrogen Related Receptor Gamma (ERR?) expression in thyroid cancer and study its potential as a therapeutic target, Department of Medical Oncology, AIIMS, New Delhi
75. Tumor dynamics & immune cell interactions in Anaplastic Thyroid Carcinoma, Department of Biochemistry, AIIMS, New Delhi
76. Ultrastructure level mechanism of nanoparticle interaction, internalization, and trafficking at a cellular level, Anatomy, New Delhi

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, Gynecology & Obstetrics
2. A comparative study of smooth muscle cell characteristics and myofibroblasts in processus vaginalis of pediatric inguinal hernia, hydrocele and undescended testis, Pediatric Surgery, AIIMS
3. A phase II study to evaluate the efficacy of cisplatin and gemcitabine based neo-adjuvant chemotherapy followed by dysphagia optimized intensity modulated radiotherapy with concomitant cisplatin and correlation of clinical outcome with serial plasma epstein barr virus DNA titre in patients with locally advanced nasopharyngeal carcinoma, Radiation Oncology, IRCH, AIIMS
4. A pilot study to evaluate the role of 68Ga-PSMA-HBED-CC PET/CT in patients with juvenile nasal angiofibroma, Otorhinolaryngology and Head Neck Surgery, AIIMS
5. A prospective descriptive study to characterize the cutaneous and histological features in children with Langerhans cell histiocytosis, Department of Dermatology, AIIMS, New Delhi
6. A prospective observational study comparing CT scan vs PET CT scan in carcinoma ovary for determining the pre-operative disease burden and resectibility, Surgical Oncology
7. A Prospective study to determine the efficacy of Positron Emission Tomography-Computed Tomography (18F-FDG PET-CT) scan in detecting residual disease in Locally Advanced Head & Neck Squamous Cell Carcinoma managed with primary Chemo-Radiation Therapy and its comparison with CECT, Nuclear Medicine, AIIMS
8. A prospective study to evaluate the impact of oral submucous fibrosis on occult and overt lymph nodal metastasis in gingivo buccal complex carcinoma of oral cavity (T1-T4), Otorhinolaryngology and Head Neck Surgery, AIIMS
9. Ambispective Study To Assess Various Primary Tumour And Ipsilateral Nodal Factors Associated With Contralateral Nodal Metastasis In Patients With OCSCC, Otorhinolaryngology and Head Neck Surgery, AIIMS
10. Assessment of host immunological tumour response by histochemistry in cancer oral cavity and its impact on prognosis-Retrospective cohort study, Otorhinolaryngology and Head Neck Surgery, AIIMS
11. Assessment of Precervical (peri-marginal and lingual) lymph node as the first echelon for squamous cell carcinoma of the oral cavity, Otorhinolaryngology and Head Neck Surgery, AIIMS
12. Biochemical and enzymatic analysis of bile in choledochal cyst and their correlation with histopathological features and expression of immune modulators, Pediatric surgery, AIIMS
13. BRCC3 expression as a prognostic marker in Oropharyngeal squamous cell carcinoma patients and its effects on radiotherapy resistance, Otorhinolaryngology and Head Neck Surgery, AIIMS
14. Clinicoradiological Co-relation in ascertaining the end point of treatment of Invasive Fungal Sinusitis, Otorhinolaryngology and Head Neck Surgery, AIIMS
15. Coblation assisted endoscopic excision of juvenile nasopharyngeal angiofibroma: a prospective pilot study, Otorhinolaryngology and Head Neck Surgery, AIIMS
16. Correlation of barrel index determined by MRI in early cervical cancer with operability, lymph node status and local extension of disease, Gynecology & Obstetrics
17. Detection of Extra nodal extension in node positive oral cavity squamous cell carcinoma, Otorhinolaryngology and Head Neck Surgery, AIIMS

18. Detection of oncogenic viruses HPV and EBV by immunohistochemistry in secondary cervical lymph nodes from primary of oropharynx, nasopharynx, and unknown primary, Otorhinolaryngology and Head Neck Surgery, AIIMS
19. Development of non-invasive diagnostic kit for ovarian cancer: A new walk on old path, Biophysics
20. Differential expression of apoptosis related miRNA in diagnosis and Prognosis of Wilms Tumor and Neuroblastoma, Department of Pathology, AIIMS, New Delhi
21. Efficacy of cold atmospheric plasma jet for its antimicrobial activity against drug resistant bacterial and fungal pathogen: An in-vitro and in-vivo study, Department of Microbiology, AIIMS, New Delhi
22. Evaluation of Coronavirus in tears and conjunctival secretions of patients with SARS COVID19, R P Centre, AIIMS
23. Evaluation of genetic profile of olfactory neuroblastomas, Otorhinolaryngology and Head Neck Surgery, AIIMS
24. Evaluation of split-bolus dual energy CT in staging of carcinoma larynx, Radiology, AIIMS
25. Evaluation of unknown head and neck primaries metastatic to cervical lymph nodes, Otorhinolaryngology and Head Neck Surgery, AIIMS
26. Exploration of first echelon sentinel lymph node drainage of squamous cell carcinoma of the tonsil particularly with reference to the lateral retropharyngeal lymph node of Rouviere, Otorhinolaryngology and Head Neck Surgery, AIIMS
27. Exploration of the Vitamin-D and WNT/ Beta-catenin signalling pathway in Juvenile Angiofibroma, Otorhinolaryngology and Head Neck Surgery, AIIMS
28. Expression of ACE2 receptor in mucormycosis patients, Otorhinolaryngology and Head Neck Surgery, AIIMS
29. Feasibility And Outcome Of Minilaparotomy Assisted Laparoscopic Myomectomy for Large Myomas, Obs & Gyn
30. Feasibility study of dual technique-blue dye and fluorescence imaging for detection of sentinel node in oral cavity cancer-a prospective validation study, Surgical Oncology, IRCH, AIIMS
31. Molecular and immunological characterization of benign fibroosseous lesions affecting oral and maxillofacial region, Oral Pathology, CDER
32. Molecular classification of breast cancer using FDG PET CT, MRI and NMR: A pilot study, Surgery
33. PCR for EBV DNA in suspected nasopharyngeal carcinoma patients, Microbiology, AIIMS
34. Pilot study to evaluate the role of toluidine blue dye and narrow band imaging for assessment of malignant and potentially malignant disorders in oral cavity and update and analysis of oral cancer database, Surgical Oncology, IRCH, AIIMS
35. Prospective study to determine the incidence of intraglandular, peri-parotid, occult and overt cervical lymph node metastasis in patients with primary parotid carcinoma, Otorhinolaryngology and Head Neck Surgery, AIIMS
36. Role of MRI in evaluation of residual tumor burden following neoadjuvant chemotherapy in patients with breast cancer, Radio diagnosis
37. Role of PET in surgical management of Oral cavity Squamous cell carcinoma, Otorhinolaryngology and Head Neck Surgery, AIIMS
38. Role of Plasma Cell-Free DNA in predicting disease status in patients with differentiated thyroid cancer, Department of Nuclear Medicine, AIIMS, New Delhi
39. Role of Serum Visfatin and Adiponectin Levels in Patients with Carcinoma Endometrium, Obs & Gyn
40. Role of Shearwave Elastography and Multiparametric MRI in the assessment of endometrial pathology, Radiodiagnosis
41. Role of sono-elastography in the assessment of uterine pathology, Radiodiagnosis
42. Study of microvascular density and cd68 immunopositive tumor associated macrophages in oral squamous cell carcinoma, Otorhinolaryngology and Head Neck Surgery, AIIMS
43. The clinicopathological evaluation of cholesteatoma aggressiveness, Otorhinolaryngology and Head Neck Surgery, AIIMS
44. To Assess The Prevalence Of Lingual Lymph Nodes And Pattern Of Lymph Nodal Spread In Squamous Cell Carcinoma Of The Tongue, Otorhinolaryngology and Head Neck Surgery, AIIMS
45. To determine incidence of paratracheal lymph node metastasis in patients with carcinoma larynx and hypopharynx planned for partial/total laryngectomy, Otorhinolaryngology and Head Neck Surgery, AIIMS

46. To evaluate the role of dynamic contrast enhanced MR perfusion in characterization of sinonasal and skull base masses, Radiology, AIIMS
47. To evaluate the role of trans nasal esophageal endoscopy for detection of synchronous esophageal neoplasm in head and neck cancer patients, Otorhinolaryngology and Head Neck Surgery, AIIMS
48. To study the clinical profile, investigations and outcome of patients undergoing Parathyroidectomy: A retrospective and prospective experience, Department of Surgical Disciplines, AIIMS, New Delhi
49. Use of Cancer Testis Antigen POTE-E in preoperative diagnosis of Epithelial Ovarian Tumors: A Pilot Study, Gyn & Obs

Research over past 3 years

Research projects	2021–2022	2022–2023	2023-24
Total funded projects (Ongoing projects)	21	41	45
Total funding (Ongoing projects_	Rs 6,87,54,164	Rs 15,94,05,126	Rs 16,96,66,596

PUBLICATIONS

Total Publications: 230; Journal articles: 184 Abstracts: 34 Chapters in Books: 12

Publications over past 3 years

Item	2021–2022	2022–2023	2023-24
Total	**234**	**201**	**230**
Journal articles	191	147	184
Abstracts	19	43	34
Chapters in books	23	10	12
Books	1	1	0

PATIENT CARE

Laboratory Services		2021-2022	2022-23	2023-24
Surgical Pathology Laboratory	Specimens processed	39, 145	60, 071	64, 712
	Special stains	38, 800	37, 800	31, 500
Cytopathology Laboratory	Total specimens	16285	28, 845	28, 351
	FNAC (out patient)	4319	9060	9520
	Exfoliatives routine	5730	10, 005	10806
	Cervical smears (PAP smears)	6236	9780	8025
	Cell blocks	-	9000	10800
Autopsies performed		-	3	
Immunohistochemistry Laboratory	Diagnostic	50558	80, 530	88, 735
	Research	288	-	-

Electron Microscope Facility	Total samples	921	1157	1354
	Muscle sample	197	236	223
	Nerve sample	35	7	16
	Skin Sample	30	37	22
	Tumor Sample	70	81	68
	Paraffin Block	5	5	12
	D2 biopsies	10	7	12
	Heart	14	-	-
	Kidney	548	791	955
	Other	8	3	18
Research Microtomy and Thesis IHC Lab	Research Blocks	1123	2800	4050
	Thesis Blocks	2824	6000	7040
	Autopsy Blocks	350	65	450
	H & E Slides	4000	36000	52700
	U/S (Coated) Slides	10000	20000	24000
	Block Embedded	1473	32335	49700
	Frozen Sections	885	1005	867
Renal pathology services	Urine sediment analysis	940	2686	1759
	Immunofluorescence of kidney biopsy	610	745	989
	Electron microscopy of kidney biopsy	600	791	955
Cardiac pathology	Routine specimens	1008	396	2850
	Research specimens	607	140	1400
	Immunohistochemistry	720	276	276
	H & E stain	2020	288	4200
	Special stains	2140	1608	1600
	Manual processing of post-transplant biopsies	114	114	276
	Cutting of blocks (unstained sections)	1793	776	534
	Skin biopsy cutting	1825 cases	-	-
	Renal biopsy cutting	-	-	-
	Frozen Section	885 cases	-	-
	DIF	805 cases	212	
	Coated slides	3300	-	-

Molecular pathology	Real time PCR (EGFR, PIK3CA, BRAF, KRAS, NRAS, HRAS etc)	605	587	1029
	RNA ISH (HR-HPV, EBER-ISH, kappa-lambda ISH)	-	-	30
	Liquid biopsy (EGFR)	-	125	310
Fluorescence in situ hybridization	Diagnostic or Prognostic (Pulmonary, Head and neck, Breast, Gynae, Soft tissue, Lymphoma, Gastrointestinal, Pediatric, Endocrine pathology)	256	780	1135
Slide scanning on Digital slide scanner		-	-	12, 500

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Awards won by students:

1. **Commendation Prize**. Poster Junior Resident Category. Dr Arkadipta Mukherjee. Third Annual Research Day. AIIMS, New Delhi, 2024.
2. **Second Prize.** Poster Senior Resident Category. Dr Sherrin Jacob. Third Annual Research Day. AIIMS, New Delhi, 2024.
3. **Second Prize.** People Choice Poster/Critics' Under Graduate Category. Ishan Gupta. Third Annual Research Day. AIIMS, New Delhi, 2024.
4. **Commendation Prize**. Poster Under Graduate Category. Ishan Gupta. Third Annual Research Day. AIIMS, New Delhi, 2024.
5. **Second Prize.** Platform presentation. Dr Urvashi Yadav. Molecular Pathology Association of India Conference. 17 February 2024, AIIMS, New Delhi.
6. **Consolation prize (Top 5).** Diagnosing Extramammary Metastasis On Core Needle Breast Biopsies at APCON 2023. Samudra Basu, Ridhi Sood, Ruchi Rathore, Sandeep Mathur, Suhani, Prabhat S Malik, Aparna Sharma.
7. 3rd prize Poster presentation. Uncommon And Unyielding: A Series Exploring The Immunoprofile of Small Cell Carcinoma Of Ovary Hypercalcemic Type at APCON 2023, AIIMS, New Delhi Ramya, Sandeep Mathur, Ridhi Sood, Ruchi Rathore, Dr Sachin Khurana, Dr Anupama Sharma.
8. Junior Resident Dr Akhila Gopakumar was awarded **Second prize for Best Oral Presentation** for her thesis paper titled "Tumor Budding in oral Squamous cell carcinoma: Comparison of scoring systems and addition of cytokeratin immunohistochemistry" at RGCON 2024 22nd International conference: "Head and Neck: Bridging the Gap; from Cure to Survivorship in March 2024.
9. MBBS Undergraduate Mentee Abin Antony was awarded **Special Mention Prize for his Oral Paper** "ALK immunopositivity in Neuroblastomas: Correlation with MYCN amplification status and clinicopathological features" at PHOCON 2023 26th Annual Pediatric Hematology Oncology Conference in November 2023.
10. Senior Resident Dr Diya Roy was awarded **Satya Monga Award for Best Paper Published in the field of Immunocytochemistry and/or Molecular Techniques applied in Cytology** at Cytocon 2023, the 53rd Annual Conference of Indian Academy of Cytologists in October 2023.

Professor Venkateswaran K Iyer was Awarded for Ernest Fernandes slide seminar at the 53rd Annual Conference for the Indian Academy of Cytologists (CYTOCON 2023).

Professor Sandeep R Mathur was Awarded the prestigious "Shobha Seth Wenger' Distinguished Chair in Gynaecologic Oncology under "Mira Seth Corpus Fund" for the period 2024-2026; Elected as the founder secretary of the newly launched "Indian Society of Gynecological Pathology (ISGyP)". The society is aimed at organizing educational and

research activities in the field of gynecologic Pathology in India and collaborate with international counterparts in this field.

Professor Prasenjit Das is Working as Associate Editor of the Indian Journal of Pathologists & Microbiologists; Faculty-in charge of Histopathology services, Department of Pathology, AIIMS, New Delhi; Faculty-in-Charge for Histopathology Records, Department of Pathology, AIIMS, New Delhi; Subject Expert Meeting for Question paper setting, National Board of Examinations, New Delhi.; Board member of HP PSC Faculty section.; Board Member of Assisttant Professor Selection ESIC Medical College. ; Reviewer of thesis-MD thesis- PGIMER Chandigarh; Panel member for SRship interview AIIMS Bhubaneshwar; Associate Editor of the Indian Journal of Gastroenterology.

Professor Deepali Jain was honored with the Fellowship of the National Academy of Sciences (FNASc), India, in 2023. She also received the AIIMS Excellence Research Award in Clinical Sciences, securing Third Prize. Serving as a subject expert, she contributed her expertise to Delhi University and AIIMS Kalyani. Additionally, Professor Jain chaired a session on predictive biomarkers for immunotherapy at the World Conference on Lung Cancer (WCLC) in Singapore in September 2023. She also chaired the plenary session at the Molecular Pathology Association of India Conference on February 17, 2024, at AIIMS, New Delhi.

Professor Geetika Singh has contributed to her department by establishing a Transmission Electron Microscopy facility equipped with a 120KV JEOL TEM. She has been invited to join the Renal Pathology Working Group of the International Society of Nephrology for the term 2023-2024. Additionally, she is a member of the South Asia Regional Board (SARB) of the International Society of Nephrology. Her editorial contributions include appointments to the boards of the international journal *Glomerular Diseases*, as well as the *Indian Journal of Nephrology* and the *Indian Journal of Transplantation* for 2023-2024. Professor Singh also serves as regular faculty for the GLOMCON Virtual Fellowship and was honored with the prestigious Dr. Subir Kumar Dutta Memorial Oration by the West Bengal chapter of the IAPM.

Professor Sudheer Arava was treasurer, Dermatopathology society of India (DSI)**;** Member, Indian society of heart research (ISHR)**;** Executive member, Indian society of atherosclerotic research (ISHR)**;** Member, Indian society of heart and lung transplantation (ISHLT)**;** Associate editor, IJDPPD journal**;** Reviewer, Indian journal of pathology and microbiology (IJPM)**;** Member. International academy of Pathology-Indian division (IAPID)**;** Reviewer, Journal of practice of cardiovascular sciences (JPCS).

Professor Asit R Mridha was awarded a patent (No. 469608) for an "Automatic Tri-axial Rotary Ultrasonic Bone Drilling Machine," developed in collaboration with PM Pandey, Ravinder Pal Singh, RK Gupta, and Vishal Gupta. Additionally, Professor Mridha is a co-applicant for a patent related to a "Kit and Method for Detection of BK Virus," alongside Subhash Chandra Yadav, Kishore Sesham, Sunil Kumar, Srishty Raman, Abhishek Gupta, and Raj Kanwar Yadav, with the application filed on October 13, 2022, currently under review in India. He also received a Certificate of Appreciation for leading a CME on Bone and Soft Tissue Neoplasms and Renal Pathology at Silchar Medical College on March 28-29, 2024.

Dr Seema Kaushal was invited to participate in the 2023 International Society of Urological Pathology (ISUP) Consensus Conference on the Best Practice Recommendations on the Pathology of Urachal Neoplasms and Glandular Lesions of the Urinary Bladder" held in Dublin, Ireland on 8 September 2023.
She was also invited as chairperson for the AIPNA annual conference at PGI Chandigarh and for MAPCON at AIIMS, New Delhi.

Dr Rajni Yadav received short term training in "Digital Pathology" at Kameda Medical Centre, Kamogawa, Japan in January 2024.

Dr Aanchal Kakkar was served as an Invited Member of the Head and Neck Consensus Language for Ease and Reproducibility (HN-CLEAR) Working Group, focused on standardizing the assessment of extranodal extension in head and neck cancer. She also contributed as the responsible author for the chapter on "Neuroblastoma" in the inaugural edition of the WHO Reporting System for Kidney and Adrenal Cytopathology. Dr. Kakkar is also an Invited Member of the International Collaboration on Cancer Reporting (ICCR) Mucosal Melanomas of the Head and Neck Dataset Authoring Committee (DAC).

9.31 Pharmacology

Professor & Head

VL Kumar

Professors

DS Arya	Jatinder Katyal	Surender Singh
KH Reeta		Jagriti Bhatia

Additional Professors

Pooja Gupta	Sudhir Chandra Sarangi	Harlokesh Narayan Yadav

Scientists

Thomas Kaleekal	Madhuri Gupta	Sunder Singh Samuel
(Retired on 31-03-2024)	Swati Sharma	Devendra Singh Jyoti
Ajay Godwin Potnuri		(Joined on 6 November 2023)

Education

The department is engaged in the teaching programmes of BSc Nursing (Hons), BSc OT Technician, MBBS, MSc (Medical Pharmacology), MD, PhD and DM (Clinical Pharmacology) courses.

CMEs/Workshops/Symposia/National and International Conferences

1. TOX@NPIC 2023 - A National Conference on mitigation and prevention of poisonings: challenges and opportunities. 27 April 2023, Delhi
2. A symposium on Occupational exposures- health impacts & regulatory aspects, 3 October 2023, Delhi
3. Organized a Guest lecture by Dr Anil Gulati (Chairman and CEO, Pharmazz, Inc. Willowbrook, Illionois, USA) on 'Efficacy outcomes of Sovateltide in patients with acute Cerebral Ischemic Stroke' on 8 December 2023, Delhi.

Lectures delivered: 20

VL Kumar: 3 **KH Reeta: 3** **Pooja Gupta: 4** **Sudhir Chandra Sarangi: 5**
Harlokesh Narayan Yadav: 3 **Swati Sharma: 2**

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
3	16	20

Oral papers/posters presented: 23

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
10	20	23

Research

Funded Projects

Ongoing

1. An investigation into metabolomics of prostate cancer patients to identify diagnostic and prognostic biomarkers for disease burden and therapeutic outcome, and development of metabolomics database, DS Arya, AIIMS (Collaborative Research), 2 Years, 2022-24, Rs 20,00,000
2. Anaemia: Exploring the role of vitamin D, essential elements and lifestyle in Indian Population, Harlokesh Narayan Yadav, ICMR, 3 Years, 2022-25, Rs 75,00,000
3. Association of social cognition and behavioral impairment in persons with epilepsy on antiepileptic drug monotherapy: Correlation with neuroimaging findings and trace elements status, Sudhir Chandra Sarangi, DST, 3 Years, 2021-24, Rs 29,74,272
4. Chemotherapeutic Effect of a Selected Unani Medicine in Xenograt Mouse Model of Lung Cancer, Pooja Gupta, CCRUM, 3 Years, 2023-26, Rs 27,38,694
5. Chrono-pharmacokinetics and chrono-genomics of tyrosine kinase inhibitors in non-small cell lung cancer patients: RCT, Pooja Gupta, DST SERB, 3 Years, 2023-26, Rs 46,03,032
6. Comparative remote ischemic preconditioning on inflammatory markers in STEMI patient undergoing primary PCI and its correlation with serum vitamin D levels, Harlokesh Narayan Yadav, AIIMS, 2 Years, 2024-26, Rs 2,00,000
7. Correlation of antidepressant therapy with orexinergic pathway integrating targeted metabolomics in patients with major depressive disorder: a longitudinal study, KH Reeta, DHR-ICMR, 3 Years, 2023-26, Rs 54,48,000
8. Correlation of germline HLA variation by next-generation sequencing with immune-related adverse events in cancer patients, Pooja Gupta, DST, 3 Years, 2022-25, Rs 58,15,260
9. Design and development of nanoscale integrated system along with conformal antenna as capsule prototype for wireless capsule endoscopy, Harlokesh Narayan Yadav, DST, 3 Years, 2021-24, Rs 74 Lakhs
10. Design and development of wirelessly powered nanoscale integrated antenna enabled leadless cardiac Pacemaker system for wireless monitoring of Heart Health, Harlokesh Narayan Yadav, Indian Council of Medical Research, 3 Years, 2022-25, Rs 73,88,000
11. Development of antimicrobial hydrogel as a denture cleaning agent by dispersed nano metal oxide in alcoholic extract of Neem leaves., Madhuri Gupta, AIIMS Early career Intramural project, 2 Years, 2024-26, Rs 10 Lakhs
12. Effect of antidepressants and add-on therapy of renin-angiotensin-aldosterone system (RAAS) modulators on treatment response in subjects with depression: Correlation analysis with RAAS related biomarkers and their gene expression, Sudhir Chandra Sarangi, AIIMS Intramural Collaborative, 2 Years, 2023-25, Rs 9 Lakhs
13. Effect of homeopathic based drug formulation on epileptogenesis and its interaction with antiepileptic drug: A study in experimental model of epilepsy and associated post-ictal depression in rats, Sudhir Chandra Sarangi, CCRH, 3 Years, 2023-26, Rs 54,91,824
14. Evaluation of GuduchiSattava for its anti-platelet and thrombolytic potential using in-vitro experimental models, Ajay Godwin Potnuri, ICMR, 2 Years, 2023-25, Rs 15,94,000
15. Evaluation of the cardioprotective effect of remote ischaemic preconditioning in acute coronary syndrome patients and its correlation with vitamin D, Harlokesh Narayan Yadav, DHR, 3 Years, 2023-26, Rs 82,00,000
16. Evaluation of the effect of safinamide on microglial polarization shift in permanent and transient models of acute ischemic stroke in rats, KH Reeta (Mentor) Himika Wasan (DHR young scientist), DHR (ICMR), 3 Years, 2022-25, Rs 49,03,000
17. Exploratory analysis of the association between pyrethroid exposure and Parkinson's disease: A Case-control study, Devendra Singh, AIIMS, Early career Intramural project, 2 Years, 2024-26, Rs 10,000,00
18. Genetic expression of monoaminergic neurotransmission related polymorphisms and their association with antidepressant response in Indian patients suffering from depression, Sudhir Chandra Sarangi, ICMR, 3 Years, 2022-25, Rs 43,49,520
19. ICMR: Product Development Centre, DS Arya, ICMR, 5 Years, 2019-24, Rs 71,00,000

20. Identification of potential biomarkers associated with lead toxicity due to occupational exposure using in-silico methods, Swati Sharma, AIIMS, New Delhi (Intramural), 2 Years, 2022-24, Rs 10 Lakhs
21. Randomized double-blinded placebo-controlled clinical trial for the evaluation of Vitamin K supplementation on bone mineral density in prostate cancer patients, DS Arya, ICMR, 3 Years, 2022-25, Rs 57 Lakhs
22. Reinforced nano dispersed, thermo-conductive, radiopaque, biocompatible and microbial resistant advanced Denture Base Materials (PI), Madhuri Gupta, ICMR, 3 Years, 2021-24, Rs 36 Lakhs
23. Role of Fisetin along with Sildenafil in Experimental High caloric diet-induced Erectile Dysfunction in Male Wistar Rats, Harlokesh Narayan Yadav, ICMR, 3 Years, 2022-25, Rs 16,20,000
24. Safety studies of Homeopathic drugs, Surender Singh, Central Council for Research in Homeopathy, Ministry of AYUSH, Govt. of India, 2 Years, 2022-24, Rs 29,61,840
25. Spatio-temporal expression profile of hemeoxygenase-1 in experimental model of ischemic stroke in rats, Devendra Singh, SERB-SRG, 2 years, 2023-25, Rs 29,20,060
26. To evaluate the anticancer activity of ivermectin with gefitinib in epidermal growth factor receptor mutated lung cancer cell line and xenograft mouse model, Pooja Gupta, ICMR, 3 Years, 2023-26, Rs 20,12,152
27. To evaluate the effect of Erdosteine on the experimental auto-immune myocarditis model., DS Arya, AIIMS-THSTI (Collaborative Research), 2 Years, 2024-26, Rs 20,00,000
28. To study effects of 4-octyl itaconate in different models of cardiac fibrosis and to assess its role in NLRP3 inflammosome pathway, Jagriti Bhatia, DST, 3 Years, 2021-24, Rs 27,30,640
29. Toxicity studies of Homeopathic drugs, Sudhir Chandra Sarangi, CCRH, 2 Years, 2024-26, Rs 14,95,410

Completed

1. Assessment of awareness, perception and KAP (Knowledge, Attitude & Practices) related to common poisons and development of scientific communication modules for lifestyle modulation & year-round strategy for public awareness towards prevention of poisoning, Swati Sharma, Department of Science and Technology (DST), GoI, 2.5 years, 2021-23, Rs 42,57,000
2. Early biomarkers for chemotherapy-induced cardiotoxicity in patients with hematological malignancies, Ms Shalini Rawal (Dr Pooja Gupta - Mentor), DST (WOS-B), 3 Years, 2019-23, Rs 30,24,561
3. Effect of antidepressants on neurodegeneration and neuroplasticity in patients with depression, Sudhir Chandra Sarangi, ICMR, 3 years, 2020-23, Rs 29,03,670
4. Genomic and Biochemical Correlation of "Prakriti" Stratified Patients diagnosed with Coronary Artery Disease (CAD): An Integrative Approach towards Personalized CAD Management, KH Reeta (Mentor) Pamila Dua (Women Scientist), DST, 3.5 Years, 2019-23, Rs 31,21,000
5. Modulation of AMPA receptor: Effect on post-stroke damage after focal cerebral ischemia-reperfusion injury in rats, KH Reeta, ICMR, 3.5 Years, 2019-23, Rs 51,40 Lakhs
6. Preventive efficacy of berberine nanoparticles in chemotherapy-induced cardiotoxicity in animal model, Pooja Gupta, AIIMS, 2 Years, 2021-23, Rs 10 Lakhs
7. Prospective double-blind randomized controlled clinical study on Ayurvedic Intervention (SarpgandhaMishran) vs Amlodipine in the management of stage-1 Primary Hypertension, DS Arya, CCRAS, 3 Years, 2021-24, Rs 61,00,000
8. To study the regulatory mechanism of GSK-3? by ischemic preconditioning against ovariectomized challenged Wistar rats, Harlokesh Narayan Yadav, AIIMS, 2 Years, 2021-23, Rs 10,00,000

Departmental projects

Ongoing

1. A pilot study to understand the effect of timing of gefitinib administration on its plasma levels in non-small cell lung cancer patients
2. A randomized controlled trial to assess the effect of riboflavin supplementation with antidepressant treatment in persons with major depressive disorder
3. Chemotherapeutic effect of ivermectin and escin in cell lines and xenograft mouse model of lung cancer

4. Comparative evaluation of effect of remote ischemic preconditioning on inflammatory markers in STEMI patients undergoing primary PCI and its correlation with serum Vitamin D levels
5. Effect of benfotiamine as an adjuvant drug on oxidative stress in patients with type 2 diabetes mellitus - a randomized double-blind placebo-controlled clinical trial
6. Effect of GKT136901 a selective inhibitor of NOX1/NOX4 alone and combination of sildenafil in Monocrotaline induced Hypertension in rats
7. Effect of Transplantation of Lentiviral Mediated Genetically Engineered Mesenchymal Stem Cells into Monocrotaline Induced Pulmonary Hypertension in Rats: validation by Next Generation Sequencing
8. Fenofibrate as adjuvant therapy in persons with active epilepsy: a double-blind, randomized, placebo-controlled study
9. Pharmacological and Molecular Evaluation of Anshumati Sidhha Ksheera in experimental models of Myocardial Infarction.
10. Role of Calcium Sensing Receptor in Modulation of Beta-Adrenergic Receptor mediated signalling in Experimental Models of Heart Failure: Cross Talk Between ?1 & ?2 Receptors
11. Role of Cross talk between AT1 and Mas Receptors on modulation of Mitochondrial Functioning and Fibroblast-to-Myofibroblast transition in the Experimental rat model of Pulmonary Arterial Hypertension: Specifically Targeting NOX2, NOX4, and DRP1 signalling
12. Role of NOX2, NOX4 & DRP1 in modulation of ETA & ETB receptor-mediated signalling in experimental model of cardiomyopathy in rats
13. Studies on metabolic changes in prostate carcinoma patients
14. Studies on the effect of vildagliptin in experimental model of pain and inflammation
15. Studies to delineate and characterize the potential cardioprotective effect of selected plant extracts in experimental models of Myocardial Infarction.
16. Tapering pattern of anti-epileptic drugs in persons with epilepsy after a seizure free period in a tertiary care hospital.
17. To evaluate the effect of add on Metformin and its correlation with serum vitamin D levels in the patients of Pulmonary fibrosis-A Randomized, open label, Proof of concept study.

Completed

1. Effect of atorvastatin on methotrexate induced liver and kidney toxicity in rats
2. Effect of benfotiamine on oxidative stress in patients with Type 2 diabetes mellitus - randomized double-blind placebo-controlled clinical trial
3. Effect of GKT136901, a selective inhibitor of NOX1/NOX4 alone and in combination of sildenafil in monocrotaline induced pulmonary arterial hypertension in rats.
4. Effect of Vitamin D on monocrotaline induced pulmonary hypertension in rats
5. Effects of calcitriol pre-treatment in the restoration of right ventricular and renal function in an experimental model of cardiorenal syndrome in rats
6. Evaluation of effect of oral hypoglycaemic agents on cognitive function in young and middle-aged type 2 diabetes mellitus patients
7. Markers of Ototoxicity in Cervical Cancer Patients Receiving Cisplatin: A Pilot Study
8. Pharmacological investigation of phloroglucinol in isoproterenol induced cardiac hypertrophy in rats
9. Pharmacological investigations of Moringa oleifera leaf extract in isoproterenol induced cardiac hypertrophy in rats.
10. Randomized placebo-controlled crossover study to evaluate the effect of single dose of paracetamol on the psychomotor skills, cognitive and decision-making capabilities in healthy volunteers
11. Role of PPAR modulators in seizure control and neurobehavioral parameters in status epilepticus model in rats
12. Study of cardioprotective effect of redox cycle involving selenium and riboflavin on isoproterenol-induced myocardial injury in rats.

13. Utility of electronic hand grip dynamometer for testing muscle endurance in healthy human volunteers

Collaborative projects

Ongoing

1. A cohort study for predictive modelling of remission in patients with depression using neurotrophic and kynurenine pathway biomarkers and social cognition, Department of Psychiatry under the AIIMS Interdisciplinary Collaborative Intramural Research Project (2023-2025)
2. Local application of specific Unani drug for medical management of oral submucosal fibrosis (OSF): A randomized controlled clinical trial, A cohort study for predictive modelling of remission in patients with depression using neurotrophic and kynurenine pathway biomarkers and social cognition, ENT
3. Prevention of radiotherapy-induced xerostomia by intraductal administration of N-acetyl cysteine in patients with oropharyngeal malignancies: a randomized clinical trial, ENT
4. STENOSIS: Long-term single versus dual antiplatelet therapy in patients with ischemic stroke due to intracranial atherosclerotic disease: a randomized trial, Neurology
5. To evaluate the efficacy of oral probiotics supplementation in children with autism spectrum disorders (ASDS): A randomized double blind placebo-controlled trial, Pediatrics

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	29	30	29
Total funding	**Rs 9,21,52,950**	**Rs 10,69,93,829**	**Rs 10,66,45,704**

PUBLICATIONS, 44

Journal : 28 Abstracts: 15 Chapters in Books: 1

Publications

Item	2021–2022	2022–2023	2023–2024
Total	**32**	**52**	**44**
Journal articles	24	38	28
Abstracts	6	10	15
Chapters in books	-	3	1
Books	2	1	-

PATIENT CARE

National Poison Information Centre (NPIC)

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, Department of Pharmacology (April 2023-March 2024)

	Total no of calls
Total calls received at NPIC from April 23 to March-2024	5731

Poisoning Calls	5678
Information Calls	53
Gender	
Male	3260
Female	2101
Age Groups	
>0-6 years	2625
>6-12 years	402
>12-18 years	562
>18-25 years	1332
>35-60 years	596
>60 Yrs	117
Categories (Type Of Products)	
Household Products	2415
Industrial Products	336
Agricultural Chemicals	1023
Pharmaceutical Products (Drugs Calls)	1540
Bites and Stings	111
Plants	82
Miscellaneous	142
UK	29

Item	2021–2022	2022–2023	2023–2024
OPD consultations	NA	NA	NA
Special clinic consultations	NA	NA	NA
Patients provided rehabilitation services	NA	NA	NA
Total inpatient admissions	NA	NA	NA

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor DS Arya is Chairperson: Medicines Safety Monitoring Division, Deputy Drugs Controller (India) Central Drugs Standard Control Organization, Govt. of India; Medical Member, Anti-Doping Disciplinary Panel (ADDP), National Anti-Doping Agency, Ministry of Youth Affairs & Sports, Govt. of India; Subject Expert and Member, (Cardiology; Endocrinology & Metabolisms), Directorate General of Health Services, Central Drug Standard Control Organization, Govt. of India; Member, Central Ethics Committee, Central Council of Research in Unani Medicine (CCRUM), Govt. of India; DSMB Member, for the IMR Collaborative Project "Efficacy of Ayurveda Interventions (Pushkar Guggulu and haritaki) as add-on to standard of care in Stable Coronary Artery Disease: A Double-Blind Randomized Controlled Study;

Member, Scientific Advisory Committee of the CCRUM, Govt. of India. Subject Expert, Member, Scientific Advisory Committee (SAC) of CCRUM, Ministry of AYUSH, Govt. of India.

Professor KH Reeta is Fellow, Indian Pharmacological Society (FIPS), 2023; AIIMS Excellence Research Award under the category Basic Research, awarded in 2024.

Professor Jagriti Bhatia is President-Elect of Indian Society for Atherosclerosis Research, Delhi Chapter for the term 2023 – 2024; Member National Executive Council from New Delhi of the National Association of Pharmacology and Therapeutics for the term 2023 – 2025; Member of the Institute Ethics Committee for Postgraduate Research; Member of Drug Selection Committee (TSEC) for the procurement of drugs/medicines/IV fluids for different tenders at AIIMS, New Delhi; Member of Selection Committee for recruitment of Staff Nurse/Counsellor/Dietician/Statistician/Study Coordinator/Clinical Psychologist/Physiotherapist/Pharmacist in various research projects at AIIMS, Delhi; Member of the committee for screening and evaluation of abstracts submitted for award in the 'Undergraduate (UG) category' for 3rd Research Day, AIIMS, Delhi; Chairperson and Judge in 'Conference-cum-Training Programme on Current Trends in Nitric Oxide Research: A Translational Approach' held at VPCI, University of Delhi on 5 April 2023; Chairperson in 'National Conference on Mitigation and Prevention of poisonings: Challenges and Opportunities (TOX@NPIC2023)' held at AIIMS, Delhi on 27 April 2023; Chairperson in '2nd National Conference of National Association of Pharmacology & Therapeutics' held at King George's Medical University, Lucknow, UP from 1–2 December 2023. External examiner for MBBS (AIIMS, Jammu), MD (VPCI, University of Delhi), PhD (Jamia Hamdard, Delhi).

Dr Pooja Gupta was Professor-in-Charge, Computer Facility; Member Secretary: Institute Ethics Subcommittee for monitoring of adverse events in clinical trials at AIIMS, New Delhi; Chairperson, Drugs and Therapeutics Committee, NCI Jhajjar; Member: Working Committee, Clinical Research Unit at AIIMS, New Delhi; Member, Committee for the preparation of National Drugs Database, CDSCO; Expert committee member for revision of Schedule H, CDSCO; Ethics Committee, National Institute of Malaria Research, ICMR; Pulse coordination committee and AIIMS Institute Day subcommittee for cultural programme.

Dr Sudhir Chandra Sarangi was Awarded Bursary in the 35th International Epilepsy Congress held in Dublin, Ireland, from 2-6 September 2023; Best paper award (as a co-author) for the research work "Effect of trans-4-butylcyclohexane carboxylic acid (4-BCCA) upon epileptogenesis and neurodegenerative changes following status epilepticus." in the Annual Conference of Indian Epilepsy Society held in Jaipur, Rajasthan from 21 to 23 July 2023; Member of the Board of Studies (BoS) as external subject expert in the Department of Pharmacology, HIMSR, New Delhi; Selected as an Executive committee member of the Indian Epilepsy Society; External examiner for DM Clinical Pharmacology at JIPMER, Puducherry; 2nd MBBS Professional Exam at AIIMS, Raipur, AIIMS, Kalyani; PhD thesis evaluation from AIIMS, Rishikesh.

Dr Harlokesh Narayan Yadav was Awarded, Fellowship of International Academy of Cardiovascular Science (FIACS) 2023; Member, Research Committee, CCRUM, Ministry of AYUSH, Govt. of India; Procurement Officer, Department of Pharmacology, AllMS; Main Nominee, Animal Ethics Committee, INMAS, Ministry of Defence, Govt. of India; Main Nominee, National Institute of Pathology, ICMR, New Delhi; President Society of Pharmaceutical Education & Research (SPER) Delhi Chairman, Pharmacy Federation (Scientific Wing), Uttar Pradesh; Council Member of the Academy of Cardiovascular Sciences (India).

Dr Sunder Singh Samuel moderated a session entitled 'Presentation on Poisindex Database by Micromedex' inTOX@ NPIC 2023, A National Conference on "Mitigation and Prevention of Poisonings: Challenges and Opportunities held on 27 April 2023 at AIIMS, New Delhi.

9.32 Physical Medicine and Rehabilitation

Professor and Head

Sanjay Wadhwa

Professors

SL Yadav

Gita Handa

Additional Professor

Srikumar V

Associate Professor

Asem Rangita Chanu

Assistant Professor

Arun Kumar Chaudhary (National Centre of Ageing)

HIGHLIGHTS

The Department was actively involved in various activities related to teaching, training, patient care and research in the field of Physical Medicine and Rehabilitation.

The major tasks accomplished this year include i) Contribution to the development of Recommendations for Medical Rehabilitation of Persons Injured After an Earthquake under the leadership of DGHS, Govt of India, April 2023, (Prof Sanjay Wadhwa served as the Chairperson and received Certification of Appreciation), ii) Contribution to the development of National List of Essential Assistive Products (NLEAP) under the ICMR, August 2023, iii) Contribution to the development of National level Revised Guidelines for Assessment of Persons with Locomotor Disabilities (Prof Sanjay Wadhwa, Head of Department served as the Chairperson), March 2024, iv) Significant contribution to the Reading-Learning Resources for PMR students by writing many chapters for the first IAPMR Textbook of Physical Medicine and Rehabilitation, February 2024.

Professor Sanjay Wadhwa participated as a Faculty during the 4th Annual SPINE20 Summit an important international activity under G20 Summit, held in New Delhi.

Professor Sanjay Wadhwa is contributing as a Faculty in the AIIMS Medical Humanities Initiative, AIIMS, New Delhi and actively contributed towards the success of the 3-Day Conference on Medicine and Meditation: Elevating Healthcare through Humane Values and Spirituality 23-25 August 2023.

Other important activities related to improving Assistive Technology Ecosystem in India by a few initiatives along with IIT Delhi, IIT Madras and NISH Trivandrum with funding from ICMR under the National Centre for Assistive Health Technology (NCAHT) at AIIMS. The department is also working on improving the Access to Assistive Health Technology for persons needing support and working on drafting Standards for the same along with BIS. The head of the department is the Chairman of the related Sectional Committee under BIS.

The department celebrated ‘World Spinal Cord Injury Day’ on 5 September 2023 and the ‘International Day of Persons with Disabilities’ on 3 December 2023.

The department is involved in successful implementation of online Unique Disability ID scheme of the Department of Empowerment of Persons with Disabilities (*Divyangjan*), Govt. of India.

The department received ‘Consolation Prize’ on 25 September 2023 during the 68th Foundation Day Celebrations at AIIMS. A Senior Resident in the department won the IPARM Gold Medal Award and also the Best Poster Presentation Award.

'Waiting Hall' for patients visiting PMR OPD has been built. It has been a long-standing basic need of patients. It was inaugurated by Prof M Srinivas, Director, AIIMS on 13 February 2024.

Professor S Ramji Singh, Executive Director, AIIMS Kalyani visited the department on 16 March 2024 and greatly appreciated it.

Further, there are various activities for sensitisation and support of persons with disability conducted from time to time including community outreach, telerehabilitation, public education lectures, and Total Health Programme on DD News Channel etc.

The Prosthetic and Orthotic Workshop in the department provides services to persons with physical impairments and disabilities (*Divyangjan*) by providing them with custom-made orthotics, prosthetics and assistive devices. The rehabilitation services consisting of medical, interventional surgical and postsurgical consultation, therapy services, nursing and medico-social support services are also provided as part of comprehensive rehabilitation.

EDUCATION

Training Programmes:

Undergraduate teaching classes for the IV Semester, VI Semester and VIII Semester were taken by the department. Fourteen post-graduate students are currently enrolled for MD (PMR). There is also one long-term trainee from the Army for two years training in the PMR.

Short duration Orientation Training of Fellows pursuing Palliative Care and Onco-Anesthesiology, and Pediatric Neurology courses at AIIMS was conducted in the department.

Department was also involved in conducting training programs for i) Continuing Rehabilitation Education (CRE) on Assistive Technology Emphasizing Abilities, ii) Workshop (jointly with College of Nursing) on World Disability Day, iii) Orientation Training Workshop for Nursing Officers at AIIMS at Surgery Block, AIIMS etc.

CMEs/Workshops/Symposia/National and International Conferences:

Conducted IPARM Clinical Meet on the theme 'Neurogenic Bowel Dysfunction' on 24 February 2024 at AIIMS, New Delhi.

Prof Sanjay Wadhwa conducted the first PMR department CGR on 'Disability Rehabilitation Related Legislations and Their Relationship with AIIMS' on 7 November 2023.

Lectures delivered: 20

Sanjay Wadhwa: 6 **Gita Handa Thukral: 7** **Srikumar Venkataraman: 7**

2021–2022	2022–2023	2023–2024
16	13	24

Oral papers/posters presented: 8

2021–2022	2022–2023	2023–2024
10	10	7

RESEARCH

Funded projects

Ongoing

1. A cross-sectional study to assess the whole gut transit with a solid meal, the severity of neurogenic bowel dysfunction, function, quality of life and activity and participation in spinal cord injury patients, Asem Rangita Chanu, Non-funded, Till sample size is met, Started on Feb 2024,

2. Comparison of Suprascapular Nerve Block and Capsular Hydrodilatation in Adhesive Capsulitis of Shoulder: A Randomized Controlled Trial, Asem Rangita Chanu, Intramural Project, AIIMS, New Delhi, 1 year (2 years if grant is extended for 2nd year)
3. INSPIRE Faculty Fellow Project on "Real Time Implementation of Force Myography: Development of Intelligent Prosthetic Leg", Dr Gita Handa Thukral, DST, 5 years, 2020-25, Rs.1,10,00,000
4. Integrated sonomyography and soft haptics based intuitive control of upper extremity prosthetic devices, Dr Srikumar V (Co-PI), DBT, GoI, Three years, 2023-26, Rs. 89,60,784
5. Randomised controlled trial on comparison of conservative treatment and Genicular artery embolization in patients of osteoarthritis of knee, Chandan J Das, Non-funded, Till sample size is met, Started in mid of 2023,
6. SonoNeuro: A multimodalsonomyography-electromyography based system for biomechatronic control, Dr Srikumar V (Co-PI), SERB, DST, GoI*, Three years, 2022-25, Rs. 23,00,000
7. The Role of a Structured Home-Based Exercise Program on the Pain and Ultrasonographic Skeletal Muscle Parameters in Patients with Knee Osteoarthritis, Krishna B, Non-funded, 1 year, 1 year,

*(The other Co-PI is from Dept of Electrical Engineering, IIT Delhi and this entry may be considered under AIIMS)

Departmental projects

Ongoing

1. The effect of a structured home-based exercise program on the functional outcome in patients with knee osteoarthritis and its predictors for successful outcome
2. Comparison between intraarticular platelet rich plasma and adalimumab in improvement of pain, quality of life and activities of daily living in patients with primary osteoarthritis knee: A randomized controlled trial
3. Efficacy of platelet-rich plasma and platelet-rich fibrin in diabetic foot ulcer – a randomized, parallel group active comparator trial
4. A cross-sectional study to assess the severity of neurogenic bowel dysfunction, quality of life, functional status, and whole bowel transit in spinal cord injury
5. A cross-sectional study to assess sexual dysfunction and quality of life in males with traumatic spinal cord injury
6. Comparative effectiveness of acceptance and commitment therapy with exercise therapy versus only exercise therapy in chronic low back pain patients with central sensitization: a randomized control trial
7. Clini co-radiological features and disability in Hirayama disease – an observational study
8. PROLIFerATE Trial: a pilot, double-blind, prospective, randomized,controlled trial to study the efficacy of autologous platelet-rich fibrin forpressure injury healing in persons with spinal cord injury
9. Effectiveness of structured rehabilitation program in early OA knee: A Randomised Controlled Trial.
10. To compare the effects of high frequency rTMS and iTBS in treatment of fatigue in post-polio syndrome based on a randomised controlled trial using Bereitschafts potential
11. Effect of duloxetine in pain and improvement of function in primary adhesive capsulitis, double blinded rct
12. Association of Environmental factors, socio-demographic factors and injury characteristics on participation performance of spinal cord injury patients in the community: A cross sectional study
13. To find the occurrence of Telangiectasia around the knee in individuals with Osteoarthritis knee an observational cross-sectional study
14, Prediction of high-volume disease in treatment-naive prostate cancer patients undergoing PSMA PET/CT: a machine learning approach

Completed

1. Effect of exercise on the functional status and mental well-being in patients with chronic low back pain – a pre-post interventional study
2. To evaluate and associate the content of brief ICF core sets for low back pain with WHODAS 2.0 and ODI and to identify retention of patients' perspective in brief ICF core sets in chronic low back pain

Collaborative projects

Ongoing

1. Effect of yogic intervention on pain status and cortical excitability in fibromyalgia patients, Department of Physiology, AIIMS, New Delhi
2. Effect of yogic intervention on pain and autonomic profile in fibromyalgia patients, Department of Physiology, AIIMS, New Delhi
3. Randomized controlled trial to study the impact of weight bearing and resistance exercise with nutritional interventions on bone and muscle health in obese patients with osteosarcopaenia, Department of Medicine, AIIMS, New Delhi
4. The effect of a structured home-based exercise program on the pain and ultrasonographic skeletal muscle parameters in patients with knee osteoarthritis, Department of Radiodiagnosis and Interventional Radiology and Department of Nuclear Medicine, AIIMS, New Delhi
5. A randomized placebo-controlled trial to assess efficacy of Vitamin-D supplementation in non-cystic fibrosis bronchiectasis patients , Department of Medicine, AIIMS, New Delhi
6. SonoNeuro: A multimodal sonomyography-electromyography based system for biomechatronic control, Department of Electrical Engineering, IIT Delhi
7. Vision based motion intent detection for bionic control, Department of Electrical Engineering, IIT Delhi
8. A cross-sectional study to assess the whole gut transit with a solid meal, the severity of neurogenic bowel dysfunction, function, quality of life and activity and participation in spinal cord injury patients, Department of Nuclear Medicine, AIIMS, New Delhi
9. ReCOVer study: A cross-sectional observational study to identify rehabilitation need in post-discharge CoViD-19 survivors, Department of Critical and Intensive Care and Department of Anaesthesiology, AIIMS, New Delhi
10. National Center for Assistive Health Technology, IITD, IITM, NISH and Various Departments at AIIMS
11. rTMS and Spinal Cord Injury , Department of Physiology

Completed

1. Effect of fMRI-based neurofeedback guided motor imagery training on cortical excitability and pain status in rheumatoid arthritis, Department of Physiology, AIIMS, New Delhi
2. Impact of intraoperative microbreaks on musculoskeletal symptoms and performance of surgical residents during minimal access surgical tasks in a simulated setting, Department of Surgical Disciplines, AIIMS, New Delhi

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total fundedprojects	3	3	5
Total funding	23,00,000	23,00,000	22,26,0784

PUBLICATIONS: 18

Journal articles: 11 **Chapters in books: 7**

Publications

Item	2021–2022	2022–2023	2023–2024
Total	**6**	**5**	**18**
Journal articles	6	5	11
Abstracts	0	0	0
Chapters in books	0	0	7
Books	0	0	0

PATIENT CARE

(a) facilities available in the department (including special clinics and/or special laboratory facilities) – OPD services daily in the morning on 6 days in a week; In-patient services in the Ward as well as consultations to patients admitted under other departments; Outreach services, every Thursday, at CRHSP Ballabgarh

(b) community services/camps, etc. Sanjay Wadhwa participated in Total Health Programme on DD News; he also delivered a Public Lecture on 21 December 2023 on Services for Persons with Disabilities .

Patient care

Prosthetics and Orthotics Clinic

Patients provided rehabilitation services	2021 -2022	2022-2023	2023-2024
Prosthetic & Orthotic Total Delivered Jobs	3631	6540	7536
Prosthetic & Orthotic New Cases	2080	3859	4495
Old cases/ No. of Visits	5241	9168	10772

Item	**2021–2022**	**2022–2023**	**2023–2024**
OPD consultations (New Patients)	6,319	21,056	15,043
OPD consultations (Old Patients)	10,935	12,374	26,929
Special clinic consultations (Prosthetics and Orthotics)	2,080	3,859	4,495
Special clinic consultations (Disability Certification)	3	15	291
Minor OT Procedures	1123	2368	2681
			PRP - 203
			Intraarticular Injections - 483
			Others - 2040
Dressings		671	886
Catheterizations and CIC demo/Bladder training		741	902
Plaster Applications		168	192
Electrotherapy			5,401
Physiotherapy			13,253
Occupational therapy			7,752
Railway Concession Certificates			98
Total inpatient admissions			22

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Sanjay Wadhwa

Received '**Consolation Prize**' on 25 September 2023 during the 68th Foundation Day Celebrations at AIIMS.

Contributed as Chairperson for Disability Board at Department of PMR, AIIMS; Expert Member at National list of Essential Assistive Products (NLEAP), ICMR; Chairperson of Sectional Committee MHD-09 under Bureau of Indian Standards; an Expert Member in Neurosurgery Disability Board, Expert Member for DoPT Medical Boards for Civil Services Candidates, AIIMS recruitment, and appellate Boards for disability certification, Examiner for Final MD PMR Examinations, External Expert for Selection of Faculty Members, etc.

S L Yadav

1. President, Academy of Pain Physiatrists
2. Chairman of various medical boards directed under Hon'ble High Court
3. Appointed as an expert to evaluate BIRAC funded project
4. Orthotic (pressure sensing insole) using FSR sensor for people suffering from foot pronation disorders at 19th World Congress of the International Society for Prosthetics and Orthotics from 24-27 April, 2023 at Guadalajara, Mexico.
5. Covid-19 Effect On Rehabilitation Health Care Services In India: Breaking Barriers at the 17th World Congress of ISPRM 2023, 31stColombian ACMFyR Congress and 3rd Iberoamerican Congress from 4-8 June 2023 in the city of Cartagena, Colombia.
6. A Randomized Controlled Trial to Compare the Efficacy of Intra-articular Adalimumab versus Intra-articular Hyaluronic Acid in Primary Osteoarthritis of Knee at The 42nd Annual Conference of the West Bengal Orthopaedic Association (*WBOACON*) from 15-17 March 2024 at Darjeeling, West Bengal.
7. National Medical Commission (NMC) member to assist the Medical Assessment and Rating Board inspection.
8. Member of board for medical examination of the Civil Services candidates with disability.
9. Examiner for MD Examination at various AIIMS like institutions.
10. Expert at National list of Essential Assistive Products (NLEAP), ICMR.
11. Moderator at the Panel discussion at Indian National Stroke Conference 2024 on "Post stroke spasticity and its management" at INSC 2024, Kolkata from 28-31 March, 2024.
12. Expert panel member on "Current update in low back pain management" at the International Conference on Recent Advances in Pain (ICRAPAIN 2024) from 8-9 March, 2024. At AIIMS, New Delhi.
13. Sample Evaluation Committee member to evaluate Objectivity, neutrality, Transparency, Inclusivity and Prudency related to procurement at AIIMS, New Delhi.
14. Subject expert for selection of faculties in the Department of Physical Medicine & Rehabilitation at various AIIMS like institutions.
15. Chairperson for MD (PMR) Final Exam., AIIMS, New Delhi.
16. PGT Award session Chairperson at the 25th Annual State Conference of IAPMR (West Bengal Chapter) on 8, April, 2023 at Sonar Bangla, Kolaghat, Kolkata, West Bengal.
17. Chief Guest at the inauguration of 25th and 26th Annual State Conference of IAPMR (West Bengal Chapter).
18. Chairperson at the IPARM Clinical Meet (Neurogenic Bowel Dysfunction)at AIIMS, New Delhi on 24 February, 2024.
19. 'Management of Hemiplegic Shoulder' at the 12th Annual Conference of Indian Federation of Neurorehabilitation (IFNRCON 2024) from 12-14 April, 2024 at Puducherry.
20. External Examiner for DM Pain Medicine (PMR) on December 4, 2023 at AIIMS, Rishikesh.
21. AIIMS, New Delhi, Disability Board Member as directed by MoHFW.
22. 'Need of physical medicine and rehabilitation as an integral component in the medical education curriculum in India' at BAPMRCON 2023, AIIMS Patna from 22-23 July, 2023.
23. 'Neurogenic bladder and sexuality' at PM&R Refresher" course at Jaipur from 21-23 September, 2023.

24. Master Class on "Spinal Cord Injury Rehabilitation" at AIIMS Patna from 15 -16 December, 2023.
25. Chapters in IAPMR Text Book of Physical Medicine & Rehabilitation:
    (i) Stroke Rehabilitation; Pg 480-496.
    (ii) Rehabilitation following COVID-19 infection; Pg 800-811.
26. Chapter in IFNR Text Book "Multidisciplinary Team Members and Types of Rehabilitation Models". Transcutaneous Electrical Nerve Stimulation (TENS) for ASSI eleanspine.org sub-module of "Non-surgical treatments" of "Consumer a Module''.

Gita Handa Thukral

1. Member of Expert Committee on ICMR activities related to Assistive technology and setting up National Center for Assistive Health Technologies and other assistive technology related programswith Ministry of Health and FW and Min of S
2. Member of Examination and Interview Board in various Institutes such as KGMU, NBE, AIIMS Patna, JIPMER etc.
3. Member of Medical Board for Civil Services, AIIMS recruitment and appellate Boards for disability certification
4. Vice President of Indraprastha Association of Rehabilitation Medicine
5. CPIO for Department of PMR at AIIMS for RTI
6. Chairperson for Disability Board at Department of PMR, AIIMS
7. Resource Person for Faculty Development Program for IAPMR
8. Judge for Assessment of Award Papers during IAPMRCON 2024 at Coimbatore
9. Chairperson for Scientific Sessions during IAPMRCON and IPARM Delhi Chapter Conference

Srikumar Venkataraman

1. Section editor, Indian Journal of Physical Medicine and Rehabilitation
2. Associate Editor, IAPMR Textbook pf Physical Medicine and Rehabilitation, First Edition. New Delhi: Salubris Medical Publishers; 2024
3. Reviewer, SN Comprehensive Clinical Medicine
4. Member, Development group – Traumatic Brain Injury, Package of interventions for rehabilitation. Module 3. Neurological conditions. Geneva: World Health Organization; 2023 (Package of interventions for rehabilitation). Licence: CC BY-NC-SA 3.0 IGO.
5. Member, Technical Committee, Wearable Electronic Devices and Technologies (LTD-33), Bureau of Indian Standards, Ministry of Consumer Affairs, GOI
6. Rehabilitation Research Award 2023 for the best published paper in a peer reviewed journal by Indraprastha Association of Rehabilitation Medicine (Co-author)
7. IPARM Gold medal Award for the best oral paper presentation,18thAnnual Conference of Indraprastha Association of Rehabilitation Medicine, 9-10 December 2023, Gurugram, India (Co-author)
8. Sudhir Kumar Banerjee Memorial Award for the best poster presentation, 52ndAnnual National Conference of Indian Association of Physical Medicine and Rehabilitation, 1-4 February 2024, Coimbatore, Tamil Nadu (Co-author)
9. External examiner, MD Physical Medicine and Rehabilitation, Rajasthan University of Health Sciences, SMS Medical College, Jaipur
10. Member, Scientific Committee, IAPMR National Mid-term Continuing Medical Education, 14-17 September 2023, Jodhpur, Rajasthan
11. Resource faculty, Workshop on Writing a research paper for publication, 52ndAnnual National Conference of Indian Association of Physical Medicine and Rehabilitation, 1-4 February 2024, Coimbatore, Tamil Nadu
12. Chairperson, Scientific Session 1, 52ndAnnual National Conference of Indian Association of Physical Medicine and Rehabilitation, 1-4 February 2024, Coimbatore, Tamil Nadu

13. Judge, Best poster presentation by residents, 18th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 9-10 December 2023, Gurugram, India
14. Jury Member, IPARM Quiz for residents, 18th Annual Conference of Indraprastha Association of Rehabilitation Medicine, 9-10 December 2023, Gurugram, India
15. Member, Executive Committee 2023-25, Indraprastha Association of Rehabilitation Medicine (Past Secretary)

Asem Rangita Chanu

1. Reviewer, Journal of Medical Society
2. Reviewer, Journal of Clinical and Diagnostic Research
3. Chief Guide in 3 MD theses
4. Co-author of 3 chapters (Regenerative Procedures in PMR Practice, Architectural Barrier Reduction, and Sexual Dysfunction) in the IAPMR Textbook of Physical Medicine & Rehabilitation
5. Chairperson, Civil Services Examination – 2022 Appellate Medical Board for Person's with Benchmark Disabilities (Locomotor Disability), Department of Personnel & Training, Ministry of Personnel, Public Grievances and Pensions, GOI
6. Chairperson, Civil Services Examination – 2023 Medical Board for Person's with Benchmark Disabilities (Locomotor Disability), Department of Personnel & Training, Ministry of Personnel, Public Grievances and Pensions, GOI
7. Co-ordinator in Equal Opportunity Cell for implementation of Schemes passed in the WP (C) No. 292/06 titled "Disabled Rights Group and ANr. Vs. UOI &Ors, AIIMS, New Delhi
8. Central Assistant Public Information Officer for PMR under the Right to Information Act at AIIMS, New Delhi
9. Faculty designated for supervision of PMR Indoor Services Area (Ward) of our department
10. Conducted IPARM Clinical Meet on 'Neurogenic Bowel Dysfunction' in Feb 2024 at AIIMS, New Delhi

Raktim Swarnakar, a Senior Resident in the department won the IPARM Gold Medal Award and also the Best Poster Presentation Award.

9.33. Physiology

Professor and HOD

Kanwal Preet Kochhar,

Professors

Ratna Sharma, Nalin Mehta, Suman Jain,
Ashok Kumar Jaryal, Raj Kumar Yadav, Anjana Talwar,
Asmita Patil, Renu Bhatia

Additional Professors

Simran Kaur, Dinu Santha Chandran, Nasreen Akhtar
Prashant Tulshidas Tayade, Akanksha Singh

Associate Professors

Ritesh Kumar Netam, Geetanjali Gokarn Bade, Suriya Prakash Muthukrishnan,

Assistant Professor

Suman Das

HIGHLIGHTS

The Departmentof Physiology has been highly active in research and academics. Fifteen specialized symposia/workshops were organized by faculty at various institutes of India and within AIIMS. Annual Conference of The Neuromodulation Society and the 2ndIntegrated Health & Wellness Conference on "Medicine and Meditation" was successfully organized. During these meetings, our faculty and postgraduatesshared their expertise and demonstrated advanced techniques with the Physiologists and other scientists from India and abroad.The department also regularly organizing monthly spirituality and health care lecture series.A specialpresentation was made by our department on Quantitative EEG as a state and trait marker in ADHD during the Clinical Grand Round organizedbythe Departmentof Psychiatry. Short-term training was provided to 14 students/ faculty members from other AIIMS and universities. Faculty members, doctoral and postdoctoral students received extramural research projects related to specialized areas of Physiology or multidisciplinary projects in collaboration with other institutes nationally/ internationally or departments within AIIMS. Several awards and honourshave been received by faculty members and the postgraduate students of the department in appreciation of their innovative contributions toresearch and medical education.

In addition, the Departmentof Physiology continued to be actively involved in undergraduate, postgraduate teaching and doctoral research programs. Encouraged by research projects of the department several first-year MBBS students applied for ICMT STS program. The departmentalso offered summer training to first-year MBBS students.During the National Medical Laboratory Professional Week, on inJuly 23, special sessions on Niti Yog Kriya and Stress management were organized by the department for 70 AIIMS laboratory staff.

EDUCATION

1. **Undergraduate teaching:** Lecture 200 hours &practical 240 hours, total number of UG students: 132
2. **Postgraduate teaching:** Total Number of PG students:66
    a. MSc students: 12
    b. M.D. students: 27
    c. Ph.D. scholars: 27

3. **Nursing and allied courses:**

    a. B Sc (H) Nursing: 99

    b. BSc MTR (radiology): 11

    c. BSc OPH (optometry): 22

    d. BSc Operation Theater technician course: 20

    e. MSc Nursing Cardiology 2nd year: 5

    f. M Sc Nursing Neuro Physiology 2nd year students: 3

    g. MSc Nursing Nephrology:4

4. **Academic/Research training**

    a. Senior residents: 10

    b. Young scientists: 2

    c. Research associates: 3

    d. Senior and Junior Research Fellows: 7

    e. Short-term training: 14

5. **Please mention any changes in the teaching programs during the year and innovative educational activities**

    a. To accommodate 2 batches of MBBS students simultaneously, temporary alterations were made in the teaching schedule.

    b. IT-enabled Training for generating skilled HCWs in general pandemic management and COVID-19 Managementwas facilitated under PRAKASHMAY project in collaboration with MEITY.

CMEs/Workshops/Symposia/National and International Conferences

1. "SPARC", for faculty and all students of AIIMS Delhi under theStudent Wellness Club on 9 March 2024.
2. Symposium cum Workshop on"CHARDHAM (Confluence of Holistic Aspects of Research and Development in High Altitude Medicine)" 19 April 2023, AIIMS Delhi.
3. 2nd Integrated Health & Wellness Conference on "Medicine and Meditation: Elevating Healthcare through HumanValues and Spirituality" organized jointly by AIIMS Delhi and Heartfulness Institute, from 23-25 August 2023.
4. Workshop: Cognitive Function Assessment, XLI Annual Conference of Indian Academy of Neurosciences and International Conference on "Brain: Chemistry to Cognition", 4-6 October 2023, Gwalior.
5. Symposium: Neurocognitive mechanisms underlying working memory, XLI Annual Conference of Indian Academy of Neurosciences and International Conference on "Brain: Chemistry to Cognition", 4-6 October 2023, Gwalior.
6. Symposium: Neuromodulation Strategies in health and disease, XLI Annual Conference of Indian Academy of Neurosciences and International Conference on "Brain: Chemistry to Cognition", 4-6 October 2023, Gwalior.
7. 3rd Annual Congress of The Neuromodulation Society-TNS Congress 2023, 14 and 15 October 2023, AIIMS, New Delhi.
8. Symposium: Non-invasive neuromodulation for chronic pain disorders, 3rdAnnual Congress of the neuromodulation society: Indian Chapter of International neuromodulation society, 2023, 14 October 2023, AIIMS, New Delhi
9. Symposium: Neuromodulation and Yoga, 3rd annual congress of the neuromodulation society: Indian Chapter of International Neuromodulation Society, 2023, 15 October 2023, AIIMS, New Delhi
10. Symposium: Biofeedback and yoga, 9th Annual Conference of Association of Physiologists of India (Physiology 2023), 28 October 2023, KGMC, Lucknow
11. Symposium: Neuromodulation: Yoga and biofeedback, 69th Annual Conferenceof Physiologists and Pharmacologists of India - APPICON 2023, 30 November 2023, AIIMS, Kalyani.
12. Symposium: Space Physiology: Microgravity research models on earth, 69th Annual Conferenceof Physiologists and Pharmacologists of India - APPICON 2023, 1 December 2023, AIIMS, Kalyani.
13. Workshop: Transcranial magnetic stimulation as a Neuromodulatory technique for pain and disability, 69th Annual Conferenceof Physiologists and Pharmacologists of India - APPICON 2023, 28 November 2023, AIIMS, Kalyani.

14. Workshop: Mind and heart wellness workshop, 69th Annual Conferenceof Physiologists and Pharmacologists of India - APPICON 2023, 28 November 2023, AIIMS, Kalyani.
15. Workshop: Paired pulse paradigms of TMS, 7th National CME on Neuromodulation and 4th Hand on Workshop, on 16 December 2023, AIIMSDelhi.
16. Symposium: Cognitive Neurophysiology assessments & advanced computing to inform practice of CBT, 1st Asian Trauma Conclave and 8th Asian CBT Congress, 28 February- 2 March 2024, AIIMS, New Delhi.

Lectures Delivered: 74

Kanwal Preet Kochhar: 15
Ashok Kumar Jaryal: 5
Asmita Patil: 1
Dinu Santha Chandran: 2
Akanksha Singh: 5
Suriya Prakash Muthukrishnan: 1
Ratna Sharma: 2
Rajkumar Yadav: 12
Renu Bhatia: 6
Nasreen Akhtar: 3
Ritesh Kumar Netam: 2
Suman Das: 4
Suman Jain: 9
Anjana Talwar: 1
Simran Kaur: 2
Prashant Tulshidas Tayade: 3
Geetanjali Gokarn Bade: 1

Lectures delivered over past 3 Years

2021–2022	2022–2023	2023–2024
93	121	74

Oral papers/posters presented: 57

Oral/poster presentations over past 3 Years

2021–2022	2022–2023	2023–2024
24	88	57

RESEARCH

Ongoing

1. "Effect of graded chronic exercise on synaptic dysfunction and amyloid precursor protein processing in sleep-deprived Alzheimer's disease rat model"., Dr Ritesh Kumar Netam, ICMR-DHR, 3 Years, 2023-26, Rs 50,25,838/-
2. "Effect of long-term exercise on synaptic abnormalities in sleep-deprived Alzheimer's disease rat model", Dr Ritesh Kumar Netam, CRG- SERB (DST), 3 Years, 2023-26, Rs 27,26,520/-
3. "Effect of regular exercise on cognitive and neurochemical disruptions in REM sleep deprived Alzheimer's disease rat model", Dr Ritesh Kumar Netam, ICMR (SRF project), 3 Years, 2023-26, Rs 15,90,000/-
4. A Multidisciplinary Approach to Understanding the Interrelationships Between Sleep Quality, Brain Morphometry and Cognition (a SOLACE study): Comparison Between Indian Individuals Residing in the UK vs India., Dr Nasreen Akhtar, AIIMS-UCL, 2 year, 2022-24, Rs 9,90,780/-
5. A study of differential protein expression in injured spinal cord tissue of rats to predict biomarkers of recovery following Intermittent Theta-Burst stimulation and iron oxide nanoparticles implantation, Dr Suman Jain, DST-SERB POWER Grant, 3 Years, 2022-25, Rs 44,24,640/-
6. ARTSENS® Age: A multimodal method & system for reliable assessment of vascular ageing associated early health markers in routine clinical practice for early screening & timely intervention, Dr Dinu S Chandran, DST SERB, 3 Years, 2022-25, Rs 10,63,612/-
7. Clinical research to assess the efficacy of repetitive transcranial magnetic stimulation along with implantation of neurotrophic coated nanoparticles in complete spinal cord injury patients., Dr Suman Jain, DBT, 4 Years, 2020-24, Rs 88,35,200/-
8. Correlation between Karolinska Sleepiness Scale, day-time EEG and Psychomotor vigilance task, Dr Nasreen Akhtar, Intramural grant AIIMS, New Delhi, 1 year, 2023-24, Rs 1,99,900/-

9. Correlation of neurocognitive and motor function deficit severity with gut physiology in Cerebral palsy children, Dr Suman Jain, ICMR (SRF project), 2 Years, 2022-24, Rs 13,20,000/-
10. Developing a combinatorial bio-marker based on encephalic and metabolome profiles to differentiate functional dissociative seizures from epilepsy, Dr Suman Das, ICMR, 3 Years, 2024-27, Rs 1,51,72,279/-
11. Development of complex biomimetic artificial nerve-graft for repairing spinal cord injury, Dr Suman Jain, ICMR, 3 Years, 2022-25, Rs 20,65,660/-
12. EEG microstates as a biomarker in addictive disorders, Dr Simran Kaur, Intramural Grant, AIIMS New Delhi, 2 Years, 2019-23, Rs 8,05,500/-
13. Effect of acute changes in ambient air pollutants on pulmonary variables, systemic and airway inflammatory markers in healthy subjects, asthmatics and COPD patients, Dr Anjana Talwar, ICMR, 3 Years, 2024-27, Rs 78,18,095.2/-
14. Effect of Functional Magnetic Resonance Imaging Neurofeedback-guided Motor Imagery Training on corticomotor excitability and pain status in Rheumatoid Arthritis, Dr Renu Bhatia, ICMR, 3.5 Years, 2019-23, Rs 26,00,000/-
15. Effect of nostril breathing patterns in the patients of Major Depressive Disorder, Dr Prashant T Tayade, ICMR, 1 year, 2024-25, Rs 32,42,565/-
16. Effect of repetitive transcranial magnetic stimulation (rTMS) of dorsolateral prefrontal cortex (DLPFC) in patients with phantom limb pain, Dr Akanksha Singh, Institute Research Grant, AIIMS, Delhi, 3.3 Years, 2021-24, Rs 6,75,000/-
17. Effect of sleep deprivation on glucose-sensitive neurons in arcuate nucleus in rats, Dr Ritesh Kumar Netam, IntramuralGrant, AIIMS, New Delhi, 2 Years, 2021-23, Rs 8,78,000/-
18. Effect of yogic intervention on pain status in fibromyalgia patients, Dr Renu Bhatia, DST, 3.5 Years, 2020-23, Rs 59,00,000/-
19. Efficacy of a yoga-meditation-based lifestyle intervention in patients with obesity and major depressive disorder: A randomized controlled trial, Dr Raj Kumar Yadav, DST, 3 Years, 2022-25, Rs 80,00,000/-
20. Efficacy of 'Common yoga protocol' by AYUSH for chronic insomnia: An open-label, two-arm, parallel randomized control trial, Dr Nasreen Akhtar, DST SATYAM, 3 Years, 2022-25, Rs 31,97,502/-
21. Evaluation of therapeutic efficacy and mechanism of repetitive transcranial magnetic stimulation on the cognitive enhancement in hypobaric hypoxic environment, Dr Suman Jain, LSRB, DRDO, 3 Years, 2023-26, Rs 77,87,010/-
22. Facilitated recruitment of anterior cingulate cortex as a compensatory circuitry of contextual fear memory in the absence of hippocampus., Dr Suman Jain, CSRI, DST (NPDF project), 2 Years, 2022-24, Rs 21,99,744/-
23. Facilitating of IT enabled training for generating skilled HCW's in General Pandemic Management &COVID-19 Management-PRAKASHMAY (Pandemic Related Awareness Knowledge and Sensitization to Healthcare Management Amongst Youth) (MeiTY), Dr K P Kochhar, Ministry of Electronics and Information Technology, 1.5 Years, 2022-23, Rs 1,99,97,933/-
24. Functional and biochemical assessment of cardiovascular sequelae in COVID-19 survivors and its association with imbalance in Renin Angiotensin Aldosterone pathway: an observational study., Dr Dinu S Chandran, ICMR, 3 Years, 2022-25, Rs 48,92,370/-
25. Gene expression profiling by RNA Seq and metabolomic signatures in Post-COVID Pulmonary Fibrosis, Dr Geetanjali Gokarn Bade, ICMR, 3 Years, 2022-25, Rs 63,99,035.2/-
26. Identifying early signs of attention-deficit/hyperactivity disorder (ADHD) in children by decoding their acoustic vocal profile, Dr Suman Das, DST SERB, 2 Years, 2024-26, Rs 15,71,850/-
27. Immune signatures and role of neutrophils in pathophysiology of post tuberculosis pulmonary sequelae, Dr Geetanjali Gokarn Bade, ICMR, 3 Years, 2024-27, Rs 92,24,778.4/-
28. Impact of facemask on emotion recognition and re-identification in controls and patients of major depressive disorder: A QEEG study, Dr Simran Kaur, ICMR (SRF project), 3 Years, 2022-25, Rs 16,22,400/-
29. Mapping the effective human brain connectome of visual object recognition, Dr Suriya Prakash M, Intramural Grant, AIIMS New Delhi, 4 Years, 2020-25, Rs 10,31.000/-
30. Microstate signatures and resting EEG sources of meditation and stress, Dr Ratna Sharma, DST, SATYAM, 3 Years, 2020-24, Rs 52,86,000/-

31. Modulation of cortical brain maps by external magnetic field in spinal cord injured rats, Dr Suman Jain, ICMR (RA project), 2 Years, 2022-24, Rs 14,72,560/-
32. Neural correlates of chemotherapy-induced cognitive deficits in non-metastatic osteosarcoma, Dr Simran Kaur, Indian Association of Supportive Care in Cancer, 2 Years, 2021-23, Rs 3,00,000/-
33. Neural mechanism of sleep deprivation-induced metabolic changes in rats, Dr Ritesh Kumar Netam, ICMR, 3 Years, 2023-26, Rs 37,63,208/-
34. Nuclear factor kappa B activation, Hypoxia-inducible Factor-1 and inducible Nitric Oxide Synthase expression in human vascular endothelial cells by serum of adults with Obstructive Sleep Apnea, Dr Nasreen Akhtar, ICMR, 3 Years, 2023-26, Rs 29,82,714/-
35. Objective assessment of cognitive function in patients with desmoid tumor on Sorafenib, Dr Simran Kaur, AIIMS UG mentorship, 2 Years, 2022-24, Rs 2,00,000/-
36. Structural and functional correlates of visuospatial complexity in language processing in children with developmental dyslexia, Dr Simran Kaur, ICMR (SRF project), 3 Years, 2022-25, Rs 16,22,400/-
37. Theranostics exosomes for imaging-directed treatment of brain metastases., Dr Suman Jain, ICMR, 3 Years, 2021-24, Rs 61,26,734/-
38. Therapeutic Efficacy of Multimodal Imaging Guided Brain Network Modulation through Personalized, Multisession, High-density Transcranial Direct Current Stimulation in Drug-Resistant Focal Epilepsy: A Double-Blind Sham-Controlled Study, Dr Suriya Prakash M, ICMR, 3 Years, 2024-27, Rs 78.79, 000/-
39. To investigate the combined neuromodulatory effects of intermittent theta burst stimulation (iTBS) and probiotics on the gut-brain axis in Parkinson's disease - a randomized controlled trial., Dr Suman Jain, ICMR (RA project), 3 Years, 2022-25, Rs 23,00,280
40. To study the efficacy of Irisin and leptin supplementation in treatment of sleep deprivation-induced Alzheimer's disease rat model, Dr Ritesh Kumar Netam, ICMR, 3 Years, 2023-2026, 2026, Rs 88, 44,408/-
41. To Study the protective effect of antioxidants C and E on diesel exhaust microenvironment induced testicular injury in laboratory rat., Dr Asmita Patil, ICMR, 3 Years, 2024-27, Rs 92,01,252/-
42. Transcriptomic profiling of circulating monocytes in post tuberculosis pulmonary sequelae, Dr Geetanjali Gokarn Bade, Intramural Grant, AIIMS, New Delhi, 2 Years, 2024-26, Rs 10,00,000/-
43. Transgenerational impact of diesel exhaust exposure on the male reproduction in the rat, Dr Asmita Patil, ICMR, 3 Years, 2021-24, Rs 29,90,490/-
44. Wearable soft robotics for Upper Limb Muscle Power Augmentation with BMI interface, Dr Suriya Prakash M, DRDO-IITD 'JATC', 4 Years, 2021-25, Rs 56,34,000/-

Completed

1. Neuromodulation of cortical excitability and plasticity by low frequency repetitive transcranial magnetic stimulation in infantile hemiplegic cerebral palsy patients., Dr Suman Jain, ICMR, 4 Years, 2019-23, Rs 51,34,802/-

Departmental projects

Ongoing

1. A longitudinal study to assess cortico-spinal excitability and plasticity in amyotrophic lateral sclerosis using transcranial magnetic stimulation metrics
2. A randomized controlled trial to evaluate the effect of intermittent theta burst stimulation on gait pathomechanics and urinary test dysfunction in incomplete spinal cord injury patients.
3. A randomized controlled trial to evaluate the efficacy of yoga in modifying gene expression of stress, inflammation and ageing in Indian obese subjects
4. A Study of Blood Pressure Variability and Sleep Fragmentation in Obstructive Sleep Apnea
5. A study of differential proteome expression following intermittent Theta-Burst stimulation and nanoparticles implantation in Spinal Cord Injured rats

6. A study of intermittent Theta Burst Stimulation of dorsolateral Prefrontal Cortex on Post-Polio syndrome
7. A study of sleep architecture, brain morphometry and cognition in older adults
8. A study on cellular physiology of endometriosis-associated estrogenic action in endometrial stromal cells
9. A study on vascular functions and their associated molecular markers in women with ovarian endometriosis
10. A study to investigate the neuromodulatory role of intermittent Theta-Burst stimulation in complete spinal cord injured patients implanted with iron oxide nanoparticles.
11. Cerebellar reorganization in complete spinal cord transection rat model: effect of intermittent theta burst stimulation
12. Diurnal variation of neurophysiological hyperarousal, sleep reactivity, stress levels and somatosensory information processing in chronic insomnia
13. EEG cortical sources and connectivity of working memory and language processing in attention deficit hyperactivity disorder
14. EEG Microstates and it's cortical sources during single nostril breathing.
15. Effect of chemotherapy on cognitive function in patients with breast cancer
16. Effect of Functional Magnetic Resonance Imaging Neurofeedback-guided Motor Imagery Training on corticomotor excitability and pain status in Rheumatoid Arthritis patients
17. Effect of Heart Rate Variability Biofeedback on Somatic Symptom Disorder
18. Effect of heart rate variability biofeedback training on peripheral sensory status and cardiac autonomic status in type 2 diabetes mellitus
19. Effect of low frequency repetitive transcranial magnetic stimulation on pain status, joint mobility and cortical excitability in Rheumatoid arthritis
20. Effect of Probiotics and Repetitive Transcranial Magnetic Stimulation on Cognitive and motor functions in 6-hydroxy Dopamine rat model of Parkinson's Disease
21. Effect of Probiotics Supplementation on Cognition and Motor Symptoms in Patients with Fluctuating Parkinson's Disease
22. Effect of slow-paced breathing on acute stress: A QEEG based study
23. Effect of yogic intervention on pain perception and autonomic profile in fibromyalgia patients
24. Effect of yogic intervention on pain status and cortical excitability in fibromyalgia patients
25. Effects of biofeedback guided pranayama on carotid intima-media thickness and food behavior in obesity: A Randomized Controlled Trial.
26. Evaluation of Yoga-Based Intervention and Transcranial Magnetic Stimulation on Cognition, Neuromodulation and Stress in Obesity: A Randomized Controlled Trial.
27. Gene expression and Immuno-Metabolomic Profiling to elucidate the pathophysiology of Pulmonary Fibrosis
28. Genetic and cellular changes following 6 months of yoga-based lifestyle intervention in participants with obesity and co-morbid depression: A randomized controlled trial
29. Identification of attention lapses and mind wandering on the basis of network analysis: A QEEG study
30. Immunophenotyping of circulating monocytes in post-tuberculosis sequelae
31. Investigation of Ventricular-Arterial coupling and its associations with Renin Angiotensin Aldosterone pathway in COVID 19 survivors.
32. Lung function profiling and inflammatory cytokines in post-tuberculosis sequelae
33. Microstates and cortical sources as a QEEG tool to quantify and classify normal, meditative, stressed and psychiatric brain states
34. Neural correlates of Local sleep & its association with cognition: A qEEG Study
35. Neural Correlates of Motor Planning for Voluntary Upper Limb Movement with Assistive Exosuit
36. QEEG based neural correlates and microstates of attention and interference in ADHD: An endophenotypic marker
37. QEEG correlates of Binaural Beats in Generalized anxiety disorder patients.

38. QEEG microstates of incorrect vs correct trials during working memory task
39. Quantitative EEG microstates and cortical sources of changing visuo-spatial working memory load in patients with schizophrenia
40. Respiratory impedance, lung volumes and exercise capacity in obstructive sleep apnoea with and without metabolic syndrome
41. Study of the effects of exposure to diesel, biodiesel and blend fuel engine exhaust on testicular morphology and spermatogenesis in male Wistar rats
42. To evaluate combination of biochemical and biophysical markers in prediction of Preeclampsia
43. To study molecular markers and vascular function in Recurrent Pregnancy Loss
44. To study the cardiovascular response to graded hypovolemia by application of oscillatory lower body negative pressure
45. To study the effect of diesel exhaust exposure on male reproduction in the laboratory rat

Completed

1. A study of central pain modulation in chronic pancreatitis
2. A study of pain inhibitory neurotransmitters in CSF and blood of women undergoing cesarean section
3. A Study on the pressure dependence of aortic pulse wave velocity in human subjects using a hydrostatic pressure gradient model.
4. Assessment of Cardio-respiratory fitness in obese adults through Spiroergometry.
5. Assessment of cardiovascular autonomic functions in COVID-19 survivors
6. Association between Val158Met polymorphism in catechol-o-methyl transferase and pain perception in rheumatoid arthritis
7. Effect of anthracycline-based chemotherapy on central arterial stiffness in breast cancer patients
8. Effect of birth weight and change in body mass index Z-score between birth to mid-childhood on metabolic profile and exercise capacity in mid-childhood: a longitudinal cohort study
9. Effect of prolonged theta burst stimulation protocols on corticomotor excitability and pain perception in healthy controls
10. Effect of repetitive Transcranial Magnetic Stimulation on pain status in Post Mastectomy Pain Syndrome patients
11. Effect of Repetitive Transcranial Magnetic Stimulation on Phantom Limb Pain
12. Effect of yoga on pain and Corticomotor excitability in chronic low back pain
13. Effects of biofeedback guided pranayama on carotid intima-media thickness and food behavior in obesity: A Randomized Controlled Trial
14. Non-invasive assessment of carotid artery reactivity to cold pressor test in young and older adults.
15. Role of T regulatory cells in Chronic Obstructive Pulmonary Disease

Collaborative projects

Ongoing

1. A comparative assessment by EMG activity and bite force of autogenous reconstruction of ramus condyle unit done with Transport disc distraction osteogenesis and Costo chondral grafting in patients with TMJ ankylosis., Centre for Dental Education and Research
2. A comparison of modulating effect of cTBS and low-frequency rTMS on cortical excitability in children and adolescents aged 5-14 Years with Lesional Drug refractory Epilepsy (Focal epilepsy or electrical status epilepticus in sleep): An open-label randomized non-inferiority crossover study, Pediatric Neurology
3. A cross-sectional study of patient-reported quality of life and cognitive impairment in patients with Gastrointestinal stromal tumor, Medicine

4. A Prospective comparative study to evaluate the restoration of abdominal wall dynamics in patients with incisional hernia following laparoscopic and open repair, Surgery
5. A randomized controlled trial of three months of Yoga-based comprehensive treatment module vs standard therapy in improving severity of symptoms, disability, and quality of life in patients with medically unexplained physical symptoms, Medicine
6. Analysis of anti-neurotoxicity of amyloid Beta (A?) in Alzheimer's disease (AD) pathology targeting lipoxygenase., Biophysics
7. Assessment of a novel incremental ramp protocol in treadmill to do cardiopulmonary exercise testing in Indian population, Pulmonary, Critical Care and Sleep Medicine
8. Assessment of cognitive changes due to opioid usage among cancer patients attending the tertiary care centre in India: A cross sectional observational study, Onco-Anaesthesiology and Palliative Medicine
9. Assessment of Cognitive function in women with ovarian primary peritoneal of fallopian tube cancer in Indian settings: A Pilot Study, Obstetrics & Gynecology
10. Body composition, muscle strength and exercise tolerance in adolescent girls with PCOS: A case-control study, Paediatrics
11. Cognitive and Psycho-Physiological Effects of AIIMS Cognitive Training Toolkit (CTT) and computer Cognitive Training (PSS CogRehab) on Children with ADHD aged 6-11 Years: A Randomized Control Pilot Study., Psychiatry
12. Correlation between noradrenaline, serotonin, GABA and glycine in cerebrospinal fluid with labor pain undergoing cesarean section: A preliminary Study, Anaesthesiology
13. Cortical excitability in children with electrical status epilepticus in sleep compared to non-epileptic healthy children using Transcranial magnetic stimulation, Paediatrics Neurology
14. Development of exosome-based drug delivery system for naturally inspired novel multifunctional neuroprotective molecules and their biological evaluation in Alzheimer's disease models, Biophysics
15. Development of wearable soft sensor for online estimation of joint torque from physiological signals: application towards neuro-muscular control of the powered soft assistive device, IIT Delhi
16. Effect of Ayurvedic oil-dripping treatment (Shirodhara) on sleep quality in patients with recent cardiocerebrovascular events: a randomized controlled trial, Cardiology
17. Effect of remote ischemic postconditioning on inflammatory markers and myocardial injury during thrombolysis in normal and vitamin D deficient patients suffering from acute coronary syndrome, Pharmacology
18. Effect of sodium -hydrogen channel (NHE-1) inhibitor in hypoxic cardiac arrest, Emergency Medicine, Trauma Centre
19. Effect of Transplantation of lentivirus-mediated genetically engineered mesenchymal stem cells into monocrotaline-induced pulmonary hypertensive rats: Validation by Next Generation Sequencing, Pharmacology
20. Effect of Yoga on maternal and perinatal outcome on Pregnancy., Obstetrics and Gynaecology
21. Effect of yoga-based lifestyle intervention on oxidative stress, inflammation, vascular endothelial function and autonomic tone in diabetic retinopathy patients, Ocular Biochemistry
22. Efficacy of a family-based comprehensive yoga program for weight reduction among overweight children and adolescents, Pediatrics
23. Efficacy of a yoga-based intervention module in improving psycho-socio-behavioral well-being of patients recovered from COVID-19 : An Open level randomized controlled trial, Medicine
24. Efficacy of repetitive transcranial magnetic stimulation in children and adolescents age 5-18 Years with generalized dystonia: a randomized sham control trial, Paediatric Neurology
25. Evaluation of the cardioprotective effect of remote ischaemic preconditioning in acute coronary syndrome patients and its correlation with vitamin D, Pharmacology
26. Exploring the effect of ageing and neurodegeneration on decision making and the underlying mechanisms using Rodent-Iowa gambling task in streptozotocin (STZ) induced AD rat model, IIT Delhi and JNU Delhi
27. Gene expression and Immuno-Metabolomic Profiling to elucidate the pathophysiology of Pulmonary Fibrosis, Pulmonary, Critical Care and Sleep Medicine

28. Identification of early biomarkers for Parkinson's disease using radiomics and metabolomics approach in an experimental PD model and patients with PD, NMR
29. Immunophenotyping of circulating monocytes in post-tuberculosis sequelae, Pulmonary, Critical Care and Sleep Medicine and Radiodiagnosis and interventional radiology
30. Impact of rTMS versus drug therapy on phantom limb pain in lower limb amputation patients: A randomized controlled trial, JPNAT, Trauma Centre
31. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and insulin resistance in adult Indian obese patients, Surgical disciplines
32. Impact of transcendental meditation (TM) on acute and chronic stress among surgeons: A randomized controlled trial, Surgical disciplines
33. Impact of yoga and meditation on epigenetic profile in rheumatoid arthritis, Anatomy
34. Influence of the restoration after pulpotomy on the electrical conductance of the tooth- A preliminary investigation, CDER
35. Intermediate and long term therapeutic efficacy of r TMS in drug refractory focal epilepsy of childhood: A randomized double-blind sham controlled study, Pediatrics Neurology
36. Lung function profiling and inflammatory cytokines in post tuberculosis sequelae, Pulmonary, Critical Care and Sleep Medicine and Radiodiagnosis and interventional radiology
37. Neuromodulation- Induced Metabolic and Morphological alterations in an experimental model of Parkinson's Disease: An MR Investigation, NMR
38. Nutritional assessment of Indian women with gynaecological cancers using GLIM criteria and impact of focused pre-habilitation protocol on nutrition and perioperative outcomes in women undergoing interval debulking surgery, Obstetrics &Gynaecology
39. Possible involvement of Angiotensin receptor in the regulation of beta-arrestin mediated downstream signaling pathway in experiment model of heart failure in rat, Pharmacology
40. Possible involvement of EPAC mediated signaling pathway in amelioration of experimental model of Diabetic Cardiomyopathy in rats, Pharmacology
41. Prospective study to evaluate the efficacy of posterior nasal neurectomy as treatment modality in patients with persistent allergic rhinitis along with medical management, ENT
42. Randomized double-blind, placebo-controlled study of oral gabapentin for prevention of sensory neuropathy in patients receiving paclitaxel, Medical Oncology, Dr BRA IRCH
43. Respiratory impedance, lung volumes and exercise capacity in obstructive sleep apnoea with and without metabolic syndrome, Pulmonary, Critical Care and Sleep Medicine
44. Role of intracellular renin-angiotensin system in mono-crotaline induced pulmonary arterial hypertension in rats, Pharmacology
45. Single arm intervention study of low frequency repetitive transcranial magnetic stimulation in steroid-resistant / relapsed ESES in children aged 5-12 Years, Paediatrics Neurology
46. Study of exosomal lipid content in Parkinson's disease and Amyloid-(AB) association with Exosomes, Biophysics
47. Study of Neurofeedback training as an adjunctive transdiagnostic treatment among adolescents with internalizing disorder, Psychiatry
48. The impact of mental fatigue on the working memory capacity and executive functions of young adults (as external supervisor), Centre of Neural and Cognitive Sciences, University of Hyderabad
49. To compare inflammatory markers in low-pressure pneumoperitoneum with deep neuromuscular block versus standard-pressure pneumoperitoneum among patients undergoing laparoscopic cholecystectomy for gallstone diseases: a pilot Randomized Control trial, Surgical disciplines
50. To compare the effects of high frequency-rTMS and iTBS in treatment of fatigue in Post-polio syndrome based on a randomized controlled trial using Bereitschafts potential, Physical Medicine & Rehabilitation
51. To investigate the behavioral and neurobiological alterations in the Decision Making in Affective Disorders by Rodent Iowa Gambling task with underlying sex differences, IIT Delhi

52. To see the early effect of sorafenib on cognition, cardiovascular and reproductive functions in patients with fibromatosis., Medical Oncology
53. To study the change in Bereitschafts potentials (MRCP) in fibromyalgia syndrome, Physical Medicine and Rehabilitation
54. To study the correlates of loneliness and perceived social support on cognitive and emotional processing in youth with mental illness: An interventional study, Psychiatry
55. Wearable soft robotics for Upper Limb Muscle Power Augmentation with BMI interface, IIT Delhi

Completed

1. 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-D Itch Scale, Department of Dermatology and Venereology, AIIMS, New Delhi
2. A prospective study to evaluate the restoration of abdominal wall dynamics in patients with incisional hernia following laparoscopic IPOM plus repair in comparison to healthy controls using surface EMG., Department of Surgery, AIIMS, New Delhi
3. A randomized controlled trial of adjunctive incremental pregabalin therapy vs placebo for pain management in chronic pancreatitis, Department of Gastroenterology and Human Nutrition, AIIMS, New Delhi
4. A randomized sham-controlled trial of targeted low-frequency repetitive transcranial magnetic stimulation therapy in childhood and adolescents with focal onset refractory epilepsy, Pediatric Neurology, AIIMS Delhi
5. 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 AIIMS Delhi
6. An observational study to correlate site of obstruction in obstructive sleep apnea with eustachian tube dysfunction and reflux disorders, Department of Otolaryngology
7. Assessment of Cardio-respiratory fitness in obese adults through Spiroergometry, Medicine
8. Comparative study of effects of lignocaine vs dexmedetomidine administration on the incidence of Postoperative cognitive dysfunction in the elderly, Department of Anesthesiology, Pain Medicine and Critical Care, AIIMS, New Delhi
9. Cortical excitability in children with electrical status epilepticus in sleep compared to non-epileptic healthy children using Transcranial magnetic stimulation, Pediatrics Neurology
10. Effect of birth weight and change in body mass index Z-score between birth to mid-childhood on metabolic profile and exercise capacity in mid-childhood: a longitudinal cohort study, Paediatrics
11. Effect of Suryanamaskara practice on Physiological variables: A pilot Study, Department of Centre for Integrative Medicine and Research, AIIMS, New Delhi
12. Effect of vitamin D on monocrotaline-induced pulmonary artery hypertension in rats, Pharmacology
13. Evaluation of immediate and occlusal pattern changes and their influence on electromyographic activity of jaw muscles in growing patients treated with rapid maxillary expansion for posterior crossbite- A prospective clinical study, Department of orthodontics and dentofacial deformities (CDER), AIIMS, New Delhi
14. 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 Randomized Controlled Trial, Pediatric Neurology, AIIMS Delhi
15. Exploring Graphene functionalized 3D scaffolds for enhanced neuronal differentiation of human Mesenchymal stem cells and use in Rat Parkinson's disease model., Stem Cell facility, IRCH AIIMS Delhi
16. Longitudinal changes in EMG activity of masseter and temporalis muscles of patients undergoing temporomandibular joint replacement., Department of Oral& maxillofacial surgery (CDER), AIIMS, New Delhi
17. Neurobiological basis of early life stress-induced aggressive behavior, Institute of Genomics and Integrative Biology, Delhi
18. Repetitive Transcranial Magnetic Stimulation to the Inferior Parietal Lobule in Task Specific Focal Hand Dystonia: A Randomized Cross over Blinded Outcome Assessment Study, Department of Neurology, AIIMS, New Delhi

19. Role of selective neuropeptides in the spinal cord of morphine treated rats, Anatomy, AIIMS Delhi
20. Role of T regulatory cells in Chronic Obstructive Pulmonary Disease, Pulmonary, Critical Care and Sleep Medicine
21. Single arm intervention study of low frequency repetitive transcranial magnetic stimulation in steroid-resistant / relapsed ESES in children aged 5-12 Years, Pediatrics Neurology
22. The study of synaptic plasticity in a rat model of chronic post-surgical pain, Anatomy, AIIMS Delhi
23. Therapeutic intervention of small molecule-based novel activator of Sirtuin on rat model of Alzheimer's disease, Biophysics, AIIMS Delhi

Research over past 3 Years

Research projects	2021–2022	2022–2023	2023-2024
Total funded projects	47	44	45
Total funding (lakhs)	Rs 1340.89 lakhs	Rs 1467.01/- lakhs	Rs1918.22/- lakhs

PUBLICATIONS

Total Publications: 47; Journals: 30 Abstracts: 17

Publications over past 3 Years

Item	2021–2022	2022–2023	2023–2024
Total	50	69	47
Journal articles	46	55	30
Abstracts	2	14	17
Chapters in books	2	1	0
Books	0	2	0

PATIENT CARE/SERVICES

Cognitive Neurophysiology Laboratory: The primary focus here is to explore the mechanisms underlying human perception, cognition and emotions. Number of patients done: Bereitschaft potentials (24), Body composition analysis (133), Visual Eye Tracking (210), Wireless Physiological monitoring (79), fNIRS (60).

Brain stimulation and Neuromodulation lab: Single and paired-pulse TMS protocols to establish diagnostic and prognostic neurological markers in patients with various neurological, neurotraumatic and neurodevelopmental disorders aredone. In 40 Cerebral palsy, 80 Paediatric epilepsy, 12 Parkinson's disease and 30 complete and incomplete Spinal cord injury patient's recordings have been done using iTBS/ rTMS protocols.

Intraoperative Monitoring: Intraoperative monitoring provided support for 172 surgeries in the Departments of Neurosurgery and Department of Orthopaedics.

Respiratory Research Laboratory

1. Pre-operative assessment of exercise capacity in patients diagnosed with pulmonary aspergillosis and posted for lung resection surgery.
2. Estimation of Resting Metabolic Rate in 35 patients referred from Centre for Integrative Medicine and Research.

Integral Health & Wellness Clinic (IHC), AIIMS: It is a facility for mind, medicine & meditation integration, primarily for health promotional activities. IHC is an outpatient facility which is used not only for therapeutic gains but also as part of a developing health consciousness. As a de-stressor facility, the IHC is a supportive facility to de-stress AIIMS employees including faculty, students, residents, and staff.During 2023-24, IHC enrollment (under direct supervision of yoga therapist, research investigators & medical experts):

a) Fibromyalgia patients:Total 113 patients, each patient enrollment for 4 to 6 weeks, 1 hour each day.

b) Gynae patients (Gynecological carcinomas): Total 133 patients, each patient enrollment for 3 to 6 months, 1 hour each day. (online & offline).

c) Diabetic retinopathy: Total 100 patients; each patient enrollment for 2 to 4 weeks, 1 hour each day

d) Fitness batch: Total 115 apparently healthy participants, each participant enrollment for 14 days, 1 hour each day.

e) Obesity and depression participants: Total 48 participants; each participant enrollment for 28 days, 1 hour each day.

f) Stroke patients: Total 36, each patient enrollment for 28 days, 1 hour each day.

g) Others: (headache, anxiety, CSR, diabetes, scoliosis, lumbar spondylosis etc.) Total 17 patients; each patient enrollment for 28 days, 1 hour each day.

Pain Research and TMS laboratory: Pain Research and TMS laboratory: Therapeutic and diagnostic evaluation and research facility for chronic pain disorders. 241 rTMS (Repetitive Transcranial Magnetic Stimulation) sessions, 40 TBS (Intermittent and Continuous Theta Burst Stimulation), and 41 fMRI guided Motor Imagery, Corticomotor excitability measurement and evaluation in 210 chronic pain patients, Quantitative sensory testing of 210 chronic pain patients, EMG evaluation of pericranial, epigastric, abdominal and cervical muscles 90 patients and heart rate variability in 108 chronic pain patients of fibromyalgia.

Autonomic and vascular function laboratory: Provides diagnostic facility for referred patients The laboratory has done routine clinical evaluation of 762 patients and 467 patients were evaluated as part of research, with a total of 1229.

Gastrointestinal Research and Diagnostic Facility: High-resolution Manometry: 30 patients from the Department of Surgery, AIIMS, New Delhi and 24 hour pH monitoring: 15 patients from the Department of Surgery, AIIMS, New Delhi

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Kanwal Preet KochharwasHRIDAY, a research-based non-governmental organisation, registered under the Societies Act XXI, 1860 and having a valid DSIR-SIRO recognition has invited me to serve as the Co-Chair on the Research Advisory Board of HRIDAY**;** Invitation from DIPAS, DRDO, Timarpur, New Delhi to attend Coordination meeting of project "VISHWAKARMA" onMarch 2024.

Professor Ratna SharmawasSecond Prize in Poster presentation: As corresponding author: "Novel EEG Microstate Map with Intracranial Generators in Right Superior and Medial Frontal Gyrus Distinguish Patients with Schizophrenia from Controls" during 3rd Annual Research Day on 30January 2024 at AIIMS, New Delhi

Professor Suman JainwasKT Shetty Memorial Oration Award for outstanding contributions in Neurosciences in India, 2023 ; Member and Reviewer, Research Funding Committee, North American Spine Society 2021-2024; Member of IUPS-IUPHAR committee by INSA 2024; Member, Dean's Research Committee, AIIMS Delhi 2024; Member, augmenting Research Scientists cadre and creating additional posts of Research Staff/Scientist positions at AIIMS, New Delhi, 2024-continuing.; Member, of Committee to evaluate the Under Graduate Research Mentorship Scheme Projects., AIIMS Delhi 2024; Member, UG mentorship Research Program, AIIMS Delhi 2024; Member, Traffic monitoring committee, AIIMS Delhi 2023; Judge and Member of committee to evaluate posters and screen abstracts of MD/MS/MDS and Scientists/ Project Staff for 3rd Research day, January 2024, AIIMS Delhi ; External expert member of Student Grievance Committee, 2024 National Brain Research Centre, Manesar, Haryana; Secretary of Delhi-NCR Chapter of the Indian Academy of Neurosciences; Committee member for counselling of Non-Academic Junior residents, AIIMS Delhi; Member TSEC committee for purchase of EEG and TMS equipment by dept of Psychiatry. ; Faculty mentor of e-Student Welfare Cooking Club, AIIMS Delhi; Chaired a session on "Neuromodulation Strategies in health and disease" during the Annual Conference of the Indian Academy of Neurosciences, held at Gwalior on 4-6 October 2024.; Chaired Panel discussion on 'Spiritual consciousness and contemplative practices for elevating health care' during Medicine and Meditation: Elevating Healthcare through Humane Values and Spirituality; International conference, organized at AIIMS, New Delhi, 23-25 August 2023; Tulsabai Somani Educational Trust Award for best oral presentation as corresponding author on "Reviving Mobility: Investigating the Therapeutic Potential of Intermittent Theta Burst Stimulation (iTBS) in Spinal Cord Injured Rats" during the Annual Conference of IAN 2023 held at Gwalior.; People Choice/Critics Awardand Appreciation Award as corresponding author in Project staff category and PhD category during 3rd Annual Research held in January 2024 at AIIMS Delhi; Remarkable oral presentation award as corresponding author on "Synergistic effect of Brain Stimulation with Constraint-InducedMovementTherapy for FunctionalNeuroplasticity in Childrenwith HemipareticCerebral Palsy: A Randomized Control Trial" during 7th International Conference on Neurologyand BrainDisordersin November 2023 held at Dubai.

Professor Ashok Kumar JaryalwasMember, Sixth Advisory Committee for the conduct of the NEET (UG-2024; Subject Expert, Project Monitoring and Review Committee of XIII Five Year Plan Projects and Tasks, Defense Institute of Physiology and Allied Sciences, DRDO, MoD, GOI; Member, Examinations Ethics Committee, National Board of Examinations in Medical Sciences.

Professor Rajkumar YadavwasEditor: International Journal of Clinical and Experimental Physiology ; Associate editor: Frontiers in Psychology; Vice President (North zone): Association of Physiologists of India (ASSOPI); Member, Institute Ethics Committee (PG), AIIMS, New Delhi, since April 2023; Deputy Hostel Superintendent, AIIMS, New Delhi. ; Secretary, Association of Physiologists & Pharmacologists of India (APPI), *Delhi chapter*; Secretary, Faculty Club, AIIMS, New Delhi.; Chairman, Aesthetics & Beautification Committee (ABC), AIIMS, New Delhi;Chairman: Committee for bicycleavailability within AIIMS campus, as an initiative for 'Green AIIMS - Clean AIIMS'.; Chairman, Committee to setup/operationalize a dedicated 'Travel Desk' at AIIMS, New Delhi to facilitate booking of air tickets, LTC etc. for AIIMS faculty, officers, staff etc; Chairman: Selection committee for appointment of consultants/fellows/computer programmer etc in research projects at AIIMS (Research section), New Delhi *;* Chairman: Committee for evaluation of tenders on QCBS basis (AIIMS Hostels); Chairman: Inspection committee for hostel goods (Tables, CCTV etc); Chairman: Technical specification & evaluation committee for purchase through GeM portal (AIIMS Hostels); Central Public Information Officer (CPIO), Hostel Section, AIIMS, New Delhi, under Right to Information (RTI) act since May 2022.; Member, AIIMS Students Benevolent Fund Committee for UG students; MNAMS: Member, National Academy of Medical Sciences (India); Professional consultancy: External Expert for selection/ APS of faculty: AIIMS, Bathinda, and AIIMS, Rishikesh. ; Professional consultancy: External Expert for selection/APS of faculty: NEIGRIHMS (North-Eastern Indira Gandhi Regional Institute of Health and Medical Sciences), Shillong.; Professional consultancy: External Expert for screening/selection of faculty, Nursing staff, Nursing managers etc at the Institute of Liver & Biliary Sciences (ILBS), New Delhi.; Member, Engineering Advisory Committee, AIIMS, New Delhi*.;* As an invited guest in Y20 (Youth 20) consultation program, "Health, Well-being, and Sports: Agenda for Youth", organized at AIIMS, Rishikesh, with our director Prof M Srinivas and other delegates from AIIMS, 5 May 2023.Chaired a special plenary session: 'Future of Well-being and Neuroscience of Enlightenment' Dr Deepak Chopra (online). Medicine and Meditation: Elevating Healthcare through Humane Values and Spirituality; International conference, organized at AIIMS, New Delhi, 23-25 August 2023.; Chaired a scientific session during, '3rd Annual Congress of THE NEUROMODULATION SOCIETY (The Indian Chapter of INS) TNS CONGRESS 2023', 14 – 15October 2023, AIIMS, New Delhi.; Chaired a scientific session during 'AIIMS PHYSIOMEET-2024' on 9 February 2024 at Bhubaneshwar.; Social outreach program: TV/ online: NDTV_VC16. As a guest participated in the live show to discuss & celebrate 'International Day of Yoga', 21 June 2023: 6 pm to 7.30 pm (online).

Professor Renu BhatiawasMember, International Association for Study of Pain (IASP); Member AIIMS UG Curriculum organizing group, AIIMS New Delhi; Nodal Officer, e-content for Learning Management System AIIMS New Delhi; Second prize, poster presentation awarded to "Effect of Repetitive transcranial magnetic stimulation on pain and quality of life in post-mastectomy pain syndrome: A prospective RCT." Gupta N, Bhatia R, Kataria M, Singh A, Bhoriwal S.6th World Congress on Regional Anaesthesia and Pain Medicineat Joint meeting with 40th ESRA Congress, Paris, France, 2023; First prize, poster presentation awarded to "A study of pain inhibitory neurotransmitters in CSF of women undergoing cesarean section", Dwivedi A, Kumar A, Singh Y, Bhatia R. 3rd Annual Congress of The Neuromodulation Society - Indian Chapter of INS, AIIMS, New Delhi, 2023; Second prize, oral presentation awarded to "Beneficial effect of functional MRI- based Neurofeedback guided Motor imagery training on Pain status and Corticomotor excitability in Rheumatoid arthritis: Role of fMRI", Fatima S, Yadav R, Kumar U, Kumaran S, Khan MA, Bhatia R. 3rd Annual Congress of The Neuromodulation Society - Indian Chapter of INS, AIIMS, New Delhi, 2023.

Dr Simran KaurwasDev Raj Bajaj Award (Best Research Paper in Relation to Development of Newer Techniques/ Instrumentation in Physiology/Pharmacology or Allied Sciences), As a corresponding author on Planning and Implementationof participant-centric group activity on Research Methodology: perceptions of Postgraduate Medical Students in Physiologyon 30 November-2 December 2023 at APPICON 2023, AIIMS, Kalyani, West Bengal; CANTAB Research Grant: Primary award for Assessment of cognitive function in patients of breast cancer on chemotherapy: A prospective longitudinal study at tertiary care centre in India by Cambridge Cognition, UK on 4 October 2023; 3rd Prize in Oral presentation, as corresponding author for UG category on "Risk-takingbehaviour in substance use disorders" during 3rd Annual Research Day on 30 January 2024 at AIIMS, New Delhi; Appointed as Guest editor, *Frontiers in Psychiatry* on – 'Neuroimaging in Psychiatry 2023: Addictive Disorders'; Mr Ankit, PhD scholar has been awarded Global NTU India Connect Fellowship 2023

Dr Dinu Santha Chandranwas received the AIIMS Excellence Research Award – 2022: Third Prize (Awarded in January 2024) in recognition of the outstanding publication in the category of Basic Sciences; Dr Prachi Srivastava (DHR-Young Scientist, Department of Physiology), received the BK Anand Award for the best paper published in the field of Physiology by the Association of Physiologists and Pharmacologists of India in APPICON 2023;

Dr Nasreen AkhtarwasAssociate editor of the journal 'Sleep and Vigilance', ; Reviewer for journals Scientific Reports, Indian Journal of Physiologyand Pharmacology; First prize in oral paper presentation; Examiner for PhD thesis in Physiology of Jamia Millia Islamia; Chaired a symposium session on "Network of Sleep Physiology and Pathology" in

8th International Sleep Update 2024, on 10 and 11 February 2024, New Delhi, ; Nominated as International Ambassador for Asia Pacific Region of the American Academy of Sleep Medicine for 2023-24.; MBBS teaching in charge.

Dr Akanksha SinghwasFirst prize, oral presentation awarded to "Effect of Repetitive Transcranial Magnetic Stimulation of Dorsolateral Prefrontal Cortex on pain status in Phantom Limb Pain", Vats D, Kumar A, Fatima S, Sagar S, Yadav R, Khan M, Bhatia R, Singh A. 3rd Annual Congress of The Neuromodulation Society - Indian Chapter of INS, AIIMS, New Delhi, 2023.

Dr Suriya Prakash MuthukrishnanwasAwarded the prestigious 'IBRO World Congress Travel Grant' of 1800 Euro by the renowned International Brain Research Organization (IBRO) for participating in the 11th IBRO World Congress of Neuroscience, held in Granada, Spain from September 9 to 13, 2023.; Awarded Membership (MAMS) of the esteemed National Academy of Medical Sciences (NAMS), India, during the 63rd Annual Conference and Convocation (NAMSCON 2023) held at M.S. Ramaiah Medical College in Bengaluru, India, on 7October2023.

VISITING SCIENTIST

- Victoria Garfield, Senior Research Fellow, University College of London visited Baldev Singh Sleep Laboratory, Department of Physiology from 7-14 May2023 for research collaboration.
- Dr Jayaram Thimmapuram, Internal Medicine hospitalist, Adjunct Professor ofMedicine and Integrative medicine fellow at WellSpan York Hospital, York, Philadelphia 21 July 2023
- Dr Mahaveer Swaroop Bhojani, University of Michigan Medical School, Ann Arbor, College of Pharmacy, USA 2 November 2023
- Professor Holly lngraham, Professor of Cellular Molecular Pharmacology, University of California, San Francisco 18 January 2024
- Professor David Julius, Nobel Laureate 18 January 2024
- Dr Tom O Bryan, Institute for Functional Medicineand the National University of Health Sciences, USA 19 January 2024
- Dr Venkat Bhat, University of Toronto, 6 March 2024

9.34 Plastic Surgery

Professor and Head

Maneesh Singhal

Additional Professor

Raja Tiwari	Shashank Chauhan	Raj Kumar Manas

Assistant Professor

Shivangi Saha	Suvashis Dash	Aparna Sinha

Scientist

Surender Kumar

Clinical Psychologist

Aishwarya Raj

HIGHLIGHTS

The Burns and Plastic Surgery Block is the first block at AIIMS, New Delhi to receive NABH accreditation. The department has total 6 major OTs to cater to the burns and plastic surgery patients. We have been granted ICMR collaborating Centre of Excellence in the field of burns research. The skin bank has been inaugurated at the BPS block recently for burns patients. The department is providing first-of-its-kind transgender surgical services. The department started advanced burns training programme for dressers, nurses and doctors with the govt of India and has successfully trained more than one hundred nominated personnel till now. As per the GOI approval, this training programme will continue to train nominated personnel for another 3 years. The department performed the first complete functional forearm reconstruction in the world which has received international prizes and multiple international accolades. The extramural research funding of the department has increased 5 times in the last 3 years Rs 1.42 crores in 2020-2021 to Rs 8.55 crores in 2023-24.

EDUCATION

Academic activities for Undergraduate

Wound Healing and Burns – 8th Semester UG lecture

Academic activities for Postgraduate

1. PG Teaching:

1. Skin Grafts and Flaps in General Surgery – MS (General Surgery) Seminar
2. Free Flap Reconstruction in Head and Neck Reconstruction – MCh (Surgical Oncology) seminar

2. Paramedical Teaching: Wound Healing and Burns: BSc Nursing lecture

Academic Activities for Paramedical Teaching

1. Number of short-term/long-term trainees, (as approved by Academic section)

1. MCh Plastic & Reconstructive Surgery Senior Residents – 18
2. Non-Academic Senior Residents - 5

2. Changes in the teaching programs during the year and innovative educational activities

1. None

CMEs/Workshops/Symposia/National and International Conferences

1. Advanced Emergency Burn Management Course for Doctors, 5-7 April 2023, BPS BLOCK, AIIMS, NEW DELHI
2. Advanced Emergency Burn Management Course for Doctors, 5-7 July 2023,
3. Advanced Emergency Burn Management Course for Doctors, 2-4 August 2023,
4. Advanced Emergency Burn Management Course for Doctors, 13-15 September 2023,
5. Advanced Emergency Burn Management Course for Nurses, 12-14 April 2023,
6. Advanced Emergency Burn Management Course for Nurses, 19-21 July 2023,
7. Advanced Emergency Burn Management Course for Nurses, 9-11 August 2023,
8. Advanced Emergency Burn Management Course for Nurses, 20-22 September 2023,
9. Advanced Emergency Burn Management Course for Dressers, 19-21 April 2023,
10. Advanced Emergency Burn Management Course for Dressers, 19-21 July 2023,
11. Advanced Emergency Burn Management Course for Dressers, 23-25 August 2023,
12. Advanced Emergency Burn Management Course for Dressers, 27-29 September 2023,
13. Advanced Emergency Burn Management Course for AIIMS, Jammu Nurses (Batch 1), 1 – 3 November 2023,
14. Advanced Emergency Burn Management Course for AIIMS, Jammu Nurses (Batch 2), 6 – 8 November 2023,
15. Advanced Emergency Burn Management Course for AIIMS, Jammu Nurses (Batch 3), 6 – 8 November 2023,
16. Advanced Emergency Burn Management Course for AIIMS, Jammu Nurses (Batch 4), 22 – 22 November 2023,
17. Advanced Emergency Burn Management Course for AIIMS, Jammu Nurses (Batch 5), 30 – 2 December 2023,
18. Inauguration of Skin Bank, 29 June 2023,
19. Public Awareness Programme on "Skin Donation and Banking" on National Plastic Surgery Day, 15 July 2023,
20. In- House teaching session for the MCH Residents in Aesthetic and Cosmetic Surgery, 19 – 20 August 2023,
21. workshop for reviewing the Curriculum of Trauma/Burn Care/Medical Lab/Microbiology/Biochemistry, 22 – 24 November 2023
22. Advanced Global Education Institute and Live International Operative Workshop in Gender Affirmation Surgery, 28 – 30 November 2023

Lectures delivered at CMEs, National and International conferences

Lectures delivered: 63

Maneesh Singhal: 18	**Raja Tiwari: 13**	**Shashank Chauhan: 4**	**Raj Kumar Manas: 8**
Shivangi Saha: 4	**Suvashis Dash: 14**	**Aparna Sinha: 2**	

Total number of lectures delivered

2021–2022	2022–2023	2023–2024
23	33	63

Oral papers/posters presented (In alphabetical order): 19

Total number of oral/poster presentations

2021–2022	2022–2023	2023–2024
32	14	19

RESEARCH

Funded projects

Ongoing

Collaborative projects

Ongoing

1. Development and evaluation of device for real-time monitoring of vascular perfusion in transferred tissue, Maneesh Singhal, DST-JSPS, 2 Years, 2022-24, Rs 8.8 Lakhs
2. Development of an Artificial Intelligence- based app for remote delivery of speech therapy in cleft lip-palate patients (SWARA- "Speech-therapy With Artificial intelligence Remote Assistance- on-going work, Suvashis Dash, ICMR, 3 Years, 2023-26, Rs 79 Lakhs
3. Development of an Artificial-Intelligence Tool for Standardized Remote Management of Hand Fractures, Shivangi Saha, DST, 2 Years, 2024-26, Rs 28.36 Lakhs
4. Development of easy-to-use fibrin-based rapidly acting bleeding control biololymer sheet, Surendra Kumar Verma, Scientist, ICMR, 3 Years, 2024-27, Rs 2.4 Crores
5. Development of training model for delineation of vascular supply relevant to reconstructive surgical procedures of face and hand: A novel method of cadaver processing, Maneesh Singhal, ICMR, 2 Years, 2022-24, Rs 81.82 Lakhs
6. Digital Population Health Screening for Noncommunicable Diseases with Remote Devices System- A Pilot study, Suvashis Dash, NASSCOM, 1 Year, 2023-24, Rs 4 Lakhs
7. Evaluation of inflammatory salivary biomarkers as a surrogate indicator of systemic response to thermal burn injuries: an observational study, Shashank Chauhan, ICMR - Ad Hoc Scheme (Oral Health), 3 Years, 2023-26, Rs 76.92 Lakhs
8. Evaluation of novel dipstick-based molecular techniques for early detection of Gram-negative ESKAPE (KAPE) organisms and antimicrobial resistance genes in burn wounds., Shivangi Saha, ICMR, 3 Years, 2024-27, Rs 1.44 Crores
9. Evaluation of outcome of three-dimensional printing model and simulation program for post-traumatic nasal deformities correction, Raj Kumar Manas, AIIMS Intramural, 2 Years, 2022-24, Rs 5 Lakhs
10. Pilot Study on utility of Robotic surgery for Brachial plexus reconstruction, Raja Tiwari, ICMR, 2 Years, 2022-24, Rs 29.50 Lakhs
11. Pilot Study on Vascular labelling of extra-cranial head and neck vessels using silicone dye injection: Avoiding danger zones during interventions., Raja Tiwari, AIIMS Intramural, 1 Year, 2022-24, Rs 4.95 Lakhs
12. Post Burn Scars and Contractures: A hospital-based study of the burden of disease, socioeconomic and clinical factors affecting the outcome, and steps to mitigate them, Shashank Chauhan, ICMR - Ad Hoc Scheme (Trauma & Burns), 2 Years, 2023-25, Rs 68.28 Lakhs
13. Prevalence of cyanide poisoning in victims of burn injuries - A Hospital based study, Shashank Chauhan, ICMR - Ad Hoc Scheme (Poisoning), 3 Years, 2023-26, Rs 65.05 Lakhs
14. Proteomic-based Outcome Biomarker Exploration in ESKAPE Organism Sepsis in Major Burns (PROBESCAPE), Shivangi Saha, Intramural, 2 Years, 2024-26, Rs 9.99 Lakhs
15. To develop a Mobile health application for Delivery of Comprehensive Symptomatic Care for Post-Burn Patients, Suvashis Dash, AIIMS- Intramural, 2 Years, 2023-25, Rs 10 Lakhs

Completed

Departmental projects

Ongoing

1. A Prospective Study To Compare The Outcomes After Micro-Needling With Or Without PRP Infiltration On The Maturation Of Hypertrophic Scars
2. An Ambispective Study To Evaluate Outcome Of Modified Quad Surgical Procedure In Patients With Birth Brachial Plexus Injury For Improving Shoulder Function

3. Burden Of Foot Crush Injury Due To Road Traffic Accident -A Cross-Sectional Study At A Tertiary Care Center.
4. Correlation Of Serum Bio Markers With Severity And Outcomes Of Burns Patients
5. Development Of Training Model For Delineation Of Vascular Supply Relevant To Reconstructive Surgical Procedures Of Upper Limb: A Novel Method Of Cadaver Processing
6. Epidemiology Of Congenital Upper Limb Anomalies In A Single Center (AIIMS, New Delhi)- An Ambispective Study
7. Role Of Proteomics To Identify Novel Biomarkers For Detection Of Sepsis In Burn Patients
8. To Assess The Reliability Of Surgeon Conducted Colour Doppler Ultrasound With Intraoperative Alt Free Flap Perforator Mapping - A Prospective Cohort Study
9. To Study The Reliability Of Surgeon Conducted Colour Doppler Ultrasound With Intraoperative ALT Free Flap Perforators Mapping- A Prospective Cohort Study
10. Use Of Smart Phone Application For Remote Rehabilitation After Flexor Tendon Repair - A Randomized Controlled Trial

Completed

1. A Prospective Cohort Study To Compare The Outcome Of Microneedling With Or Without PRP Infiltration On The Maturation Of Hypertrophic Scar
2. Epidemiology Of Hand Injuries In Single-Center (JPNATC-AIIMS- A Prospective & Retrospective Study)
3. Evaluation Of Sensory Outcomes Following Management Of Fingertip Amputations
4. Evaluation Of The Functional Outcome Of Acute Extensor Tendon Injuries Of Foot And Ankle
5. Pattern Of Metacarpal Fractures In A Patient Presenting To A Tertiary Care Centre In North India
6. To Assess The Knowledge About Replantation In Patients With Traumatic Amputations Attending Aiims Emergency Department

Collaborative projects

Ongoing

1. Capacity Building of Doctors and Hospital Engineers in Structural and Non-Structural Mitigation Measures for Hospital Safety and Disaster Resilience., Department of Hospital Administration, funded by MoHFW
2. Development and evaluation of device for real-time monitoring of vascular perfusion in transferred tissue, Hiroshima University under DST - JSPS
3. Intraarticular injection of Autologous adipose-derived stromal vascular fraction or hyaluronic acid for treatment of symptomatic knee osteoarthritis: A Randomized controlled trial, Department of Orthopedics/ AIIMS, New Delhi
4. Surgical Innovation Laboratory (SIL) for advancing Patient care, Education and Research., JPNATC, AIIMS under ICMR - CoE

Completed

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	8	9	15
Total funding	Rs. 2.28 Crores	Rs. 2.50 Crores	Rs. 8.55 Crores

PUBLICATIONS: 25

Journal: 22 **Chapters in Books: 3**

Publications

Item	2021–2022	2022–2023	2023–2024
Total	38	22	25
Journal articles	37	17	22
Abstracts	0	5	0
Chapters in books	1	0	3
Books	0	0	0

PATIENT CARE

Patient care

Item	2021–2022	2022–2023	2023–2024
OPD consultations		27592	30460
Special clinic consultations			
Patients provided rehabilitation services		7842	9136
Total inpatient admissions		**3337**	**3767**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Maneesh Singhal received The National Transgender Awards; Editor - Indian Journal of Medical Research; Editor - International Journal of Ayurveda Research.

Dr Raja Tiwari received R. G. Sariaya International Travelling Fellowship—APSICON 2023.

Dr Shashank Chauhan was Member, Expert Advisory Committee, "National Capacity Building of Doctors and Hospital Engineers in Structural and Non-Structural Mitigation Measures for Hospital Safety and Disaster Resilience" under the Disaster Management Cell, Ministry of Health and Family Welfare, Government of India as part of the "Health Sector Disaster Preparedness and Response" initiative.

Dr Raj Kumar Manas was reviewer of the Indian Journal of Plastic Surgery, International Microsurgery Journal, Journal of Peripheral Nerve Surgery; Invited course faculty in APSI-PGME Course III 2023 conducted by the Association of Plastic Surgeons of India; Invited faculty, speaker, and chairperson to Mid-term CME of ISSH (Indian Society of Surgery for Hand) held in SKIMS, Srinagar; Invited faculty and chairperson of ISSHCON 2023(annual conference of Indian society for surgery of Hand (held at Hotel Mount View) Chandigarh; Participated in NBEMS Plastic & Reconstructive Surgery webinar organized by the National Board of Examination in Medical Sciences, New Delhi as a speaker & panelist; Invited faculty & guest speaker in CME in Microsurgery & Hands-on Workshop organized by AIIMS, Bhopal, demonstrated live venous coupler anastomosis in Placenta vessels model; Invited faculty & Chairperson in ISPNS, Indian Society of Peripheral Nerve Surgery organized by AIIMS, Raipur; Invited faculty in NABICON, National Conference of National Academy of Burns-India held at Ranchi; Invited faculty in NABICON- Plastiquest, a post-graduate teaching program conducted during NABICON 2024 at Ranchi; Invited faculty & chairperson in APFSRM 2024, moderated the session on Brachial plexus injury; Invited faculty & panelists to Plastiquest, an online teaching programme for Postgraduate resident across the country; Invited faculty, Moderator, and webinar coordinator in series 5 of NABI Burn tutorial 2023-24 for healthcare professionals and moderated various sessions related to acute burn and post-burn deformities; Participated in NABI online generalpublic awareness program as a panelist and moderator in series 5.

Dr Shivangi Saha received FUE Asia cross fellowship – Europe – 28 September 2023; American College of Surgeons Owen H. Wangensteen Excellence in Research award- Co-Author for research paper titled Fueling recovery: Incidence and risk factors for food insecurity after surgical trauma; Association of Plastic Surgeons of India, Vasudhan Arjin Laser Fellowship- 2023; International Society of Reconstructive Microsurgery travelling fellowship 2023.

Dr Suvashis Dash received PGCMDM-Post Graduate Certificate in Medical Management of CBRNE Disasters (2023) University: Indira Gandhi Open University, New Delhi; Advanced Certificate for AI In Digital Health and Imaging (2023-24) from, Indian Institute of Science, India; Fellow of the Association of Surgeon of India (FAIS); ISPRES Social Media Committee- core member.

VISITING SCIENTIST

1. Dr. Yasuyuki Matsuura, Scientist, University of Hiroshima, Japan under the DST – JSPS India-Japan Cooperative Science Programme (IJCSP) initiative.
2. Dr. Sanjay Parashar, Director, Cocoona Centre for Aesthetic Transformation, Dubai, UAE – In house Resident Teaching Programme on Aesthetic Surgery.

9.35 Psychiatry

Professor and Head

Rakesh Kumar Chadda,
(Till 31 January 2024)

Pratap Sharan,
(From 1 February 2024)

Professors

Rajesh Sagar

Nand Kumar

Mamta Sood,

Raman Deep

Sujata Satapathy,
(Clinical Psychology)

Additional Professors

Koushik Sinha Deb,

Rohit Verma

Bichitra Nanda Patra,

Gagan Hans

Associate Professor

Vaibhav Patil,
(Neuropsychiatry, Neuroscience Centre)

Assistant Professors

Barre Vijay Prasad,
(Clinical Psychology)

Nishtha Chawla
(JPNATC)

Swati Kedia Gupta,
(Clinical Psychology, National Center for Ageing)

Preethy K
(National Center for Ageing)

Renu Sharma,
Child Psychologist

HIGHLIGHTS

The Department of Psychiatry has been at the forefront of imparting quality training for M.D (Psychiatry), PhD (Psychology) and MBBS students and also actively participates in the training programmes for B. Sc/M. Sc nursing as well as residents from the departments of Medicine, Geriatric Medicine, Emergency Medicine, Palliative Medicine, and DM Neurology. A new DM Program in Psychosomatic Medicine has been approved. The Department of Psychiatry has a rich tradition of research and is currently executing several key funded research projects in collaboration with DST, WHO, ICMR and several other international agencies. The Department successfully organized several key events in the year including Indian Psychiatry Society (IPS) AIIMS CME on "Combined Psychotherapy and Pharmacotherapy", 8-10 October 2023; "4th Hands-on-Workshop & 7th National CME on Neuromodulation(rTMS)", 14-16 December 2023 at AIIMS, New Delhi and the "8th Asian CBT Congress 2024" 28 February to 2 March *2024* at AIIMS, New Delhi. Besides some other events like public lectures and Students' Wellness Workshops. The Department 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 clinics. The Department also provides community outreach services 6 days a week at the CRHSP, Ballabgarh and primary health centers at Chhainsa and Dayalpur, and once a week service at the National Cancer Institute, Jhajjar. The Department provided out-patient consultation services at AIIMS, New Delhi to a total of 18, 065 new cases and 81, 251 follow-up cases in 2023-24.

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, Ballabhgarh
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 the Department of Psychiatry for a period of 2-4 weeks for training in psychiatry.

MD (Psychiatry) & 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

Organized the following conferences/ workshops.

- **CME on "Combined Psychotherapy and Pharmacotherapy"**8-10 October 2023, AIIMS, New Delhi.
- **"4th Hands-on-Workshop & 7th National CME on Neuromodulation(rTMS)"**, 14-16 December 2023 AIIMS, New Delhi
- Self-Enrichment Workshop for MBBS students-2023 by CREST organized by the Academic Section and the Students' Wellness Centre, AIIMS, New Delhi, 7-13 August 2023
- Workshop for Teacher Mentors by CREST, organized by the Academic Section and the Students' Wellness Centre, AIIMS, New Delhi, 14 August 2023.
- Faculty Mentor Sensitization Program at the Students' Wellness Centre, College of Nursing, AIIMS, New Delhi, 20-21 September 2023.
- IPS Psychotherapy workshop, AIIMS, New Delhi on 9-10 December 2023.

- CME "At the Interface of Mind and Body" held at AIIMS, New Delhi on 30 January 2023
- 8th Asian CBT Congress 2024. New Delhi 28 February to 2 March 2024, AIIMS, New Delhi.
- SPARC (Cooking, Photography, Art and Chess competition): A wellness Initiative. Students' Wellness Centre, AIIMS, New Delhi. 9 March 2024

Lectures delivered: 154

Rakesh Kumar Chadda: 20
Pratap Sharan: 26
Rajesh Sagar: 35
Nand Kumar: 5
Mamta Sood: 1
Raman Deep: 6
Sujata Satapathy: 9
Rohit Verma : 11
Gagan Hans: 4
Vaibhav Patil: 3
Barre Vijay Prasad: 1
Nishtha Chawla: 3
Preethy K: 25
Renu Sharma: 5

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
149	140	154

LIST OF ORAL PAPERS/POSTERS PRESENTED: 46

Oral/poster presentations over past 3 year

2021-2022	2022-2023	2023-2024
25	33	46

Research

Funded Projects

Ongoing

1. A comprehensive genomic approach to predict responders vs non- responders against common anti-depressant therapy, Nand Kumar, ICMR, 3 Years, 2022-25, Rs 87,09,763
2. A randomized controlled trial of the effectiveness of Transcranial Direct Current Stimulation (tDCS) for Treatment of Major Depression, Rohit Verma, AIIMS IIT Delhi Collaborative Research Grant, 2 Years, 2023-25, Rs 10,00,000
3. A randomized controlled trial to evaluate a technology-enabled platform to manage depression with or without behavioural activation in patients with cancer in India, Rajesh Sagar, DBT Welcome Trust, 5 Years, 2024-28, Rs 46,71,093
4. A study to develop and evaluate a manual-assisted, tailored brief intervention (BI) for cardiovascular risk reduction (vs care as usual) in patients with depression: A two-arm parallel randomized control trial (RCT), Raman Deep, ICMR, 3 Years, 2024-26, Rs 77,91,458
5. AIIMS-BSF Manorakshak Tele-Counselling Helpline Service Project -A Pilot Project, Pratap Sharan Sujata Satapathy Rohit Verma, BSF, 1 year, 2023-24, Rs 20,00,000
6. An observational study assessing impact of treatment on dream recall in individuals with Major Depressive Disorder, Rohit Verma, IPS Multicentric Study Grant, 2 Years, 2023-25, Rs 3,00,000
7. An observational study to evaluate the antidepressant treatment response in subjects with treatment of antidepressants alone vs. antidepressants with add-on therapy of ACEI/ARBs and its correlation with renin-angiotensin axis related biomarkers and cerebral metabolic profile, Bichitra Nanda Patra, AIIMS, New Delhi, 2 Years, 2023-25, Rs 5,00,000
8. Asian Bipolar Genetics Network (A- BIG-NET), Rajesh Sagar, NIMH, USA& NIMHANS, 4 Years, 2024-27, Rs 89,60,507
9. Burden and magnitude of COVID-19 vaccine anxiety, hesitancy and its correlates in India, Rajesh Sagar, Indian Council of Medical Research, 3 Years, 2022-25, Rs 49,74,554

10. Comparative mapping of common mental disorders (CMD) over lifespan, Pratap Sharan (for AIIMS Centre) PI: Arpan Banerjee (NBRC, Manesar);, Department of Biotechnology, 3 Years, 2019-22, Rs 5,60,00,000
11. Developing intervention guide for psychological first-aid based on profile, needs, and experiences of patients presenting with self-harm in two tertiary centers: A mixed methods study, Nishtha Chawla, AIIMS, New Delhi, 2 Years, 2023-25, Rs 6,20,000
12. Development and psychometric properties of New Insight scale for patients with mental Illness in India, Barre Vijaya Prasad, AIIMS, New Delhi, 1 Year, 2023-24, Rs 1,50,000
13. Development of a Bi-Lingual Mobile-App based Neuro-cognitive screening tool for early identification of children aged 3-11 years with Autism and ASD Co-morbid with ADHD, Satapathy Sujata, ICMR, 3 Years, 2023-26, Rs 68,32,000
14. Development of IEC Materials for College Students on Mental Health and Wellbeing, Rajesh Sagar, WHO, 6 Months, 2024-24, Rs 9,99,800
15. Development of Psychological Wellness App for Medical Students, Dr. Preethy Kathiresan, AIIMS Early Career Intramural Research Grant, 2 Years, 2024-25, Rs 4,50,000
16. Early Detection and Rehabilitation of Neuro-cognitive and Psycho-Behavioural Deficits in Children with Cancers: Development of a Screening Scale and a Double-blind Randomized Control Study, Satapathy Sujata, ICMR, 3 Years, 2023-26, Rs 67,75,000
17. Effect of nostril breathing patterns in the patients of Major Depressive Disorder, Vaibhav Patil, ICMR, 3 Years, 2024-27, Rs 73,00,000
18. Effect of transcranial direct current stimulation (tDCS) on cognitive function, symptoms and functioning in Children and Adolescents with Attention Deficit Hyperactivity Disorder (ADHD): A Randomised Controlled Study", Bichitra Nanda Patra, Department of Science & Technology, Govt of India, 3 Years, 2023-26, Rs 50,85,170
19. Effects of additional Yoga intervention in Children and Adolescents with Major Depressive Disorder: A Randomised Controlled Trial, Bichitra Nanda Patra, Department of Science & Technology, Govt of India, 3 Years, 2022-25, Rs 38,29,560
20. Experience of Take-home Buprenorphine in Punjab Opioid Substitution Therapy Centres, Dr Preethy Kathiresan, Punjab State AIDS Control Society, 6 months, 2024-24, Rs 3,02,500
21. Immune system network in palliative care patients with depression, Pratap Sharan, Department of Health Research, 3 Years, 2023-26, Rs 51,00,000
22. Magnetic Resonance Spectroscopy in depressed subjects treated with Electroconvulsive Therapy, Gagan Hans, ICMR, 3 Years, 2023-26, Rs 26,04,132
23. Peripheral inflammatory cytokines in Generalized Anxiety Disorder: A Case-controlled study, Gagan Hans, AIIMS Intramural, 2 Years, 2021-23, Rs 9,36,000
24. Pre-conception Integrated Health Care for Women: Development of a Perceived Preconception Health Risk Assessment Tool and Community-based Health Risk-Reduction Sensitized Programme, Satapathy Sujata, DHR, 3 Years, 2024-27, Rs 43,00,000
25. School-based Transdiagnostic Trauma-Focused CBT for Adolescents with Depression, Anxiety and PTSD: A Parallel Group RCT in Low, Moderate, and High Crime Hotspots in Delhi-NCR, Satapathy Sujata, ICMR, 3 Years, 2024-27, Rs 80,86,000
26. sMARSA (sensitive Magnetic Assisted nano-particle Rapid Sandwich Assay) for Alpha-Synuclein: Validation of cartridge-based ELISA for quantification of alpha-Synuclein in serum, Vaibhav Patil, ICMR, 3 Years, 2024-27, Rs 88,00,000
27. Speech Marker to Detect Depression in Community, Nand Kumar, CSR under Coal India limited, 2 Years, 2024-26, Rs 1,9652,050
28. Utilizing artificial intelligence techniques to identify phenotypes of obsessive-compulsive disorder through analyzing brain bioelectrical activity and eye movement patterns, Rohit Verma, Indo-Russian International Collaborative Research Grant, 3 Years, 2024-27, Rs. 57,00,000

Completed

1. A study of acute and longitudinal effects of brain stimulation in treatment of depression and schizophrenia, Rohit Verma, AIIMS Intramural Grant, 3 Years, 2018-23, Rs 10,00,000

2. CARE, Professor Nand Kumar, ICMR, 2 Years, 2019-24, Rs 4,50,00,000
3. Cognitive and Psycho-Physiological Effects of AIIMS Cognitive Training Toolkit (CTT) and Computer Based Cognitive Training (PSS CogRehab) on Children with ADHD aged 6-11 years: A Randomized Control Pilot Study, Satapathy Sujata, DST, 3.5 Years, 2019-23, Rs. 58,00,000
4. Development of panic and anxiety Indian questionnaire (PANIQ), Pratap Sharan, Indian Council of Medical Research, 4 Years, 2018-22, Rs 1,80,00,000
5. 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, 4 Years, 2018-23, Rs 51,98,660
6. H1-MR Spectroscopy based evaluation of metabolic abnormalities in anterior cingulate cortex, hippocampus, and amygdala in treatment naïve patients with unipolar and bipolar depression and its relationship with peripheral glutaminase, Gagan Hans, AIIMS Intramural, 2 Years, 2020-22, Rs 3,60,000
7. 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, 2016-23, Rs 8,57,940
8. Psychiatric morbidity and its early antecedents in the New Delhi Birth Cohort, Rajesh Sagar, QED and WHO-SEARO, 3 Years, 2018-23, Rs 8,67,850
9. Psychosocial Dynamics of Pregnancy Loss: Development of a Multidimensional Scale & Development and Efficacy (a Randomized Control Trial) of a Group Psychological Intervention Module, Satapathy Sujata, ICMR, 3.7 Years, 2019-23, Rs 74,00,000
10. Technology mediated Delivery of Courses in Medical Science Education for NER Medical colleges, Satapathy Sujata, Centre for Development of Advance Computing (Ministry of Electronics & Inf. Technology), 3 Years, 2020-23, Rs 44,19,000
11. Validation and Standardization of Indicators/Markers of Penetrative CSA in Children's Draw-A-Person-Test (DAPT), Satapathy Sujata, NCPCR, 1 Year, 2022-23, Rs 6,66,000

Departmental Projects

Ongoing

1. A case control study of change in cognitive functioning after Deep Brain Stimulation of the Subthalamic Nucleus in Parkinson's Disease
2. A Double-Blind Randomised Sham-Controlled Trial for Assessing the Effect of repetitive transcranial magnetic stimulation as an Adjunctive Treatment in Children and Adolescents with Autism Spectrum Disorder
3. A longitudinal observational study to evaluate antidepressant medication response using brain derived nerve growth factor and cortical hemodynamic and electrical activity
4. 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
5. A randomized controlled single blind trial of ketamine versus modified electroconvulsive therapy to improve neuropsychological and clinical outcomes in treatment resistant depression
6. A Randomized Double-Blind Sham-Controlled Trial for Evaluating Effectiveness and Tolerability of Ketamine Augmentation for Depression with Suicidal Ideation
7. A study on associative stigma and its relationships with stress and burden among parents of children and adolescents with psychiatric disorder.
8. A study on clinical, behavioural, and psychosocial factors among children and adolescents attending Level 1 trauma centre with physical injuries
9. A Study to examine Psycho-Social & Behavioural Domains among School going Adolescents during COVID 19 Pandemic: Mixed Study Design-ICMR funded
10. Acute effect of Methylphenidate on prefrontal cortical activation in children and adolescents with ADHD using fNIRS during saccadic movements: A Randomised control trial
11. Adolescent Sexual Abuse: Modification of Multidimensional Scale for Child Sexual Abuse (MSCSA) and a Randomized Feasibility Trial of a Trauma - Focused Cognitive Behaviour Therapy Intervention

12. An Exploration of Treatment Outcomes of Transcranial Magnetic Stimulation at a Tertiary Care Centre, for Patients with Neuropsychiatric Disorders viz. Schizophrenia, Depression, OCD, Migraine, Somatic Symptom Disorder, and Tinnitus
13. An exploratory study to assess the magnitude of in-patient restraint and seclusion practices in India through the development of a framework for uniform restraint reporting across the country
14. Assessment of Anxiety and Depression in Patient with Epithelial Ovarian Cancer after 1st line Chemotherapy: A Cross Sectional Observational Study
15. Assessment of clinical factors associated with chronotype in patients with bipolar disorder in remission
16. Assessment of cortical activation and connectivity using fNIRS
17. Assessment of pattern and profile of patients admitted with self-harm attempt at apex trauma centre: a retrospective chart review
18. Assessment of the serum uric acid and its association with short-term naturalistic course of manic episode in patients with bipolar I disorder
19. Assessment of Toxoplasma gondii seropositivity and its association with lifetime suicidality in patients with bipolar disorder
20. Brief CBT based Development of a Parent Mediated Low-Intensity CBT Based Intervention Modules for Neuro-developmental Disorders (ADHD And ASD) in children aged 6-11 years: A controlled Feasibility Trial
21. Comparative study of socio-clinical characteristics and mental health issues in people with gender incongruence with age matched cis-gender people
22. Comparison of clinical profile, functioning, memory, serum cortisol, BDNF in adult schizophrenia patients with and without childhood trauma
23. Correlation of core motivations in OCD with neurocognitive functioning and prefrontal cortical hemodynamic activity
24. Cultural Aspects of the Illness Experiences of Patients with Depressive Disorders, Dissociative disorders, Hypertension, and Diabetes: An Exploratory Study
25. Development and Validation of Insight Scale for Patient's with Mental Illness in India
26. Development of a Bi-Lingual Mobile-App based Neuro-cognitive screening tool for early identification of children aged 3-11 years with Autism and ASD Co-morbid with ADHD, funded by ICMR
27. Early Detection and Rehabilitation of Neuro-Cognitive and Psycho-Behavioural Deficits in Children with Cancers: Development of a Screening Scale and a Double-Blind Randomized Control Study
28. Early Prediction of Depression Treatment Response Through Smartphone App - a prospective, cohort study.
29. Effects of loneliness on cognitive and emotional processing in youth with mental illness: An interventional study
30. Elucidating the structural, neurobiological changes and identification of non-invasive biomarkers using magnetic resonance imaging and spectroscopy in major depressive disorder
31. Exploring Social Media Use and its Correlates in Adolescents With Attention Deficit Hyperactivity Disorder: A Case-Control Study
32. Group cognitive behavioural therapy for obsessive-compulsive disorder: development and feasibility study
33. Investigation of anterior cingulate cortex and dorsolateral prefrontal cortex gamma-aminobutyric acid and glutamate-glutamine levels in obsessive-compulsive disorder using magnetic resonance spectroscopy
34. Neuro-biofeedback as a trans-diagnostic treatment approach among adolescents with internalizing disorders
35. Peripheral Inflammatory Markers in 1st Episode Untreated Depression- A Case-Control Study
36. Psychological Trauma Resilience in Children and Adolescents: Development and Psychometric Properties of a Multidimensional Scale
37. Self-Harm in Transitional Age Youth (TAY): Development and Validation of an Assessment Tool and Randomised Feasibility Trial of a Trauma-Focused CBT Intervention Module
38. Social media use and its correlates in adolescents with attention deficit hyperactivity disorder

39. Study of Neurofeedback Training as an Adjunctive Transdiagnostic Treatment among Adolescents with Internalizing Disorder
40. The Demographic Profile and Tumor Markers in Women Presenting with Benign and Malignant Ovarian Masses and the Effect of these Neoplasms on their Lifestyle.
41. The Epidemiology of Trauma, Resilience and Post Traumatic Stress Disorder (PTSD) in Indian adolescents
42. To assess effectiveness of Acceptance and Commitment Therapy on stress reduction and coping strategies newly diagnosed breast cancer patients.
43. Validation of Brain-Based Intelligence Test BBIT in patients with intellectual disability, attention deficit hyperactivity disorder and specific learning disability

Completed

1. A Multigroup Correlation study on Mental Health Correlates and Uncertainty during COVID-19 pandemic
2. A randomized double-blind sham-controlled trial for evaluating effectiveness and tolerability of high-definition transcranial direct current stimulation (HD-tDCS) in depression
3. A study of Neurophysiological predictors of response to methylphenidate in children and adolescents with ADHD
4. Acceptance and commitment therapy as psychosocial supportive care in patients with head and neck cancer
5. Assessment of Sexual Health and Intimacy in Cancer patients: Perspective from Patients and Health Care Workers
6. Clinical characteristics of premenstrual dysphoric disorder (PMDD) in women with bipolar disorder
7. Development and validation of an android-based trail making test application (TMT App) for cognitive assessment
8. 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
9. Evaluation of impact of Chronic Skin Diseases on mental health
10. Evaluation of the efficacy of Yoga-Based Intervention and Transcranial Magnetic Stimulation on cognition, stress and aging in Obesity: A Randomized Controlled Trial (Current 17 May 2023 Physiology)
11. Exploratory study on problematic use of cybererotica.
12. Impact of COVID-19 pandemic on mental health among healthcare workers in a tertiary care centre in India
13. Perception of the Social Support and Prevalence of Depression among Head and Neck Squamous Cell Carcinoma Patients
14. Study of Behaviour, Psychiatric morbidity and cognitive functioning in Post-COVID children and adolescents

Collaborative Projects

Ongoing

1. A comparative study of anxiety and depression in low-risk vs high-risk pregnant women in Indian settings, Department of Obstetrics & Gynecology
2. A prospective cohort study of the effect of cosmetic camouflage on quality of life and patient perceived stigma in patients with vitiligo, Department of Dermatology & Venereology
3. A randomized controlled trial comparing the efficacy of cognitive behavioral therapy vs yoga nidra in persons with psychogenic nonepileptic seizures, Department of Neurology
4. A randomized controlled trial to assess the effect of riboflavin supplementation with antidepressant treatment in persons with major depressive disorder, Department of Pharmacology
5. A randomized controlled trial to see the effect of post-operative systemic anticoagulationin patients undergoing post traumatic medium sixed vessel repair, Department Of Trauma Surgery, JPNATC
6. A Randomized Controlled Trial to study the effect of immediate post operative prosthesis (IPOP) vs Conventional prosthesis on Balance, QOL, & Psychological status in below knee amputation patients following trauma, Department Of Trauma Surgery

7. Adolescents' Resilience and Treatment nEeds for Mental health in Indian Slums (ARTEMIS), George Institute of Global Health, New Delhi
8. Air pollution impact on pregnancy and early childhood development in India-(APIPED COHORT), Department of Community Medicine.
9. Altered microRNA expression in peripheral blood and brain following severe traumatic brain injury, Department of Lab Medicine, JPNATC
10. Anemia: Exploring the role of vitamin D, essential elements and lifestyle in Indian population, Department of Pharmacology
11. Assessing the implementation of multidisciplinary clinic and board for management of children with Disorders of Sex Development, and its impact on quality of care, Department of Pediatric Endocrinology
12. Assessment of monoaminergic neurotransmission related polymorphisms and their role in prediction of antidepressant treatment response using machine learning approach in Indian patients suffering from depression, Department of Pharmacology
13. Association of polymorphism in galanin and its receptor gene and opioid dependance: A case control explorative study, NDDTC, AIIMS, New Delhi
14. Center for Advance Research & Excellence (CARE) in Neuro assistive technologies in stroke recovery, IIT, New Delhi
15. Childhood Cancer Survivorship Program (CCSP), Department of Medical Oncology
16. Clinical research to assess efficacy of repetitive transcranial magnetic stimulation along with implantation of neurotrophic coated nanoparticles in complete spinal cord injury patients, Department of Physiology, AIIMS, New Delhi
17. Comparative assessment of functional near-infrared spectroscopy in children for detecting emergence delirium with sevoflurane vs total intravenous anaesthesia: a prospective observational study, Department of Anaesthesiology
18. Comparative study of cortical activation using fMRI and fNIRS across cognitive tasks in patients with depression, Department of NMR
19. Comparison of pain status in patients undergoing Targeted Muscle reinnervation versus Conventional stump preparation following post-traumatic above-knee amputation: A Randomized control trial, Department Of Trauma Surgery
20. Correlation of sleep architecture with cognition, behaviour and executive function in children and adolescents aged 5 - 18 years with pharmaco-responsive non-lesional epilepsy, Department of Pediatric Neurology
21. Depression and Anxiety among Transgender persons who are enrolled with targeted intervention sites in Delhi, Department of Community Medicine
22. Development and evaluation of artificial intelligence-based methods for prediction of self-harm and suicide attempts amongst the patients of depression, Department of Anatomy
23. Development And Validation of a Tool for Assessment of Manasa Prakriti (Psychological Personality Traits), All India Institute of Ayurveda, Delhi
24. Development of Scale for Assessment of High-risk Attitudes and risky Sexual Behaviour (SAHAS) Tool for Indian population, IHBAS, Delhi
25. Diagnostic validation of first episode and chronic neurobehavioral outcome in pediatric onset central nervous system acquired demyelination syndrome: an ambispective observational study, Department of Pediatric Neurology
26. Digital Interventions in Mental Health Care-ICMR-Centre for Advance Research (CAR), NIMHANS, Bangalore
27. EEG cortical sources and connectivity of working memory and language processing in Attention Deficit Hyperactivity Disorder, Department of Physiology
28. Effect of "Yoga-break at workplace" on Stress, Sleep quality and Quality of Life among the industrial workers in Faridabad, Haryana, Department of Community Medicine
29. Effect of ACE inhibitors and angiotensin receptor blockers on renin-angiotensin system markers in brain tissue of postmortem subjects with depression, Department of Pharmacology
30. Effect of antidepressant drug (Escitalopram) on testicular and adrenal functions, Department of Reproductive Biology

31. Effect of antidepressants on neuro-degeneration and neuroplasticity in patients with depression, Department of Pharmacology
32. Effect of 'Common yoga protocol' by AYUSH for chronic insomnia: An open-label, two-arm, parallel randomized controlled clinical trial protocol, Department of Physiology
33. Effect of cumulative fluid balance on delirium predicted by cam-icu and functional near-infrared spectroscopy (fNIRS) guided mapping of frontal cortex in critically ill patients with septic shock- a prospective observational study, Department of Anaesthesiology
34. Effect of nostril breathing patterns in the patients of Major Depressive Disorder, Department of Physiology, AIIMS
35. Effect of Structured Yoga Program on Stress on Frontline Workers during COVID Pandemic, Department of Community Medicine
36. Effectiveness of community re-entry program on global functioning, medication adherence, relapse rate among bipolar affective disorder at AIIMS Jodhpur, AIIMS Jodhpur
37. Efficacy of a yoga-meditation based lifestyle intervention vs repetitive transcranial stimulus (rTMS) in patients with obesity and major depressive disorder: a randomized controlled trial (RCT), Department of Physiology
38. Elucidating the structural, neurobiological changes and identification of non-invasive biomarkers using magnetic resonance imaging and spectroscopy in major depressive disorder, Department of Nuclear Magnetic Resonance
39. Emotional response and mental health of women undergoing 2nd trimester Medical Termination of Pregnancy for fetal anomalies, Department of Obs & Gyne
40. Examining Stress, and Cognitive-Affective Processing in Emotion Disorders, Department of Psychology, Indian Institute of Technology, Delhi
41. Financing of expenditure on mental illness-a case study of NCR, IGNOU, Delhi
42. Gender role behavior and puberty-related issues in children and adolescents (8-19 years) with classical 21-hydroxylase deficiency Congenital Adrenal Hyperplasia with 46 XX karyotype: A Cross-sectional analytical study, Department of pediatric endocrinology
43. Genetic and cellular changes following 6 months of Yoga-based lifestyle intervention in patients with obesity and co-morbid depression: A randomized controlled trial, Department of Physiology
44. Genetic expression of monoaminergic neurotransmission-related polymorphisms and their association with antidepressant response in Indian patients suffering from depression-funded by DHR-ICMR, Department of Pharmacology
45. Genome-wide DNA methylation profiling to study role of epigenetic modification in suicide completers in Indian population, Department of Forensic Medicine & Toxicology
46. Hidden Cost of Pediatric Cancer: Effect of Childhood Cancer on Sibling's Psychological Well-Being, Department of Pediatric-Oncology
47. Immediate versus delayed withdrawal of anti-seizure medication in patients with psychogenic non-epileptic seizures - a randomised controlled study, Department of Neurology
48. Impact of Psychosocial Intervention on Quality Of Life in Patients with Post Traumatic Limb/s Amputation: A Randomized Controlled Trial, Department of Trauma Surgery, JPNATC
49. Impact of rTMS versus drug therapy on phantom limb pain in lower limb amputation patients: A Randomized control trial, Department of Trauma Surgery, JPNATC
50. Incidence and Severity of Psycho-social and somatic disorders in survivors of childhood solid malignant tumors, Department of Pediatric-Oncology
51. International sex survey, University of Montreal, Canada
52. Measuring Mental Health Needs for Children and Youth in India Using InterRAI Assessment Tools- Feasibility of Tool Administration and Validity", Western University, Canada
53. Natural history of cognitive and neuropsychiatric dysfunction in idiopathic hypoparathyroidism and its correlates including demographic, metabolic, intracranial calcification and functional MRI, Department of Endocrinology
54. Neuropsychiatric and cognitive dysfunction in hypoparathyroidism its natural course after 10 years of follow-up in patients with idiopathic hypoparathyroidism on conventional therapy and effect of these dysfunctions on their calcemic control, Department of Endocrinology

55. Neuropsychological Basis of Decision Making: Testing Lateralization of Cognitive Function in Medial Temporal Lobe Epilepsy, Department of Neurology, Neurosciences Centre, All India Institute of Medical Sciences, New Delhi & Department of Psychology. Indian Institute of Technology, Delhi
56. Prospective double-blind Randomized controlled clinical study on Ayurvedic intervention (sarpganaha Mishran) vs Amlodipine for the management of stage-I Primary Hypertension, Department of Pharmacology
57. QEEG-based neural correlates and microstates of attention and interference in ADHD: An endophenotypic marker, Department of Physiology
58. Qualitative Study on How Patients with Skin Diseases are Managed in Non-Dermatology Settings, Department of Dermatology & Venereology
59. Qualitative Study on Perception of Treatment Response in Vitiligo Patients, Department of Dermatology & Venereology
60. Quality of life, Sleep, Sexual functioning and Distress among infertile females with Polycystic Ovary Syndrome (PCOS): Hindi translation and validation of Psychometric Tools, Department of Obs & Gyne
61. Relapse Prevention Pscho-Behvioural Intervention Module for inmates of Correctional Settings- A Forensic Intervention Study, Punjab University, Chandigarh
62. Role of rennin angiotensin aldosterone system and its modulators upon antidepressant treatment response in person with depression, Department of Pharmacology
63. sMARSA (sensitive Magnetic Assisted nano-particle Rapid Sandwich Assay) for Alpha-Synuclein: Validation of cartridge-based ELISA for quantification of alpha-Synuclein in serum, Department of Biophysics, AIIMS
64. Structural and functional correlates of visuospatial complexity in language processing in children with developmental dyslexia, Department of Physiology
65. Task Force Project "Development of Nardostachysjatamansi and Withaniasomnifera formulation for treatment of sleep disorders", Departmentof Neurology
66. Testing how mind-wandering affects action-inhibition, IIT, New Delhi
67. To compare the effect of Isokinetic training with Conventional exercises in patients with above knee amputation following trauma in relation to prosthesis adaptability and Gait: A Randomized Controlled Trial, Department Of Trauma Surgery
68. To develop and evaluate the effectiveness of a multidisciplinary education and care model for individuals with diabetes affected by COVID-19: A two-arm parallel Randomized Control Trial, Department of Endocrinology, AIIMS
69. To evaluate effectiveness of transcranial direct current stimulation (tDCS) for improving cognitive function in primary open-angle glaucoma (POAG), Department of Ophthalmology
70. To evaluate prospective auditory cortical activity changes on functional near-infrared spectroscopy in prelingual profound snhl patients undergoing cochlear implantation, Department of Otorhinolaryngology
71. To study the effect of Immediate Post-Operative Prosthesis in relation to postsurgical outcome, balance and quality of life in above-knee amputation patients (post-traumatic): A Pilot Randomized Controlled Trial, Department of Trauma Surgery, JPNATC
72. To study the impact of yoga-based lifestyle intervention on childhood depression, the Department of Anatomy
73. To test effects of breath-focus on lateralized cognitive and affective processing in Generalized Anxiety Disorder (GAD) patients, Department of Physiology, All India Institute of Medical Sciences, New Delhi & Department of Psychology. Indian Institute of Technology, Delhi
74. Trauma-focused Postvention Module for family and friends of victims of completed suicide- Development and Validation, Department of Forensic Sciences & Toxicology
75. Understanding Mental Health Needs for Children and Youth in India: Using interRAI Assessment Tools, Western University, Ontario, Canada
76. Understanding the structural and neurobiological changes in the patients with major depressive disorder using magnetic resonance imaging and spectroscopy, Department of Nuclear Magnetic Resonance

Completed

1. "Developing a Digital Health-enabled Intervention to tackle Multimorbidity in Primary care in India". funded by the Medical Research Council, UK under the Global Challenges Research Fund, Public Health Foundation of India (PHFI)
2. A randomized control study to assess the effectiveness of a nurse-led psychoeducation session on medication adherence and symptom severity among patients with depression, College of Nursing, AIIMS, New Delhi
3. A study to assess the effectiveness of Mobile Application based home care management programme among patients undergone kidney transplantation in AIIMS, New Delhi, College of Nursing, All India Institute of Medical Sciences, New Delhi
4. 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- funded by Ministry of AYUSH, Govt of India, Department of Anatomy
5. Association between Pre-operative frailty and Post-Operative Delirium and Cognitive dysfunction in elderly patients undergoing spinal surgery under general anaesthesia: A Prospective Observational Study, Department of Anaesthesiology
6. Autopsy findings and psychological profiling in suicidal hanging in adolescents, Department of Forensic Medicine & Toxicology
7. Development of a questionnaire-based tool to measure patient reported outcome in children with epileptic encephalopathy, Department of Paediatric Neurology
8. 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, DST funded, Mental Health Foundation (India)
9. Exploring the Psychological paradigms among individuals during COVID 19: A Comparative Study, Department of Psychiatry PGIMER, Chandigarh
10. Facilitating IT enabled Trainings for generating skilled HCW's in General Pandemic Management & COVID 19 Management - PRAKSHMAY Training, Department of Physiology
11. Genetic association of cytokines with suicidal behavior in Indian population, Department of Forensic Medicine & Toxicology
12. Hindi translation and psychometric validation of Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) PI: Ashwani Mishra (NDDTC) (Non-Funded), NDDTC
13. Impact of Interactive Training Interventions on Select Healthcare and Frontline Workers in Emergency of a Tertiary Care Teaching Hospital: A Randomised Controlled Trial, Department of Hosp Administration
14. Impact of Psychosocial Intervention on Quality of Life and Stress Biomarkers in Patients with Traumatic Limb Amputation/s: A Randomized Controlled Trial, Department of Trauma Surgery, JPNATC
15. Internal consistency and divergent validity of the Hindi version of the Addiction Severity Index-Lite among individuals with alcohol and opioid, National Drug Dependence Treatment Centre (NDDTC),
16. Long term course and outcome and comorbidity in patients with bipolar disorder, 2023-24, PGIMER, Chandigarh, India
17. Long-COVID and its association with select health conditions in an urban resettlement colony of New Delhi: a community-based, cross-sectional study-MD-CCM, Department of Community Medicine
18. Multicentric prospective cohort study evaluating risk factors, comorbidities and impact of various interventions among adolescent and reproductive age women with PCOS ICMR PCOS Task force study-phase 2, Department of OBG
19. National Mental Health Survey-phase 2 megacity survey-funded by MoHFW, NIMHANS, Bangalore
20. Psychosocial, functional, educational, vocational and sexual outcomes in survivors of extremity bone sarcomas, Department of Medical Oncology
21. Study of Common Mental Disorders in adolescent living with HIV (ALHIV) attending the paediatric HIV services at AIIMS, New Delhi: A Case-Control Study, Department of Community Medicine

22. Systematic Medical Appraisal, Referral and Treatment (SMART) Mental Health Programme for Welcome Trust-DBT Alliance Fellowship, George Institute of Global Health, New Delhi
23. To develop a technology-driven intervention of the Psychological First Aid (PFA) model for Mental Health Challenges, Mental Health Foundation (India)
24. To evaluate cognitive impairment in patients of glaucoma, Department of Ophthalmology
25. Women's Health and Domestic Violence against Women during COVID-19 pandemic in India: a cross-sectional study-funded by WHO &MoHFW, Department of OBG
26. Yoga as a therapy for tobacco cessation: A Probe Trial, Department of CIMR

Research over past 3 years.

Research Projects	2021-22	2022-23	2023-2024
Total funded projects	18	16	41
Total funding (INR)	20, 93, 35, 657	16, 80, 09, 679	25, 57, 49, 037

PUBLICATIONS: 152

Journal articles: 127 **Abstracts: 5** **Chapters in books: 18** **Books: 2**

Publications

Item	2021-22	2022-23	2023-24
Total	**170**	**166**	**152**
Journal articles	130	121	127
Abstracts	8	12	5
Chapters in books	24	28	18
Books	8	5	2

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 C N Centre on Tuesday. Once a week.
Psychiatry services at CRHSP, Ballabhgarh.
Dual Diagnosis Clinic: Once in a week
Facilities available in Department (Special Clinics/Special Labs/Special Therapy)

Facilities available in Department (Special Clinics/Special Labs/Special Therapy)

1. **Centre for advanced research and excellence in neuromodulation (rTMS and Deep TMS Facility)** – Provides rTMS and deep TMS to 6-10 patients every day.
2. **Brain Mapping Lab facility –** added digital cognitive testing to the existing fNIRS, QEEG & eye tracking system for development of a state-of-the-art facility for brain mapping.
3. **MECT facility –** Improved data collection/digitalization in functioning of mECT; Added computerized cognitive testing; Added utility of Ketamine, Ketofol & Etomidate use with dexmedetomidine for increasing mECT effectiveness.
4. **High-definition Transcranial Electrical Stimulation –** Developed the HD-tDCS as a neuromodulation facility combined with utility of computerized cognitive testing & simultaneous EEG.

5. **Advanced signal analysis of Electroencephalography** – In collaboration with Department of Computer Sciences, IIT, Delhi & IIIT, Delhi

Community services

- AIIMS-BSF Manorakshak Tele-Counselling Helpline Service Project -A Pilot Project
- **Wellness Centre Project for Community Welfare (SSB Personnel) –**
    - Analysis of the On-site psychological evaluation of Jawans and Group discussions with medical officers of Sashastra Seema Bal (SSB) at peripheral Battalion outposts
- **Mobile App Development for Community benefit**
    - Developed and tested an android application for mobile/tablet based cognitive test (Trail Making Test – TMT App)
    - For educating renal transplant patients (Kidney Care)
    - Developed a mobile based cognitive test (Stroop Test)
    - Developed a mobile based evaluation system for assessing sleep in depression (DepSleep)
    - Developed a mobile based evaluation system for daily assessment of depression (MyMindSync)

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rakesh Kumar Chadda was President Elect (2022-2025), World Association of Social Psychiatry; Associate Editor, British Journal of Psychiatry; Handling Editor, BJ Psych International, another Journal of the Royal College of Psychiatrists of the UK; Vice President, Addiction Psychiatry Society of India; Member, Executive Council of the National Academy of Medical Sciences (India) 2021-2023; Nominated Honorary interim Treasurer in January 2023; Convenor, PG curriculum committee of the National Medical Commission of India; Convenor, Specialty Board in Psychiatry, National Board of Examinations; Chairperson, Awards Committee, Indian Association for Social Psychiatry; Chairperson, CME, Indian Psychiatric Society, North Zone, 2021-23; Nominated Member, Institute of Eminence, University of Delhi; Member, Deans Committee, AIIMS; Member, Working Group on 'National Working Group for Prevention & Treatment of Substance Use in Prison Settings', Ministry of Social Justice & Empowerment; Represented NDDTC and the country in the meeting of WHO Collaborating Centres on Mental Health, Brain Health and substance Use, held at the WHO HQ, Geneva on 14-15 November 2023; Coordinating the starting of mental health helpline for BSF personnel at AIIMS; Was Chair, NAMS Task Force on Alcohol, Substance Use Disorders, and Behavioral Addictions, and developed the recommendations of the Task Force in consultation with the members of the Task Force; Has been on selection committees of a number of institutes including AIIMS. Bibi Nagar , IGIMS, Patna, AIIMS, Jammu, J&K Public Service Commission, RINPAS, Ranchi and others; Led Inspection Team of expert to conduct inspection of the Central Institute of Psychiatry, Ranchi, constituted by the ministry of Health & Family Welfare, 28 April 2023; Coordinator, NAMS Lecture Series on Psychiatry May- June 2023; Advisor, Dimond Jubilee International Conference on Mental Health, 14-16 Sept 2023, PGIMER, Chandigarh.

Professor Pratap Sharan is the Professor-in-Charge of Student Welfare; the chief coordinator for the Committee for MBBS curricular reforms; a member of the Project Review Committee (Clinical Sciences); and the mental health lead for the Transgender Clinical Services at AIIMS; He is a member of the International Advisory Group for Training and Implementation for ICD-11 Mental, Behavioural and Neurodevelopmental Disorders (2018– onwards); WHO's Mental and Neurological Sciences pre-service education group, WASP coercion group, WHO's Advancing Supervisor Capabilities for Mental Health at Work: Facilitator Guide (ASCEND) group; and was a resource person for the WHO Global Launch of the ICD-11 CDDR (8 March 2024); He is a member of the Committee for National Health Authority Rationalization of Health Benefit Packages of Ayushman Bharat Pradhan Mantri Yojana (AB-PMJAY): Mental disorder specialty package review; Indian Council of Medical Research (ICMR) committee for prioritization process to identify and rank research topics in the area of Mental health; ICMR Committee for External Evaluation of multicentered study on suicide prevention. He is a Medical Experts for National Human Rights Commission; He is the Chairperson, IPS Psychotherapy Section; CME Committee, IPS North Zone; IACAM Constitution Committee; and IPS Review Committee on MPhil program. He is the Advisor, Indian Psychiatric Society Task Force on Leadership Development. He delivered the keynote address at the Annual Conference of Indian Psychiatric Society Jharkhand State Branch (9 September 2023) at Jamshedpur; He is the Ombudsman for the Indian Journal of Social Psychiatry; and serves as the Senior Editor of Journal for Eating Disorders; Associate Editor of the National Medical Journal of India; Handling Editor for PLOS Mental Health; and member of the Editorial Board of the many journals. He served as a peer reviewer for many journals including PLOS One, BMJ Open, Journal of Public Health, Public Health, International Journal of Mental Health Systems, WHO South-East Asia Journal of Public Health, British Journal of Psychiatry, Psychological

Medicine, Culture, Medicine and Psychiatry, Comprehensive Psychiatry, Bipolar disorder, Asian Journal of Psychiatry, World Social Psychiatry, BMC Psychology, SSM - Mental Health, Indian Journal of Medical Research and Indian Journal of Psychiatry; He is a reviewer for National Institute for Health Research, UK; Medical Research Council, UK; Welcome Trust, UK; Indian Council of Medical Research, and the Council for Scientific and Industrial Research. He is a member of boards for faculty promotion and selection at KGMU, Lucknow; NEIGRIHMS, Shillong, and AIIMS Guwahati; and senior residency selection at AIIMS Bhubaneswar, and AIIMS, New Delhi. He is an Examiner for Fellowship (Consultant Liaison Psychiatry) at PGIMER, Chandigarh, MD (Psychiatry) at AIIMS, Bhubaneswar. and participated in the evaluation of thesis of PG Students of AIIMS, Patna; AIIMS, Bhubaneswar; and KGMU, Lucknow and PhD thesis at KGMU, Lucknow. He served as a National Expert for Mental Health Capacity Building Programme of the Public Health Foundation of India; and the Indian Association for Child and Adolescent Mental Health (IACAM) Academy and is In-Charge Examinations for the latter.

Professor Rajesh Sagar is Expert member of recently constituted Department-related Parliamentary Standing Committee (DRPSC) on Health &Family Welfare for examination of the subject "Mental Health in contemporary times" and meeting with various Hon'ble Members of Parliament in Parliament House Annexe, New Delhi, 2022-23; Member Central Mental Health Authority (CMHA), Regulatory body under Mental Healthcare Act, 2017, Ministry of Health and Family Welfare, Government of India, and duly mentioned in The Gazette of India Notification & participated in meetings; Member of the Governing Council and Scientific Advisory Board (SAB) of the Indian Council of Medical Research (ICMR) & participated in meetings; Co-Chairperson, Journal-Sub Committee by Indian Psychiatric Society; Name listed in the World's Top 2% Scientists ranking by the Stanford University publication for the year 2022; Member of the Board of Governor (BoG) of LGB Regional Institute of Mental Health, Tezpur, Assam (under the Ministry of Health &Family Welfare, Govt. of India), & attended its 9th meeting chaired by the hon'ble Union minister of health &family welfare & participated in meetings; Member of the Technical Advisory Committee (TAC) for the development of a training and communication package for youth on mental health and life skills by the Executive Director, State Innovation in Family Planning Services Project Agency (SIFPSA)/Mission Director, National Health Mission (NHM) supported by WHO (India) & attended several meetings; Received "Outstanding faculty award" award by Hon'ble Union Minister as India's topmost faculty in research in Psychology/psychiatry involving data/web search of SCOPUS based on composite score of output, citations, h-index and review by experts. 2nd Faculty Research Award, October 2023; Received honorary Doctor of Philosophy (PhD) by NIMS University Rajasthan, Jaipur, in Convocation by chief guest, hon cabinet minister & State ministers, February 2023; Honorary visiting Professor, University of Leicester, UK, contd…; Member, UKRI International Development Peer Review College, UK; Member, North East England South Asia Mental Health Alliance (NEESAMA)- supported by Newcastle University, British Council &NTW NHS trust, UK; Fellowship of Royal College of Physicians of Edinburgh, FRCP (Edin.) 2019- contd; Mentors for Capacity Building for Disease Burden Estimation in India by the Global Disease Burden (GBD) India Initiative by ICMR, PHFI, IHME(USA); Honorary Senior Technical Advisor – Mental Health for World Health Partners; Expert Member, in Constitution of Technical Committee for developing a national strategy on Autism by the Ministry of Health &Family Welfare & held several meetings 2023; Chairman, in Constitution of Committee for finalization Training Manual for implementation of mental healthcare act, 2017 & submitted and launched the documents, 2023; Founding member & Resource person for Establishment of a Child and Adolescent Mental Health South Asia Resource Centre (CAMSARC) & Child and Adolescent Mental Health South Asia Network (CAMSAN), supported by UNICEF & WHO, attended inception meeting, April 2023; Member, National Technical Advisory Group for National Mental Health Survey-2 by the Ministry of Health &Family Welfare; Nominated as member to the Specialist board of Child and Adolescent Psychiatry of the National Board of Examination in Medical sciences; Chairperson of Ethics Committee of Indian Association of Palliative Care (IAPC), December 2023.

Professor Nand Kumar was expert process of expert member of Technical Specification & Evaluation Committee for Procurement of rTMS (100Hz) Machine at AIIMS, Bhopal.; Selected as an external examiner for conducting the clinical/viva examination of MD/MS (Psychiatry), AIIMS, Bhubaneswar. ; Selected as an expert for Faculty Phase-2 recruitment, AIIMS Mangalagiri, Andhra Pradesh. (Virtual Mode); Organizing chairperson for 4th Hands-on Workshop and 7th National CME on Neuromodulation 2023, Department of Psychiatry, AIIMS, Ansari Nagar, Delhi.; Nominated as a Chairperson, Parliamentary Affairs- Sub Committee. (2023-2024) in Indian Psychiatry Society.; Nominated as member PA&MC for TIDE (technology intervention for Disable and elderly) committee of the Department of Science and Technology, Govt of India; Nominates as Hon advisor for Mental Health Foundation (India), a not-for-profit registered organization working for mental health and education; Organizing as a Chairperson India's biggest Mental Health Festival in AIIMS, New Delhi; Selected as a Jury for Torrent Young Scholar award (TYSA) is the year's most awaited academic fest for the final year PGs of Psychiatry.

Dr Mamta Sood was Vice President, Indian Association for Social Psychiatry (2022-2024); President, Indian Psychiatric Society North Zone (2023-2024); J K Trivedi Award of Indian Association for Social Psychiatry (2023).

Dr Raman Deep Served as Convenor (2023-24), Research and Training Foundation Sub-Committee, Indian Psychiatric Society (IPS)*;* PPA-I Award (for 2025) Co-awardee Coauthor for Research paper, announced at Annual National Conference of Indian Psychiatric Society, January 2024; PPA-II Award (for 2025)*,* Co-awardee Corresponding author, for selected research paper announced at Annual National Conference of Indian Psychiatric Society, January 2024 ; M.D. Thesis Reviewer, Panjab University**;** Expert Reviewer/Peer Reviewer – British Journal of Psychiatry International, Indian Journal of Psychiatry, National Medical Journal of India; Invited Subject Expert for Faculty Selection /Assessment Promotion (AIIMS, Jodhpur, ESIC PGIMSR, AIIMS Kalyani).

Dr Sujata Satapathy Organizing Secretary of 1st Asian Trauma Conclave and 8th Asian CBT Congress: 28 Feb-3 March 2024, AIIMS, New Delhi.

Dr Rohit Verma Received the Balint award at IASP 2023; Received the Dr JK Trivedi award at IASP 2023; Assistant Editor of the Journal – Asian Journal of Cognitive Neurology; Executive Committee Member of Indian Association of Social Psychiatry (IASP); Ethical Committee Member of the University Institutional Ethical Committee (IEC), SRM University, Delhi-NCR, Sonepat, Haryana; Technical Expert – for Eye Tracking at AIIMS, Raipur & Rishikesh; Technical Expert – for ECT at AIIMS, Jodhpur, Raipur, Bibinagar, Bhubaneshwar & Rishikesh; External Expert for establishment of mECT services at VMMC & Safdarjung Hospital, Delhi; External Supervisor for University of Queensland - IIT Delhi Academy of Research (UQIDAR) - AIIMS joint PhD program; Member Secretary of the board for formulation of Rules of the Rights to Person with Disability Act; Co-Chairperson, Neuromodulation Committee – Indian Psychiatric Society (IPS) Specialty Section; Co-Chairperson, Award Committee – Indian Psychiatric Society (IPS) North Zone; Mentor – to an Indian start-up company (Triedge Platform Services Pvt Ltd.) for developing make-in-India technology "Software as Medical Device (SaMD) For Weight Loss Management" for managing weight loss and stress under the Centre for Medical Innovation & Entrepreneurship (CMIE), AIIMS, New Delhi; Doctoral Committee Member for PhD – ; Effect of Probiotics and repetitive Transcranial Magnetic Stimulation on cognitive and motor function in 6-hydroxy Dopamine rat model of Parkinson's Disease; Department of Physiology, AIIMS, New Delhi; Profiles of risk and resilience: A cross-sectional study to delineate demographic, psycho-social and clinical predictors of Nomophobia among Indian college students; NDDTC, AIIMS, New Delhi; Exploring neuroimaging and metabolomic markers associated with opioid dependence and pharmacotherapy; Department of NMR, AIIMS, New Delhi; Chairperson at Conference/CME/ Symposium/Workshop – ; Chairing the *JK Trivedi award session* at the 30th National Conference of Indian Association of Social Psychiatry (NCIASP 2023) held on 24 – 26 November 2023 at Raipur, Chhattisgarh; Chairing the Lecture session on *tDCS in Psychiatry: Principles and Protocols with Demonstration* at the 7th National CME on Neuromodulation and 4th Hands on Workshop held on 14–16 December 2023 at AIIMS, New Delhi; Chairing the Lecture session on *Teaching psychotherapy to psychiatrists* at the National CME on Combined Psychotherapy and Pharmacotherapy held on 8 and 9 October 2023 at AIIMS, New Delhi; Thesis evaluation – MD Thesis, AIIMS Rishikesh; UG Medical/Nursing Teaching Lecture – Schizophrenia; Internal Examiner for AIIMS Delhi MD Psychiatry Examination December 2023; Extramural Collaborative work – ; Collaboration with IIIT-D for *Machine learning model development for determining Depression response;* University of Queensland - IIT Delhi Academy of Research (UQIDAR) joint PhD program for *Examining stress and cognitive-affect processing in emotion disorders;* Visiting Scientist: External Supervisor at University of Queensland, Australia;

Dr Gagan Hans was Joint Organizing Secretary of Indian Psychiatry Society (IPS) AIIMS CME on "Combined Psychotherapy and Pharmacotherapy", 8-10 October 2023; Faculty resource person for National Conclave on Autism on 30 May 2023 at National Institute of Social Defense (NISD) Auditorium, Sector-10 Dwarka, Delhi; Joint Organizing Secretary of "4th Hands-on-Workshop & 7th National CME on Neuromodulation(rTMS)", 14-16 December 2023; Awarded extramural grant for ICMR Project program as Principal Investigator for the year 2023-2026; Working on 2 AIIMS Intramural Research Grants as Principal Investigator; In-charge Examination Cell IACAM (Indian Association of Child and Adolescent Mental Health) Academy for conducting online certificate courses in Child and Adolescent psychiatry; Faculty in charge of development, teaching, and training curriculum for medical undergraduate students at CRHSP, Ballabgarh; Five peer reviewed papers and chapters have been published or in the process of publication in various international and national journals of repute and books with leading publishers; Peer Reviewer for the Journal Autism, Journal of Mental Health and Human Behavior, Clinical Case Reports, Indian Journal of Social Psychiatry and Frontiers of Public Health; Development of information material (posters/ banners/audio-visual material) for public awareness on issues related to mental health as part of the AIIMS Institute Day activities. The poster prepared on "Community psychiatry services and training at AIIMS, New Delhi" won the 3rd prize at the AIIMS Institute Day, 2023; TV Interview on DD Urdu, Doordarshan on topic "Mental Healthcare Act 2017" in program "Apna Mulk Apna Aaeen" on 9 November 2023 to increase public awareness on mental health issues.

Dr Vaibhav Patil was Received JK Trivedi Award for the best paper in the 30th Annual National Conference of the Indian Association for the Social Psychiatry held at Raipur, India.

Dr Barre Vijay Prasad was invited as external expert for the M. Phil Clinical Psychology, examination at the Department of Clinical Psychology, SGT University, Gurugram, Delhi on 31 July 2023 to 1 August 2023.; Invited Guest lectures for M. Phil in Clinical Psychology by Sweekaar Academy of Rehabilitation Sciences, Secunderabad, Telangana India from 11 January 2024- 13 January 2024; Chaired a scientific session at 1st Asian Trauma Conclave and 8th Asian CBT Congress, organized by the Department of Psychiatry, AIIMS, New Delhi and Indian Association of CBT (IACBT) in collaboration with Rehabilitation Council of India, New Delhi, From 28 February - 2 March 2024.

Dr Nishtha Chawla received Dr VD Meel poster award for paper titled, "Factors associated with retention and abstinence in treatment for heroin dependence on abstinence-based treatment: A prospective observational study" at 48th Annual conference of Indian Psychiatric Society – North Zone (ACIPSNZ) held at Srinagar J&K), in October 2023 as presenting author; Dr Buckshey award for paper titled, "Understanding Depression Pathways: Resilience as a Moderator and Early Maladaptive Schemas as Mediators of Adverse Childhood Experiences" at 48th Annual Conference of Indian Psychiatric Society – North Zone (ACIPSNZ) at Srinagar (J&K), in October 2023 (co-author); Young Psychiatrists Award at 75th Annual National Conference of Indian Psychiatric Society (ANCIPS) held at Kochi, Kerala, in January 2024; Poona Psychiatrists Association (PPA) – II award for paper published in Indian Journal of Medical research, titled "Cingulum bundle integrity in schizophrenia with auditory verbal hallucinations: A diffusion tensor imaging tractographic study" at 75th Annual National Conference of Indian Psychiatric Society (ANCIPS) held at Kochi, Kerala, in January 2024; The Bombay Psychiatric Society Silver Jubilee Year Award at 75th Annual National Conference of Indian Psychiatric Society (ANCIPS) held in January 2024 at Kochi, Kerala (co-author); Nominated and selected for Capacity Strengthening Program for Disease Burden Estimation in Global Burden of Diseases; Appointed faculty in-charge of physiotherapy unit at JPNATC; Appointed as faculty in-charge of organ donation committee at JPNATC.; Coordinator for awareness program on POSH Act for staff and doctors at JPNATC.

Dr Preethy K was Invited as Expert to conduct Interactive sessions on "Mental Health and De-addiction" at Shaheed Sukhdev College of Business Studies on 12 June 2023 and September 25, 2023; Resource Person (Master Trainer) for Induction training on Opioid Substitution therapy program for Medical Officers and OST staff under Chandigarh State AIDS Control Society from 26 March 2024 to 29 March 2024; Invited as a Faculty for conduction of Faculty Development Program on "Common Mental Health Disorders" at Shaheed Sukhdev College of Business Studies on 11 March 2024; Invited as Resource Person/Expert for Awareness Generation/Sensitization Program on Drug Abuse Prevention for Police Officials by National Institute of Social Defense on 5 April 2024; Expert for Expert Committee Meeting on Training Module Development at ICMR-NIIRNCD on 11 April 2024; Invited as a Member of NAMS – AFMS Joint Task Force to Make a Task Force report on "Mental Stress"; Invited as a co-author to develop the National Clinical Practice Guidelines on "Mental Health and Well-Being at Workplace" under the aegis of Indian Psychiatric Society; Co-Editor, APSI News buzz, Official Newsletter of Addiction Psychiatry Society of India; Quiz Master, MEDIQUEST 2023; Quiz Master, ADDIQUIZON 2023.

Dr Renu Sharma was Development of AIIMS MCCT (Manualized cognitive training toolkit) for Children with ADHD, Published by Prasad Psycho; Development of Mobile APP C-RASTAA for Screening of ADHD and ASD Children (Feasibility testing going on); Completed Certificate course in Cognitive Behaviour Therapy organized by IACBT, India; Completed Certificate course in Best practice in Autism Education, Bath University, UK; Member of Medical Board for Autism Spectrum Disorder in Department of Psychiatry, AIIMS, New Delhi in accordance with Ministry of Social Justice and Empowerment; Providing lectures to MBBS, BSc Nursing Students and North East Region Medical Colleges.

9.36 Pulmonary Critical Care and Sleep Medicine

Professor and Head

Anant Mohan

Additional Professors

Karan Madan, Vijay Hadda

Assistant Professors

Saurabh Mittal Pawan Tiwari

Scientist I

A Surendranath

HIGHLIGHTS

With four lung transplants performed to date in collaboration with departments of CTVS, Cardiac Anesthesia, Cardiology and Surgery, AIIMS, New Delhi remains one of the few public sector hospitals offering lung transplantation services in the country. The department was involved in developing guidelines for antibiotic prescription in the intensive care unit, pleural effusion evaluation and thoracoscopy, which have been published in indexed journals.

EDUCATION

The department is actively involved in undergraduate, postgraduate, and paramedical teaching, including lectures, demonstrations, symposia, and bedside teaching. Currently, the department has 13 DM trainees, 2 non-DM senior residents, and three PhD scholars.

CMEs/Workshops/Symposia/National and International Conferences

1. AIIMS-UCL Joint Respiratory webinar, 25 April 2023, New Delhi
2. PULMOCRIT 2024, 22 February 2024-25 February 2024, New Delhi

Lectures delivered: 95

Anant Mohan: 31 **Karan Madan: 12** **Vijay Hadda: 19Saurabh Mittal: 18** **Pawan Tiwari: 15**

Lectures delivered over past 3 years

2021—2022	2022—2023	2023-2024
45	74	95

Oral papers/posters presented: 6

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
0	5	6

RESEARCH

Ongoing

1. A Comparative Proteomics And Metabolomics study of Idiopathic Pulmonary Fibrosis (IPF) And Post-COVID Pulmonary Fibrosis (pepf) To Identify New Pathological And Therapeutic pathways, Dr Vijay Hadda, ICMR, 2 Years, 2022-24, Rs 86.60 Lakhs
2. A longitudinal multisystem and genetic assessment of incidence and risk factors for chronic sequelae following COVID-19 infection, Dr Anant Mohan, ICMR, 3 Years, 2021-24, Rs 94.85 Lakhs
3. A randomised controlled trial to assess the efficacy of inhaled Formoterol/Glycopyrronium combination (LABA+LAMA) vs inhaled Glycopyrronium (LAMA) alone in patients with symptomatic Post Tubercular lung disease, Dr Saurabh Mittal, ICMR, 3 Years, 2023-26, Rs 62 Lakhs
4. Applicability of International Lung Cancer Screening Criteria in Indian subjects: a pilot study, Dr Anant Mohan, AIIMS-University College London, 1 Year, 2024-25, Rs 5.0 Lakhs
5. Application of the Sciences of Breathomics in Respiratory Diseases, Dr Anant Mohan, ICMR-CARE (Centre for Advanced Research and Excellence), 6 Years, 2019-25, Rs 5.0 Crores
6. Delineating the mitochondrial alternations in immune cells during post-COVID-19 Pulmonary Fibrosis, Dr Vijay Hadda, AIIMS, 2 Years, 2022-24, Rs 10 Lakhs
7. Evaluating the role of MicroRNAs as Biomarkers for Early Diagnosis and prognosis of Lung Cancer: A comparative study using Exhaled Breath Condensate, sputum, blood and Bronchial brushing, Dr Anant Mohan, ICMR, 3 Years, 2022-25, Rs 37 Lakhs
8. ICMR'S Network of Pulmonary Fibrosis (INPF) [4 March 2022 to 3 March 2025], Dr Vijay Hadda, ICMR, 3 Years, 2022-25, Rs 82.70 Lakhs
9. Investigating and Translating genomic evidence for public health response to SARS COV-2 (INSIDE -SARS COV2), Dr Anant Mohan, DST Indo-Italian Network, 3 Years, 2022-25, Rs 2.1 Crores
10. Longitudinal effects of Air Pollution Exposures on Lung growth and development of biomarker of lung function deficit in Urban Children, Dr Anant Mohan, DBT, 5 Years, 2020-25, Rs 1.37 Crores
11. National Environmental Health Profile study in 20 Cities, Dr Vijay Hadda, MEFCC, 5 Years, 2019-24, Rs 62.67 Lakhs
12. Preventing Adverse Cardiac Events (PACE) in Chronic Obstructive Pulmonary Disease (COPD), Dr Anant Mohan, NHMRC, 5 Years, 2022, March 2025, Rs 22.88 Lakhs
13. Randomized double-blind placebo-controlled clinical study of ayurvedic coded drug "Ayush - A" in the management of bronchial asthma (tamakashwasa), Dr Anant Mohan, Ministry of Ayush, 3 Years, 2021-24, Rs 60.4 Lakhs
14. Role of heavy metals and toxic elements in the etiology, severity and progression of non-idiopathic pulmonary fibrosis diffuse parenchymal lung diseases, Dr Vijay Hadda, AIIMS, 2 Years, 2022-24, Rs 10 Lakhs
15. Role of One Cut Homeobox 2 (ONECUT2) Transcription Factor as a Therapeutic Target and Biomarker in Small Cell Lung Cancer, Dr Pawan Tiwari, AIIMS, 2 Years, 2024-26, Rs 20 Lakhs

Completed

1. 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, Dr Anant Mohan, ICMR, 5 Years, 2018-24, Rs 2.5 Crores
2. A Postmarketing, Phase 4, Multicentre, Prospective, Single-arm Study to Assess the Safety of Fasenra® (Benralizumab) in Adult Patients of Severe Asthma with Eosinophilic Phenotype in India, Dr Saurabh Mittal, AstraZeneca Private Limited, 2 Years, 2022-23, Rs 11 Lakhs
3. Development and Validation of Artificial Intelligence Tool For Screening/detection of Pulmonary TB and other lung diseases using Chest X-rays, Dr Anant Mohan, ICMR, 1 Year, 2023-24, Rs 41.46 Lakhs

Departmental projects

1. Burden of Care-giving to the Patients with Interstitial Lung Diseases: A cross-sectional study
2. Clinical Outcomes in patients of Lung Cancer receiving different treatment regimens: A 15-year analysis
3. Contributing as a DC member of the PhD study titled "Host and Environmental Factors in the acute exacerbations of childhood interstitial lung disease"

4. Endobronchial ultrasound-guided intranodal cryobiopsy in undiagnosed mediastinal lymphadenopathy
5. Evaluating the role of MicroRNAs as Biomarkers for Early Diagnosis and prognosis of Lung Cancer: A comparative study using Exhaled Breath Condensate and Bronchial brushing
6. Evaluation of clinical outcomes of various treatment regimens for lung cancer at a tertiary centre: a 15-year analysis
7. Evaluation of Lung Function and Lung Volumes In Indian Patients With Obesity and Diabetes
8. High flow nasal oxygen therapy versus non-invasive ventilation for prevention of reintubation in patients with hypercapnia at extubation- a randomised controlled trial
9. Hospital Acquired Events and Consumption of Hospital Resources by Patients in a Medical ICU
10. Incidence of Lung cancer using low-dose CT screening in high-risk subjects
11. Investigating clinically relevant genetic mutations and biomarkers in lung cancer using Exhaled Breath Condensate (EBC)
12. Investigating clinically relevant genetic mutations and risk biomarkers in lung cancer using exhaled breath condensate
13. Low dose computed tomography for lung cancer screening: an ambispective follow-up study
14. Prescription patterns and short-term outcomes in patients with Interstitial Lung Diseases
15. Study of outcome of various bronchoscopic procedures for management of central airway obstruction

Completed

1. Comparison of three strategies for withdrawal of non-invasive ventilation in acute hypercapnic respiratory failure in chronic obstructive airway disease
2. Determination of serum levels of anti-tubercular drugs as predictor of treatment outcomes in extra-pulmonary tuberculosis
3. Diagnostic utility of EBUS-TBNA versus conventional TBNA with rapid on-site evaluation in the diagnosis of sarcoidosis: a randomised study
4. Diagnostic yield of semi-rigid thoracoscopy in undiagnosed pleural effusion
5. Environmental contamination and its correlation with VAP/HAP occurrence in ICU: A Prospective Study
6. Evaluation of subjects for lung transplant at a tertiary-level health facility
7. Fractional exhaled nitric oxide levels in obese patients with obstructive sleep apnea
8. Microbiological follow-up and genotypic investigation of household contacts of MDR-TB patients
9. Prevalence of Aspergillus fumigates Hypersensitivity in patients with bronchial Asthma
10. Prevalence of Obstructive Sleep Apnea (OSA) in Patients with COPD (Overlap Syndrome) And its Effect on Health-Related Quality of Life
11. Pulmonary complications after hematopoietic stem cell transplantation
12. Serial assessment of diaphragmatic thickness and its effect on clinical outcome in patients on mechanical ventilation
13. Study of use of fractional exhaled nitric oxide (feno) in assessing asthma control and its correlation with clinical and physiological parameters
14. To evaluate the cardiovascular co-morbidity in obese Indians with OSA/OHS
15. Yield of linear probe EBUS-TBNA in undiagnosed mediastinal lymphadenopathy

Collaborative projects

Ongoing

1. Applicability of International Lung Cancer Screening Criteria in Indian subjects: a pilot study, AIIMS-UCL
2. Development of real-time PCR Technique using the CotH gene as target for early diagnosis of Mucormycosis, Microbiology
3. Gene expression and immuno-metabolic profiling to elucidate the pathophysiology of pulmonary fibrosis, Physiology

4. Investigating and Translating genomic evidence for public health response to SARS COV-2 (INSIDE -SARS COV2), Indo-Italian network, Evaluation of Lung Function and Lung Volumes In Indian Patients With Obesity and Diabetes, Department of Medicine
5. Investigating therapeutic impact of L-serine derived sphingolipids for controlling Mycobacterium tuberculosis, Microbiology
6. Mechanistic Insights on the Role of One Cut Homeobox 2 (ONECUT2) Transcription Factor in Small Cell Lung Cancer, Medical Oncology
7. Performance of Aspergillus PCR on mini Bronchoalveolar Lavage Fluid for the Diagnosis of Invasive Pulmonary Aspergillosis using BM AspICU criteria: A cross-sectional Diagnostic test validation study"., Infectious Diseases
8. Prevalence of NTM in chronic lung diseases, Microbiology
9. Restoring adaptive immunity of foamy macrophages against Mycobacterium tuberculosis infection by sphingosine-1 phosphate in experimental model system, Microbiology
10. The feasibility of weekly paclitaxel in improving performance status of advanced NSCLC patients with poor performance status: A single-arm phase two trial, Medical Oncology

Completed

1. A Longitudinal Study to evaluate visual functions and October parameters in ethambutol-induced optic nerve toxicity., Ophthalmology
2. Comparison between 18f fdg pet/ct and 68ga dotanoc pet/ct in patients of small cell carcinoma lung., Nuclear Medicine
3. Evaluation of Lung Function and Lung Volumes In Indian Patients With Obesity and Diabetes, Medicine
4. Prevalence of Heart Failure with Preserved Ejection Fraction in Cardiac Patients, Cardiology
5. Subtyping of small cell lung carcinoma: An immunohistochemical study, Pathology
6. To study the effect of oral morphine prescribed for dyspnoea in cancer patients presenting to the Departments of Onco-Anaesthesia and Palliative Medicine and Pulmonary Medicine and Sleep Disorders in a tertiary care hospital in India: A prospective observational study, Oncoanesthesia

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	15	11	15
Total funding	Rs 11.69 Crores	Rs 11.68 Crores	Rs 14.0 Crores

PUBLICATIONS

Total Publications: 35; Journal Articles: 32; Abstracts: 3; Chapters in books: 0

Publications over past 3 years

Item	2021-2022	2022-2023	2023-24
Total	171	69	35
Journal articles	168	69	32
Abstracts	3	0	3
Chapters in books	0	0	0

PATIENT CARE

Patient care

Item	2021–2022	2022–2023	2023–2024
OPD consultations	13625	32965	34989
Special clinic consultations	2460	3872	4549
Patients provided rehabilitation services	2558	3172	2100
Total inpatient admissions	4452	5077	5712

- **Pulmonary Medicine OPD (Mon / Thursday)**

New Cases	9412
Old Cases	25, 577

- **Lung Cancer Clinic (Wednesday, 2.00 PM)**

New Cases	364
Old Cases	1213

- **Combined Pulmonary Surgery Clinic (Wednesday, 2.00 PM)**

New Cases	314
Old Cases	691

- **Sleep Disorder Clinic (Friday, 2.00 PM)**

New Cases	158
Old Cases	361

- **ILD/ PAH Clinic (Friday, 2.00 PM)**

New Cases	244
Old Cases	1204

- **LABORATORIES**
- **(A) Respiratory laboratory**

PFT + BDR	12880
DLCO	3715
Body Plethysmography (Body Box)	480
IOS	478

- **(B) Bronchoscopy Laboratory**

Fiberoptic bronchoscopy procedures	1671
Radial EBUS	129
Endobronchial Ultrasound (EBUS)	682
Thoracoscopy	16
Cryotherapy	21
Stenting	26
Electrocautery	18
Rigid bronchoscopy	66
BalloonDilatation	62
Spigot	Nil
APC	16
Laser	Nil
Montgomary T-Tube insertion	01

Glue Instillation	02
Foreign body removal	05
VBN	08
Conventional TBNA	07
Brachytherapy	Nil
Flouroscopy	03

- **(C) Sleep laboratory**

Polysomnography studies	574
Actigraphy	03
Watch PAT	38
MSLT	06

- **(D) Allergy Testing Lab**

Total IgE Level	4928
Specific Aspergiillus IgE Level	3950
Specific Aspergiillus IgG Level	3000
Skin Prick Test	20
ADA Level	325
CPET	130

- **(E) Rehabilitation Lab**

Six minute Walk Tests	2100

- **(F) DOTS Centre**

Total Referral Patients	36091

- **(G) Indoor Outdoor Patients**

ICU	276
Ward /Day Care	5436

- **(H) Chemotherapy Procedure**

Total Procedure	4199

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Anant Mohan received the SK Sarkar Oration at Broncocon Silver Conference, Mumbai, 26 August 2023. VK Vijayan oration at VP Chest Institute, 26 October 2023, Delhi; Visiting Professor in lung transplant (July 2022) at the Temple University Hospitals, Philadelphia, which is currently the busiest lung transplant centre in the world; Conferred the post of Honorary Professor in Respiratory Medicine at the University College London from 2023-26; Awarded Visiting Professor at the Louis Pradel Hospital, Lyon, France in December 2023 by the French Institute in India; Nodal Clinical Faculty from AIIMS in the MoU between AIIMS and University of California, Davis since July 2022; Fellow, Royal College of Physicians (London), Fellow of the American College of Chest Physicians; member of the American Thoracic Society (ATS), European Respiratory Society, International Association for Study of Lung Cancer (IASLC), National Academy of Medical Sciences, National College of Chest Physicians, Association of Physicians of India, International Medical Sciences Academy, Indian Association for Bronchology, and Indian Society for Study of Lung Cancer; Member of Ministry of Health constituted sub-committee for preparing modules for COPD for doctors working in emergency room since August 2023; External examiner Panel for DM, MD (respiratory medicine) in several Institutes; Chairman of the Respiratory diseases Expert group for the National Board of Examinations; External assessor for PG courses at AIIMS, Mangalagiri; Member of Expert panel of Air Quality Management in National Capital Region and Adjoining Areas Ordinance of Commission for Air Quality in National Capital Region and Adjoining Areas, New Delhi; Member of Expert panel of Environmental Diseases Project Review Committee of ICMR, New Delhi; Member of the ICMR Expert Committee for Formulating Management Work Plan for Respiratory Diseases, October 2018; Expert Faculty for Formulating guidelines for managing COPD, Asthma under the NCD Division, Ministry of Health and Family Welfare,

GOI; Member of Technical Group for formulating guidelines for Latent TB Infection in India; Member of the Ethics Committee of V.P. Chest Institute, Delhi since February 2019; Member of High-Powered Committee for Project Review of ICMR, New Delhi since March 2019; Chairman of Extended Research Advisory Committee (RAC) of VPCI since 2019; Chairman of Committee for Kendriya Vidyalaya, INA, Delhi since July 2022; Expert Faculty for the National Board of Examinations for DNB course in pulmonary medicine, Somaiya College, Mumbai, and Pushpawati Singhania Institute of Liver and Biliary Sciences, Delhi.

Dr Vijay Hadda Completed Clinical Fellowship on Lung Transplantation from 5 July 2023 to 4 October 2023 at Medical, University of Vienna, Austria.

9.37 Radiology (Radiodiagnosis)

Professor and Head

Raju Sharma

Professors

Sanjay Thulkar (IRCH) Sanjay Sharma (RPC) Ashu Seith Bhalla Smriti Hari

Shivanand Gamanagatti (Trauma Center) Atin Kumar (Trauma Center)

Chandn J Das Madhusudhan KS Surabhi Vyas Manisha Jana

Devasenathipathy Kandasamy Chandrashekhara SH (IRCH)

Additional Professors

Smita Manchanda **Ankur Goyal** **Priyanka Naranje**

Mukesh Yadav (IRCH) **Ekta Dhamija (IRCH)**

Assistant Professors

Krithika Rangarajan (IRCH) **Amarinder Singh Malhi** **Ankita Aggarwal**

(Surgical block Joined on 29.11.2022) **(Surgical block Joined on 13 December 2022)**

Rajendra Kumar Behera **Stanzin Spalkit**

HIGHLIGHTS

The department further expanded its services at new RAK OPD, Surgical Block, National Center for Aging (NCA) and Mother & Child Block (MCH). A new RIS-PACS system has been operationalized which has enabled the linking of imaging services of the Main hospital, New Private Ward, Trauma Centre, Surgical block, New RAK OPD and NCA. This linking has ensured that reporting, and review for expert opinion is shared between the various centres and blocks. This has significantly enhanced the quantity and quality of patient care services including emergency and critical care. Several modalities have been operationalized for 24x7 work schedule with significant increase in number of patients and procedures performed. Moreover, the department collaborated with the University of Michigan, Ann Arbor and Siemens Healthineers for a project on the feasibility and utility of using a low-cost, low field high-performance MR scanner in the outreach centre at Ballabhgarh. A collaborative Research Project of AIIMS with MOHFW and M/S AI Wadhwani is currently underway for the classification and reporting of Chest Radiographs using deep learning.

The departmental faculty continued to be actively engaged in patient care, education and research. Faculty members delivered over 225 talks in various CMEs, national and international conferences. Faculty members were actively involved in research and published over 150 papers in various indexed national and international journals and contributed 45 chapters to textbooks of Radiology and 1 book published. A total of 55 posters and oral papers were presented in various conferences out of which 2 received awards in different forums. The department faculty members were principal investigators in 4 funded projects. Besides, they were involved in more than 13 departmental projects and around 16 collaborative projects with other clinical departments. The faculty members received 16 awards during the year.

EDUCATION

Undergraduate:

The department faculty was actively involved in teaching undergraduate students. There were a total of 40 lectures taken by the faculty for them in this period.

Postgraduate:

There were a total of 39 junior residents in the department during this period, including 23 new residents who joined the department. The department had six fellows pursuing their fellowships during this period. Academic activities for

postgraduate students were regularly conducted in online mode and included around 31 journal clubs, 28 seminars, 28 case discussions, 98 interesting film sessions and 20 didactic lectures. Both online and offline platforms were utilized for the academic sessions.

B.Sc. (Hons) Medical Technology in Radiography (MTR/BMRIT):

The duration and structure of this course has been updated. The name has been changed from B. Sc (H) Medical Technology in Radiography (MTR) course to Bachelor of Medical Radiology and Imaging Technology (BMRIT), and the duration will henceforth be four years including one year of Internship. A total of 31 students are currently pursuing this course.

CMEs/Workshops/Symposia/National and International conferences:

1. The department held the 2nd Anoop Memorial Lecture on 17 October 2022 in online mode, on the topic of Academia, entrepreneurship and the pursuit of excellence in Radiology
2. Delhi Imaging Update DIU 2023: Annual conference of Delhi State branch of IRIA (16-17 Dec 2023), held at AIIMS, New Delhi
3. MidTerm CME of Society for Emergency Radiology on the theme of 'Imaging in Trauma', held at JPNA Trauma Centre, AIIMS, New Delhi on 17 March 2024
4. AIIMS Interventional Radiology trainees' course (Level-1), held at Lecture theatre 1, AIIMS, New Delhi on 16 March 2024.

Lectures Delivered at CMEs, National and International Conferences:

Lectures delivered: 224

Raju Sharma: 30
Shivanand Gamanagatti: 15
Madhusudhan KS: 3
Devasenathipathy Kandasamy: 12
Priyanka Naranje: 15
Rajendra Kumar Behera: 2
Ashu Seith Bhalla: 30
Atin Kumar: 26
Surabhi Vyas: 11
Smita Manchanda: 16
Ankita Aggarwal: 7
Stanzin Spalkit: 12
Smriti Hari: 4
Chandan J Das: 9
Manisha Jana: 12
Ankur Goyal: 17
Amarinder Singh Malhi: 3

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
157	180	225

Oral papers/posters presented: 55

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
22	61	55

RESEARCH

Funded projects

Ongoing

1. Developing artificial intelligence-based model for detection of malignant potential of pulmonary nodules in sarcoma using computed tomographic imaging and its prospective validation, Devasenathipathy Kandasamy, AIIMS-IIT Grant, 2 Years, 2023-25, Rs 10 Lakhs

2. Development of Atlas of Standard Chest Radiographic Images of Tuberculosis, Dr Ashu Seith Bhalla, Extramural Grant (New Delhi TB Centre), 2 Years, 2022-24, Rs 2,00,000 Lakhs
3. Dynamic contrast enhanced MR perfusion in the assessment of angiogenesis in Juvenile Nasopharyngeal Angiofibroma (JNA), Dr Smita Manchanda, AIIMS Intramural Grant, 3 Years, 2020-24, Rs 7,65,000
4. Pharmacological Catheter-Directed Thrombolysis plus Rivaroxaban for Acute Iliofemoral Deep Vein Thrombosis: A Prospective Cohort Study, Dr Amarinder Singh Malhi, Intramural Grant (AIIMS, New Delhi), 2 Years, 2024-26, Rs 10,00,000
5. Radiogenomic correlation in childhood ILDs, Manisha Jana, SPR-REF extramural grant, 1.5 Years, 2023-25, USD 10,000

Ongoing

1. Abbreviated MR Enterography in evaluation of Crohn's disease
2. Development of Atlas of Standard Chest Radiographic Images of Tuberculosis
3. Early Response Assessment of Hepatocellular Carcinoma to Transarterial Chemoembolization Therapy using m-RECIST Criteria on Magnetic Resonance Imaging
4. Effectiveness of ultrasound-guided hydrodissection in treatment of mild-moderate carpal tunnel syndrome
5. MRI characterisation of pediatric brain tumors with histopathological correlation
6. Preoperative MDCT Evaluation of Bipolar Bone Loss in Patient With Recurrent Anterior Stability of Shoulder Joint
7. Role of Contrast-Enhanced Ultrasound in the Evaluation of Tuberculosis and Crohn's Disease of Ileo-cecal Region
8. Role of dual-energy CT in acute pancreatitis
9. Role of MR Lymphangiography in demonstration of chylous leaks and lymphatic malformations in chest and abdomen
10. Role of split-bolus dual-energy CT in characterization of neck masses with limited MR and DSA correlation.
11. To describe MRI patterns in various subtypes of Pediatric Acquired Demyelinating Syndrome at onset and follow-up
12. To evaluate the role of CTBA in identifying factors responsible for recurrence of hemoptysis and to analyse outcomes post-repeat BAE procedure
13. To evaluate the role of ultrasonography and MRI in the mapping of deep pelvic endometriosis using the IDEA protocol.

Completed

1. Effectiveness of ultrasound-guided interventions for soft-tissue pain in foot and ankle
2. Role of split bolus dual-energy CT in biliary malignancies
3. To evaluate the role of Dynamic contrast-enhanced MR perfusion in the characterization of sinonasal and skull base masses

Ongoing

1. A comparative study to evaluate functional outcomes following tongue reconstruction with Radial artery forearm free flap and Infrahyoid myocutaneous flap, Otorhinolaryngology-Head and neck surgery
2. A Prospective study to correlate Rhinomanometry findings of nasal obstruction in Deviated nasal septum with subjective, endoscopic and radiological findings, Otorhinolaryngology-Head and neck surgery
3. A Prospective study to measure the objective, subjective and aesthetic Outcomes in Patients undergoing Septorhinoplasty, Otorhinolaryngology-Head and neck surgery
4. Apixaban in Prevention of Venous Thromboembolism in Advanced Epithelial Ovarian Cancer Receiving Neoadjuvant Chemotherapy: A Randomized Controlled Open-Label Clinical Trial, Obstetrics and Gynaecology
5. Comparative evaluation of CAD-CAM planning versus traditional free fibula planning in surgical outcomes in mandibular reconstruction- A prospective study, Otorhinolaryngology-Head and neck surgery

6. Comparing Ex-Vivo Ultrasound aided and Frozen section analysis of deep margins with Final Histopathology in T1-T4 Carcinoma Tongue: A Prospective study, Otorhinolaryngology-Head and neck surgery
7. Correlation of Depth of Invasion with Lymph Node Metastasis in Laryngeal and Hypopharyngeal Carcinoma., Otorhinolaryngology-Head and neck surgery
8. Descriptive study of the anatomical variations of the superficial temporal artery and the posterior auricular artery in patients with unilateral microtia and its implications on the surgical outcomes in auricular reconstruction surgery, Otorhinolaryngology-Head and neck surgery
9. Development, Validation, and Feasibility Assessment of an Artificial Intelligence-Based Software as a Medical Device for First Trimester Fetal Ultrasound Imaging and Interpretation: A Retrospective Multi-Center Study, Obstetrics and Gynaecology
10. Evaluation of Indocyanine green for sentinel lymph node biopsy in breast cancer: Two arm open label parallel design non-inferiority randomized controlled trial, General Surgery
11. ICMR Network of Pulmonary Fibrosis (INPF), Pulmonary Medicine and sleep disorders
12. Imaging Biobank for cancer, Pathology
13. Multiparametric evaluation of bone health in women with premature ovarian insufficiency., Obstetrics and Gynaecology
14. N-acetyl cysteine therapy in patients with Pulmonary tuberculosis: A Pilot Open-Label Randomized controlled trial, Pulmonary medicine and sleep disorders
15. Role of IETA Ultrasound Criteria and Hysteroscopy in Assessment of Endometrial Lesions in Women with Abnormal Uterine Bleeding, Obstetrics and Gynaecology
16. Wearable electronics for swallow-graphy in stroke patients, Neurology

Completed

1. A study on the predictors of response and treatment outcomes in patients with sarcoidosis, Pulmonary medicine and sleep disorders
2. Ambispective study to evaluate the utility of Supraclavicular artery island flap [SCAIF] reconstruction in Head and Neck Cancers, Otorhinolaryngology-Head and neck surgery
3. An Ambispective Study to Assess Various Primary Tumor and Ipsilateral Nodal Factors Associated with Contralateral Nodal Metastasis in Patients with OCSCC, Otorhinolaryngology-Head and neck surgery
4. Clinical applicability of whole-body low dose CT scan for detecting bone metastasis in breast cancer: a prospective cohort study, Surgery
5. Comparison of 3D-CT volumetry and routine spirometry for prediction of post-operative pulmonary function in benign lung diseases -Prospective observational cohort study, Surgery
6. Diagnostic performance of IOTA-simple rules, IOTA- ADNEX, GI-RADS and O-RADS USG reporting system in evaluation of adnexal masses., Obstetrics and Gynaecology
7. Evaluation of newly recommended antral follicle count (AFC) cut-off in the diagnosis of various PCOS phenotypes and comparison of their endocrine and metabolic profiles, Obstetrics and Gynaecology
8. Exploration of the Vitamin-D and WNT/ Beta-catenin signalling pathway in Juvenile Angiofibroma, Otorhinolaryngology-Head and neck surgery
9. Study of prevalence and Clinico-metabolic profile of osteosarcopenic obese adults., Internal Medicine
10. Study to assess the prevalence of metabolically healthy obesity (MHO) and metabolically unhealthy obesity (MUO) among obese patients., Internal Medicine

Research over past 3 years

Research Projects	2021-2022	2022-2023	2023-2024
Total funded projects	**4**	**3**	**4**
Total Funding	**10,65,000 INR +10,000 USD**	**19,65,000 INR**	**27,65,000 INR +10,000 USD**

PUBLICATIONS

Total Publications: 178; **Journal Articles: 131** **Abstracts: 1**

Chapters in Books: 45 **Books: 1**

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total	219	206	178
Journal Articles	202	200	131
Abstracts	0	1	1
Chapters in books	16	5	45
Books	1	0	1

AWARDS, HONORS AND SIGNIFICANT EVENTS

Professor Ashu Seith Bhalla was President Appreciation Award 2023 by Indian Radiological And Imaging Association.

Professor Chandan J Das was Awarded PhD by AIIMS New Delhi in collaboration with Department of Bioengineering, IIT, Delhi. ; Awarded JC Bose Oration 2025 by Indian Radiology Imaging Association for Asia Oceania Congress of Radiology 2025, Chennai; Appointed as Associate Editor - MRI section of Abdominal Radiology.
Professor Madhusudhan KS was Appointed as Associate Editor - Interventional Radiology section of Abdominal Radiology; Appointed as Section Editor - GI Radiology of Indian Journal of Gastroenterology; Editors award for reviewer of IJRI by Indian Radiological and Imaging association.

Dr Ankur Goyal was Awarded the American Roentgen Ray Society (ARRS) 2023 Lee F. Rogers International Fellowship in Radiology Journalism.; Secretary Delhi State Chapter of IRIA 2023-2024.
Dr Stanzin Spalkit was President appreciation award Delhi State Chapter of IRIA 2023; Executive member Delhi State Chapter of IRIA 2023-2024; Moderator ICRI teachings (Musculoskeletal subspeciality).
Dr Smita Manchanda was Onco Imaging Award by IRIA ICRI at "76th Annual Conference of IRIA" at Vijayawada on 25 January 2024.

Dr Priyanka Naranje was Certified European Board of Interventional Radiology (EBIR) diploma in October 2023; Organizing secretary of AIIMS Interventional Radiology trainees' course (Level-1), held at Lecture theatre 1, AIIMS, New Delhi on 16 March 2024; Executive member of Delhi/NCR state chapter of Indian Society of Vascular and Interventional Radiology (ISVIR) 2023-2024; Executive council member of Society of Chest Imaging and Interventions (SCII) 2023-2024.

Detail of Investigations for the period of 1 April 2023 to 31 March 2024

S. No.	Name of Investigations/Special procedures	Total no. of Investigation
1	**Routine X-rays**	
	• OPD	311912
	• Indoor	27001
	• Casualty	54637
	• Portable	65164
2	**Special Investigations**	
	• Barium Studies	1435
	• Intravenous pyelography	1442
	• Micturating cystourethrography	2250

	• Hysterosalpingography	669
	• Operation Theater Studies	71
	• Others contrast studies	421
3	**Mammography**	4531
4	**Dexa Scan**	789
5	**Ultrasound**	
	• Routine	61500
	• Emergency	25315
	• Doppler (Routine + Casualty)	6247
6	**CT**	
	• Body	30272
	• Head	9772
7	**MRI (Main + NMR)**	14334
8	**Interventional Procedures**	
	• Interventional Vascular Studies	3035
	Interventional Non-Vascular studies	
	• CT Guided	648
	• Ultrasound Guided	6909
	• Fluoroscopy Guided	3724
	• Mammography Guided	28
	Grand Total	**6,32,106**

Patient care

Item	2021-2022	2022-2023	2023-2024
Total imaging investigations	**343675**	**549324**	**632106**

Number of outside imaging studies reviewed in the Department (APRIL - 2023 TO MARCH-2024) - 19567 studies

9.38 Reproductive Biology

Professor and Head

Ashutosh Halder

Professors and Officer In-charge CRIA facility

Pradeep Kumar Chaturvedi
(Superannuated on 31 August 2023)

Surabhi Gupta
(Since 1 September 2023)

Additional Professor

Mona Sharma

Scientists II

Deepak Pandey

Neeraj Kumar

Scientist I

Manish Jain

HIGHLIGHTS

Department is mainly involved in teaching, training and research works besides diagnostic services (reproductive hormones & cancer biomarkers; semen analysis; FISH & QF PCR for various genetic disorders) and reproductive genetic counselling. Most of the reproductive genetic counselling was self-referral. Most of the cases were with reproductive disorders, malformation, cancer, infertility, etc. CRIA facility provides tests for more than 50 parameters including cancer markers, reproductive hormones, metabolic markers, etc. Online reports are provided for all CRIA lab tests. This year CRIA facility has done 252725 tests for more than 1 Lakh patient samples. Andrology laboratory provides detailed semen analysis whereas the molecular laboratory of the department provides various genetic tests using FISH, QF PCR, etc technologies. Training and teaching is provided to our own PhD students, MSc students & various trainees of the department besides other departments of AIIMS. Faculty members of the department were invited by several national academics for different academic contributions (NABL/QCI, ICMR, MCI/NMC, NIHFW, DBT, NIRRH, etc). Dr Halder delivered Professor Pera Govindarajulu's Gold Medal Oration speech at the Annual Meeting of the Society for Reproductive Biology and Comparative Endocrinology (SRBCE). He was also awarded the Dr I C Verma Outstanding Researcher Award of Indian Academy of Medical Genetics (IAMG). Department organized an invited lecture by Dr Surendra Sharma, Department of Obstetrics & Gynecology, University of Texas Medical Branch at Galveston, USA on the topic "Pregnancy-Mediated Programming of Autism: An Immunological Conundrum" on 7 March 2024.

EDUCATION

List of all the academic activities including undergraduate, postgraduate and paramedical teaching.

PhD Student (Registered/Ongoing):	16 (1 submitted thesis)
MSc students	12
CSIR – Pool Officer	01
JRF/SRF/RA	03

Bi-weekly seminars and weekly journal clubs

Postgraduate- MD Laboratory Medicine Students (Laboratory training for 15 days)
MD Biochemistry Students (Laboratory training for 15 days)
DM Reproductive Medicine Students (Laboratory training for 60 days)

Lectures delivered: 11

Ashutosh Halder: 9 **Surabhi Gupta: 1** **Mona Sharma: 1**

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
17	15	11

Oral papers/posters presented: 18

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
05	19	18

RESEARCH

Funded projects

Ongoing

1. An investigation on the underlying mechanism of PCOS in association with endocrine-disrupting chemicals (Bisphenol A and Advanced Glycation End Products), Ashutosh Halder, DBT, 3 Years, 15 February 2022 to 14 February 2025, Rs 68.81 Lakhs
2. Effect of Semen Cryopreservation on Sperm Telomere Biology and Fertilization Potential, Mona Sharma, ICMR, 3 Years, 2022-25, Rs 60.88 Lakhs
3. Identification and Evaluation of Circulating Endometrial Cells (CECs) specific Molecular Biomarkers for the Diagnosis of Endometriosis: An integrated and Non-Invasive Approach, Neeraj Kumar, AIIMS, 2 Years, 2024-26, Rs 10 Lakhs
4. Idiopathic Sertoli Cell Only Syndrome (SCOS): An Investigation to find out Epigenomic Etiologies, Manish Jain, ICMR, 3 Years, 2021-24, Rs 45 Lakhs
5. Integrative analysis of ovarian cancer transcriptome to identify potential therapeutic targets and biomarkers discovery, Ashutosh Halder, ICMR, 3 Years + 6 months (extension), 1 December 2020 to 31 May 2024, Rs 56.41 Lakhs
6. MicroRNA expression profiles in Sertoli cell only syndrome (SCOS) cases, Manish Jain, AIIMS, 2 Years, 2023-25, Rs 10 Lakhs
7. Quality control for hCG kits, PK Chaturvedi/Surabhi Gupta, Ministry of Health - CMSS, Yearly, Rs 5 Lakhs/year
8. Role of Mitochondrial Fatty Acid Shuttle System in Premature Ovarian Failure, Mona Sharma, ICMR, 3 Years, 2021-24, Rs 42.19 Lakhs
9. Study of semen cryopreservation and its effects on sperm parameters in male cancer patients, Mona Sharma, AIIMS, 2 Years, 2022-24, Rs 10 Lakhs
10. To Decipher the Functional Interaction of Reproductive Longevity Regulating Transcriptional Targets induced by TGF-? and Insulin Signalling in Gonads, Neeraj Kumar, ICMR, 3.5 Years, 2020-24, Rs 50 Lakhs
11. To elucidate the impact of micronutrients and vitamins on sex-steroid mediated stromal-epithelial interaction in prostate cells: role in the maintenance of normal prostate physiology, Deepak Pandey, ICMR, 3 Years, 2021-24, Rs 41.56 Lakhs
12. To study the effect of Selective Serotonin Reuptake Inhibitors (SSRIs) on testicular functions, PK Chaturvedi/Surabhi Gupta, Indian Council of Medical Research (ICMR), 3 Years, 2022-25, Rs 78 Lakhs
13. To Study the Mechanisms Underlying the Pathogenesis of Pre-eclampsia, Surabhi Gupta, Indian Council of Medical Research (ICMR), 3 Years, 2021-24, Rs 76.12 Lakhs
14. Understanding the cellular basis of lipid emulsion therapy for Recurrent Pregnancy Loss (RPL), Surabhi Gupta, Science and Engineering Research Board (SERB), 3 Years, 2024-27, Rs 53.9 Lakhs

Completed

1. Development of diagnostics and experimental therapeutics using CRISPR-based technologies, Surabhi Gupta, Department of Biotechnology (DBT), 4 Years, 2020-24, Rs 288.34 Lakhs
2. Therapeutic targeting of ER Chaperones exploiting Small Molecules: A Virtual Screening Approach to alleviate ER stress in Preeclampsia, Surabhi Gupta, Department of Biotechnology (DBT), 3 Years 8 Months, 2019-23, Rs 55.52 Lakhs
3. To study the effect of Endocrine Disrupting Substance BisPhenol A on Steroidogenesis and apoptosis in Leydig Cells mediated by MicroRNA, PK Chaturvedi/Surabhi Gupta, ICMR, 3 Years, 2021-24, Rs 76 Lakhs
4. To delineate the impact of selective estrogen receptor modulators (SERMs) on hormone mediated stromal-epithelial interaction in prostate cells, Deepak Pandey, AIIMS, 2 Years, 2021-23, Rs 9.7 Lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. A comparative analysis of epigenetic and endocrine alterations in PCOS mice models induced by exposure of BPA and androgen
2. Age-dependent dynamics of sperm telomere and inter-relation with DNA damage response
3. An investigation on epigenetic mechanism of PCOS in association with Endocrine Disrupting Chemicals
4. An Investigation to Determine Etiological Factors in Apparent Idiopathic Hypospermatogenesis
5. Analysis of anti-cancer activity of Orientin and Bilobalide on prostate cancer cells
6. Characterization of testis-enriched proteins with potential role in mammalian fertilization.
7. Delineating the Role of Insulin/insulin-like Growth Factor Signaling (IIS) in Caenorhabditis elegans Reproductive Aging
8. Effect of antidepressant drug (Escitalopram) on testicular and adrenal functions
9. Effect of lipid emulsion on trophoblast functions
10. Effect of mitochondrial fatty acid shuttle-mediated endoplasmic reticulum stress on follicular dynamics in premature ovarian insufficiency
11. Genetic determinants of idiopathic premature ovarian failure
12. HDAC inhibitor(s) mediated genome-wide transcriptional networks in reproduction and longevity using Caenorhabditis elegans as a model system
13. Investigating the Impact of Sperm Cryopreservation on Shelterin Complex and its Functional Defects in Cancer Patients
14. Isolation and Characterization of uncultured endometriotic cell population
15. Role of micronutrients and flavonoids in the modulation of prostate stromal-epithelial interaction
16. Role of placenta-derived exosomes in decidualization in Recurrent pregnancy loss patients.
17. Study of cryopreservation effect on sperm mitochondrial and nuclear DNA integrity and its influence on fertilization events
18. Study of paternal sleep and circadian rhythm association with sperm telomere integrity in recurrent pregnancy loss
19. Study of sleep and circadian rhythm association in infertile males with sperm head defects
20. Study of Sperm Cryopreservation Induced Epigenetic Changes and their Potential Functional Defects in Cancer Patients
21. To investigate genomic variants in paediatric 46, XY patients of disorder of sexual development (DSD)

Completed

1. An investigation of the etiological factors associated with polycystic ovary syndrome
2. Analysis of anti-cancer activity of herbal extracts on prostate cancer cell lines

3. Comparison of Exosomes Isolated from Normal Pregnant Women & Women with Recurrent Pregnancy Loss
4. DNA methylation study in testicular FNAC samples of apparent idiopathic Sertoli Cell Only Syndrome (SCOS) cases
5. Effect of Antidepressant on Placental Endocrine Function
6. Effect of mitochondrial transferase-mediated endoplasmic reticulum stress on oocyte activation
7. Effects of increasing ratio of Estrogen: Androgen on Primary mouse Prostate cells
8. Evaluation of cell surface markers potential to enrich circulating endometrial cells from peripheral blood of endometriotic women

Collaborative projects

Ongoing

1. Anemia: Exploring the role of Vitamin D, essential elements and lifestyle in Indian Population, Department of Pharmacology & Department of Hematology
2. Effect of electromagnetic radiation on female reproductive health, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi
3. Efficacy and safety of leuprolide acetate in reducing ovarian toxicity of intravenous cyclophosphamide in young females with autoimmune rheumatic diseases: An assessor-blinded, randomized controlled trial, Department of Medicine, AIIMS
4. Impact of Psychosocial intervention on quality of life and stress biomarkers in patients with traumatic limb amputation/s: A randomized controlled trial, Division of Trauma Surgery & Critical Care, JPNATC, AIIMS
5. Molecular marker evaluation in relation to the toxicity and clinical response of acute lymphoblastic leukemia treatment in Indian children, Department of Medical Oncology, IRCH, AIIMS
6. Prevalence of AAs for common autoimmune disorders and their correlation with PTPN 11 variants in patients with Noonan syndrome, Department of Pediatrics, AIIMS
7. Prevalence of dynapenia/sarcopenia and its association with metabolic parameters, body composition and bone mineral density in postmenopausal women: A cross-sectional study, Department of Medicine, AIIMS
8. To compare slow freezing and vitrification techniques in ovarian tissue cryopreservation for fertility preservation in cancer survivors, Department of Obstetrics and Gynaecology, AIIMS
9. To see the early effect of sorafenib on cognition, cardiovascular and reproductive functions., Department of Medical Oncology, IRCH, AIIMS
10. To study the protective effect of antioxidants Vitamin C and E on diesel exhaust polluted microenvironment induced testicular injury in laboratory rats, Department of Physiology, AIIMS
11. Unique aspects of idiopathic hypoparathyroidism, Endocrinology, AIIMS

Completed

1. A comparative study of melatonin, gabapentin and alprazolam in reducing preoperative anxiety, Department of Anaesthesiology, AIIMS
2. An ambispective cohort control study to evaluate the effect of SARS-Cov-2 infection post adenoidectomy patients, Department of Otorhinolaryngology, AIIMS
3. Assessment of adreno-cortical function and its clinical-metabolic implications in PLHIV population, Department of Medicine, AIIMS
4. Association of small intestinal bacterial overgrowth and gastrointestinal symptoms in patients with non-alcoholic fatty liver disease, Department of Medicine, AIIMS
5. Clinico-genetic prognostic signatures for development of metastatic Castration-Resistant Prostate Cancer, Department of Urology, AIIMS, New Delhi
6. Correlation of bio-inflammatory markers with the feto-maternal outcome in IHCP of pregnancy, Department of Obstetrics and Gynaecology, AIIMS

7. Evaluation of right ventricular function in patients undergoing mitral valve replacement with pulmonary artery systolic pressure of more than 50 mmHg: A Prospective analysis, Department of Cardio-Thoracic and Vascular Surgery, Cardio-Thoracic Sciences Center, AIIMS
8. Feasibility and efficacy of lung water estimation on Cardiac Magnetic Resonance Imaging (MRI) in predicting adverse cardio-vascular events in patients with heart failure, Department of Cardiac Radiology, Cardio-Thoracic Sciences Center, AIIMS
9. Fetal cardiac profile in intrahepatic cholestasis of pregnancy and its association with perinatal outcome, Department of Obstetrics and Gynaecology, AIIMS
10. Impact of Checkpoint inhibitors on suppressed state of immunity in tuberculosis, Transplantation Immunology & Immunogenetics, AIIMS
11. Molecular Genetic Evaluation of Unexplained Stillbirths, Genetics Unit, Pediatrics, AIIMS
12. Safety of Procalcitonin Guided Discontinuation of Antibiotic Therapy among Children Receiving Cancer Chemotherapy and Having Low-Risk Febrile Neutropenia - A Randomized Non-Inferiority Trial, Pediatric Oncology, AIIMS
13. Soluble E-selectin level in women with polycystic ovarian disease and its comparison with QRISK-3 score as a marker of cardiovascular risk, Department of Obstetrics and Gynaecology, AIIMS
14. Study of prevalence, risk factors and metabolic profile of sarcopenia in Indian adults', Department of Medicine, AIIMS
15. To study the long-term effects of disease and its treatment in survivors of pediatric solid tumours, Department of Pediatric Surgery, AIIMS

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	23	22	18
Total funding	Rs 1126.14 Lakhs	Rs 1141.94 Lakhs	Rs 1037.43 Lakhs

PUBLICATIONS

Total Publications: 17; Journal Articles: 17; Abstracts: 0

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**18**	**22**	**17**
Journal articles	17	15	17
Abstracts	-	3	0
Chapters in books	1	4	-
Books	-	-	-

PATIENT CARE

Special laboratory facilities in Department of Reproductive Biology

- **Molecular Cytogenetics lab:**

Microdeletion FISH on blood (Interphase/ Metaphase cell), buccal cell, urine cell, solid tissue etc

250 patients were recruited which are all suspected Microdeletion syndrome and 100 cases of Primary Testicular Failure cases. We have done FISH of all cases and Yq microdeletion of Primary Testicular Failure cases in our Molecular Cytogenetics lab and given reports to all the patients.

List of Microdeletion Syndrome (Blood/ Amniotic fluid cells):

- Digeorge syndrome (22q11.2)
- William syndrome (7q11.23)
- Prader Willi syndrome (15q11.13)
- Retenoblastoma (13q)
- Miller Decker syndrome (17p13.3)
- Langer Giedions syndrome (8q24.11)
- 1p36.13
- Wolff Hirschhorn (4p16.3)

Sex Chromosome FISH (X, Y, SRY: only research & infertility**)**
Yq Microdeletion PCR (Cover app. 20 primer**)**

➢ **CRIA Facility:**

Routine assays of **more than 50** parameters in the blood samples of admitted and OPD patients were carried out in the facility. Diagnostic tests for 1,07,192 patients were performed.

TOTAL NUMBER OF INVESTIGATIONS FOR THE YEAR 2023 – 24		
S. No.	**Name of Investigation**	**Total Number of Investigations**
1	17-OH Progesterone	757
2	ACTH	598
3	Active B-12	16791
4	AFP	3426
5	AMH	6585
6	Anti-CCP	8064
7	Anti-Tg	503
8	Anti-TPO	3330
9	b-hCG	2237
10	BNP	4184
11	Ca-125	4647
12	Ca19.9	7853
13	CEA	7099
14	CKMB	50
15	Cortisol	1854
16	C-Peptide	285
17	CRP	342
18	Cyclosporine	1651
19	DHEA-S	1328
20	DHT	267
21	Estradiol	1631

22	Ferritin	5961
23	Folate	10755
24	Free PSA	365
25	Free T3	5945
26	Free T4	7257
27	FSH	9688
28	Growth Hormone (GH)	508
29	HbA1c	5153
30	HE4	18
31	Homocysteine	226
32	Inhibin B	762
33	Insulin	1061
34	Intact PTH	7569
35	LH	8761
36	Methotrexate	474
37	Procalcitonin (PCT)	13232
38	Progesterone	705
39	Prolactin	8658
40	Prostate Specific Antigen (PSA)	3133
41	Rubella-IgG	1
42	Rubella-IgM	1
43	Sars-Cov-2 IgG Quant	3
44	SHBG	891
45	Testosterone	3488
46	Thyroid Profile	4915
47	Total T3	11945
48	Total T4	12856
49	Troponin- I	1728
50	TSH	32569
51	Vitamin D	20615
	Total No. of Tests Done	**252725**

No. of test done for JSSK	No. of test done for BPL	No. of test done for AB-PMJAY
1254	5712	864

In addition, more than **590** tests were done for various research project studies.

- **Andrology Lab:**

Andrology Laboratory provided Semen analysis services to 1330 patients.

No. of Patient related tests/laboratory services

Year	CRIA Facility	Molecular Cytogenetics Lab	Andrology Lab
2021-22	150169	180	357
2022-23	265857	300	995
2023-24	252725	250	1330

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Ashutosh Halder was Professor Pera Govindarajulu Gold Medal Oration of SRBCE; Dr IC Verma Outstanding Researcher Award of IAMG; Practice Committee of the American Society for Reproductive Medicine for the guideline of Current evaluation of amenorrhea: a committee opinion has cited Dr Halder's paper on" Prevalence and reproductive manifestations of macroprolactinemia"; Member expert group on fellowship of reproductive biology and maternal health, ICMR (cont); Advisory panel- expert member (Genetics: Fellowship & Membership) of NAMS (cont); Core Accreditation Committee Member of Quality Council of India (formerly NABL) on Genetics & Cytogenetics (cont.); Member of the Program Advisory Committee (PAC) and Institutional Review Board (IRB) of NIHFW, Munirka, Delhi (cont.); Member of the Scientific Advisory Committee, ICMR-NIRRH, Mumbai; Assessment Board Expert for promotion of ICMR scientists (cont.); Editorial board member of various journals e.g., *EC Gynaecology*, Austin Journal of Reproductive Medicine & Infertility, Journal of Reproductive Healthcare and Medicine, SM Journal of Gynecology and Obstetrics, Clinical Case Reports and Reviews, Journal of Health Science Research, etc; Reviewer of various national & international journals/ government funding organizations (national and international); Examiner for various PhD examinations (viva/thesis assessment/etc).

Professor Surabhi Gupta was Examiner for MSc Zoology Practical Examinations at Delhi University; Reviewer for the Journal Gene; Reviewer for the Indian Journal of Physiology and Pharmacology.

Dr Mona Sharma was Reviewer of the Asian Journal of Research in Biochemistry; Reviewer of American Journal of Reproductive Immunology.

VISITING SCIENTIST

Guest lecture on the topic "Pregnancy-Mediated Programming of Autism: An Immunological Conundrum" delivered by Dr Surendra Sharma, Department of Obstetrics & Gynecology, University of Texas Medical Branch at Galveston, USA on 07 March 2024.







9.39 Rheumatology

Professor and Head

Uma Kumar

Additional Professor

Danveer Bhadu

Associate Professor

Ranjan Gupta

Assistant Professor

Rudra Prosad Goswami

Scientist I

Kaustav Choudhury

HIGHLIGHTS

Department of Rheumatology was created and notified in August 2015. This department is providing state-of-the-art patient care services and is also instrumental in building resources, which are required to deal with huge load of patients with acute and chronic rheumatic ailments. It has 6-bed Rheumatology Day Care service, which was started in 2012, is first of its kind in India and is continuing to cater to the needs of patients requiring various interventions, treatments, and procedures in a cost-effective manner. Various educational activities to increase awareness about arthritis and related disorders amongst the public and medical professionals are regular features. Vocational and occupational therapy services in the department along with musculoskeletal ultrasound constitute important part of point of care. Department has been on the forefront in research also; it has research grant of INR 30, 277, 505/-and many collaborative projects are also running. Department faculty had numerous publications in reputed scientific journals. Collaborative research activities have led to filing of three patents (in pipeline).
The departmental Clinical Immunology lab caters to the whole hospital in terms of performing various immunological investigations.

Activities/steps taken to improve patient care services, education, and research:

1. Realising the need for trained Rheumatology specialists, short-term training to medical specialists from various Government organizations is being provided on a regular basis.
2. All efforts are made to provide specialized immunological investigation results as early as possible without compromising on the quality.
3. Department has signed MoU with Ministry of Labour & Employment for comprehensive rehabilitation of patients with disabilities developing due to rheumatic conditions. This MoU will facilitate skill certifications, enhancing employability and opening new vocational avenues empowering patients towards self-reliance.

Action Plan: The Department has active teaching program and it is trying to start super-specialty course 'DM' in Rheumatology once in-door patient facility is started.

EDUCATION

1. Scope of Clinical Immunology present concept in autoimmunity & autoimmune disorder
2. RA/SpA
3. SLE
4. Primary Necrotizing vasculitides
5. Approach to Polyarthritis

Postgraduate: Seminars, bedside teaching, mortalities reviews, Journal scan and Journal club and case discussions every week

Number of short-term/long-term trainees: Six non-academic Senior Residents
Two non-academic Junior Resident, Short-term training to medical specialist from a hospital in Delhi

CMEs/Workshops/Symposia/National and International Conferences

1. Monthly Clinical Meeting under aegis of Delhi Rheumatology association, 8 November 2023, New Delhi
2. Public awareness program on World Arthritis Day 2023, 12 October 2023 AIIMS, New Delhi
3. Public awareness program on World Lupus Day 2023, 10 May 2023, AIIMS, New Delhi
4. International faculty lectures, 4 October 2023 to 21 February 2024, AIIMS New Delhi

Lectures Delivered: 45

Uma Kumar: 29 **Danveer Bhadu: 5**

Ranjan Gupta: 6 **Rudra Prosad Goswami: 5**

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
19	33	45

Oral papers/posters presented: 29

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
0	3	29

RESEARCH

Funded projects

Ongoing

1. A Multicenter Randomized Double-Blind Placebo-Controlled Phase 3 Study to Evaluate the Efficacy and Safety of Anifrolumab in Adult Patients with Active Proliferative Lupus Nephritis Study Code: D3466C00001, Dr Uma Kumar, Astrazaneca, 2 years, August 2023, August 2025, Rs 2361600.00
2. A randomized, controlled trial to evaluate the efficacy of multimodal Ayurveda intervention interventions in JananuSandhigatavata (Primary Knee osteoarthritis), Dr Uma Kumar, AYUSH, 3 years, March 2022, August 2024, Rs 6242900.00
3. A randomized, double-blind, placebo controlled, 3-arm multicenter phase 3 study to assess the efficacy and safety of ianalumab in patients with active Sjögren's syndrome (NEPTUNUS-2), Dr Uma Kumar, Novartis, 2 years, July 2023, Jul 2025, Rs 2056320.00
4. An open-label, multi-center protocol for patients who have completed a previous Novartis sponsored Secukinumab study and are judged by the investigator to benefit from continued Secukinumab treatment. CAIN457A02001B, Dr Uma Kumar, Novartis, 3 years, April 2022, April 2025, Rs 90877.00
5. Antinuclear Antibody Immunofluorescence Patterns in Systemic Lupus Erythematosus: Diagnostic and Prognostic Evaluation using Artificial Intelligence, Ranjan Gupta, ICMR, 2 years, 2023-25, Rs 7998620.00
6. Assessment of the Knowledge Gaps of Primary Care Physicians in the Diagnosis and Management of Rheumatoid Arthritis and Impact of a Short-Term Training Course, Ranjan Gupta, Pfizer Inc, 2 years, 2021-24, USD 46111
7. Foot Pressure Distribution Assessment Using Wearable Pressure Insole for Foot Arthritis Diagnosis and Treatment Monitoring in Rheumatoid Arthritis, Ranjan Gupta, Delhi Rheumatology Association, 1 year, 2022-24, Rs 500000.00

8. GS-US-417-0304 Protocol Title: "A Multicenter, Double-blind, long term extension study to assess the Safety and Efficacy of Filgotinib in subjects with Rheumatoid Arthritis ", Dr Uma Kumar, Galapagos, 5 years, February 2019, February 2025, Rs 1137468.00Efficacy of Tofacitinib treatment in non-radigraphic axial spondyloarthritis on retardation of bone proliferation and pro-inflammatory soluble biomarkers (TNFalfa, IL-17, IL-22 & IL-23) levels: A prospective observational study, DanveerBhadu, Institutional Research Grant, 2 years, 2024-26, Rs 10,00,000.00
9. Interdisciplinary Collaborative Intramural Research project "Musculoskeletal and Rheumatological disease in post COVID-19 patients: A cross sectional study." (Institutional Research Grant, 10 Lac), DanveerBhadu, Institutional Research Grant, 2 years, 2022-24, Rs 1000000.00
10. Macrophage Migration Inhibitory Factor (MIF) and CD74/CD44 system as a biomarker of treatment response in Rheumatoid Arthritis, Ranjan Gupta, Institutional Intramural Grant, 2 years, 2020-24, Rs 1000000.00
11. Magnitude, characteristics and endurance of Immune Response to COVID-19 Vaccination in patients with Systemic Lupus Erythematosus: A multicentric cohort study, Ranjan Gupta, ICMR, 3 years, 2022-25, Rs 7459320.00
12. Multi-institutional Network Program on Systemic lupus Erythematosus: Understanding the diversity of SLE, Ranjan Gupta, DBT, 5 years, 2018-24, Rs 9985000.00

Completed

1. A randomized, double-blind, placebo-controlled, parallel group, phase III multicenter study of intravenous secukinumab to compare efficacy at 16 weeks with placebo and to assess safety and tolerability up to 52 weeks in subjects with active Ankylosing Spondylitis or non-radiographic axial SpondyloArthritis, Dr Uma Kumar, Novartis Pharmaceuticals, 1 year 6 months, December 2020, June 2022, Rs 624600.00
2. A randomized, double-blind, placebo-controlled, parallel group, phase III multicenter study of intravenous secukinumab to compare efficacy at 16 weeks with placebo and to assess safety and tolerability up to 52 weeks in subjects with active Psoriatic Arthritis.", Dr Uma Kumar, Novartis Pharmaceuticals, 1 year 6 months, December 2020, June 2022, Rs 156150.00
3. An Indian initiative to study Granulomatosis with Polyangiitis through clinical and genomics approach, Dr Uma Kumar, ICMR, 3 years, Jun 2020, June 2023, Rs 1868532.00
4. Assessment of the beliefs, knowledge and perception of the patients and health care providers about rheumatoid arthritis and effect of the information course, Ranjan Gupta, Pfizer Inc, 1 year, 2021-23, Rs 1386000.00
5. Comparison of Metabolomics Profiles Between Patients with Proliferative and Membranous Lupus Nephritis in London and New Delhi, Ranjan Gupta, AIIMS Intramural AIIMS-UCL grant, 1 year, 2021-23, 500000.00
6. Foot-pressure distribution method for detection and localization of foot joint arthritis: A comparison with conventional radiographs, Ranjan Gupta, AIIMS UG grant, 1 year, 2022-23, Rs 200000.00
7. Markers of muscle senescence in inflammatory myositis, DanveerBhadu, Indian Rheumatology Association, 1 year, 2020-21, Rs 2,00,000.00
8. Popularizing science and technology for alleviating occupational health hazards among women studying or working in schools, colleges and IT sector, Dr Uma Kumar, DST, 3 years, September 2020, September 2023, Rs 3019680.00
9. Role of TLR-4 in Acute Gouty Arthritis-A Pilot Study, DanveerBhadu, Institutional Research Grant, 2 years, 2020-22, Rs 2,30,000.00

Collaborative projects

Ongoing

1. Comparative efficacy of tofacitinib and adalimumab in axial spondyloarthritis: A retrospective study" (IEC-115/03 March 2003), Department of Rheumatology, Institute of Neurosciences-Kolkata
2. Comparison of Metabolomics Profiles Between Patients with Proliferative and Membranous Lupus Nephritis in London and New Delhi, University College London
3. Effect of MRI based neuro feedback guided motor imagery training on cortical excitability and pain status in rheumatoid arthritis, Physiology
4. Effect of yogic intervention on pain and autonomic profile in Fibromyalgia patients, Physiology
5. Effect of yogic intervention on pain status and cortical excitability in fibromyalgia patients, Physiology

6. Evaluation of immunomodulatory activities of toll like receptor signalling inhibitors in lupus periphral blood mononuclear cells, Biotechnology
7. Foot Pressure Distribution Assessment Using Wearable Pressure Insole for Foot Arthritis Diagnosis and Treatment Monitoring in Rheumatoid Arthritis, Indian Institute of Technology, Delhi
8. Foot-pressure distribution method for detection and localization of foot joint arthritis: A comparison with conventional radiographs, Indian Institute of Technology, Delhi
9. Genomic approach to stratify responders vs non responders to cyclophosphamide (CYC)/hydroxychloroquine (HCQ)/ Mycophenolate (MMF)/ rituximab and to identify novel class of circulatory miRNA to predict flare episode in Systemic Lupus Erythematosus (SLE), Department of general Medicine, Kasturba Medical College, Manipal, Karnataka
10. Image analysis of ultrasound double contour sign in gout: a retrospective study" (IEC-352/15 June 2023, RP-01/2023), Department of Mathematics, IIT Kharagpur
11. Interdisciplinary Collaborative Intramural Research project "Musculoskeletal and Rheumatological disease in post COVID-19 patients: A cross sectional study.", Orthopedic Department, AIIMS, New Delhi
12. Multi-institutional Network Program on Systemic lupus Erythematosus: Understanding the diversity of SLE, Department of Clinical Immunology and Rheumatology, St John's Medical College Hospital, Bengaluru, India. Department of Clinical Immunology and Rheumatology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India Department of Rheumatology, Nizam Institute of Medical Sciences, Hyderabad, India. Division of Clinical Immunology and Rheumatology, SMS Medical College and Hospital, Jaipur, India. Department of Medicine, SCB Medical College, Cuttack, India. Department of Clinical Immunology and Rheumatology, Christian Medical College, Vellore, India. Department of Nephrology, PGIMER, Chandigarh, India. Department of Clinical Immunology and Rheumatology, IPGMER, Kolkata, India. Department of Clinical Immunology, JIPMER, Puducherry, India.
13. Prevalence and Clinical correlation of Myositis -Specific and Myosistis -Associated Autoantibodies in Indian Myosities Cohort, Neuropathology Laboratory
14. Studies on anti-inflammatory activity of TLR antagonists in mononuclear cells of rheumatoid arthritis patients, Biochemistry
15. Toll -like receptors in inactive-systemic lupus erythematosus, Biochemistry

Completed:- None

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	17	15	13
Total funding	Rs 4,21,22,541/-	Rs 4,73,90,780/-	Rs 30,277,505/-

PUBLICATIONS

Total Publications: 23; Journal: 13; Abstracts: 8; Chapters in Books: 2

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	17	29	**23**
Journal articles	16	13	13
Abstracts	0	10	8
Chapters in books	1	6	2
Books	0	0	0

PATIENT CARE

Item	2021–2022	2022–2023	2023–2024
OPD consultations	13550	40718	41350
Special clinic consultations	1890	2918	3170
Patients provided rehabilitation services	3376	7041	7288
Total inpatient admissions	4077	5765	5500
	37300	53277	68462

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Uma Kumar was SHE (Society for Health and Empowerment of Women) in collaboration of Lok Kala Parishad awarded Dr Uma Kumar for bringing about changes in society improving people's life; Faculty (Chairperson) - 25th Asia-Pacific League of Associate for Rheumatology Congress (APLAR 2023) in Chiang Mai, Thailand; Bestowed distinguished doctor award on National Doctors Day by Indian Medical Association, New Delhi Branch; Faculty (Chairperson) – 8th Systemic Sclerosis World Congress, Prague, Czech Republic; Organised DRA monthly clinical meeting; Expert subject member CDSCO, DCGI; Member Project Monitoring Committee, BIRAC, DBT; Guest of honor in Rheumayurveda-An Integrated Approach to Rheumatology by Department of Kayachikitsa (Tilak Ayurveda Mahavidyalaya), Pune; Member in women Grievance committee, AIIMS, New Delhi; Chief guest for the National launch of Spotlight Red: Teaching, Learning, Modules on Menstrual Health and Hygiene organized by the UNESCO, New Delhi.

Dr Danveer Bhadu was Received travel support award from Japanese college of Rheumatology to present two oral papers (DanveerBhadu) 67th annual conference of JCR-2023, Fukuoka, Japan; Third best poster award in the crystal arthropathy category (DanveerBhadu), IRACON, Hyderabad, 2023; Executive member of Delhi Rheumatology Association (2022-24), second term 2024-26 (Danveer Bhadu).

Dr Ranjan Gupta was International Travel award by the Japanese College of Rheumatology to attend their 67th annual conference of JCR-2023, Fukuoka, Japan; Elected as Executive Committee member Indian Rheumatology Association for the term 2023-2025; Elected as the Indian Ambassador for the international group of young rheumatologists from the Asia Pacific region - APLAR Young Rheumatologists (AYR); Selected as project co-ordinator by the Indian Rheumatology Association for my innovative idea of creating video archives series (IRA Legends - Memories inspiring dreams) of senior Indian rheumatologists; Second prize in poster presentation at the World Rheumatology Forum, 2024.

Dr Rudra P Goswami was Best Case in Spondyloarthritis Category (Sumit Puloria, Rudra Prosad Goswami (Corresponding Author)): IRACON, Hyderabad, 2023.

VISITING SCIENTIST

Provide the name, activity, institutional affiliation, city and country of person visiting.

1. Professor Dinesh Khanna from University of Michigan, Department of Internal Medicine, Division of Rheumatology visited department of Rheumatology and delivered a lecture.
2. Professor Bhaskar Dasgupta, Head Rheumatology and Clinical Director of Research & Audit at Southend University Hospital, UK visited department of Rheumatology and delivered a lecture.

9.40 Surgical Disciplines

Professor and Head

Sunil Chumber

Professors

Rajinder Parshad	V Seenu	Sandeep Aggarwal
Virinder Kumar Bansal		Anita Dhar

Additional Professors

Hemanga K Bhattacharjee	Asuri Krishna	Piyush Ranjan	Manjunath Maruti Pol
Mohit Joshi	Kamal Kataria Suhani	Yashwant Rathore	Om Prakash

Assistant Professors

Suhani	Yashwant Rathore	Om Prakash	Ankita Singh
Sanjeet Kumar Rai	Aditya Kumar	Uttam Kumar	Thakur Devender Singh
	Brijesh Kumar Singh	Sushant Soren	Nelson T
Geeta Prasad	Washim Firoz Khan	Arun Anand	Aditya Bakshi

Scientist- I

Darakhshan Qaiser	Arshi Rizwan

HIGHLIGHTS

The Department expanded its services in the Surgery Block with the formation of two additional units, making it a total of six functional units. Numerous additional afternoon specialty clinics were initiated catering to the core clinical areas such as the Benign Breast Disease, Endocrine Surgery, Cancer genetic Clinic, Stoma Clinic, Male Sexual Health Clinic, Gastro-intestinal &Gall bladder stone Clinic, Hernia Clinic, Colo-proctology Clinic, Vascular Clinic, Renal transplant and Arterio-venous fistula (venous access), pectus clinics in addition to the exiting Breast Cancer Clinic, Bariatric surgery Clinic, combined pulmonary-surgery Clinic and the follow up clinics. The department has been running the Geriatric Surgery OPD successfully for one year (April 2023 onwards) with a plan to start IPD and OT services soon. The department conducted numerous workshops, CME, conferences, and training workshops including NABH (National Accreditation Board of Hospitals) accreditation. The Hospital Infection Control sub-committee was formulated in January 2023 for monitoring and surveillance of HIC activities. The department was awarded the First prize for poster presentation on Institute Day themed “AIIMS: Leading India’s Health Care Security” and the rolling trophy for the best monthly meeting of the Delhi state chapter of the Association of Surgeons of India. The faculty, residents of the department have won numerous awards and travel grants to present their research work on various national and international fora. The faculty have mentored faculty from other new AIIMS such as AIIMS Jammu, establishment of renal transplant at AIIMS Rishikesh and Bariatric surgery at AIIMS Bhatinda. The department hosted and provided observership to international medical graduates.

EDUCATION

1. Postgraduate Seminar: Weekly
2. M.Ch seminar: Twice weekly
3. Journal club and interesting case presentations
4. Minimal Access Surgery and Endocrine Surgery classes: weekly respectively
5. Mortality, Morbidity, Operative, Census(Audit & census) discussion by Resident doctors once a week in each unit(6).

6. Lectures, Seminars and Clinical Teaching Schedule in OPD and Ward for MBBS students.
7. Hands-on laparoscopic training (dry lab) in skill centre for residents.
7. Internal Assessment for MBBS students, PG and MCh Residents (6 monthly), MBBS students, BSc OTT
8. Internal Assessment for Junior and MCh Residents (6 monthly),
9. Lectures for Nursing students
10. Lectures for BSc. OT technicians

CCRs presented by the Department:

(a) Paediatric renal transplant: pushing the boundaries on 7 March 2023. (Unit- IV)

(b) Jaw dropping tumors and PHPT on 11 April 2023. (Unit I)

(c) Hypoglycemia following gastric bypass: A rare clinical Odyssey on 25 April 2023. (Unit- II)

(d) Double trouble walking on a tight rope on 29 August 2023. (Unit- III)

(e) Aorto-SMA bypass in Abdominal Angina: Chronic Mesenteric Ischaemia When all windows were closed, Surgeons open the door on 26 September 2023. (Unit- II)

(f) Crouching tiger and hidden danger on 28 November 2023. (Unit- IV)

(g) Wrath of mini monsters: Emergency focussed parathyroidectomy for hypercalcemic crisis" on 6 February 2024. (Unit- I)

(h) Navigating difficult surgical scenarios using robotic technology" on 19 March 2024. (Unit III)

CGRs by the Department:

a) Surgical Vascular and peritoneal access for renal replacement therapy in CKD V- A decade of experience on 19 September 2023. (Unit IV)

b) Optimizing Breast Aesthesis: Our experience and the way forward on 16 January 2024. (Unit IV)

NUMBER OF SHORT TERM/LONG TERM TRAINEES

Junior Residents		58
Senior Residents	Breast, Endocrine and General Surgery	14
	Minimal Access and General Surgery	17
Fellowship	Bariatric Surgery	1
Observership	National	6
	International	

CHANGES IN THE TEACHING PROGRAMS DURING THE YEAR AND INNOVATIVE EDUCATIONAL ACTIVITIES

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop on core biopsy of breast lesions, 25 April 2023
2. World Hand Hygiene Day, theme "SAVE LIVES – clean your hands, 8 May 2023
3. Prevention & management of pressure Injury" on occasion of " International Nurses Day 2023, 11 May 2023
4. CME and Live operative workshop on Bariatric Surgery for Surgical Trainees, June 2023
5. 2023
6. CME in Surgery, and Annual Day, 2-5 September 2023
7. Prevention & management of pressure Injury" on occasion of " International Nurses Day 2023", 11 September 2023

8. Workshop on Thesis Protocol writing for July 2023 (1st semester) Batch of M.S. and MCh course students, 4 October 2023
9. Obesity Awareness, 5 October 2023
10. Workshop on Thesis Writing for July 2021 (5th semester) Batch of M.S. and MCh course students, 10 October 2023
11. International Hand Hygiene Day, 15 October 2023
12. World Sepsis Day, 13-15 September 2023
13. Swacchta Pakhwada 3.0, 26-27 October 2023
14. North Zone Conference and Live Operative Workshop of Indian Hernia Society, 6-7 November 2023
15. Genetic Counsellors Day, 9 November 2023
16. CME in Clinical Nuclear medicine with inauguration of Delhi Thyroid Club, November 2023
17. The World Antibiotic Awareness Week, 21-22 November 2023
18. Surgery block day, 06 December 2023
19. Orientation program for residents, 17 February 2024
20. Workshop on Thesis Protocol writing for January 2024 (1st semester) Batch of M.S. and MCh course students, 10 February 2024
21. Breast cancer survivors meet, February 2024
22. Cancer awareness, March 2024

Lectures delivered: 173

Sunil Chumber: 3	**Rajinder Parshad: 13**	**V Seenu: 8**	**Sandeep Aggarwal: 19**
Virinder Kumar Bansal: 14	**Anita Dhar: 9**	**Hemanga Bhattacharjee: 10**	**Piyush Ranjan: 18**
Manjunath Maruti Pol: 4	**Mohit Joshi: 9**	**Kamal Kataria: 8**	**Suhani: 7**
Yashwant Singh Rathore: 9	**Om Prakash: 5**	**Ankita Singh: 10**	**Sanjeet Kumar Rai: 4**
Aditya kumar: 6	**Uttam Kumar Thakur:2**	**Devender Singh: 9**	**Brijesh Kumar Singh: 1**
Sushant Soren:	**Washim Firoz Khan: 1**	**Arun Anand: 2**	**Aditya Baksi: 2**

Sunil Chumber

1. Trauma and Emergency, ASICON-CME, September 2023, Delhi
2. Thyroid disorders, MAMC Surgery Update, September 2023, Delhi
3. Moderator: Session 2 on Head & Neck, LHMC Surgery Clinical Update 2024, 1 February 2024, Delhi

Rajinder Parshad

1. Gastric resections, CME Sir Ganga Ram Hospital, 11 June 2023, New Delhi
2. AOH Vs Toupet as adjunct to Heller Myotomy: A Randomized trial, 31st International EAES Congress, 20 June 2023, Rome, Italy
3. Moderator: Thoracic outlet syndrome, SCOPE course-2023, Surgery Clinical Oriented Postgraduate Examination Course, 22 July 2023, New Delhi
4. Lung Tumours, MAMC Surgery update, 30 September 2023, New Delhi
5. VATS in Mediastinal tumours/mass", "ISTSCON" 2023, 17-19 September 2023, Karnataka
6. Panelist, "Breast Health Awareness program", 19 October 2023, New Delhi
7. Panelist, "Masterclass on Pectus Deformity Correction", 5 November 2023, Gurugram
8. Live Demonstration eTEP Hernia Repair, NZ IHSCON, 6 November 2023, New Delhi

9. Surgical approaches in different types of thymic lesions", IACTS Thoracic CME, 7-9 December 2023, Hyderabad, Telangana
10. "Laparoscopic Diaphragmatic hernia repair, SCOPE Course 2024, 13 January 2024, New Delhi
11. Thymectomy for the myasthenia gravis: current evidence, IACTSCON 2024, 11 February 2024, Bhubaneshwar
12. Master Video Presentation: "Achalasia", ENDOLAP MAMC 16-18 February 2024, 18 February 2024, New Delhi
13. Robotic GIST, 1ST Annual conference of Association of Robotic & Innovative Surgeons (ARIS 2024), 1-3 March 2024, New Delhi

V Seenu

1. "Locoregional Recurrence and Cosmesis following simple closure and breast oncoplasty versus conventional breast conserving surgery: A Randomized Controlled Trial , 24th Annual Meeting of American Society of Breast Surgeons, 26-30 April 2023, Boston, USA
2. Mixed Bag-Team is Made UP of 15, Not 11, ABSICON 2023, 28-30 July 2023, Ahmedabad
3. Research in simulation- Opportunities and road-blocks, SIM Meet 2023, 18-19 August 2023, New Delhi
4. Video Presentation on SLNB, KGMU BREAST UPDATE 2023, 8-9 September 2023, Lucknow
5. Short cases, long cases, assessment in medical education, 7 October 2023 New Delhi
6. Moderated a session on Debates in Endocrine Surgery, IAESCON 2023, 12-14 October 2023, Assam
7. "Incidence of Postoperative Hypocalcemia After Indocyanine Green Fluorescence Guided Angiography (ICGA) V/s Conventional Assessment of Parathyroid Following Total Thyroidectomy- A Randomised Controlled Trial, " as an e-Poster presentation, Scientific Forum at Clinical Congress 2023, 22-25 October 2023, Boston, Massachusetts
8. Case discussion: Parotid & Thyroid, NND Education Senes, November 2023, online

Sandeep Aggarwal

1. Bariatric surgery decision making in patients with liver disease, OSSICON 2023 – 20th National Conference of Obesity and Metabolic Surgery Society of India, 1-4 March 2023, Mumbai
2. Techniques of Revision and Reversal of RYGB, OSSICON 2023 – 20th National Conference of Obesity and Metabolic Surgery Society of India, 1-4 March 2023, Mumbai
3. Bariatric Surgery Overview, Public Lecture: Let's Talk Obesity, 5 March 2023, New Delhi
4. Laparoscopic Hiatal Surgery, FIAGES Fellowship Course by IAGES, 17-19 March 2023, Varanasi, UP
5. FAQs in Bariatric and Metabolic Surgery, 5th Annual National Conference of MP PCOS Society & IPATH Symposium 2023, 24-26 March 2023, Prayagraj, UP
6. GERD and Bariatric Surgery, Fellowship in Metabolic and Bariatric Surgery Course by OSSI-Module 1/4, 9 August 2023, New Delhi (Virtual)
7. Moderator: Adrenal, Scope Course – 2023 Surgery Clinical Oriented Post Graduate Examination Course, 20-23 July 2023, New Delhi
8. Panelist: Ethics in Research and Publishing, India Research Conclave, 26 August 2023, Bhubneshwar
9. Renal Transplant - Technique, MAMC Surgery Update 2023, 25-30 September 2023, New Delhi
10. Mastering Laparoscopic Anastomosis: Master Videos, IAGES Mid-Term Conference, 26-29 October 2023, Bhopal, Madhya Pradesh
11. Reversal to Normal Anatomy of a RYGB following a Primary OAGB Procedure, LIBSS – 2023 (London International Bariatri Surgery Symposium), 22-24 November 2023, London, UK
12. De-Novo Reflux after Sleeve Gastrectomy is a technical complication, LIBSS – 2023 (London International Bariatric Surgery Symposium), 22-24 November 2023, London, UK
13. Panelist: Complications of Sleeve, FALS Bariatric Course & CME by IAGES, 2 December 2023, New Delhi
14. Follow Up and Supplements after Bariatric Surgery – What is optimum? FALS Bariatric Course & CME by IAGES, 2 December 2023, New Delhi

15. Panelist - Revision Bariatric Surgery: Indications and choice of procedure, 21st Annual Conference of Indian Association of Gastrointestinal Endo Surgeons (IAGES), 2 February 2024, Chennai
16. Effect of MBS on fibrosis and other components of MAFLD, OSSICON 2024 – 21st National Conference of OSSI, 7-10 February 2024, Kochi
17. Cognitive Improvement Following Sleeve Gastrectomy and Roux-En-Y Gastric Bypass Procedures, OSSICON 2024 – 21st National Conference of OSSI, 7-10 February 2024, Kochi
18. From the Horse's Mouth: Editor's Perspective, ARIS – 2024 – 1st Annual Conference of Association of Robotic & Innovative Surgeons, 1-3 March 2024, New Delhi
19. Panel Discussion - Indian Healthcare Research - Challenges and Opportunities, Cureus India Summit by Springer, 7 March 2024, New Delhi

Virinder Kumar Bansal

1. Difficult cholecystectomy and it's complications, ENDOLAP, MAMC, 16 February 2023, New Delhi
2. A study to develop an objective scoring system to grade the difficulty of laparoscopic cholecystectomy, SAGES, 1 April 2023, Montreal, Canada
3. Our experience of Pediatric Renal Transplant over last one decade, 91st Annual Scientific Congress of the Royal Australasian College of Surgeons, 5 May 2023, Adelaide, Australia
4. Laparoscopic Nephrectomy, SCOPE, 21 July 2023, New Delhi
5. Incisional Hernia Repair, Our Experience Over Last Two Decades (Presidential oration), Presidential Oration Indian hernia Society IHSCON 2023, 25 August 2023, Varanasi
6. Live Operative Demonstration of Laparoscopic TAPP repair, XV Annual National Conference of Indian Hernia Society, 25 August 2023, Varanasi
7. Laparoscopic Transgastric Necrosectomy, International association of Pancreatology and Indian Pancreas club-Pancreas 2023, 17 September 2023, New Delhi
8. CBD stones- Endoscopic and surgical management, SELSICON 2023, 27 October 2023, Pune
9. Live Operative Demonstration of Laparoscopic TAPP repair, SELSICON 2023, 27 October 2023, Pune
10. Organ Retrieval-Kidneys- Transplant Procurement Management, ORBO Course, November 2023, New Delhi
11. Renal transplant – Myths and facts, Public Awareness Lecture at India International Center, November 2023, New Delhi
12. Live Operative Demonstration of Laparoscopic TAPP repair, NZ-IHSCON 2023, 6 November 2023, New Delhi
13. Live Operative Demonstration of Laparoscopic IPOM repair, NZ-IHSCON 2023, 7 November 2023, New Delhi
14. Training in Laparoscopic Donor Nephrectomy, The Golden Anniversary Summit on Kidney & Pancreas Transplantation: 50 Years of Progress, 26 November 2023, Chandigarh

Anita Dhar

1. Breast cancer prevention, Doordharshan "DD Urdu" - "hello doctor" New Delhi, 18 May 2023, New Delhi
2. "New trends in decongestive therapy for patients with breast cancer-related lymphedema", via Zoom (Chair: Ed Rusling –in person) International lymphedema Framework, 13 June 2023, Online, UK
3. .Benign Thyroid nodule-Newer Modalities, Theme "Thyroid Surgery: Everything Under One Roof" 34th Foundation Day 15th Postgraduate Course in Endocrine Surgery, 8 September 2023, Lucknow
4. Talk on Buerger's Disease, MAMC- Surgery Update, 28 September 2023, New Delhi
5. Changing trends in thyroid Surgeries, SURGICON 2023, 17 November 2023, New Delhi
6. "Varicose veins causes and treatment", DD morning show, At Mandi house, 8 December 2023, New Delhi
7. Peripheral arterial disease, ICSCC-2023 & RIPSSCON IAPS 2023, 21 December 2023, New Delhi
8. Moderator for the Vascular session, Gurukul SCRUBS 2024 (Surgical Clinics & Residents Update Beyond Scalpel), 18 February 2024, New Delhi

9. "Morbidity Management of Breast Cancer Related Lymphedema.", World Lymphedema day, 2 March 2024, New Delhi

Hemanga Bhattacharjee

1. Principles of Laparoscopic Surgery, Shalyancon-2023, All India Institute of Medical Ayurveda, 13-17 July 2023, New Delhi
2. Live demonstration Laparoscopic Cholecystectomy, Shalyancon-2023, All India Institute of Medical Ayurveda, 13-17 July 2023, New Delhi
3. Laparoscopic colectomies, SCOPE Course-2023, National Academy of Medical Science, 20-23 July 2023, New Delhi
4. Penetrating fixation device versus fibrin sealant during laparoscopic repair of ventral hernia: A double blind randomized trial, ACS Clinical Congress, 22-25 October 2023, Boston, Massachuselts, USA
5. Laparoscopic Proctocolectomies, EZ- SELSICON- 2023, 15 and 16 September 2023, Bhubaneswar
6. Operating hurts, EZ- SELSICON- 2023, 15 and 16 September 2023, Bhubaneswar
7. Live Demonstration TAPP Hernia Repair, NZ IHSCON, 6 November 2023, AIIMS, New Delhi
8. Pelvic Floor Neuromodulation Colorectal Surgeons and Urologists, Workshop at the University Hospital Antwerp Wilrijkstaat, 13-14 December 2023, Edegen, Belgium
9. Ergonomics in Laparoscopic Surgery, ENDOLAP MAMC, 18 February 2024, New Delhi
10. Update in Pulmonary, Critical Care & Sleep Medicine, AIIMS Pulmocrit-2024, 23-25 February 2024, New Delhi

Piyush Ranjan

1. Oncoplasty Video, Max Cancer congress, 29-30 April 2023, online
2. Operating faculty Total Thyroidectomy & Fibroadenoma Excision, Subharti Medical College, 10 June 2023, Meerut
3. Breast examination, SCOPE course, 21 July 2023, New Delhi
4. Critical appraisal of an Article, Medisicon, VNMC Safdarjung New Delhi, 4 August 2023, New Delhi
5. Energy devices in surgery, Annual Day & CME, 4 September 2023, New Delhi
6. Ulcerative colitis, MAMC update, 26 September 2023, New Delhi
7. Oncoplasty video lecture, PGI Rohtak ASOMA CME master class, 1 October 2023, Rohtak
8. Newsletter, Launch of Delhi Thyroid club, 4 November 2023, New Delhi
9. Do we need 4th Dimension in Triple Assessment & Cadaveric Course, ASOMACON 2023, HIMS, 12 November 2023, Dehradoon
10. Case based panel discussion Multinodular Goitre, SGRR Institute of Medical & Health Sciences UPASICON, 18 November 2023, Dehradoon
11. Course Director Basic, API & GAIMS, 3 January 2024, New Delhi
12. Reflections from collaborators, Annual day NICPR, 15 January 2024, Noida
13. Oncoplasty cadaver course, ASOMA CME AIIMS Bhopal, 25 January 2024, Bhopal
14. Thyroid Examination, LHMC PG update, 2 February 2024, New Delhi
15. Oncoplasty technique, 2nd Tata Annual Onco Plastic Breast Surgery, 21 February 2024, Kolkata
16. Tools to minimise blood loss in operating room: Surgeon's perspective, CME on Blood Safety & Quality: A Primer on Patient Blood Management, 24 February 2024, New Delhi
17. First Aid for fire fighters of IGI, APHO, MohFW, 14-29 March 2024, New Delhi
18. Examination of the Lymphatic system, SCRUBS, 3 March 2024, New Delhi

Manjunath Maruti Pol

1. Youngest En-bloc Kidney Transplant in India. Defying the Barriers and Challenges with team-work, Delhi state chapter (Association of Surgeons of India – Delhi Chapter), 18 February 2023, Delhi
2. Laparoscopic feeding jejunostomy: a novel technique, European Association of Endoscopic Surgery (EAES), June 2023, Rome
3. Simultaneous nephrectomy and kidney transplantation surgery in recipients with symptomatic autosomal dominant polycystic kidney disease, Indian Society of Organ Transplant [ISOT], 4-8 October 2023, Kolkata
4. Laparoscopic assisted resection of a large retroperitoneal sarcoma- A case report with review of literature, Surgicon – 2023 and ELSA conference Istanbul Turkey, October 2023, Istanbul Turkey

Mohit Joshi

1. Role of preceptor in simulation session, Simulation in medical education (online), 8 April 2023, Online
2. 1. Learning process & principles of adult learning 2. Framing objectives and competences 3. Assessment - General principles, Miller's pyramid, concept of validity & reliability 4. Other tools of assessment: Mini-CEX, DOPS, WPBA, 360-degree assessment, portfolios, Basic course in medical education for health professions, 27-29 April 2023, Delhi
3. MBBS curriculum in autonomous institutes, CMCL FAIMER Alumni Conference (FRICON 23), 26-27 May 2023, Ludhiana
4. Head & Spine Injuries management in Emergency Room', Webinar series in General surgery by NBE, 3 June 2023, Online
5. Simulation for teaching technical skills, SIM Meet 2023, 18-19 August 2023, Delhi, Surgery for empyema thoracis, CME in Surgery, 5 September 2023
6. OSPE and OSCE 2.Workplace-based assessment, Workshop on assessment, 6 and 7 October 2023, Delhi
7. How to create effective power point presentations, Webinar series by FMHS, MEU, Malaysia, 14 October 2023, Online
8. Clinical Judgement and prioritization of care through simulation, Simulation in Nursing Education and Service, 23 October 2023, Delhi
9. Thyrotoxicosis, Nuclear endocrinology in clinical practice, 4 November 2023, Delhi

Kamal Kataria

1. Triple Assessment of breast cancer, NICPR-ECHO Cancer Training Programme for Medical Officers, 18 May 2023, Noida
2. Examination of Breast Lump, SCOPE Course 2023, 20-23 July 2023, New Delhi
3. Moderator for Operative Session on Laparoscopic Hernia Repair, IHSCON 2023, 15th National Conference of Indian Hernia Society, 25-26 August 2023, Varanasi
4. Panelist on locally advanced Breast Cancer, ABSICON 2023, 29 July 2023, Ahmedabad
5. Adrenalectomy: Surgical approaches, Annual Day & CME in Surgery, 2-5 September 2023, New Delhi
6. Panelist in Breast Cancer Management, Breast cancer awareness day, 19 October 2023, New Delhi
7. PG Surgical Education – Till now and from here where, Surgicon 2023, Annual Conference of Delhi State Chapter, ASI, 17-19 November 2023, New Delhi
8. Wound Biofilm, WOUNDCON 2023, 24-26 November 2023, Guwahati

Suhani

1. Overview of simulation based robotic training, Surgical Robotics Training Facility, 2 May 2023, New Delhi
2. Oncoplastic techniques for early breast cancer, SCOPE Course, 20 July 2023, New Delhi

3. Developing low-cost simulators: key to sustainability, SIM-MEET, 18 August 2023, New Delhi
4. Granulomatous mastitis, Surgery Update: Maulana Azad Medical College, 26 September 2023, New Delhi
5. Faculty Demonstration: breast examination, SCOPE Course, 12 January 2024, New Delhi
6. Early carcinoma breast, locally advanced breast cancer, neck secondaries with unknown primary, 5th Edition of the LHMC Surgery PG Clinical Update, 1 February 2024, New Delhi
7. Advance in stoma and wound care: keynote lecture, ARISCON 2024, 15 March 2024, New Delhi

Yashwant Singh Rathore

1. Randomised control trial between low-cost setting modified tumescent TAPP vs conventional TAPP, EAES ROME 2023, 21 Jun 2023, Rome, Italy
2. To assess the functional outcomes in patients undergoing standardised laparoscopic mesh repair in small and medium sized ventral midline hernias, EAES ROME 2023, 22 June 2023, Rome, Italy
3. Video presentation Open/Laparoscopic groin hernia repair, SCOPE COURSE 2023, 21 July 2023, New Delhi
4. Panel discussion on TEP/TAPP/IPOM/FUNDOPLICATION, IHSCON (Indian hernia Society) 2023, 26 August 2023, Varanasi
5. Thoracic outlet obstruction presentation, CME in surgery, 3 September 2023, New Delhi
6. How to write conclusion, Research orientation programme, 23 September 2023, New Delhi
7. Complications of groin hernia repair, IHSCON-NZ, 7 November 2023, New Delhi
8. Evaluation of chronic wounds, WOUNDCON 2023, 24 November 2023, Guwahati
9. Responsibilities of residents, Responsibilities of residents, 17 February 2024, New Delhi

Om Prakash

1. Laparoscopic Surgery – DOs & DON'Ts, ASIRAJ-2023, 23 September 2023, Ajmer
2. Complications of Laparoscopic Inguinal Hernia Surgery, ASIRAJ-2023, 24 September 2023, Ajmer
3. Summary Writing in Thesis, Research Methodology 2023, 10 October 2023, New Delhi
4. Laparoscopic CBD Exploration, AMASICON, 5 November 2023, Raipur
5. Overview of Renal Transplant, Renal Transplant workshop (Nursing)-2023, 20 January 2024, New Delhi

ANKITA SINGH

1. How to choose a thesis topic and a guide? Thesis protocol writing workshop, 3 April 2023, Delhi
2. Basic Surgical Skills Demonstration, CME in Surgery- one day workshop, 3 September 2023, Delhi
3. How to choose a thesis topic and a guide? Thesis protocol writing workshop, 4 October 2023, Delhi
4. Toxic Multinodular Goiter- Panel discussion (Moderator), CME on "Nuclear Endocrinology in Clinical Practice" focus on Thyroid Diseases, 4 November 2023, Delhi
5. A Surgeon's perspective, Genetic Counsellors Awareness Day, 9 November 2023, Delhi
6. Under graduation at AIIMS, Delhi, National Medical Council team visit, 15 November 2023, Delhi
7. Post Cholecystectomy Laparoscopic CBD Surgery (Panelist), AMASICON- East Zone 2024, 26 January 2024, Kalimpong, West Bengal
8. Open Surgical Instruments, LHMC Surgery, PG Clinical Update, 5th Edition, 2 February 2024, Delhi
9. Post Graduation in Surgical Disciplines at AIIMS, Delhi, Orientation workshop- First year junior and senior residents in Surgery, 17 February 2024, Delhi
10. Level I Oncoplasty- Breast Conservation Surgery, CME in Endocrine Surgery, 6 April 2024, Delhi

Sanjeet Kumar Rai

1. Food, Accommodation, ID card, Bank account, EHS- A Guide, Departmental orientation program, 2 February 2023, New Delhi
2. Food, Accommodation, ID card, Bank account, EHS- A Guide, Departmental orientation program, 17 February 2024, New Delhi
3. Laparoscopic Nephrectomy, SCOPE, 21 Jul 2023, New Delhi
4. Renal Transplant, BSc Nursing, 15 December 2023, New Delhi

Aditya Kumar

1. Laparoscopic Cholecystectomy, ASI Delhi State Chapter, National SCOPE course 2023, 22 July 2023, New Delhi
2. Divarication of Rectii – What to Do? Annual Day & CME in Surgery 2023, 4 September 2023, New Delhi
3. Surgery for Divarication – Guidelines & Recommendations, SURGICON 2023, 18 November 2023, New Delhi
4. Laparoscopic Fundoplication: Tips & Tricks, SSN 2023, Annual Conference of Surgeons Society of Nepal, 1 December 2023, Kathmandu, Nepal
5. Colonic Diverticulitis, ASICON 2023, 14 December 2023, Vishakhapatnam
6. Endoscopic hernia repair, ASI Delhi State Chapter, National SCOPE course 2024, 11 January 2024, New Delhi

Uttam Kumar Thakur

1. Basic principle of wound management, 1st Annual Workshop on Basic Surgical Skills, 9 December 2023, Mohali
2. Panelist in a session on "Approach to Safe Cholecystectomy", XIth International Conference of Society of Surgeons of Nepal, February 2024, Nepal

Devender Singh

1. Why to do thesis? Thesis protocol writing workshop, 3 April 2023, New Delhi
2. Anal incontinence, Subharti surgery update 2023, 18 April 2023, Meerut
3. Management of Fistula in ano, Panel Discussion Subharti surgery Update, 18 April 2023, Meerut
4. Why to do thesis? Thesis protocol writing workshop, 4 October 2023, New Delhi
5. Management of Difficult Gall Bladder, ASACON, 13 October 2023, Jorhat, Assam
6. Basic Surgical Skills, CME in Surgery- one day workshop, 3 September 2023, New Delhi
7. Post Graduates at AIIMS, Delhi, National Medical Council team visit, 15 November 2023, New Delhi
8. Management of Upper GI Bleed, ASICON 2023, 14 December 2023, Vishakhapatnam
9. Roles and responsibilities of Senior Resident, Orientation Program, 17 February 2024, New Delhi

Brijesh Kumar Singh

1. Localization technique for parathyroidectomy, SCOPE COURSE 2023 organized by Delhi state chapter, 20 July 2023, New Delhi

Washim Firoz Khan

1. PG MAS skill training course, IAGES Midterm Conference 2023, 26-29 October 2023, Bhopal, MP

Arun Anand

1. Moderation- Incisional Hernia, SCOPE 2023, 23 July 2023, New Delhi
2. Moderation- TAPP, eTEP, TEP, IHSCON- North zone, 7 November 2023, New Delhi

Aditya Baksi

1. Appendicectomy, ARSICON, 16 March 2024, New Delhi
2. Laparoscopic management of small bowel obstruction after TAPP, Young HSICON 2024 (mid-term event of Hernia Society of India), 29 March 2024, New Delhi

Lectures delivered over past 3 years

2021–2022 (102)	2022–2023 (154)	2023–2024
102	154	183

Oral papers/posters presented: 83

1. Abraham J, Parshad R, Bhattacharjee HK, Joshi M, Suhani, Laparoscopic Heller's Cardiomyotomy With Angle Of His Accentuation: A Video Presentation (Free Paper Session), EAES, 20-23 June 2023, Italy
2. Abraham J, Parshad R, Bhattacharjee HK, Joshi M, Suhani, Revisional Surgery For Failed Heller's/ Poem: Our Experience In 6 Cases (Award Poster Session), EAES, 20-23 June 2023, Italy
3. Abraham J, Parshad R, Bhattacharjee HK, Joshi M, Suhani, Total mesorectal Excision: A Robust Treatment Option For Rectal Av Malformation (Video Presentation), EAES, 20-23 June 2023, Italy
4. Agarwala S, Luthra K, Sharan P, Lodha R, Sahni P, Role of Minimal Access Surgery in the management of superficial abscess: A single centre, in hospital, prospective, non-randomized clinical intervention study, ASICON 2023, 21 May 2023, Vishakhapatnam
5. Anand V, Kumar A, Laparoscopic trans abdominal repair of Morgagni Hernia, SURGICON 2023, 19 November 2023, New Delhi
6. Arpita, Bajpai A, Prakash O, Rai S, Bansal VK, Short term outcomes of Laparoscopic Donor Nephrectomy from a Tertiary Care Center of India, SELSICON, 27 October 2023, Pune
7. Arumugaswamy PR, Maitra S, Bhattacharjee HK, Bansal VK, Aggarwal S, Dhar A, et al. Low pressure pneumoperitoneum with deep neuromuscular block versus standard pressure pneumoperitoneum in patients undergoing laparoscopic cholecystectomy for gallstone disease: A non-inferiority Randomized Control Trial, 31st EAES Congress, 22 June 2023, Rome, Italy
8. Arumugaswamy PR, Rathore YS, Chumber S, Low pressure vs standard pressure laparoscopic cholecystectomy in deep muscle block : RCT, EAES ROME, 2023, 21 June 2023, Rome, Italy
9. Asuri K, Bansal VK, Prajapati O, Rai S, Ramachandran R, Outcomes following Laparoscopic Transperitoneal Adrenalectomy: experience of a decade from a tertiary care centre, SAGES 2023, 1 April 2023, Montreal, Canada
10. Bajpai A, Prakash O, Rai S, Bansal VK, Laparoscopic Internal Drainage of Collection Post Pancreatitis-An Experience From Tertiary Care Centre of India, SELSICON, 27 October 2023, Pune
11. Baksi A, Kaur S, Sharma N, Laparoscopic management of gallstone ileus, ASICON 2023, 13 December 2023, Visakhapatnam
12. Bansal VK; Asuri K, Prajapati O, Rai S, Kumar S, Ramachandran R, et al. Comparison Of Outcomes Of Primary Laparoscopic Common Bile Duct Exploration And Following Failed Endoscopic Retrograde Cholangiopancreatography In Patients With Choledocholithiasis: A Prospective Study, SAGES 2023, 1 April 2023, Montreal, Canada
13. Bansal VK, Asuri K, Prajapati O, Rai S, Kumar S, Ramachandran R, et al. Outcomes of difficult laparoscopic cholecystectomy using various bail out strategies-experience of over two decades from a single surgical unit at a tertiary care teaching hospital, SAGES 2023, 1 April 2023, Montreal, Canada
14. Chandrasekaran G, Damle N, Bal CS, Tandon N, Gupta Y, Ranjan P, et al. Utility of 68Ga-DOTANOC PET CT in Syndromic Endocrinopathies: a Retrospective Single Center Experience, SPEEDCON 2024, 3 and 4 February 2024, Delhi
15. Dhal J, Rai S, Prakash O, Asuri k, Rashmi Ramachandran, Bansal VK, Improving Pain Management Following Laparoscopic Surgery: A Randomized Quality Improvement Study, SAGES 2023, 1 April 2023, Montreal, Canada

16. Dhawan S, Singh A, Aggarwal S, Comparative Assessment of dietary intake pre and post-surgery in patients undergoing bariatric surgery-Poster Presentation, OSSICON 2023-20th National Conference of Obesity and Metabolic Surgery Society of India, 1-4 March 2023, Mumbai
17. Garg, Mohit, Aggarwal S, Effectiveness of laparoscopically delivered Transversus Abdominis Plane Block for Postoperative pain control in laparoscopic ventral hernia repairs, Surgicon 2023, 17-19 November 2023, New Delhi
18. Gupta A, Gupta M, Aggarwal S, Singla V, Routine walk after bariatric surgery: impact on weight loss, OSSICON 2024, 7 -10 February 2024, Kochi
19. Gupta M, Gurnani N, Aggarwal S, Nehra A, Sreenivas V, Cognitive improvement following Sleeve Gastrectomy and Roux-en-Y Gastric Bypass procedures, OSSICON 2023-20th National Conference of Obesity and Metabolic Surgery Society of India, 1-4 March 2023, Mumbai
20. Gupta M, Singla V, Aggarwal S, Impact of routine walk on weight loss outcomes after bariatric surgery, Surgicon 2023, 17-19 November 2023, New Delhi
21. Jaiswal R, Aggarwal S, Nutritional Management in pre-existing liver disease post MBS, OSSICON 2024, 7-10 February 2024, Kochi
22. Jashmine, Rai S, Prakash O, Asuri k, Bansal VK, An Experience Of Giant Incisional Hernia Repair Over A Decades At A Tertiary Care Centre-India, XV Annual National Conference of Indian Hernia Society, 25 August 2023, Varanasi
23. Kataria K, Agarwak V, Dhar A, Ranjan P, Rathore Y, Quality of life in patients undergoing endoscopic thyroidectomy vs conventional Open thyroidectomy, ICE 2024, 21st International Conference of Endocrinology, 1-3 March 2024, Dubai, UAE
24. Kataria K, Sachdeva K, Comparison of Endoscopic thyroidectomy vs conventional open thyroidectomy: A randomized controlled trial, 21st Annual Conference of Indian Association of Gastrointestinal Endosurgeons, 1-4 February 2024, Chennai
25. Krishna A, Bansal VK, Omprakash, Comparison Of Outcomes Of Primary Laparoscopic Common Bile Duct Exploration And Following Failed Endoscopic Retrograde Cholangiopancreatography In Patients With Choledocholithiasis: A Prospective Study, SAGES annual meeting 2023, 28 March 2023, Montreal, Canada
26. Krishna A, Bansal VK, Omprakash, Laparoscopic assisted Whipple's procedure-our technique of resection, SAGES annual meeting 2023, 28 March 2023, Montreal, Canada
27. Krishna A, Bansal VK, Omprakash, Outcomes of difficult laparoscopic cholecystectomy using various bail out strategies-experience of over two decades from a single surgical unit at a tertiary care teaching hospital, SAGES Annual Meeting 2023, 28 March 2023, Montreal, Canada
28. Krishna A, Bansal VK, Omprakash, Quantitative Sensory Testing for quantifying and correlating pain threshold in preoperative and post-operative period in patients undergoing laparoscopic inguinal hernia repair, SAGES Annual Meeting 2023, 28 March 2023, Montreal, Canada
29. Kumar A, Singla V, Aggarwal S, Gupta M, Yadav BP, Concomitant Hiatal Hernia Repair with Sleeve Gastrectomy-Impact on Gastroesophageal Reflux, XXVI IFSO World Congress Napoli 2023, 30 August-1 September 2023, Naples, Italy
30. Kumar A, Singla V, Aggarwal S, Indications and complexities of Revision Bariatric Surgery: A video case series, OSSICON 2023-20th National Conference of Obesity and Metabolic Surgery Society of India, 1-4 March 2023, Mumbai
31. Kumar A, Sonali, Suhani, Bhattacharjee HK, Parshad R, Kashyap L, et al. Thymectomy for Thymomas: a decade of experience at our centre: Paper presentation, ISTSCON 2023, 17-19 November, Bangalore
32. Kushwaha A, Singh A, Singh D, Chumber S, Intracholecystic papillary neoplasm: A rare differential of carcinoma gall bladder, SURGICON 2023, 18 November 2023, New Delhi
33. Lakshmi R, Ram S, Singh B, Seenu V, Tiwari R, Breast reconstruction in the Indian scenario-a single unit experience in oncoplasty and total breast reconstruction, BRASCON 23, 17 November 2023, Lucknow1
34. Lakshmi R, V Seenu, Tiwari R, Devasenapathy K, Singh B, The anatomic basis of the deep inferior epigastric artery perforators flap and the internal mammary artery perforator flap, BRASCON 23, 18 November 2023, Lucknow
35. Mehrotra R, Chaudhary M, Aggarwal S, Optimal timing of Laparoscopic Cholecystectomy after ERCP for choledocholithiasis, Surgicon 2023, 17-19 November 2023, New Delhi

36. Mehrotra R, Kumar A, Laparoscopic excision of retrorectus peripheral nerve sheath tumour, LAPAROSURG 2023, 7 July 2023, Coimbatore

37. Mitra L, Suhani, Goyal A, Kumar R, Kumar R, Parshad R, et al, Clinical Applicability Of Whole-Body Low Dose Ct Scan For Detecting Bone Metastasis In Breast Cancer: A Cross-Sectional Study, SURGICON, 17-19 November 2023, New Delhi1

38. Mittal S, Abraham J, Parshad R, Cameron's ulcer: an unusual presentation of hiatal hernia with intractable upper gastro-intestinal bleed and persistent severe anemia, EAES, 20-23 June, Italy

39. Mittal S, Parshad R, Suhani, Joshi M, Bhattacharjee HK, Gunjan D, et al, Laparoscopic Heller's Cardiomyotomy With Angle Of His Accentuation For Achalasia Cardia: 5 Years And Beyond, ESTS, 4-6 June, Italy

40. Monga S, Kumar A, Singla V, Aggarwal S, Comparison of gastroesophageal reflux after antral preserving and antral resecting laparoscopic sleeve gastrectomy in people with severe obesity: an ambispective study, OSSICON 2023-20th National Conference of Obesity and Metabolic Surgery Society of India, 1-4 March 2023, Mumbai

41. Nandury BC, Bhattacharjee HK, Joshi M, Suhani, Parshad R, Mesh Explanation: Experience from a tertiary health care centre, Young HSICON, 28-30 March 2024, New Delhi

42. Nandury BC, Suhani, Parshad R, Seenu V, Joshi M, Bhattacharjee HK, et al. Evaluation of indocyanine green for sentinel lymph node biopsy in breast cancer: two arm open label parallel design non-inferiority randomized control trial, SURGICON, 17-19 November 2023, New Delhi2

43. Nidhi, Prakash O, Rai S, Asuri K, Bansal VK, Outcomes Following Laparoscopic CBD Exploration: Experience of 560 Cases at a Tertiary Care Centre-India, SELSICON, 27 October 2023, Pune

44. Parshad R, Clinical Utility of Sequential DWI in Studying Tumor Margins as an aid to Breast Conservation Surgery, International Society of Magnetic Resonance in Medicine, August 2023, Toronoto, Ontario, Canada

45. Parshad R, Effect of Neoadjuvant Chemotherapy on in-vivo MRS determined tCho and Membranous and Cytoplasmic b-catenin Expression in Breast Cancer Patients, International Society of Magnetic Resonance in Medicine, August 2023, Singapore

46. Parshad R, Estimation of Fat fractions in Different Subtypes of Breast Cancer using in-vivo 1H MRS Study, International Society of Magnetic Resonance in Medicine, August 2023, Toronto, Ontario, Canada

47. Prakash O, Rai S Bansal VK, Asuri K, A Comparative Analysis of Trans Abdominal Pre-Peritoneal Repair in Uncomplicated vs. Complicated Inguinal Hernia Repair, SAGES 2023, 1 April 2023, Montreal, Canada

48. Rai S, Prakash O, Bansal VK, Asuri K, Questionnaire Based Survey of Musculoskeletal Dysfunction among General Surgeons, XV Annual National Conference of Indian Hernia Society, 25 August 2023, Varanasi

49. Ranjan R, Aggarwal, R, Singla V, Reversal to normal anatomy of a RYGB following a primary OAGB Procedure-A video Case Report, OSSICON 2024, 7-10 February 2024, Kochi

50. Rathore YS, Baig M, Sunil S, Kanika, Randomised control trial between low-cost setting modified tumescent TAPP vs conventional TAPP, EAES ROME 2023, 21 June 2023, Rome, Italy

51. Rathore YS, Baig M, Sunil S, To assess the functional outcomes in patients undergoing standardised laparoscopic mesh repair in small and medium sized ventral midline hernias, EAES ROME 2023, 22 June 2023, Rome, Italy

52. Rathore YS, Sunil S, Soni G, Laparoscopic splenectomy in extremely low platelet (drug refractory) ITP, EAES ROME 2023, 22 June 2023, Rome, Italy

53. Richa J, Ashima W, Nehra, Yadav R, Misra, Puneet VN, et al Predictors of sustained weight loss-a quasi-randomized trial ", XXVI IFSO World Congress Napoli 2023, 30 August to 1 September 2023, Naples, Italy

54. Ritwik C, Aggarwal S, Shalimar S, Singla V, Kumar A, Correlation of non-invasive investigations with liver biopsy in diagnosing the extent of fibrosis in patients with morbid obesity undergoing bariatric surgery, XXVI IFSO World Congress Napoli 2023, 30 August to 1 September 2023, Naples, Italy

55. Ritwik C, Singla V, Aggarwal S, Rath B, Shalimar, Singh A, Diagnostic utility of Enhanced Liver Fibrosis to Predict Presence and Severity of Advanced Liver Fibrosis in patients with Morbid Obesity undergoing Bariatric Surgery, OSSICON 2024, 7-10 February 2024, Kochi

56. Roy N, Rai S, Prakash O, Bansal VK, Asuri K, A Prospective Study To Evaluate The Abdominal Wall Dynamics Using Surface Electromyography In Patients With Incisional Hernia In Comparison To Healthy Controls, SAGES 2023, 1 April 2023, Montreal, Canada

57. Saheer SM, Aggarwal S, Singla V, Long Term outcomes of Bariatric Surgery : A single centre Retrospective Analysis, OSSICON 2024, 7 -10 February 2024, Kochi

58. Saini V, Kataria K, Chumber S, Endoscopic Approaches of Hemithyroidectomy in Solitary Thyroid nodule Patients, IAGES 2023, 9-12 April 2023, Coimbatore

59. Sheikh S, Kumar A, Subcutaneous Onlay Aponeuroplasty (SCOLA) for Divarication of Rectii, SURGICON 2023, 19 November 2023, New Delhi

60. Singh A, Goel R, Rathore YS, Chumber S, Singla V, Baig M, et al, Role of Minimal Access Surgery in the management of superficial abscess: A single centre, in hospital, prospective, non-randomized clinical intervention study", ASICON 2023, 13 December 2023, Vishakhapatnam2

61. Singh A, Kumar B, Giant Parathyroid Adenomas: A 28 year single unit experience at India's apex tertiary hospital, XI National Conference of Association of Cough Specialists, 12 April 2022, Gurugram/Online

62. Singh A, Puri G, Singh BK, Ranjan P, Rathore YS, Chumber S, et al, Giant Parathyroid Adenomas: A 28 year single unit experience at India's apex tertiary hospital, ASICON 2023, 13 December 2023, Vishakhapatnam2

63. Singh D, A prospective randomized controlled study to compare antral preservation versus antrum resection sleeve gastrectomy in morbidly obese patients, ASICON 2023, 14 December 2023, Vishakhapatnam

64. Singh D, Agarwal, S Chumber S, Rathore YS, New onset GERD after sleeve gastrectomy, ASICON 2023, 15 December 2023, Vishakhapatnam

65. Singh D, Laparoscopic management of mesh infection, ASICON 2023, 15 December 2023, Vishakapatnam

66. Singh D, TAPE repair of atypical hernias, IHSCON BHU 2023, 26 August 2023, Varanasi (UP)

67. Singh D, TAPP Plus repair of ventral hernia, APOLLO SURGICON 2023, 19 November 2023, Delhi

68. Singh S, Asuri K, Bhatia R, Rai S, Prakash O, Bansal VK, Quantitative Sensory Testing for quantifying and correlating pain threshold in preoperative and post-operative period in patients undergoing laparoscopic inguinal hernia repair, SAGES 2023, 1 April 2023, Montreal, Canada

69. Singh S, Dhar A, Shivanandan G, Seth S, Kataria K, Role of indocyanine green in predicting limb perfusion in comparison to standard methods in cases of chronic limb threatening ischemia in correlation with clinical progression, SURGICON 2023, 18 November 2023, New Delhi

70. Singla V, Aggarwal S, Choice of Bariatric Procedure in MAFLD, OSSICON 2024, 7 -10 February 2024, Kochi

71. Singla V, Gupta A, Kumar A, Katiyar V, Gupta M, Monga S, et al, Outcomes in Patients with Super Obesity (BMI >60kg/m2)undergoing Sleeve Gastrectomy or One Anastomosis Gastric Bypass, XXVI IFSO World Congress Napoli 2023, 30 August to 1 September 2023, Naples, Italy

72. Singla V, Gupta A, Monga S, Kumar A, Chekuri R, Gupta M, et al Outcomes of Laparoscopic Sleeve Gastrectomy (LSG) vs One Anastomosis Gastric Bypass (OAGB) in patient with Super Obesity (BM >60kg/m2), OSSICON 2024, 7-10 February 2024, Kochi

73. Singla V, Monga S, Kumar A, Yadav BP, Ghosh T, Aggarwal S, Outcomes following Reoperative Bariatric Surgery following Laparoscopic Sleeve Gastrectomy at a Tertiary Care Centre, XXVI IFSO World Congress Napoli 2023, 30 August to 1 September 2023, Naples, Italy

74. Singla V, Monga S, Yadav BP, Ghosh T, Aggarwal S, Outcomes following re-operative bariatric surgery following laparoscopic sleeve gastrectomy at a tertiary care center, OSSICON 2023-20th National Conference of Obesity and Metabolic Surgery Society of India, 1-4 March 2023, Mumbai

75. Soni G, Singh D, Rathore YS, Chumber S, TAPP PLUS in ventral hernia, SURGICON 2023, 18 November 2023, New Delhi

76. Sreeraj A, Rai S, Prakash O, Ankita, Jashmine, Bansal VK, Objective Assessment of Muscle Activity of Operating Surgeon Using Electromyography During Laparoscopic Surgery, SELSICON, 27 October 2023, Pune

77. Srikant M, Yashwant Rathore, Rathore YS, Chumber Sunil, Amoeboma of the colon mimicking carcinoma colon-case series, SURGICON 2023, 18 November 2023, New Delhi

78. Thalastha PK, Dhar A, Prasad R, Double Strike on Thyroid, SURGICON 2023, 19 November 2023, New Delhi

79. Vishwas, Joshi SM, Bhattacharjee HK, Parshad R, Perilous location of Giant Paraganglioma with solitary functioning kidney-A Surgical Challenge, ASICON, 13-16 December 2023, Vishakhapatnam

80. Yadav BP, Aggarwal S, Rath BK, Hadda RK, Singh, Psychosocial factors after Post Bariatric Surgery Weight Loss, OSSICON 2024, 7 -10 February 2024, Kochi
81. Yadav BP, Singla V, Aggarwal S, Cognitive Improvement Following Sleeve Gastrectomy and Roux-En-Y Gastric Bypass Procedures, OSSICON 2024, 7 -10 February 2024, Kochi
82. Yadav S, Bhattacharjee HK, Mishra AK, Joshi SM, Parshad R, Transferability Of Laparoscopic Skills Acquired From Three-dimensional High-definition And Ultra-high Definition Endovision System To Two-dimensional High-definition Endovision System: An Ex-vivo Randomized Study (Free Paper Session), EAES, 20-23 June, Italy
83. Virwadia YK, Dhar A, Kumar A, Kumar R, Jyotsana V, Kataria K, Comparison of clinical outcomes and inflammatory markers of Trans-oral vestibular and Axillo-breast approach for endoscopic hemithyroidectomy-RCT, SURGICON 2023, 18 November 2023, New Delhi

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
41	103	83

RESEARCH

Funded projects

Ongoing

1. "Solid Tumor Targeting Using Homing Peptides and Plasmonic Photothermal Technique", Dr Piyush Ranjan, DBT, 3 years (extended), 4 Years, 2018-22, Rs 2.72 Crores
2. "Study of heavy metals and trace elements (Arsenic, cadmium, chromium, and nickel, selenium, zinc, copper, lead, mercury, lead, cobalt) in gall bladder cancer and cholelithiasis patients.", Dr Kamal Kataria, AIIMS, 2 Years, 2020-24, Rs 10 Lakhs
3. "Study of heavy metals and trace elements (Arsenic, cadmium, chromium, and nickel, selenium, zinc, copper, lead, mercury, lead, cobalt) in Breast cancer and Benign breast disease patients.", Dr Kamal Kataria, AIIMS, 2 Years, 2021-24, Rs 10 Lakhs
4. An observational study to evaluate the role of impaired NAD+ biosynthesis in calf skeletal muscle dysfunction in people with peripheral arterial disease, Prof Anita Dhar, ICMR, 4 Years, 2022-26, Rs 40 Lakhs
5. Characterization of Breast Microbiota in patients with Granulomatous Mastitis (AIIMS-THSTI collaborative project), Dr Kamal Kataria, Research Section, AIIMS and THSTI Faridabad, 2 Years, 2023-25 (September), Rs 20 Lakhs
6. Characterization of circulating immunological markers in patients with Non lactational mastitis - a cross sectional study, Dr Nelson T (Principal Investigator), Research Section, AIIMS, 2 Years, 2023-25, Rs 10 Lakhs
7. Clinical significance of Proteomics in liquid biopsy for Indian breast cancer women: An Exploratory study, Dr Suhani, AIIMS Intramural Collaborative project, 4 Years, 2021-24, Rs 20 Lakhs
8. Comparison between intravenous indocyanine green Vs intra gall bladder intravenous indocyanine green vs no intravenous indocyanine green in Nassar grade III/IV laparoscopic cholecystectomy with respect to attaining critical view of safety in laparoscopic cholecystectomy: A Randomized Controlled Trial, Dr Sushant Soren, AIIMS intramural, 2 Years, 2024-26, Rs 10 Lakhs
9. Development of TIRF based microscopic system with smartphone camera as a detector for autofluorescence dependent intraoperative identification of parathyroid tissue (AIIMS-IIT Collaborative project), Dr Kamal Kataria, Research Section, AIIMS, 2 Years, 2022-24, Rs 20 Lakhs
10. Evaluation of mobility function of an indigenously developed low-cost light weight polycentric polymeric knee joint (PPKJ) and its effect on quality of life and rehabilitation on transfemoral amputees, Dr Mohit Kumar Joshi, AIIMS, Delhi, 2 Years, 2022-24, Rs 5 Lakhs
11. Evaluation of pathological reflux in patients undergoing Angle of His accentuation as an adjunct to laparoscopic Hellers cardiomyotomy for achalasia cardia, Dr Aditya Kumar, AIIMS Intramural Research Grant, 2 Years, 2024-26, Rs 5 Lakhs

12. Fast track emergency lap cholecystectomy vs emergency laparoscopic cholecystectomy in index cases of acute calculus cholecystectitis patients presenting to emergency department - RCT, Dr Tej Prakash + YSR, ICMR New Delhi, 3 Years, 2022, continue, Rs 10 Lakhs
13. Identification of factors predictive for weight loss after Bariatric Surgery: Building a Model for improving outcomes and maintaining weight loss, Dr Sandeep Aggarwal, ICMR, 3 Years, 2022-24, Rs 71 Lakhs
14. Implementation Research to Accelerate Screening, Early Diagnosis and Initiation of Treatment for Oral, Breast, and Cervical Cancer in selected districts of India-Extramural ICMR funded, Dr Asuri Krishna, ICMR extramural, 2 Years, 2024-26, Rs 1 Crore
15. Long Term Outcome of Patients with Walled off Necrosis/Pseudocyst of Pancreas in terms of Recurrence of Acute Pancreatitis, Fluid Collection and Functional Consequences following Internal Drainage by Laparoscopic or Endoscopic method, Dr Om Prakash, AIIMS, 4 Years, 2019-23, Rs 10 Lakhs
16. Multi-model fluorescence and Raman spectroscopy based molecular point-of-care test for the detection of novel coronavirus (COVID-19). (In collaboration with IITD), Dr Piyush Ranjan, Intramural, 2 Years, 2021-23, Rs 8 Lakhs
17. Prevalence of BRCA 1/2 germ line mutations in young Indian women (<40 years) with Triple negative breast cancers, Dr Om Prakash, AIIMS, 2 Years, 2022-24, Rs 10 Lakhs
18. RCT- preoperative embolization vs ligation in continuity of splenic artery during laparoscopic splenectomy, Dr Yashwant Rathore, ICMR, New Delhi, 3 Years, February 2024, Continue, Rs 45 Lakhs
19. RNA-seq based case-control study to identify alternatively spliced events in colorectal adenocarcinoma- Bioinformatics and genomics based study [2021-12417], Dr Manjunath Maruti Pol, ICMR- Extra-mural funds granted, 2 Years, 2023-25, Rs 88,01,820
20. Role of heavy metals in breast cancer, Dr Kamal Kataria, AIIMS research section, 3 Years, 2021, continue, Rs 10 Lakhs
21. Role of Matrix Metalloproteases and their inhibitors in the pathogenesis of abdominal wall hernias - A prospective case-control study, Dr Devender Singh, AIIMS intramural grant, 2 Year, 2024-26, Rs 10 Lakhs
22. Role of MMP in pathogenesis in abdominal wall hernias, Dr Devender Singh, AIIMS research section, 3 Years, 2024, continue, Rs 10 Lakhs
23. Role of Targeted Axillary Clearance in Estimating Residual Axillary Disease after Neoadjuvant Chemotherapy in Breast Cancer Patients with cT1-3 N1 M0 Disease: A Prospective Observational study, Dr Brijesh Kumar Singh, AIIMS intramural, 2 Years, 2024-26, Rs 10 Lakhs
24. Study of effectiveness of Maharishi Amrit Kalash on Breast cancer as adjunct therapy along with Neo Adjunct Chemotherapy: An open Randomized controlled cl, Professor Anita Dhar, Maharishi Ayurveda Corporation Ltd, 4 Years, 2019-23 (on extension), Exempted
25. Study of Gut Microbiome in patients with gall bladder carcinoma - Intramural Project under AIIMS research grant, Dr Asuri Krishna, AIIMS intramural, 2 Years, 2020-24, Rs 10 Lakhs
26. To study the epidemiology of drowning, address the need, developing IEC material and imparting the related training to at-risk school students of schools in the vicinity of the Yamuna River at Delhi- Prospective, non-randomized, interventional study.", Dr Piyush Ranjan, ICMR, 3 Years, 2024-27, Rs 74 Lakhs
27. Utility of the ELF test (Enhanced Liver Fibrosis panel) for preoperative detection of extent of liver fibrosis in morbidly obese patients undergoing bariatric surgery, Dr Washim Firoz Khan, Intramural Grant, 2 Years, 2024-25, Rs 10 Lakhs
28. Virtual reality assisted 3D endoscope for minimal access (laparoscopic surgery), Dr HK Bhattacharjee, AIIMS Delhi, 2 Years, 2022-24, Rs 5 Lakhs
29. VR assisted 3D endoscope for minimal access (laparoscopic) surgery, Dr Hemanga K. Bhattacharjee, AIIMS-IIT-DELHI INTER-INSTITUTIONAL COLLABORATIVE RESEARCH GRANT, 1 Year, 2022-23, Rs 10 Lakhs

Completed

1. 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 Atherosclerotic cause, Prof Anita Dhar, Stempeutics Pvt Ltd, 3 years , 2019-22, Rs 33,075

2. ‘To check the feasibility of aortoplasty balloon catheter for endovascular occlusion of aorta- a cadaveric study’, Mohit Kumar Joshi, AIIMS (Intramural grant), 1 Year, 2019, 2023 (Extended because of COVID-19 pandemic), Rs 75,000
3. To study the role of inflammatory markers in low pressure vs standard pressure laparoscopic cholecystectomy. RCT, Dr Yashwant Rathore, AIIMS Research section, 2 Years, 2021-23, Rs 5 Lakhs
4. Transcendental meditation (TM) to reduce stress and enhance immunity of health care workers during COVID-19 pandemic: a randomized trial (TURMERIC trial), Dr Hemanga K Bhattacharjee, SATYAM, DST, Government of India, 1 year 6 months, 2020-22, Rs 14,70182

Departmental projects (including thesis/dissertations)

Ongoing

1. “Comparison of outcomes of Trans-oral vestibular and Axillo-breast approach for endoscopic hemithyroidectomy in patients with benign and indeterminate thyroid lesions- A Randomized Controlled Trial.” Part of this study going on
2. “Midline vs. triangular port placement in total extra? Peritoneal mesh repair in uncomplicated inguinal hernia: A Randomised Control Trial”
3. A pilot study to compare autofluorescence based detection of parathyroid gland by probe-based fluorescence spectroscopic method with indocyanine green guided intraoperative identification of parathyroid glands
4. A prospective comparative study to evaluate the restoration of abdominal wall dynamics in patients with incisional hernia following laparoscopic and open repair”
5. A Prospective Observational Study to assess the accuracy of preoperative and post-operative transcutaneous laryngeal ultrasonography (TLUSG) in evaluating the vocal cord mobility in patients undergoing thyroid surgeries
6. A Prospective Randomised Controlled Study to Compare intraperitoneal onlay mesh plus repair (IPOM Plus) versus transabdominal preperitoneal mesh plus repair (TAPP Plus) for patients with primary ventral hernia
7. A Prospective Randomised Controlled Study to Compare Standard Surgical Treatment plus specialised negative pressure dressing with Minimal Invasive Treatment plus specialised negative pressure dressing for Pilonidal Sinus Disease in Indian Population
8. A prospective study to evaluate the restoration of abdominal wall dynamics in patients with incisional hernia following laparoscopic IPOM plus repair in comparison to healthy controls using surface EMG
9. A prospective, Randomised controlled Study to Compare Intraperitoneal Onlay Mesh plus Repair Versus Transabdominal Pre Peritoneal Mesh Plus Repair for Patients with Primary Ventral Hernia
10. A Randomised Controlled Trial to Compare Pain Relief in Pre-Emptive Versus Post- Operative Local Anesthetic Infiltration at Port Site Incision in patients undergoing Laparoscopic Cholecystectomy.
11. A randomised controlled trial to standardize port site local anaesthesia infiltration in patients undergoing laparoscopic cholecystectomy
12. A randomized control trial in laparoscopic cholecystectomy to compare pain relief in standard pressure pneumoperitoneum with port site infiltration versus low pressure pneumoperitoneum with laparoscopically guided transversus abdominis plane block and standard pressure pneumoperitoneum with laparoscopically guided transversus abdominis plane block
13. A randomized controlled trial to compare patient satisfaction, cosmesis, quality of life, safety and feasibility of Endoscopic Parathyroidectomy by Ipsilateral Axillo-Breast approach versus open focused Parathyroidectomy in patients with primary hyperparathyroidism due to a single gland disease
14. A randomized controlled trial to compare the quality of life between axillo-breast approach and bilateral axillo-breast approach for endoscopic thyroidectomy in patients with benign thyroid swellings
15. A study to compare the outcomes with and without preoperative splenic embolization in patients with moderate splenomegaly undergoing elective laparoscopic splenectomy
16. A Study To Quantify The Burden Of Insulin Resistance In Breast Cancer Women And Its Relation With Other Known Prognostic And Predictive Factors Of Breast Cancer

17. A Study to Understand the Association of Fecal and/or Bile Microbiome Dysbiosis in Gall Stone Disease (asymptomatic and symptomatic) with those of Gallbladder Cancer Patients
18. An ambispective observational study to assess and evaluate outcomes of various treatment modalities of arteriovenous malformation"
19. An open label randomized control trial to compare the outcomes with and without preoperative splenic artery embolization (SAE) in patients with moderate splenomegaly undergoing elective laparoscopic splenectomy
20. Analysis of patterns of neck trauma and its outcomes at level 1 trauma center: an ambispective observational study.
21. Appendectomy In Distal Ulcerative Colitis
22. Appendectomy in distal ulcerative colitis: A prospective interventional study
23. Assessment of Amphiregulin and CRISPLD1 as visceral adipose tissue derived modulators of cardiovascular health in obesity.
24. Assessment of liver fibrosis with non-invasive tests and scoring systems in correlation with liver biopsy in morbidly obese patients before and after bariatric surgery
25. Assessment Of Muscle Activity And Fatigue Among Surgeons During Laparoscopic Surgery Using Surface Electromyography
26. Assessment of risk factors and outcomes in patients following cardiopulmonary resuscitation in the surgical ICU v/s trauma ICU
27. Assessment Of Transferability Of Skills Acquired On 3d Hd And 4k HD Endovision System To 2d HD Endovision System: An Ex-Vivo Study
28. Characterization of breast microbiota and immune repertoire in patients with tubercular mastitis
29. Clinical applicability of whole- body low dose CT scan for detecting Bone metastasis in breast cancer: a cross-sectional study
30. Clinical Evaluation of Fibroblast Growth Factor (FGF) and Silver Nanoparticle (AgNP) Entrapped Gelatin/Gellan Hybrid Gels as Wound Dressings in Diabetic Foot Ulcer Patients"
31. Comparative analysis of early post-operative outcomes between laparoscopic-assisted PD and Open PD - A pilot study
32. Comparision of TARM vs IPOM plus for management of primary and incional hernia in terms of early outcome and cost effectiveness - A randomised control trial
33. Comparison between intravenous indocyanine green Vs intra gall bladder intravenous indocyanine green vs no intravenous indocyanine green in Nassar grade III / IV laparoscopic cholecystectomy with respect to attaining critical view of safety in laparoscopic cholecystectomy: A Randomized Controlled Trial
34. Comparison of Early outcomes of Interrupted Double 'X' suture vs Continuous Near Far Far Near method for closure of abdominal wall incisions : A Double Blinded Randomised Control Trial
35. Comparison of open, laparoscopic, endoscopic, robotic and hybrid techniques of incisional and ventral hernia repair: A Meta-Analysis of Randomized Controlled Trials
36. Comparison of perioperative outcomes of preoperative splenic artery embolization vs laparoscopic splenectomy alone in patients with moderate and massive splenomegaly undergoing elective laparoscopic splenectomy: an open label exploratory RCT.
37. Comparison of Stapler Haemmroidopexy Versus Superior rectal artery Embolisation in Patients with Grade II-IV Haemorroidal disease: A Randomised Controlled Trial
38. Comparison Of The Clavien-Dindo Classification(CDC) And Comprehensive Complication Index (CCI) For Grading Of Post-Operative Complications Following Thoracic Surgery
39. Correlation of pre and post operative surgical findings with clinical course in patients undergoing early laparoscopic cholecystectomy for asymptomatic gall stone disease
40. Early And Long-Term Outcomes Of Colorectal Surgeries: An Ambispective Study
41. Early Versus Delayed Laparoscopic Cholecystectomy in Moderate and Severe Acute Biliary Pancreatitis: A Randomised Controlled trial (ELCAP trial)

42. Effect of intra-operative topical Talc versus Povidone Iodine for the prevention of post-operative seroma following breast and axillary surgery: A RCT
43. Effect of yoga therapy on quality of life in patients undergoing laparoscopic incisional and ventral hernia repair- A randomised control trial
44. Evaluation of CEUS vs MIBI in localization of PHPT.
45. Evaluation of Newer Diagnostic Modalities in Indeterminate Thyroid Nodules"
46. Evaluation of single dye technique for sentinel lymph node biopsy in breast cancer: Two arm open label parallel design non-inferiority Randomized controlled trial
47. Evaluation of the effect of prior exposure to laparoscopic surgery on acquisition of robotic surgical skills in a simulated environment.
48. Factors Affecting Graft Outcomes in Deceased Renal Transplant
49. Fast track emergency lap cholecystectomy vs emergency laparoscopic cholecystectomy in index cases of acute calculus cholecystectitis patients presenting to emergency department - RCT
50. Functional analysis of long human non-coding RNA (IncRNA) and their association with spatial genome organization in breast cancer
51. Functional outcome of patients undergoing thoracic surgery for pulmonary and pleural diseases: a prospective cohort study
52. Further Axillary Treatment vs No Treatment in cT1-3N1M0 Breast Cancer Patients with Node Negativity after Neoadjuvant Chemotherapy: A Randomized Controlled Trial
53. Hydrostatic dilatation plus balloon angioplasty versus hydrostatic dilatation plus malleable vascular dilator for 2mm or less caliber veins used during creation of arteriovenous fistula for hemodialysis. A randomized controlled trial.
54. Impact Of Microbreaks On Visual, Physical And Mental Strain During Simulated Robotic Surgical Tasks- A Randomized Controlled Trial
55. Incidence and Clinico-Microbiological Profile of Surgical Site Infections in a General Surgery ward in a Tertiary Care Hospital
56. Incidence of postoperative and long term Hypocalcemia after Indocyanine Green fluorescence guided vs Conventional assessment of parathyroid function following total thyroidectomy
57. Investigation of the involvement of plasma membrane ATP binding transporter A1 (ABCA1) mediated insulin resistance.
58. Knowledge, Attitude and Concerns regarding Bariatric Surgeries among morbidly obese population
59. Laparoscopic assisted whipples versus open whipples pancreaticoduodenectomy- A pilot RCT
60. Learning Pattern Of Laparoscopic Transabdominal Pre-Peritoneal(Tapp) Repair Of Groin Hernia Using 3d Endovision System
61. Long term outcomes in breast cancer patients in terms of overall disease-free survival and locoregional recurrence (2 decades of surgical audit of breast cancer patients)
62. Minimal incision versus conventional hockey stick incision kidney transplant surgery using ice bag technique. A Randomised Controlled Trial.
63. Minimally invasive thymectomy for patients with thymoma: Surgical, oncological and neurological outcomes
64. Molecular characterization of hypoxia inducing factor (HIF) and angiogenic cytokine and their correlations with neoadjuvant chemotherapy in addition with hyperbaric oxygen therapy in breast cancer patients
65. Molecular characterization of transfer RNA derived RNA fragments and Expression of Mitochondrial fusion proteins in Non-Alcoholic fatty liver disease
66. Neurological Outcomes and Quality of Life following minimally invasive thymectomy in Thymomatous and Non-Thymomatous Myasthenia Gravis.
67. Omega loop gastric bypass (mini gastric bypass) versus Roux-en-Y gastric bypass for resolution of type-II diabetes Mellitus in obese subjects: A Prospective Randomized controlled trial

68. Optimal timing (Early vs Delayed) of Laparoscopic Cholecystectomy after endoscopic retrograde Endoscopic Retrograde Cholangiopancreatography for Choledocholithiasis: A Randomized Control Trial.
69. Polymeric Clip versus Endoscopic Stapler for securing base of appendix during laparoscopic appendectomy: An exploratory randomized controlled trial.
70. Predictive value of drain fluid biomarkers in anastomotic leak: a cohort study.
71. Predictive value of perianastomotic drain fluid biomarkers in anastomotic leakage: a cohort study
72. Prevalence of appendiceal and cecal neoplasms in patients presenting with acute complicated appendicitis- a pilot study
73. Questionnaire Based Survey of Musculoskeletal Dysfunction among General Surgeons and Comparison of Muscle Activity and Fatigue among Expert and Novice Surgeons during Laparoscopic Surgery using Surface Electromyography
74. Randomized Trial Comparing Penicillin and Standard Of Care vs Standard Of Care Alone In Achieving Complete Healing Of Leg Ulcers In Patients With Chronic Venous Hypertension.
75. Role of multiparametric imaging in differentiation of benign vs malignant gallbladder pathologies
76. Role of scrotal support in reducing post-operative pain, edema and hematoma following laparoscopic inguinal hernia surgery: A Randomized control trial
77. Role of Shear wave elastography in the evaluation of ventral hernia: Prospective Interventional study.
78. Role of Targeted Axillary Clearance in Estimating Residual Axillary Disease after Neoadjuvant Chemotherapy in Breast Cancer Patients with cT1-3 N1 M0 Disease: A Prospective Observational study
79. Role of ultrasound guided lymph node targeting in the assessment of axillary lymph nodal response in node positive breast cancer after neoadjuvant chemotherapy
80. Short term and long term outcomes following laparoscopic and open donor nephrectomy : An ambispective comparative study
81. Stapled versus concurrent stapled and hand-sewn anastomosis in small intestine surgery: An Exploratory Randomized Controlled Trial
82. Study of fecal and bile microbiome in asymptomatic gall stone disease, symptomatic gall stone disease and Carcinoma Gallbladder
83. Study of long term patient reported outcomes of surgery in non-metastatic breast cancer patients: A cross sectional study.
84. Study on the effect of a structured training program and micro breaks on workload amongst surgeons during open thyroidectomy and modified radical mastectomy: a quasi-experimental study
85. Study to develop an objective scoring system to grade the difficulty of laparoscopic cholecystectomy
86. Study To Evaluate The Predictors Of Outcome In High Grade Blunt Liver Trauma
87. Surgical audit of Renal transplantation data of a single surgical unit over the last decade
88. The effect of modified versus conventional ERAS on clinical and graft outcomes in kidney transplant recipients: A randomised controlled trial
89. Three arm randomized Trial Comparing Intravenous Indocyanine Green, Intra Gall Bladder Indocyanine Green and no Indocyanine Green during Laparoscopic Cholecystectomy in Achieving Critical View of safety"
90. To compare inflammatory markers in low pressure pneumoperitoneum with deep neuromuscular block vs standard pressure pneumoperitoneum among patients undergoing laparoscopic cholecystectomy for GSD: A Randomized Controlled Trial
91. To compare outcomes following laparoscopic versus robotic pancreatic surgery for pancreatic neuroendocrine tumors. A systemic review and meta-analysis
92. To determine the best non-invasive marker or a combination of them correlate the most with liver biopsy in extent of fibrosis in morbidly obese patients with non-alcoholic fatty liver disease undergoing bariatric surgery.
93. To Study effects of microbreaks on muscle activity and fatigue using surface electromyography during laparoscopic surgery

94. To study etiology, clinical presentation and outcomes of patients with gastroduodenal perforation.
95. To Study the clinical profile, investigations and outcome of patients undergoing parathyroidectomy : A retrospective and prospective experience.
96. To study the correlation between pre-operative pain threshold measured using Quantitative Sensory Testing with post-operative pain scores using Visual Analogue Score in patients with laparoscopic groin hernia repair - A case control study
97. To study the effect of handgrip exercise on the outcome of arteriovenous fistula surgery. A randomized controlled trial.
98. To study the effectiveness of laparoscopically delivered transversus abdominis plane block for postoperative pain control in laparoscopic ventral hernia repair - a placebo controlled randomized study
99. To study the outcomes in patients with cholelithiasis following subtotal cholecystectomy
100. To study the usefulness of pre-operative USG guided FNAC in avoiding radical surgery in patients with gallbladder wall thickness or polyp associated with gall stone disease
101. Use of Florescence and hematoma guided excision of the impalpable breast tumours
102. Use of prophylactic steroid to prevent hypocalcemia in patients undergoing thyroidectomy
103. Utility of pre-operative shear wave elastography of the abdominal wall and muscles in detecting weak areas near hernia along with predicting successful repair of ventral abdominal hernia a prospective comparative interventional study.
104. Utility of pre-operative shearwave elastography of the abdominal wall and muscles in detecting weak areas near hernia along with predicting successful repair of ventral abdominal hernia - A prospective comparative interventional study"
105. Valuation of newer diagnostic modalities in intermediate thyroid nodules.

Completed

1. "Comparison of outcomes of Trans-oral vestibular and Axillo-breast approach for endoscopic hemi-thyroidectomy in patients with benign and indeterminate thyroid lesions- A randomized controlled trial." Only inflammatory markers part completed
2. A prospective study to evaluate the restoration of abdominal wall dynamics in patients with incisional hernia following laparoscopic IPOM plus repair in comparison to healthy controls using surface EMG
3. A Randomized trial- To compare the catheter malfunction in Laparoscopic CAPD insertion with omentectomy versus Open CAPD insertion
4. A RCT to study the assess the efficacy of using uniform umbilical hygiene preoperatively to reduce incidence of umbilical port site complications in patients undergoing laparoscopic cholecystectomy
5. A study to compare the outcomes with and without preoperative splenic embolization in patients with moderate splenomegaly undergoing elective laparoscopic splenectomy
6. A study to quantify the burden of insulin resistance in breast cancer women and its relation with other known prognostic and predictive factors of breast cancer
7. An ambispective study to evaluate the outcomes of living kidney donors left with multiple renal arteries
8. Analysis of patterns of neck trauma and its outcomes at level 1 trauma center: an ambispective observational study
9. Assessing Effectiveness Of A Video Based Intervention Administered Across Virtual Platform On The Existing Knowledge, Attitude And Practices Of Breast Cancer Awareness And Breast Self-Examination Mong Literate Women In Metropolitan City Of Delhi: A Quasi- Experimental Community Based Interventional Study.
10. Assessment of lateral thermal spread and tissue damage associated with use of various electrosurgical devices
11. Clinical applicability of Whole body low dose CT scan for detecting bone metastasis in breast cancer : A cross sectional study
12. Compare the standard vs low pressure laparoscopic cholecystectomy under deep neuromuscular block : RCT

13. Comparison between intravenous indocyanine green Vs intra gall bladder Intravenous indocyanine green vs no intravenous indocyanine green in Nassar grade IIIV laparoscopic cholecystectomy with respect to attaining critical view of safety in laparoscopic cholecystectomy: A Randomized Controlled Trial
14. Comparison of 3D-CT volumetry and routine spirometry for prediction of post operative pulmonary function in benign lung diseases -Prospective observational cohort study
15. Comparison of different rates of intraoperative fluid therapy on early graft Function during live related renal transplantation.
16. Comparison of outcomes in patients with intra-ductal papilloma undergoing duct excision with 2.5 cm versus 5 cm length : A randomised controlled exploratory study
17. Correlation of Pre and Post Surgical Findings with Clinical Course in Patients Undergoing Early Laparoscopic Cholecystectomy for Asymptomatic Gall Stone Disease : A Prospective Study".
18. Difficult Laparoscopic Cholecystectomy- A Prospective Observational Study
19. Effect of yoga therapy on quality of life in patients undergoing laparoscopic incisional and ventral hernia repair- A randomised control trial
20. End to End versus Side to Side Anastomosis with Ligation of Vein Distal to the Anastomosis for Proximal Arteriovenous Fistula Surgery : An Exploratory Randomized Controlled Trial
21. Evaluation of Indocyanine green for sentinel lymph node biopsy in breast cancer: two arm open label parallel design non-inferiority randomised control trial
22. Evaluation of the effect of prior exposure to laparoscopic surgery on acquisition of robotic surgical skills in a simulated environment.
23. Follow up study to evaluate correlation of imaging and Operative findings with clinical and biochemical outcome in Patients with primary hyperparathyroidism.
24. Gastro-esophageal reflux after Heller's cardiomyotomy with anti-reflux procedure: subjective and objective evaluation
25. Identification of factors predicting weight loss after Bariatric Surgery.
26. IL 10 and micro RNA 106a correlation with survival in patients with carcinoma Breast
27. Impact of intraoperative microbreaks on musculoskeletal symptoms and performance of surgical residents during minimal access surgical tasks in simulated setting
28. Impact of laparoscopic ultrasound on laparoscopic management of Hepatobiliary diseases (benign and malignant), a prospective observational Study
29. Incidence of post operative hypocalcemia after indocyanine green fluorescence versus conventional assessment of parathyroid function Following total thyroidectomy- a randomised controlled trial
30. Incidence of postoperative and long term Hypocalcemia after Indocyanine Green fluorescence guided vs Conventional assessment of parathyroid function following total thyroidectomy
31. Indocyanine green fluorescence imaging for identifying and assessing the Perfusion of parathyroid glands during thyroid surgery- a pilot study
32. Knowledge and attitude regarding genetic counseling and testing in breast cancer among health care professionals and breast cancer patients
33. Laparoscopic Appendectomy vs Non - Operative Management In Acute Appendicitis. A Randomized Control Trial
34. Learning Pattern Of Laparoscopic Transabdominal Pre-Peritoneal(Tapp) Repair Of Groin Hernia Using 3D Endovision System
35. Long term outcomes in breast cancer patients in terms of overall disease-free survival and locoregional recurrence (2 decades of surgical audit of breast cancer patients)
36. Long term outcomes of Bariatric surgery: A Single Centre retrospective analysis.
37. Neurological outcomes and quality of life following minimally invasive thymectomy in thymomatous and non thymomatous Myasthenia Grasvis
38. Optical Characterization Of Breast Cancer
39. Optimal Timing (Early vs Delayed) of Laparoscopic Cholecystectomy after ERCP for choledocholithaisis.

40. Outcome of early mesh laparosctomy in patients with abdominal trauma at Level I trauma centre
41. Prevalence of Appendiceal and Caecal Neoplasms in patients presenting with acute complicated appendicitis- A pilot study
42. Psychosocial factors affecting post bariatric surgery weight loss : A Prospective Observational Study.
43. Questionnaire Based Survey of Musculoskeletal Dysfunction among General Surgeons and Comparison of Muscle Activity and Fatigue among Expert and Novice Surgeons during Laparoscopic Surgery using Surface Electromyography
44. RCT comparing quality of life following single stage LCBDE+LC vs two stage ERCP> LC for management of concomitant gall stones with CBD stones
45. Role of appendectomy in cases of Distal Ulcerative Colitis :A Prospective interventional study
46. Role of indocyanine green in predicting limb perfusion in comparison to standard methods in cases of chronic limb threatening ischemia in correlation with clinical progression
47. Role of Targeted Axillary Clearance in Estimating Residual Axillary Disease after Neoadjuvant Chemotherapy in Breast Cancer Patients with cT1-3 N1 M0 Disease: A Prospective Observational study
48. Short term and long term outcomes following laparoscopic and open donor nephrectomy : An ambispective comparative study
49. Study to develop an objective scoring system to grade the difficulty of laparoscopic cholecystectomy
50. Study to Evaluate The Predictors Of Outcome In High Grade Blunt Liver Trauma
51. Surgical Audit of Parathyroidectomy Data Of A Single Surgical Unit
52. Surgical audit of Renal transplantation data of a single surgical unit over the last decade
53. The Anatomic basis of the Deep Inferior Epigastric Artery Perforator Flap and the Internal Mammary Artery Perforator Flap: A CT Angiographic and Cadaveric Study
54. To compare Inflammatory markers in low pressure pneumoperitoneum among patients undergoing laparoscopic cholecystectomy for gallstone disease : A Randomized Control Trial PP
55. To compare outcomes following laparoscopic versus robotic pancreatic surgery for pancreatic neuroendocrine tumors. A systemic review and meta-analysis
56. To study etiology, clinical presentation and outcomes of patients with gastroduodenal perforation
57. To study the correlation between pre-operative pain threshold measured using Quantitative Sensory Testing with post-operative pain scores using Visual Analogue Score in patients with laparoscopic groin hernia repair - A case control study
58. To Study the Efficacy of Laparoscopically Delivered Transversus Abdominis Plane Block for Postoperative Pain Control in Laparoscopic Ventral Hernia Repair - A Placebo Controlled Randomized Study
59. To study the usefulness of pre-operative USG guided FNAC in avoiding radical surgery in patients with gallbladder wall thickness or polyp associated with gall stone disease

Collaborative projects

Ongoing

1. “A prospective study of changes in the human gut microbiota and its association with insulin sensitivity in obese individuals undergoing bariatric surgery, Microbiology
2. “An experimental study to asses effectiveness of Acceptance and Commitment Therapy on stress reduction and coping mechanisms in newly diagnosed breast cancer patient at AIIMS, Delhi, Dissertation of MSc Nursing Student. (Oncology Nursing) of the College of Nursing
3. “Randomized control trial comparing pathological reflux in patients undergoing dor’s fundoplication versus angle of his’ accentuation as an adjunct to laparoscopic heller’s cardiomyotomy “: Intramural AIIMS, Physiology
4. 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, Department of Pathology

5. A multicentric randomized controlled trial to compare the efficacy of "Ksharsutra" therapy vs conventional surgical treatment in clinical outcomes of patients with fistula-in-ano, Surgery
6. A phase 3, Randomized, open-label, Multicenter trial of ARV-471 (PF-07850327) vs Fulvestrant in participants with estrogen receptor-positive, HER2-negative advanced breast cancer whose disease progressed after prior endocrine based treatment for advanced disease (Veritac-2), Protocol no: C4891001, Department of Radiation oncology, AIIMS, New Delhi
7. A pilot study to compare interstitial multi-catheter brachytherapy (IMB) versus volumetric modulated arc therapy (VMAT) for accelerated partial breast irradiation in early breast cancer: An adaptation, toxicity, and cosmesis comparison, Radiotherapy
8. A Randomized, Multiple-dose, Multicenter, Comparative, Parallel Study to Evaluate the Efficacy, Safety and Pharmacokinetic Characteristics of Intravenous Infusion of Trastuzumab (Test, Hetero) and Reference Medicinal Product (Reference, Roche) in combination with standard chemotherapy in Patients of HER2-positive Metastatic breast cancer (TRUMAB Study), Pathology
9. A single center randomized control trial to compare the efficacy of radiofrequency ablation with that of ultrasound guided foam sclerotherapy (polidocanol) for incompetent perforators in patients with varicose vein, Cardiac Radiology, AIIMS
10. An institutional phase I/II study to evaluate safety and efficacy of high dose weekly hypofractionated palliative breast radio therapy in fungating advanced unresectable or metastatic breast cancer, Radiotherapy
11. An investigator- initiated phase ii randomized controlled trial of low-dose pembrolizumab in addition to standard neoadjuvant chemotherapy in patients with triple negative breast cancer, Medical Oncology
12. Assessment of Amphiregulin and CRISPLD1 as visceral Adipose Tissue derived modulators of cardiovascular Health in obesity, Biochemistry
13. Clinical Evaluation of Fibroblast Growth Factor (FGF) and Silver Nanoparticle (AgNP) Entrapped Gelatin/Gellan Hybrid Gels as Wound Dressings in Diabetic Foot Ulcer Patients", Delhi Pharmaceutical university IIT Bombay
14. Clinical significance of Proteomics in liquid biopsy for Indian breast cancer women: An Exploratory study, Pathology
15. Clinical utility of liquid biopsy in lung allograft rejection, Pathology and Immunogenetics
16. Design and Development of Smart Textiles Integrated with UWB Antenna for Breast Cancer Detection Using Microwave Imaging, National Technical Textiles Mission, Ministry of Textiles, Govt. of India (6.9 Cr)
17. Design and Development of Transmitter for Breast Cancer Detection, ICMR Project -Dr BR Ambedkar National Institute of Technology-Jalandhar (Punjab)
18. Development of labyrintinth based mechanical and fast isolation technique for identifying circulating tumour cells of colorectal carcinomas for metastatic evaluation, Department of Pathology
19. Double Blinded Randomized Controlled Trial evaluating the feasibility, safety and efficacy of Obturator Nerve combined with Femoral Nerve Block for analgesia in patients with varicose veins being treated by Endovenous Laser Ablation of Great Saphenous Vein, Cardiac Radiology, AIIMS
20. Elucidating the role of environmentally exposed organochlorine pesticides in the pathogenesis of diabetic retinopathy, Ophthalmology
21. Elucidation of the immune landscape of thymomas and its correlation with clinicopathological and molecular parameters, Pathology
22. Exosome Based Immune Profiling in Living Donor Renal Transplant Recipients : Relevance Acute Graft Dysfunction, Nephrology
23. Exploring molecular alterations in breast cancer among Indian women using label free quantitative serum proteomics, Pathology
24. Global Evaluation Of Cholecystectomy Knowledge And Outcomes (GECKO), Multicentric, University of Birmingham
25. ICMR funded Extramural grant: Aanalysis of MEG3 Induced Genome-Wide DNA Methylation Patterns in Breast Cancer Cells, Pathology
26. Project entitled 'Generation of 3D Breast Tumor Organoids as an in vitro Drug Screening Study Model', Department of Stem cell Facility, AIIMS, New Delhi

27. Randomized controlled trail to compare ropivacaine with ropivacaine and clonidine combination in ultrasound stellate ganglion nerve block (USGNB) by parameters of Numerical Rating Scale (NRS) and vascular dynamics in vasculopathy, Department of Anaesthesiologist, AIIMS, New Delhi
28. Role of T Regulatory cells in Obesity and their clinical correlation in obesity induced inflammation in type 2 diabetes and chronic kidney disease (CKD), Nephrology
29. Study of Visceral Adipose Tissue (VAT) derived factors as modulators of co-morbidities in obesity, Biochemistry
30. To elucidate the role of ECM-Adipocyte communication in obesity induced adipose tissue dysfunctions, Biochemistry
31. To study the role of nuclear receptors in pathogenesis of gallbladder cancer, Biochemistry
32. To study the role of regulatory T cells in immune suppression in patient with colorectal cancer, Department of Transplant Immunology and Immunogenetics
33. Utility of Artificial Intelligence in differentiating Non-invasive Follicular Thyroid Neoplasm with Papillary like Nuclear Features from other follicular-patterned thyroid benign and malignant lesions. (Extramural Project, DBT), DBT funded Project (Coinvestigator)
34. Young Scientist grant funded by DHR: Study on screening of MAGEC1- Exon-4 genetic alterations and its functional role in breast carcinogenesis, Pathology

Completed

1. A prospective study of changes in human Gut Microbiota (GM) and its association with insulin sensitivity in obese individuals undergoing Bariatric Surgery, Biochemistry
2. Effect of Paravertebral Anaesthesia on Quality of Life Scores and Circulating Tumour Cells in Breast Cancer Patients (with Anaesthesia dept.), Department of Anaesthesiology and critical care
3. Extracellular Matrix Remodelling in Obesity Induced Adipose Tissue Dysfunctions and Insulin Resistance, Biochemistry
4. Study of Vascular Endothelial Growth Factor (VEGF) and its Isoforms in Obesity associated Adipose Tissue dysfunctions, Biochemistry

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	23	22	33
Total funding	Rs 3,13,54,895	Rs 5,90,03,257	Rs 9,33,80,077

PUBLICATIONS

Total Publications: 91; Journal articles: 70; Abstracts: 14; Chapters in books: 7

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	135	96	91
Journal articles	112	79	70
Abstracts	18	12	14
Chapters in books	05	05	7
Books	0	0	0

PATIENT CARE

a) Facilities available in the department (including special clinics and/or special laboratory facilities)

1. Special Clinics:
   a. Endocrine Surgery clinic

b. Male sexual health clinic
c. Breast cancer clinic
d. Benign Breast disease clinic
e. Vascular services for with peripheral arterial disease (Arterial, venous and lymphatic disease)
f. Colo proctology clinic
g. Hernia clinic
h. Gall bladder stone clinic
i. GI surgery clinic
j. Renal Transplant clinic
k. Bariatric Surgery clinic
l. Stoma clinic
m. Cancer genetic clinic
n. Pectus clinic
o. Combined pulmonary surgery clinic

2. Special Laboratory facilities:
   a. Non-invasive Vascular laboratory: Services provided are lymphedema compression therapy, measurement of li mb volume and measurement of girth, recording of ABPI for arterial disease patients, supervised exercise therapy on treadmill, recording TcPo2 measurements, compression bandaging for lymphedema and venous ulcer patients are different services catering from this lab to huge number of patients.

b) Community services/camps, etc.

1. DD Total Health –Live Show Topic: Varicose Veins
2. DD Total Health- Live Show on World Kidney Day Topic: Chronic Kidney Disease
3. DD Kisaan – Live Show Topic: Breast Cancer
4. India TV – Live Show Topic : COVID -19
5. Live Talk Show Stri Kaal Topic: Kidney Transplant
6. "Breast Health Awareness Programme" Raising breast health awareness and teaching breast self-examination to all in J L Auditorium on 19 October 2023
7. Community Services were extended to already diagnosed cases of breast cancer breast cancer and related lymphedema taking refuge under 13 centers of APNA GARH run by INTAS, through their center at Green park extension on 31 October 2023

Patient care*(other items may be added/removed as per activity of department)*

Item	2021-2022	2022–2023	2023–2024
OPD consultations	19, 085	93, 537	1, 04, 965 (total)
Special clinic consultations	2, 143	13, 275	57, 976
Patients provided rehabilitation services			
Total inpatient admissions	4, 584	7, 459	10, 708

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Sunil Chumber is Expert of Selection Committee for Faculty in Surgery for AIIMS- Kalyani (twice), Jammu, Bhopal, Manglagiri, Patna (twice), Nagpur, Gorakhpur; ESIC Basaidarapur; ICMR Standing Selection Committee - Interview Assessment Promotion – New Delhi - 21 June 2023; ICMR Delhi - Search cum Selection Committee for Additional Director General ICMR, 8 September 2023; Second SURGERY BLOCK Day – AIIMS, New Delhi – 6 December 2023; Selections of medical personnel and teachers- Kendriya Vidyalaya, Sadiq Nagar, New Delhi; Organization of PORTS DAY- at SURGERY BLOCK – March 2024.

Professor Rajender Parshad was Chairperson and Examiner/Surgical obstructive Jaundice (Ca Pancreas), RHC Lump, RIF Lump, The 5th Edition of the LHMC Surgery PG Clinical Update on 4 February 2024, New Delhi.

Professor V Seenu in Scope course Chairperson on Topic -Thyroidectomy, Delhi Chapter ASI CME, on 20 July 2023, New Delhi.

Professor Sandeep Aggarwal Nominated as a Subject Expert for Standing Selection Committee for Faculty posts under APS of NEIGRIHMS in the Department of General Surgery; Nominated as a Subject Expert for Standing Selection Committee for Faculty posts in AIIMS Bilaspur, Department of General Surgery; Invited Panelist for the Doordarshan Live Phone-in Show – "Total Health"; Nominated as a Subject Expert for Standing Selection Committee for Faculty posts (Assistant Professor) of NEIGRIHMS in the Department of General Surgery; Nominated as the Chairperson of the Scientific Advisory Committee of the Obesity and Metabolic Surgery Society of India (OSSI); Nominated as a Member of the Scientific Committee of the Word Congress of Endoscopic Surgery (WCES); Chairperson – State of art lecture session- 21st Annual Conference of IAGES, Chennai (2-4 February 2024); Chairperson- Antiobesity Drugs and Bariatric Surgery, LIBSS-2023, London, UK (22-24 November 2023); Expanding horizon in Hernia, FALS Hernia 2023 (18-20 August); Founder President -MASTER (Medical Association for Simulation, Training & Research); Organizing Chairperson of Sim Meet 2023 held from 18-19 August 2023 at AIIMS, New Delhi; Visited as Expert & Chairman for inspection of Human Care Medical Charitable Trust for registration renewal to perform renal transplantation at New Delhi on 26 September 2023; Participated in various Live Talk Shows on Breast Cancer, Varicose veins and surgical Specialties on National Channels: DD Doordarshan, DD Kisan, DD Hindi, DD Urdu; Panel Discussion on Kidney Transplant & Breast cancer on Sansad TV.

Professor Virinder Kumar Bansal Organised the North Zone Conference and Live Operative Workshop of Indian Hernia Society on 6 and 7 November 2023 at AIIMS New Delhi; Presidential Oration Indian hernia Society IHSCON 2023 on "Incisional Hernia Repair, Our Experience Over Last Two Decades" on 25 April 2023 at Varanasi; President Indian Hernia Society 2023; Elected as a Fellow of National Academy of Medical Sciences 2023; Member, Institute Body and Governing Body, AIIMS, Rishikesh, May 2020 till May 2025; Chairman, Standing Selection Committee, AIIMS Rishikesh, May 2020 till May 2025; Member, Standing Academic Committee, AIIMS, Rishikesh and JIPMER, Puduchery; Member Standing Finance Committee, AIIMS, Rishikesh May 2020 till May 2025; Member Hospital Affairs Committee, JIPMER, Puduchery May 2019 till May 2024; Member, Institute Body, JIPMER, Puducherry May 2019 till May 2024; Chairman/Member Renal Transplant Inspections Team for New Delhi 2012-2020; Member Apex Technical Committee - Kidney of National Organ and Tissue Transplant Organization 2020-2024; Co-Chairman Surgery Group for Standard Treatment Workflow and National Health Authority, Ayushmann Bharat at ICMR New Delhi 2023-2024; Member, Specialist Board in the discipline of MINIMAL ACCESS SURGERY of National Board of Examinations, 2021-2026; Steering Committee Member International Endo-hernia Society (IEHS) for Guidelines on Laparoscopic Incisional Hernia Repair; Thesis evaluation of PGIMER Chandigarh, BHU Varanasi, KGMU Lucknow.

Professor Anita Dhar Organized CME on "Prevention & management of pressure Injury" on occasion of " International Nurses Day 2023" Seminar Room, 4th floor, Surgery Block, AIIMS, New Delhi on 11 May 2023; As Panelist Expanding Breast Cancer Care for Indian Women (Second Edition):- Topic: Breast Cancer Care Perspectives: Patients, Providers, Enables organized by "The Week" on 27 July 2023, India Habitat Centre, New Delhi; Expanding Breast Cancer Care for Indian Women (Second Edition) as Panelist:- Issue of Survivorship, Quality of Life and Care After Breast Cancer: A Discussion organized by "The Week" on 27 July 2023, India Habitat Centre, New Delhi; Live Workshop with Theme "Thyroid Surgery: Everything Under One Roof" 34th Foundation Day 15th Postgraduate Course in Endocrine Surgery Lucknow, India on 8 September 2023; Invitation to write a chapter "the Breast" for the prestigious book titled Bailey & Love's Short Practice of Surgery- Published.

Dr Hemanga K Bhattacharjee Received the ICMR-DHR International Fellowship for Senior Indian Bio-Medical Scientists 2022-23, at the Department of Thoracic Surgery, Medical University of Vienna, Austria. As a part of this fellowship presented there from March to June 2023 learning various aspects of thoracic surgery including lung transplantation; Initiated a project to establish an All India Institute of Medical Sciences (AIIMS) affiliated National Center For Medical Device Development Received certification as Faculty for HUGO Robotic Assisted Surgery System for Technical Training.

Dr Asuri Krishna Awarded MNAMS (member of National Academy of Medical Sciences).

Dr Piyush Ranjan Member of expert committee Operational and Technical Guidelines for Emergency Medical Services, MohFW, New Delhi; For developing Emergency and Critical care training curriculum for Medical officers, MohFW, New Delhi; Member of Expert group meeting in drowning, DGHS, New Delhi; Chair-person- operative session, IHSCON North Zone on 6 November 2023 at New Delhi.

Dr Kamal Kataria Organising Secretary for Workshop on core biopsy of breast lesions (25 April 2023).

Dr Manjunath; Chairperson (session V): career opportunity in USA and UK for surgeons: AIIMS annual day and CME in surgery 1-5 September 2023; International Clinical Fellow ICMR/DHR 2023-2024: underwent surgical training and is trained in multivisceral organ retrieval and transplant surgery at Royal Adelaide Hospital, South Australia, from 17 April 2023 to 12 January 2024; ICMR Extramural Project grants received May - 2023 (I-1582): Recruitment started; Reviewer for JMAS and BMJ case reports (Pubmed Journal).

Dr Mohit Joshi Selected for 'Fellowship in Assessment for Health Professions' (FAHE). A one-year hybrid course offered by Adesh University, Bathinda, Punjab; Awarded ICMR-DHR International Fellowship for senior biomedical scientists for the year 2023-24; Awarded Membership of Chest wall international group.

Dr Yashwant Singh Rathore was Active member FACS and EAES; Organized residents orientation programme and research programme for residents in the department; Actively involved in moderation of NBE organized seminars; Involved in competitive paper assessment in SURGICON 2023 in APOLLO

Dr Om Prakash was Core member of team involved in Establishment of Renal Transplant Program at AIIMS, Rishikesh; Member: Association of Surgeons of India; Member: American College of Surgeons; Member- Indian society of Organ Transplantation; Member Society of American Gastroentrology and Endoscopic surgeons (SAGES)

Dr Ankita Singh Received second prize "Faculty paper" presentation at ASICON 2023, titled "Role of Minimal Access Surgery in the management of superficial abscess: A single centre, in hospital, prospective, non-randomized clinical intervention study"; Received second prize "Best free paper" presentation at ASICON 2023, titled "Giant Parathyroid Adenomas: A 28 year single unit experience at India's apex tertiary hospital"; Chaired session II and V on live operative workshop on- TEP, TAPP, IPOM, IPOM Plus, TAPE, TAR, eTEP, eTEP-RS at IHSCON (North Zone) under aegis of Indian Hernia Society- Live operative workshop cum Conference between 6-7 November 2024; Chaired competition scientific paper session during SURGICON 2023 on 18 November 2024; Chaired scientific paper session during WOUNCON 2023 on 26 November 2024, at AIIMS, Guwahati; Chaired free paper session during ASICON 2023 on 13 December 2024, at Vizag, A.P.; Co- organizing secretary: Endocrine surgery CME held on 6 April 2024, AIIMS, Delhi

Dr Sanjeet Kumar Rai Awarded FCLS degree; Core member of team involved in Establishment of Renal Transplant Program at AIIMS Rishikesh; Surgical innovations for improving patient outcomes; Newer techniques - TARM/TARM TAR for incisional hernia, Etep for groin hernia; Complex vascular access procedures - AV graft, venous transpositions, venoplasty; Organizing Secretory of IHSCON 2023 at AIIMS, New Delhi

Dr Aditya Kumar received Fellowship of the Association of Surgeons of India (FAIS) – Association of Surgeons of India (ASI), Vishakhapatnam, 13 December 2023; Section Editor: Journal of Minimal Access Surgery (JMAS) – 18 August 2023; Associate Fellow: American College of Surgeons – 27 November 2023

Dr Uttam Kumar Thakur was Faculty Chairperson in a session on "Approach to Safe Cholecystectomy" at XIth International Conference of Society of Surgeons of Nepal

Dr Brijesh Kumar Singh was Surgical innovations for improving patient outcomes; Newer technique in Axillary Management of Breast Cancer - Targeted axillary dissection [TAD], breast oncoplasty and reconstruction; Treasurer of Delhi Thyroid Club.

Dr Devender Singh Received first prize "Competitive paper" presentation at ASICON 2023, titled "A prospective randomised controlled study to compare antral preservation versus antrum resection sleeve gastrectomy in morbidly obese patients"; Received second prize "Best free paper" presentation at ASICON 2023, titled "Laparoscopic management of mesh infection"; Chaired session in live operative workshop at IHSCON (North Zone) under aegis of Indian Hernia Society- Live operative workshop cum Conference between 6-7 November 2023; Chaired competition scientific paper session during SURGICON 2023 on 18 November 2024; Chaired live operative workshop at IHSCON BHU on 25 August 2023; Chaired scientific paper session during WOUNCON 2023 on 26 November 2024; Chaired free paper session during ASICON 2023 on 13 December 2024; Organizing member: Endocrine surgery CME; Organizing member: Surgical sports meet.

Dr Nelson T received Certificate Course on CMETi Workshop on "Assessment in medical education" (6 and 7 October 2023); Member of Infection control committee and organized "Swachhata Puva Special Campaign 3.0" on 26-27 October 2023 at AIIMS, New Delhi; Awarded with "Fellowship of Association of Surgeons of India (FAIS)" at 83rd Annual Conference, ASICON 2023, Vizag.

Dr Sushant Soren Surgical innovations for improving patient outcomes; Dual kidney Deceased donor transplant: Pediatric renal transplant, Pediatric AV fistula; Newer techniques - TARM/TARM TAR for incisional hernia, Etep for groin hernia; Complex vascular access procedures - AV graft, venous transpositions, venoplasty; Chaired sessions in IHSCON 2023 at AIIMS, New Delhi.

Dr Arun Anand; Part of organizing committee of IHSCON - North zone 2023 under aegis of Indian Hernia Society; Participated as faculty in organizing and moderating SCOPE course 2023 at AIIMS, New Delhi; Moderated JR3 Dr Belmin who presented case presentation on Testicular cancer and won the best presentation prize; Chaired session at SCOPE course 2023; Co-guide of MS thesis on role of ksharsutra treatment in comparison with surgery in fistula in ano; Organised and taught basic laparoscopic suturing skills to residents at wet lab; GI oncology clinic; Kidney transplant, breast clinic; Newer techniques TARM/TAR (incisional hernia), eTEP inguinal hernia.
Dr Aditya Baksi Selected Editorial Board Member of Journal of Minimal Access Surgery; Invited as Faculty in Pilot of Operative Care Course of Surgical Care at the District Hospital (supported by WHO) at JPNATC, New Delhi, 28 September to 1 October 2023; Participated in Safe OR Workshop organised by Department of Anaesthesia and Critical Care, AIIMS New Delhi, in association with Lifebox, held on 28-29 October 2023; Participated in Cardiopulmonary Resuscitation Workshop at AIIMS New Delhi on 9 November 2023; Invited as Faculty in Workshop on Surgical Care at the District Hospital (supported by WHO) in Mumbai on 17 February 2024.

VISITING SCIENTIST
Professor V Seenu visited Corewell Health William Beaumount University Hospital at Michigan, USA as a Visiting Scholar from 1-14 May 2023.



International Nurses day









Annual sports meet









9.41 Transfusion Medicine

Additional Professor and Head

Hem Chandra Pandey

Additional professor

Gopal Kumar Patidar

Rahul Chaurasia

HIGHLIGHTS

The department provides high-quality and safe blood components to patients. During the year 2023-2024, the department collected over 60, 000 blood units and conducted over 80 voluntary blood donation camps. This includes a Mega Blood donation drive on the eve of Vijay Diwas, wherein many para-military personnel from BSF, CISF, NDFR, NSG and Indian Coast Guards participated and made the event successful by collecting over 2200 blood units on a single day. Alongside the role of women in Blood transfusion was also celebrated by organising a Women's Day special Blood donation drive, where female and male cadets from NCC and several role models were felicitated. (Pictures attached)
The department's emphasis on blood safety and quality is at the core of its operations. All units were tested using a fully automated chemiluminescence analyzer and NAT. Patient care activities have been fully automated, from the time a patient's sample is received until blood components are issued, utilizing interfaced automated equipment and blood bank management software. Moreover, the department provides support to haemato-oncological patients, renal transplant patients, and liver transplant patients. In addition to these efforts, the department has increased its patient care activities by expanding facilities for therapeutic plasma exchanges, PBSC collection, and introducing granulocyte collection. The department also maintains an inventory of phenotype RBC concentrates to ensure that allo-immunised patients with multiple alloantibodies receive blood on time. Laboratory services ensured that all the patients received blood after antibody screen and complete cross match. Academic activities have been a priority, with departmental faculty participating in various national and international programs. In continuation to routine activities, a National CME was organized with support from International Society of Blood Transfusion (ISBT), wherein several National speakers and an international guest speaker "Dr. Richard Gammon, Medical Director, One Blood Inc, Orlando, Florida, USA was invited to share his experience on the Patient blood management. A hands-on Workshop was also conducted for the post-graduate students to improve their understanding and problem-solving ability for complex immunohematology cases. (pictures attached).



Picture 1: Mega Blood Donation Camp on the eve of Vijay Diwas (15th December 2023)



Picture 2: Felicitation of Women donors on Women's Day



Picture 3: National CME on "A primer for Patient Blood Management"



Picture 4: Hands-on workshop for post-graduate students regarding complex immunohematological cases

EDUCATION:

1. Regular orientation and training programme for AIIMS nursing students.
2. M.D. Transfusion Medicine: Presently seven students are pursuing this programme.
3. Teaching of Postgraduate students from Department of Pathology, Lab. Medicine and Hematology is being done during their posting.

Lectures delivered at CMEs, National and International Conferences

Lectures delivered: 27

Hem Chandra Pandey: 12 Gopal Kumar Patidar: 10 Rahul Chaurasia: 5

Hem Chandra Pandey

1. NAT Testing of donated blood and the residual risk, Masterclass on Pediatric Transfusion Medicine, 1 April 2023, Noida, UP
2. Panelist on "Issues in Red Cell Antibody Identification and Titration", CME on serological approach to red cell antibody identification, 19 April 2023, Delhi
3. Rational use of blood and blood components in coagulopathy, HEMATOCON 2023, 22 April 2023, Kolkata, WB
4. Pre-Transfusion testing and compatibility issues, Residential Training program on training of trainers for strengthening of blood services, 9 May 2023, Noida, UP
5. Panelist on "Ethical and legal aspects of blood donation", CME on Blood Transfusion Services and Safe Practices, 1 October 2023, Delhi
6. Trace, Test and Track syphilis in blood donors, TRANSCON 2023, 7 October 2023, Lucknow, UP
7. Scope of donor-recipient-linked research in neonatal and pediatric transfusion practice, TRANSMEDCON 2023, 3 November 2023, Chandigarh
8. Du test, NACO Blood safety training program, 8 December 2023, Lucknow, UP
9. Transfusion Reaction, NACO Blood safety training program, 8 December 2023, Lucknow, UP
10. Clinical Application of Leukodepleted blood, CME on Rational Use of Blood & Blood Components, 21 March 2024, Agra, UP
11. Transfusion Transmitted infections and importance of NAT tested blood, CME on Rational Use of Blood & Blood Components, 21 March 2024, Agra, UP
12. Rational use of platelet, CME on Rational use of blood and blood products and application of recent advance techniques in blood bank, 22 March 2024, Firozabad, UP

Gopal Kumar Patidar

1. Delayed Transfusion Reactions in PHO patients (case-based approach), Masterclass in Pediatric Transfusion Medicine, 2 April 2023, Noida, UP
2. Enzymes & Chemicals uses in Red Cell Antibody Identification - Facts & Fallacies, Serological approach to red cell antibody identification workshop, 19 April 2023, Delhi
3. Resource Faculty for IH Workshop, Serological approach to red cell antibody identification workshop, 20 April 2023, Delhi
4. Pre - transfusion compatibility testing for patient' samples, CME cum workshop updates in Transfusion Medicine-2023, 6 June 2023, Nuh, Haryana
5. Donor adverse reactions: Classification & Definitions, National Training cum Workshop for blood centre officials of the reporting centres under Haemovigilance Programme of India, 30 June 2023, Noida, UP
6. Transfusion in Pediatric Practice and Hemovigilance, Mid-term PHO CME-2023, 21 July 2023, Jodhpur, Rajasthan
7. Donor hemovigilance data report, NADVP Data Analysis and Finalisation Meeting, 22 September 2023, Noida, UP
8. Donor vigilance in ensuring blood donor safety, TRANSMEDCON 2023, 11th Annual National Conference of Indian Society of Transfusion Medicine, 5 November 2023, Chandigarh

9. Clinical Updates of Transfusion Practice including Relevance of 30minute rule, XVIII Annual Congress of Asian Association of Transfusion Medicine and 4th Joint Meeting of AATM-AABB-2023, 2 December 2023, Haryana
10. Transfusion Medicine Wikipedia Update, ISBT Clinical Transfusion Working Party Business Meeting, 20 January 2024, Amsterdam, Netherland

Rahul Chaurasia

1. Point of care testing in bleeding disorders and its application in pediatrics, Masterclass in Pediatric Transfusion Medicine, 2 April 2023, Noida, UP
2. Management of Massive Hemorrhage, TRANSMEDCON 2023, 11th Annual National Conference of Indian Society of Transfusion Medicine, 4 November 2023, Chandigarh
3. Practical consideration for blood ordering practices in surgical settings, WOBSS 2023, 1st Annual Workshop on Basic Surgical Skills, 9 December 2023, Punjab
4. Types of blood bags and its selection, Blood Safety Training Program of SBTC, UP, 18 December 2023, Lucknow,UP
5. Blood component modifications, Blood Safety Training Program of SBTC, UP, 18 December 2023, Lucknow, UP

Lectures delivered over past 3 years

S. No.	Name of Faculty	2021-2022	2022-2023	2023-2024
1.	Dr Hem Chandra Pandey	7	11	12
2.	Dr Gopal Kumar Patidar	9	11	10
3.	Dr Rahul Chaurasia	0	4	5

List of oral papers/posters presented: 7

1. Chaurasia R, Patidar GK, Pandey HC, Donor notification, responses, and follow-up: Status in India, 33rd Regional Congress of the ISBT, 19 June 2023, Gothenburg, Sweden
2. Meher R, Chopra S, Singla R, Chaurasia R, Retrospective review of the response to an institutional MHP protocol, TRANSMEDCON 2023, 4 November 2023, Chandigarh
3. Singla R, Chopra S, Meher R, Chaurasia R, Transfusion in Paediatric Trauma Patients: Experience from an urban trauma centre, TRANSMEDCON 2023, 4 November 2023, Chandigarh
4. Gopal K Patidar, Meena S, R Lakshmi, Chaurasia R, Hazarika A, In-vitro dilution of human plasma to reduce ABO antibody titer levels while preserving coagulation factors, 34th Regional Congress of International Society of Blood Transfusion, 19 November 2023, Cape Town, South Africa
5. Gopal K Patidar, Nivedita K, Pandey HC, Chaurasia R, Hazarika A, Comparative analysis of ABO antibody titres in healthy blood donors: Assessing variability across manual and automated techniques, 34th Regional Congress of International Society of Blood Transfusion, 19 November 2023, Cape Town, South Africa
6. Rohilla S, Patidar GK, Datta S, Pandey HC, Chaurasia R, Sehgal T, Coshic P, A randomized control trial to determine the efficacy and schedule of oral calcium supplementation for prevention of adverse citrate reaction in plateletpheresis donors., XVIII Annual Congress of Asian Association of Transfusion Medicine and 4th Joint Meeting of AATM-AABB-2023, 1 December 2023, Gurugram, Haryana
7. Rangra A, Pandey HC, Gopal K Patidar, Chaurasia R, A pilot study to assess the items for the anxiety related events among blood donors and establish their face and content validity at a tertiary care academic institute in North India., XVIII Annual Congress of Asian Association of Transfusion Medicine and 4th Joint Meeting of AATM-AABB-2023, 2 December 2023, Gurugram, Haryana

Total Number of oral/poster presentation over past 3 years

Presentations	2021-2022	2022-2023	2023-2024
Oral/Poster	4	4	7

RESEARCH

Ongoing

1. A randomized control trial for evaluation of effects of leukoreduced blood transfusion on infection risk in severely injured trauma patients, Rahul Chaurasia, AIIMS, 2 Years, 2019-22, Rs 10 Lakhs
2. Assessing the Impact of Patient Blood Management on Reducing Allogeneic Blood Transfusions in Neurosurgical Patients: A Randomized Controlled Trial, Gopal Kumar Patidar, AIIMS (Intramural), 2 Years, 2023-25, Rs 5 Lakhs
3. Peripheral inflammatory cytokines in Generalized Anxiety Disorder: A Case-controlled study, Hem Chandra Pandey, AIIMS (Collaborative intramural), 2 Years, 2021-23, Rs 10 Lakhs

Departmental projects

Ongoing

1. A pilot study to assess the items for the anxiety related events among blood donors and establish their face and content validity at a tertiary care academic institute in North India
2. A randomized control trial to determine the efficacy and schedule of oral calcium supplementation for prevention of adverse citrate reaction in plateletpheresis donors
3. A randomized controlled trial to assess the effectiveness of Artificial Intelligence based game AINAR to conquer needle fear in blood donors.
4. Assessment of appropriateness of donor selection criteria regarding pre-donation hemoglobin value and inter-donation interval.
5. Assessment of appropriateness of Management of Acute Adverse Transfusion Reactions at the bedside: A retrospective study in the premier tertiary care hospital
6. Assessment of blood transfusion practices in adult CTVS ICU patients in a tertiary care hospital, AIIMS, New Delhi
7. Assessment of knowledge of Vasovagal reaction (VVR) mitigation strategies in blood centers: An online survey from Indian perspective.
8. Assessment of the blood donor's response to notification for transfusion transmitted infections and their follow-up
9. Assessment of the blood donors to respond to notification for transfusion transmitted infections and their follow-up.
10. Diagnostic accuracy of using cell free fetal DNA isolated from mother's plasma for determination of fetal Rh D status during antenatal period as compared to determination of D status using serological tests in cord blood 19, Peripheral inflammatory cytokines in generalized anxiety disorder: a case-controlled study
11. Factors associated with peripheral blood stem cell yield in donors mobilized with granulocyte colony stimulating factors: the impact of donor characteristics.
12. How to meet blood and CCP demand (including matching demand to supply using MODELLING/ artificial intelligence).
13. Identification of Hepatitis B virus (HBV)genotypes among healthy blood donors with asymptomatic HBV infection.
14. Prevalence and specificity of red blood cell antibodies in the reproductive age group female population (15-49 years): A retrospective study in a premier tertiary care hospital
15. Prospective study to analyze the incidence of adverse donor reactions during plateletpheresis procedure following active surveillance
16. Red cell Adsorption study for determining the frequency of Alloimmunization in patients with Auto-immune hemolytic anemia in a tertiary care center of Northern India
17. Review the transfusion practices for the plasma and plasma components for our centre.
18. Study to analyze the prevalence of hepatitis-B in vaccinated and unvaccinated donors and implications for blood safety

Completed

1. A randomized control trial for evaluation of transfusion related immuno-modulation in patients with meningioma.
2. Adherence to low volume massive hemorrhage protocol: Experience from an urban level 1 trauma center
3. Analysis of quality parameters prepared from whole blood stored overnight at ambient temperature
4. Bulk transfer of blood: A way forward for inventory management in blood center
5. Critical appraisal of the KAP studies for blood donation in India
6. Impact of early and empirical cryoprecipitate administration on the transfusion requirements in trauma patients with hemorrhagic shock
7. Knowledge assessment of a donor adverse reaction severity grading tool by the National Blood Donor Vigilance Program of India.
8. Multi-centre Cross-sectional Questionnaire Survey on effectiveness of Haemovigilance Programme of India
9. Notification and follow-up of blood donors reactive for transfusion-transmitted infections: A narrative review of the literature from India
10. Prevention strategies for vasovagal reaction in whole blood donors: A Quadri-armed randomized control trial.

Collaborative projects

Ongoing

1. A prospective review of transfusion practices in paediatric trauma patients at level 1 trauma centre, Department of Emergency medicine, Department of Critical and intensive care Department of Surgery (Trauma) Department of Laboratory medicine
2. A Randomized control trial for evaluation of effects of leukoreduced blood transfusion on infection risk in severely injured trauma patients, Department of Emergency medicine, Department of Critical and intensive care Department of Surgery (Trauma) Department of Laboratory medicine
3. A randomized controlled trial to study the effect of autologous intrauterine platelet rich plasma infusion on pregnancy outcomes in women with previous implantation failures undergoing frozen thawed embryo transfer cycles, Department of Obstetrics and Gynaecology
4. Effect of pyrazole based small molecule on interleukin-1 beta response in healthy PBMC, Department of Biotechnology
5. Evaluation of immunomodulatory activities of Toll-like receptor signaling inhibitors in lupus peripheral blood mononuclear cells, Department of Biotechnology
6. Evaluation of the potential impact of determination of paternal RhD zygosity and non-invasive fetal RhD genotyping using circulating cell-free fetal DNA from maternal plasma in the antenatal monitoring of alloimmunized pregnant women: A pilot study on cost-benefit analysis, Department of Obstetrics and Gynaecology
7. H1-MR Spectroscopy based evaluation of metabolic abnormalities in anterior cingulate cortex, hippocampus, and amygdala in treatment naïve patients with unipolar and bipolar depression and its relationship with peripheral glutaminase., Department of Psychiatry
8. Role of autologous stem cells and platelet rich plasma therapy for regenerating endometrium in women with Ashermans syndrome and atrophic endometrium, Department of Obstetrics and Gynaecology
9. Studies on anti-inflammatory activity of TLR antagonists in mononuclear cells of rheumatoid arthritis patients, Department of Biotechnology

Completed

1. Analysis of quality parameters prepared from whole blood stored overnight at ambient temperature, Department of Laboratory medicine
2. One year experience with massive hemorrhage protocol at an urban level-1 trauma center, Department of Surgery, JPNATC Department of Critical and intensive Care, JPNATC Department of Emergency Medicine, JPNATC Department of Laboratory Medicine, JPNATC

Research over past 3 years

Research projects	2021-2022	2022-2023	2023-2024
Total Funded projects	4	3	4
Total Funding	40 Lakhs	30 Lakhs	35 Lakhs

PUBLICATIONS: 18

Journal: 13 **Abstracts: 2** **Chapters in Books: 3**

Publications

Items	2021-2022	2022-2023	2023-2024
Total	**16**	**18**	**18**
Journal articles	15	13	13
Abstracts	0	4	2
Chapters in books	1	0	3
Books	0	1	0

PATIENT CARE:

(a) Facilities available in the department (including special clinics and/or special laboratory facilities:

- Autologous blood donation
- Voluntary blood donation camp facility.
- Apheresis procedures (Plateletpheresis, Granulocytapheresis, Therapeutic plasma exchange, PBSC collection)
- Automated blood grouping and serology.
- Automated infectious markers testing
- ID-NAT testing
- 100% blood component preparation.
- Antibody screening and identification
- Antibody titers (ABO and alloantibodies).
- Rh (D, C, c, E, e) and K phenotypes inventory of red cells
- Leucodepleted blood/components.
- Irradiation facility.

(b) Blood collection

S no.	Work done	2021-2022	2022-2023	2023-2024
1.	Total blood units collected	45194	54093	62524
	• Voluntary Donors	8448	12562	11371
	• Replacement donors	35003	41531	48413
	• Apheresis components	1743	2617	2740
2.	Voluntary donation camps organized	45	100	83
3.	Therapeutic plasma exchanges	270	344	420
4.	Peripheral blood stem cell collection	36	44	60
5.	Granulocyte collection	3	14	5

(c) Blood component preparation

S no	Blood components	2021-2022	2022-2023	2023-2024
1.	Red blood cells (PRBC+LD-RBC)	44848	52673	57649
2.	Whole blood derived platelet conc	37960	46027	49835
3.	Fresh Frozen plasma	18980	28823	28480
4.	Fresh Plasma	24470	22569	29475
5.	Cryoprecipitate	504	506	772
6.	Component Quality control	412 each	432 each	646 each

(d) Routine and emergency Laboratory activities including issue of blood components

S no.	Test	2021-2022	2022-2023	2023-2024
1.	Blood Grouping (Patient + Donor)	98947	120391	126962
2.	Antibody screening (Patient + Donor)	98947	112608	110111
3.	Extended phenotype of red cells (Donor)	-	4946	4336
4.	Total patient requests received	55872	65104	66708
5.	Cross match (routine + emergency)	50747	57779	48386
6.	Total blood (PRBC + LD-PRBC) issued	41275	47716	47007
7.	PRBC issued to other blood centres / hospitals	2280	1934	1302
8.	Weak R (D) testing of donor	-	3178	3387
9.	Surplus plasma issued to fractionators	4176 Liters	31351 units	39034 units

(e) Immunohematology Laboratory

S no.	Test	2021-2022	2022-2023	2023-2024
1.	Indirect Coombs test	1799	2268	1887
2.	Direct Coombs test	2198	3999	4561
3.	Antibody titre (ABO+ Alloantibody)	537	1050	1027
4.	Phenotype for minor blood group	2032	2255	2533
5.	Resolution of crossmatch incompatibility	770	1057	93
6.	Resolution of Blood group discrepancy	67	79	93
7.	Antibody identification (Patient + donor)	1301	1661	1273
8.	Work-up of Transfusion Reaction	80	51	74
9.	Quality control of reagents	7	19	13
10	EQAS	1	4	4

(f) Infectious disease screening laboratory

Infectious disease markers	Number of tests		
	2021-2022	2022-2023	2023-2024
HIV 1 & 2	45651	54093	62290

HBV	45651	54093	62699
HCV	45651	54093	62468
Syphilis	45651	54093	62204
Malaria	45651	54093	62204
ID NAT Screening	63279	82814	100401

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Hem Chandra Pandey was a Member of Doctoral Committee for four PhD students; Assistant editor for Transfusion Medicine Technical manual 3rd Edition 2023, published by Directorate General of Health Services, Ministry of Health and Family Welfare, Govt of India; Member board of studies as external subject expert for transfusion medicine at AIIMS, Mangalgiri & ILBS, Delhi.

Dr Gopal Kumar Patidar was Elected as Chairperson ISBT Wikipedia subgroup of clinical transfusion working party; Elected as Chairperson of Transfusion transmissible infectious disease and nucleic acid amplification testing special interest group (SIG) of Indian society of blood transfusion; Elected as secretary ISBT Haemoglobinopathy subgroup of clinical transfusion working party; Elected as secretary ISBT Hemovigilance working party; Member of reviewing and analysis of reports of donor reaction submitted in Donor-Vigil software under National Blood Donor Hemovigilance Programme, India; Selected for member of Abstract review committee of TRANSMEDCON-2023 organised by Indian Society of Transfusion Medicine; Selected for member of Abstract review committee of the 34th Regional Congress and 38th International Congress of International Society of Blood Transfusion; Selected for Annual Meeting Education Committee member by Association of Advanced Blood and Biotherapy; was Assistant editor for Transfusion Medicine Technical manual 3rd Edition 2023, published by Directorate General of Health Services, Ministry of Health and Family Welfare, Govt of India.

Dr Rahul Chaurasia was a Member of Technical Resource Group for Emergency Rooms – subgroup Road Traffic Injuries; Member for Department of Health Research (DHR)/Indian Council of Medical Research (ICMR) and National Medical Commission (NMC) for identification of MD/MS thesis topics; Invited to a live TV programme for "Blood Donation" by DD news.

9.42 Transplant Immunology and Immunogenetics

Professor and Head

DK Mitra

Additional Professors

Uma Kanga | Rakesh Kumar Deepak

Scientists II

Sunil Kumar | Lata Kumari

Scientists I

Sanjeev Goswami | Prabin Kumar

Highlights

The department utilizes state-of-the-art technologies for providing transplant immunology services for solid organ transplantation and hematopoietic stem cell transplantation (HSCT). This includes molecular HLA typing, serological and flowcytometric cross matches, pre and post-transplant antibody monitoring, and chimerism assay for post-HSCT monitoring. A few of these services are also provided for deceased donor transplant activity.

Primary Immunodeficiencies (PID) are a heterogeneous group of inherited diseases of the immune system. The department continues to provide PID diagnostic services using flow cytometry-based immunophenotyping to evaluate specific cell populations and subpopulations, cell surfaces, intracellular and intranuclear proteins, biologic effects associated with specific immune defects, and certain functional immune characteristics.

Future Action Plan: To introduce Next Generation Sequencing (NGS) based HLA typing for HSCT recipients and donors at AIIMS.

EDUCATION

During the years 2023-2024, the Faculty/Scientists delivered 45 lectures on Transplant Immunology to MSc students College of Nursing and to MD/DM residents (from Biochemistry, Hematology, Pathology), of AIIMS, New Delhi and clinical faculty (Anatomy, Pathology and Transfusion Medicine) and technical staff from other centres/ hospitals in Delhi as well as from other states of India.

Our department coordinates a national level Quality Control exercise for DNA-based typing of HLA genes for assessment of Quality of testing in other HLA laboratories in India. A total of 32 hospitals/centres from various states of India participated in this activity.

The faculty and scientists of the department participated and delivered 20 lectures in CMEs and National and International conferences held during the year.

During the year our department trained 21 students/residents/faculty from AIIMS and various hospitals and institutions in India. Our department regularly provides training on laboratory techniques in Transplant Immunology, Immunogenetics-HLA testing, crossmatching, pre and post-transplant monitoring and other immunological investigations for immune deficiency.

Short-term training (1-2 weeks) over past 3 years

The Department provided short-term training to the following Residents/Students:

Department/Speciality	2021-22	2022-23	2023-24
Total	**22**	**15**	**21**
Anatomy	00	00	01
Junior Residents Haemato-Pathology	04	02	00
Pathology	00	00	07
Laboratory Medicine	03	03	00
Haematology	03	02	06
Biochemistry	01	02	04
Transfusion Medicine	04	03	03
Nephrology (Senior Residents-Transplant)	00	00	00
Pediatric Nephrology	01	00	00
Pediatrics			
Junior Residents (Acad.)	04	01	00
Junior Residents Lab Medicine	02	02	00
Medical Oncology	00	00	00

Continuing Medical Education (CMEs)/ Workshops/Symposia/National and International Conferences

1. 50th Annual Scientific Conference of the Indian Immunology Society- 50th IMMUNOCON, 5-8 October 2023, New Delhi
2. 7th Scientific conference of the Indian Society for Histocompatibility and Immunogenetics- ISHICON2024, 1-4 February 2024, Jaipur

Photograph 1: Dr Uma Kanga welcoming the Chief Guest Prof VK Paul, member Health Niti Aayog at the Inaugural Ceremony of the 50th Annual Scientific Conference of the Indian Immunology Society- 50th IMMUNOCON.

Photograph 2: Lamp lighting by dignitaries during the Inaugural Ceremony of the 50th Annual Scientific Conference of the Indian Immunology Society- 50th IMMUNOCON (Dr Kanga, Professor GP Talwar, Professor NK Mehra, Professor M Srinivas, Director AIIMS, New Delhi, Dr Taruna Madan, Prof Sujata Mohanty, Professor VK Paul, member Health Niti Aayog).

Photograph 3: Souvenir release at the inaugural ceremony of the 7th Scientific Conference of the Indian Society for Histocompatibility and Immunogenetics- ISHICON2024.

(photographs attached separately)

Lectures Delivered: 20

DK Mitra: 3 **Uma Kanga: 13** **Rakesh Kumar Deepak: 1**

Lata Kumari: 1 **Sanjeev Goswami: 1** **Prabin Kumar: 1**

1. Relevance of Flow Cytometry in Transplantation, Pre-Conference Workshop- Molecular Pathology Association of India (MPAICON2024), 16 February 2024, New Delhi

Lectures delivered over past 3 years

2021- 2022	2022–2023	2023–2024
10	17	20

Oral papers/posters presented: 9

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
1	1	9

RESEARCH

Funded projects

Ongoing

1. Clinical utility of liquid biopsy in cardiac allograft rejection, Dr Rakesh Deepak, ICMR, 3 Years, 2022-25, Rs 88 Lakhs
2. Efficacy of PD-1 as an Adjunct Immunotherapy in Tuberculosis Patients", Professor D.K Mitra, DBT, 3 Years, 2021-24, Rs 140.20 Lakhs
3. Exosomes-based immune profiling of Multi-Drug Resistant(MDR) Tuberculosis, Professor DK Mitra, ICMR, 3 Years, 2021-24, Rs 70 Lakhs
4. Immunogenetic variants HLA- KIR repertoire and their functional relevance in Haematopoietic Stem cell transplantation outcome, Dr Uma Kanga, DST, 3 Years, 2022-25, Rs 36.3 Lakhs
5. Immunological impact of DN T cells on autologous CD4 + and CD8 + T cells in patients with ALPS, Dr Prabin Rai, AIIMS Intramural, 2 Years, 2024-26, Rs 10.00 Lakhs
6. In Silico Trial for Tuberculosis Vaccine Development (STriTuVaD) European Commission Horizon 2020, Professor D.K Mitra, DBT, 4 Years, 2020-24, Rs 398.36 Lakhs
7. Profiling of immune checkpoint inhibitors (Tim-3, LAG-3, TIGIT, PD-1 & CTLA-4) in gallbladder cancer, Dr Lata Kumari, AIIMS Intramural, 2 Years, 2022-24, Rs 10.00 Lakhs
8. Translational potential of Mesenchymal Stem Cells in generation of immune tolerance during Solid Organ Transplantation, Dr Uma Kanga, AIIMS -Intra Departmental, 2 Years, 2023-25, Rs 20 Lakhs

RESEARCH

Completed

1. Exosomes-based immune profiling of Multi-Drug Resistant (MDR) Tuberculosis, Professor DK Mitra, ICMR, 3 Years, 2021-24, Rs 70 Lakhs
2. Islet-antibody negative type 1 diabetes (type 1B) in north Indians: clinical implications and pathogenesis, Dr Uma Kanga (Co-PI), ICMR, 3 Years, 2019-22, Rs 56 Lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. Establishment of heterogeneity in genetic markers: potential use in post-HSCT monitoring
2. Exosome-based immune profiling in renal transplant patients: relevance in acute graft dysfunction
3. Identification of Signatures for predicting rejection in Renal Transplantation
4. Immune reconstitution following haploidentical Hematopoietic stem cell transplantation
5. Impact of checkpoint inhibitors on the suppressed state of immunity in tuberculosis
6. Inhibiting Check Point Molecules in Tuberculosis: Impact on Efflux Pump in Mycobacterium tuberculosis
7. Inhibiting PD-1 in tuberculosis: impact on immunological and clinical outcome in drug-resistant and drug-sensitive patients

Completed

1. NKT Cells in Human Tuberculosis: Impact on Protective T-Cell Response

Collaborative Projects

Ongoing

1. A prospective observational study to determine the prevalence of immune deficiencies and study the immune reconstitution post autologous hematopoietic stem cell transplant in paediatrics, Pediatrics
2. Evaluate the role of biomarkers and transcriptomic expression in diagnosis of periprosthetic joint infection, Department of Orthopedics, AIIMS, New Delhi
3. Functional relevance of HLA- KIR interactions in Haematopoietic Stem Cell Transplantation outcome, Department of Hematology, Pediatrics and Medical Oncology, AIIMS, New Delhi
4. Genetic Diversity Among the Indian Gorkhas from Darjeeling Himalaya: Next Generation Sequencing (NGS) based In Phase Polymorphism Analysis of HLA Minigenome, Sikkim University
5. HLA associated genetic predisposition for hypersensitivity to antiepileptic drugs in North Indians: A case-control study, Department of Neurology, AIIMS, New Delhi
6. HLA-related Genetic propensity for the manifestation of Oral Sub mucous Fibrosis among North Indians, Division of Public Health Dentistry, CDER, AIIMS, New Delhi
7. Reliability of seminal sample after BMT in forensic situations, Department of Forensic Medicine, AIIMS, New Delhi
8. Study of HLA allele, T-cell epitope recognition & virus variations in COVID-19: Bioinformatics & Immunoinformatic approach, Savitribai Phule University, Pune and National AIDS Research Institute (ICMR), Pune
9. To study the prevalence and types of refractory celiac disease, as well as to work out the best possible cost-effective diagnostic panels, in a cohort of non-responsive patients with celiac disease, Department of Pathology, AIIMS, New Delhi
10. Translational potential of Mesenchymal Stem Cells in the generation of immune tolerance during Solid Organ Transplantation, Stem Cell Facility, AIIMS, New Delhi

Completed

1. A Phase III, Randomized, Double-blind, Three-arm Placebo-controlled Trial to Evaluate the Efficacy and Safety of two vaccines VPM1002 and Immuvac (Mw) in Preventing Tuberculosis (TB) in Healthy Household Contacts of Newly Diagnosed Sputum Positive Pulmonary TB Patients, Department of Centre for Community Medicine, AIIMS, New Delhi
2. An evaluation of HLA, phagocytic function and trace elements in cases of sinusitis, invasive fungal sinusitis and non-invasive fungal sinusitis, ENT
3. Association between immunological characteristics and clinical outcomes in COVID-19 patients, Medicine
4. Development of a Remote Healthcare Delivery System: Early Diagnosis, Therapy, follow-up and Preventive Care for NCDs (cardio-pulmonary), ICMR, IIT-Kharagpur, IIT-Mumbai & AIIMS, New Delhi
5. Efficacy of Energy Dense Nutritional Supplement (EDNS) as an adjunct to standard DOTS therapy in improving treatment outcomes in malnourished newly diagnosed sputum positive pulmonary tuberculosis adult patients, Department of Centre for Community Medicine, AIIMS, New Delhi
6. Functionalization and Validation of a Cloud-based Integrated Medical Device (IMD): Delivery of Specialized diagnostic, therapeutic & follow-up care to the remote underserved population, AIIMS, New Delhi and Azure Software Pvt. Ltd
7. Identification of metabolic markers in Rheumatic Heart Disease (RHD) with Atrial Fibrillation using untargeted LC/MS-based Metabolic Approach, Safdarjung, Pathology
8. Islet-antibody negative type 1 diabetes (type 1B) in north Indians: clinical implications and pathogenesis, Department of Endocrinology, SGPGI, Lucknow
9. Study to evaluate the effectiveness of BCG Vaccine in reducing morbidity and mortality in Elderly individuals in COVID-19 Hotspots in India, Department of Pulmonary, Critical Care & Sleep Medicine, AIIMS, New Delhi
10. To study the prevalence and clinical characteristics of Pediatric Multisystem Inflammatory Syndrome associated with COVID-19, Pediatrics

11. Utility of Lipoarabinomannan antigen detection in urine and CSF for the diagnosis of tuberculous meningitis, Department of Microbiology, AIIMS, New Delhi

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	16	8	8
Total funding	Rs 1107.41 Lakhs	Rs 760.21 Lakhs	Rs 772.66 Lakhs

PUBLICATIONS

Total Publications: 17; Journal Articles: 13; Abstracts: 3; Chapters in books: 1

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	**11**	**17**	**17**
Journal articles	11	12	13
Abstracts	0	5	3
Chapters in books	0	0	1
Books	0	0	0

PATIENT CARE

Statistical data of patient care/lab services (numbers of various studies/ tests)

ORGAN TRANSPLANTATION

Nephrology, Cardiology, Pulmonary Medicine AIIMS & other referrals

Organ Transplant Service (Kidney, Lung, Heart)	2021-22	2022-23	2023-24
HLA - Live Related/Unrelated & Deceased Donor Transplants	461	668	702
Cross Match Test - CDC (Serology)	832	868	994
Cross Match Test – (Flowcytometry)	213	291	322
Luminex PRA	301	418	469
Luminex SAB (DSA monitoring)	247	302	303

BONE MARROW / HEMATOPOIETIC STEM CELL TRANSPLANTATION

Hematology, AIIMS & Other Referrals

Diagnosis	2021-22	2022-23	2023-24
Aplastic Anemia	279	537	355
Acute Leukemia (AML+ALL)	200	329	187
Thalassemia	133	213	153
Chronic Leukemia (CML+JMML)	50	64	51
Others (FA+MDS+PNH+others)	142	243	271

Total	**804**	**1396**	**1017**

S. No.	Diagnosis	2021-22	2022-23	2023-24
A	**Low-Resolution HLA Typing** (PCR-SSP or PCR-SSO Luminex-based)			
1.	HLA-A locus	883	1541	1139
2.	HLA-B locus	941	1541	1139
3.	HLA-C locus	890	1541	1005
3.	HLA-DRB1 locus	170	422	225
4.	HLA-DQB1 locus	0	422	225
5	HLA-DQA1 locus	0	422	225
6	HLA-DRB3/4/5 loci	80	35	0
B	**High Resolution HLA Typing** (Sequence Based Typing (SBT)/Next Generation Sequencing (NGS)/ SSO Luminex)			
7.	HLA-A locus	35	38	12
8.	HLA-B locus	35	38	12
9.	HLA-C locus	35	38	12
10.	HLA-DRB1	35	38	12
11.	HLA-DQB1	35	38	12
12.	HLA-DQA1	35	38	12
C	**Donor Specific Antibody (DSA) Monitoring - Luminex**			
13.	Mixed Screen (HLA class I & II)	23+23	50	32
14.	HLA class I (SAB)	20	36	24
15.	HLA class II (SAB)	15	34	21
D	**Chimerism studies in BMT**			
16.	Post HSCT recipients	36	113	81
17.	Pre HSCT recipients	31	49	31
18.	HSCT Donors	48	59	31
	Total chimerism analysis (with controls)	114	Total 221 tests	165
	TOTAL TESTS	**3347**	**6493**	**4272**
E	**Unrelated Donor searches for BMT**	**6***	6*	**0**

* During the year requests received by Asian Indian Donor Marrow Registry for HLA matched donors

II. Disease Association HLA Screening tests

	Diseases	HLA Test	2021-22	2022-23	2023-24
1.	Ankylosing Spondylitis & other Spondyloarthropathy	HLA- B-27	281	520	474

2.	Coeliac Disease	HLA-DQA1	6	6	6
3.	Coeliac Disease	HLA-DQB1	6	6	6
4.	Narcolepsy/Cataplexy	HLA-DQB1	2	2	0
5.	Behcets' Disease	HLA-B*51	44	76	90
6.	Drug hypersensitivity screening	HLA-B*57:01, B*15:02	4	2	2
	Total (with controls)		**343**	**606**	**648**

All Patient care services	**2021-22**	**2022-23**	**2023-24**
HSCT related & Quality Assurance Program	3368	6493	4272
Disease association screening	343	606	648
Antibody Quality Assurance Program	12	12	12
Total	**3711**	**7111**	**4944**

BONE MARROW TRANSPLANTATION- IRCH, AIIMS Referrals

Diagnosis	**2021-22**	**2022-23**	**2023-24**
Acute Leukemia- ALL	31	38	67
Acute leukemia- AML	42	75	90
Chronic Leukemia – (CML+JMML)	5	12	22
Others	5	27	81
Donors	83	463	552
Total	**116**	**615**	**812**

S. No.	**Diagnosis**	**No. of Tests 2021-22**	**No. of Tests 2022-23**	**No. of Tests 2023-24**
A	**Low Resolution HLA typing(PCR-SSP or PCR-SSO Luminex based)**			
	HLA-A locus	322	696	924
	HLA-B locus	324	690	940
	HLA-C locus	121	687	930
	HLA-DRB1 locus	62	130	190
	HLA-DQA1/DQB1 locus	NA	130	190
B	**High Resolution HLA typing (Sequence Based Typing (SBT) / -SSO Luminex)**			
	HLA-A locus	10	06	20
	HLA-B locus	12	06	20
	HLA-C locus	11	06	20
	HLA-DRB1	8	06	20
	HLA-DQB1	6	06	20
	HLA-DQA1	4	06	20
C	**Donor Specific Antibody (DSA) Monitoring Luminex based assays**			

	HLA class I (SAB)	03	35	56
	HLA class II (SAB)	03	35	56
D	**Chimerism Study in BMT**			
	Post HSCT recipients	01	31	39
	Pre HSCT recipients	01	31	39
.	HSCT Donors	01	31	39
	TOTAL TESTS	**889**	**2532**	**3523**

Disease Association HLA Screening tests

S.no.	Diseases	HLA test	No. of Tests 2021-22	No. of Tests 2022-23	No. of Tests 2023-24
1	Ankylosing Spondylitis & other Spondyloarthropathies	HLA- B-27	127	270	327
2	Coeliac Disease	HLA-DQA1	3	00	00
	Coeliac Disease	HLA-DQB1	3	00	00
3	Behcet's Disease	HLA-B*51	9	46	36
	TOTAL		**142**	**316**	**363**

All Patient care services	2021-22	2022-23	2023-24
HSCT related	1286	2532	3523
Disease association screening	183	316	363
Total	**1469**	**2848**	**3886**

PRIMARY IMMUNODIAGNOSTICS

Diagnostics	2021-22	2022-23	2023-24
Immune Deficiency Disorders * No. of Tests per annum	**5664**	**5266**	**5083**

Free of cost service provided for Primary & Secondary Immunodeficiency Diseases

S.No.	Diagnosis	Markers/Assays	2021-22	2022-23	2023-24
1	T Cell Frequency	$CD3^{+}$/CD4+/CD8+	1132	764	879
2	B Cell Frequency	CD19+/CD20+	1251	853	978
3	NK Cell Frequency	$CD3^{-}$/CD16+/CD56+	571	463	528
4	NK Cell Activity	$CD3^{-}/CD56^{dim}$/$Perforin^{+}$	228	241	278
5	NK Cell Activity	Soluble IL2R	12	15	**34**
6	ALPS	$CD3^{+}/CD4/8^{-}/TCR\alpha\beta^{+}$	11	32	32
7	Leukocytes Adhesion Deficiency	$CD18^{+}$/CD11a+/CD11b+	183	383	456
8	Chronic Granulomatous Disease	DHR	1085	1263	1452

9	Hyper IgM	$CD3^+/CD8^-/CD69^+/CD154^+$	2	16	14
10	T cell function (IFN-g)	$CD3^+$/CD4+/IFN-γ+/IL-2+	68	68	62
11	Class Switch Memory	$CD19^+$/CD27+/IgD-	13	17	26
12	Degranulation Assay	$CD3^-$/CD56**dim**/CD107a+	17	32	42
13	IL-12 Assay	$CD14^+$/IL-12+	6	37	41
14	Memory T cell	$CD3^+$/CD45RA+/ CD45RO+	3	245	261
15	Serum IgA		245	302	--
16	Serum IgM		302	359	--
17	Serum IgG		359	148	--
18	Serum IgE		148	28	--
19	Serum IgG Subclasses		28	32	--
Total			**5664**	**5266**	**5083**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Uma Kanga has been conferred the title of Fellow of the European Board of Surgery (FEBS) in Transplant Immunology (continues to be a Fellow 2021-till date); was elected as a Council member of the International HLA and Immunogenetics Workshop and Council (IHIWC) (2022 onwards); was nominated as a member of the `General Assembly of the International Union of Immunological Societies (IUIS) to represent the Indian Immunology Society (2022-2025); serves as past Chair of the "International Committee" of the American Society of Histocompatibility and Immunogenetics (ASHI) (2022-2023); continues to serve as Secretary of the Association of PhD Medical Scientists (APMS); continues as nominated Executive Committee member of the Indian Society for Heart and Lung Transplantation (INSHLT) (2022-24). She continues as a faculty for an academic program- Heart Transplant Fellowship of the Indian Society for Heart and Lung Transplantation (INSHLT) and served as PhD thesis reviewer and PhD viva examiner for candidates from the ii) PGIMER, Chandigarh, ii) University of KwaZulu-Natal, Durban, South Africa.

Dr Rakesh Kumar Deepak was invited as chairperson at APCON 2023 held on 6-10 December 2023 at AIIMS, New Delhi.

VISITING SCIENTIST

1. Professor Clive Gray, Professor of Immunology in Molecular Biology and Human Genetics, Stellenbosch University, Cape Town, Western Cape, South Africa
2. Dr Kamal M Khanna, Perlmutter Cancer Center, NYU School of Medicine, USA
3. Dr Sourav Ghosh, Yale University, School of Medicine, USA
4. Professor Raiees Andrabi, University of Pennsylvania, USA
5. Dr Ritu Chakravarti, College of Medicine and Life Science, University of Toledo, USA
6. Professor Uday Kishore, UAEU
7. Professor Vijay A Rathinam, UConn Health School of, Medicine Connecticut, USA
8. Dr Vibha Jawa, PhD. Fellow of American Association of Pharmaceutical Sciences (FAAPS), USA
9. Professor Vishwa Deep Dixit, Yale Center for Research on Aging, Yale School of Medicine, USA
10. Professor Dietrich Kabelitz, University Medical Center, Schleswig-Holstein, Institute of Immunology, Germany

Photograph 1: Dr Uma Kanga welcoming the Chief Guest Prof VK Paul, member Health Niti Aayog at the Inaugural Ceremony of the 50th Annual Scientific conference of the Indian Immunology Society- 50th IMMUNOCON



Photograph 2: Lamp lighting by dignitaries during Inaugural Ceremony of the 50th Annual Scientific conference of the Indian Immunology Society- 50th IMMUNOCON (Dr Kanga, Prof GP Talwar, Prof NK Mehra, Prof M Srinivas , Director AIIMS, New Delhi, Dr Taruna Madan, Prof Sujata Mohanty, Prof VK Paul, member Health Niti Aayog).



Photograph 3: Souvenir release at the inaugural ceremony of the 7th Scientific conference of the Indian Society for Histocompatibility and Immunogenetics- ISHICON2024



9.43 Urology

Professor and Head

Amlesh Seth

Professors

Rajeev Kumar

Prabhjot Singh

(Resigned on 15 January 2024)

Additional Professors

Rishi Nayyar

Brusabhanu Nayak

Associate Professor

Siddharth Jain

Manoj Kumar

(JPNA Trauma center)

Sanjay Kumar

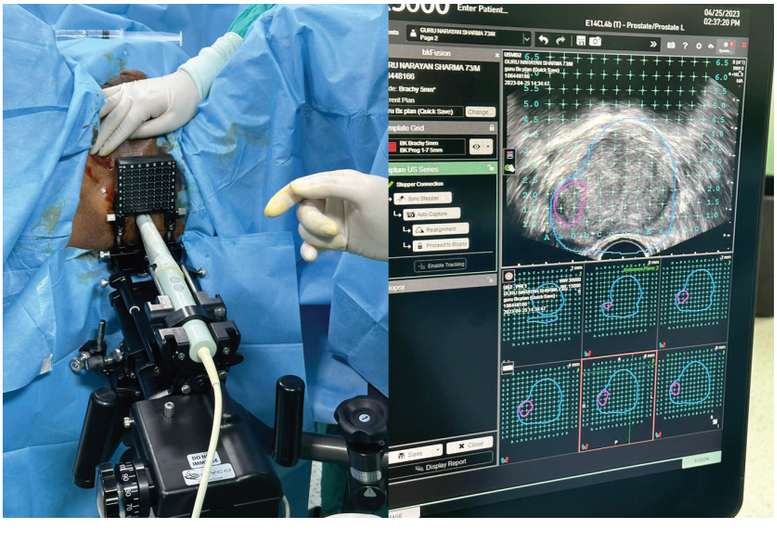
Assistant Professor

Sridhar Panaiyadiyan

Prashant Singh (NCI Jhajjar)

HIGHLIGHTS

A) Department did its first stabilized fusion perineal prostate biopsy on 2 May 2023



B) The department organized a Surgical workshop cum CME on Radical Prostatectomy on 22-23 November 2023. Dr James Andrew Eastham, MD, FACS-MSK Urologic Surgeon, Memorial Sloan Kettering Cancer Centre, New York, USA was invited for the workshop. He also delivered the 7th Sarinder Man Singh Memorial Oration in Urology on the topic of "Changing Scenario of Prostate Cancer as Witnessed by me"




C) Dr Abhinav Sidana, Director Focal Therapy, University of Chicago Medicine, USA visited the department and delivered a lecture on Focal Therapy in Radical Prostatectomy on 14 December 2023



D) Dr Rishi Nayyar was the faculty-convener for Training workshop on use of Animations in power point at SET Facility, AIIMS, New Delhi: 13 September 2023, 16 October 2023 and 13 December 2023



E) Three departmental faculty were promoted to the rank of Additional Professor (July 2023 onwards)

F) The department expanded its OT surgical services with incorporation of additional two theaters (OT-4 and OT-5) (Jul 2023 onwards)

G) Dr Rajeev Kumar took over as President of Societe Internationale d' Urologie (SIU) (October 2023 onwards)

H) The department expanded its in-patient bed strength with incorporation of additional 12 beds in AB-7 ward (October 2023 onwards) 10 beds at National Cancer Institue, Jhajjar, and 8 beds at National Center for Aging, Masjid Moth

I) Dr Rishi Nayyar took over as Honorary Secretary of NZUSI for a 2-year term (November 2023 onwards)

J) Seven additional MCh senior residency seats were sanctioned and to be incorporated into regular curriculum (March 2024)

EDUCATION

The faculties of the department participated online and delivered lectures in continuing medical education programs, symposia, national and international conferences during the year. The senior faculty members are examiners for NBE and MCh Urology in various universities. The faculty of the department is actively engaged in development of various Indian guidelines under aegis of Urological society of India.

The Department imparted lectures for the undergraduates and nursing students (BSc and MSc). The faculty is actively involved in curriculum revision for undergraduates. The department trains 11 residents for the degree of MCh in Urology over a three-year period. Post MCh Fellowship training is available for sub-specialties including minimally invasive urology, uro-oncology, reconstructive urology and urogynecology. 01 candidate successfully completed their respective fellowships in the field of 'Minimally invasive urology' and 'Urooncology' in December 2023. 01 candidate (Urogynecology) was rotated for three months in Department of Obst & Gynae. The department also recruited 03 non-academic residents for the year. MS (Gen Surg) residents also rotated for urological training as per their curriculum.

Faculties of the department 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 program. Training of interns and MBBS students for urethral catheterization: male and female on mannequin pelvis was done in the SET Facility and has been incorporated into their regular curriculum. Training on Skill Simulators (URO/PERC Mentor) is a part of regular curriculum of residents training.

CMEs/Workshops/Symposia/National and International Conferences

The department organized the following webinars/conferences.

- The department organized a Surgical workshop cum CME on Radical Prostatectomy and Sarinder Mansingh Oration on 22-23 November 2023

Lectures delivered at CMEs, National and International Conferences: 133

Amlesh Seth: 14 **Rajeev Kumar: 22** **Rishi Nayyar: 61** **Brusabhanu Nayak: 19** **Siddharth Jain: 4**
Manoj Kumar: 3 **Sanjay Kumar: 5** **Sridhar P: 5**

Lectures delivered over past 3 years

2021-22	2022-23	2023-24
70	**121**	**133**

List of oral papers/posters presented: 25

Oral/poster presentation over past 3 years

Presentation	2021-22	2022-23	2023-24
Oral/ Poster	23	35	25

RESEARCH

Funded projects

Ongoing

1. Molecular analysis to explore resistance against receptor tyrosine kinase inhibitors (TKI) in Renal Cell Carcinoma (RCC) and the prognostic role of Circulating tumor cells (CTC) in patients with metastatic RCC (mRCC), Brusabhanu Nayak, ICMR, 3 years, 2021-24, Rs. 59,00,000
2. Real-time Contrast-Enhanced Ultrasound and Shear Wave Elastography in the evaluation of patients with Anterior Urethral stricture, Manoj Kumar, AIIMS Intramural, 1 year, 2023-24, Rs. 4,87,000

3. The Role of Trace Elements in Renal Stone Disease, Sanjay Kumar, ICMR, 3 years, 2021-24, Rs. 97,61,605
4. To test the clinical utility of Blood-based miRNA 371-373 and mi302/367 as an early biomarker to stratify who might benefit from Retroperitoneal Lymph Node Dissection (RPLND): A patient-based study, Brusabhanu Nayak, AIIMS Intramural, 2 Years, 2023-25, Rs 10,00,000

Departmental projects

Ongoing

1. A Case-Control Study to examine the impact of Serum Vitamin-D levels on the composition and risk of Renal Stone Formation
2. A study to assess the Quality of life and Sexual Dysfunction among Urology patients after DJ Stenting
3. An Investigation to find out Genomic & Epigenomic Etiologies in Hypospermatogenesis (HP)
4. Anterior-first versus posterior-first approach for RARP - a comparative study
5. Correlation of surgical complexity and outcome with preoperative geometric parameters in MRI in pelvic fracture-related urethral injury: A prospective cohort study
6. Idiopathic Sertoli Cell Only Syndrome (SCOS): An Investigation to find out Epigenomic Etiologies
7. Impact of intra-operative frozen section examination by NeuroSAFE on positive surgical margin during RARP- a prospective study
8. Lymphorrhea after lymphatic ligation with titanium clips versus ultrasonic dissector during radical cystectomy: A prospective, double-blinded, randomized trial
9. Outcome of guideline-directed pre-operative prophylactic single dose/day vs extended prophylactic antibotics for urological surgeries: A Randomized controlled study
10. Prediction of bladder cancer histopathology by surgeon during TURBT and its correlation with imaging and final histopathology
11. Prospective evaluation of Tc99m SestaMIBI scan to differentiate benign solid renal mass from more aggressive malignant RCC
12. Role of combined use of Indocyanine green (ICG) and intraoperative Ultrasound (USG) for NSS
13. Role of Multimodal Prehabilitation Program as a preoperative optimisation strategy in patients undergoing open Radical Cystectomy: A Prospective Randomised study
14. Role of urethral povidone-iodine instillation before catheterization in routine urological surgery
15. Smart Phone-based Home Monitoring of the Patients with Benign Prostatic Hyperplasia: Emerging Telemedicine Tool in COVID-19 Era
16. The Role of 68Ga PSMA PET Scan in the Evaluation of Renal Cell Carcinoma
17. Ultrasound-guided pudendal nerve block with intravenous Dexmedetomidine as an alternative to neuraxial anaesthesia for Male Urethral reconstructive surgery
18. Unenhanced CT and biochemical characteristic of pheochromocytoma: An ambispective study

Completed

1. A 3-arm randomized control trial to compare the efficacy of recirculant hyperthermic intravesical chemotherapy versus intravesical BCG versus conventional intravesical mitomycin C therapy for intermediate-risk NMIBC
2. Cranio-caudal Bull's eye (CCB) technique for superior calyceal access during PCNL: Assessment of efficacy and complications
3. Duration of Medication Therapy and Outcomes after Transurethral Prostate Resection for Patients with Benign Prostatic Hyperplasia
4. Effect of Androgen Deprivation Therapy on Cardiovascular Function in Patients with Advanced Carcinoma Prostate: A Prospective Cohort Study
5. Immediate second resection versus re-stage transurethral resection of bladder tumor: a randomized, non-inferiority, pilot trial

6. Investigation of potential biomarkers for the differential diagnosis of non-obstructive azoospermia
7. MicroRNA expression pro? les in testicular FNAC samples of apparent idiopathic Sertoli cell-only syndrome (SCOS) cases
8. Negative predictive value of magnetic resonance imaging for significant prostate cancer in Indian men: an ambispective study
9. PCNL concept of puncture zone
10. Pheochromocytoma surgery: clinical outcomes
11. Prevalence of Yq Micro-deletions in Random Population
12. Role of mp MRI using VIRAD (Version 1) in predicting the stage and grade of disease in carcinoma urinary bladder

Collaborative projects

Ongoing

1. A multi-institutional prospective observational study of ureteric strictures after ureteroscopy, Urological Society of India, USI-CRC
2. A phase III double-blind randomized placebo-controlled study of Capivasertib + Abiraterone versus Placebo + Abiraterone as treatment for de novo metastatic hormone-sensitive prostate cancer characterized by PTEN deficiency (CAPItello-281), Medical Oncology, AIIMS
3. A prospective multi-institutional assessment of prostate biopsy practices in India, Urological Society of India, USI-CRC
4. A randomized, double-blind, placebo-controlled phase 3 study of darolutamide in addition to androgen-deprivation therapy(ADT) Vs. placebo + ADT in men with metastatic hormone-sensitive prostate cancer (ARANOTE), Radiation Oncology, AIIMS International collaboration
5. A single-arm, open-label phase 4 study of Darolutamide in addition to standard androgen deprivation therapy for participants in India with high risk non-metastatic prostate cancer, Radiation Oncology, AIIMS
6. An Investigation into metabolomics of prostate cancer patients to identify diagnostic and Prognostic biomarkers for disease burden and therapeutic outcome and development of metabolomics database, Pharmacology, AIIMS
7. Can NMR metabolomics of blood plasma be used to segregate prostate cancer patients with positive biopsy and negative biopsy non-invasively? NMR
8. Carboplatin in patients with metastatic castrate-resistant prostate cancer harboring somatic or germ line homologous recombination repair gene mutations: A phase II single arm trial, Medical Oncology, AIIMS
9. Clinical efficacy of Autologous Fascia Lata Mid-Urethral Sling versus Polypropylene Mesh Outside-In Transobturator Tape in the management of Stress Urinary Incontinence, Obst and Gynae, AIIMS
10. Clinical epidemiology of LUTS in young men less than 40 years, Urological Society of India, FFUS section
11. Distribution of aldosterone-secreting cells in adrenal glands from normal subjects and patients of primary hyperaldosteronism, Pathology
12. Dual-energy computed tomography (DECT) in assessing response to tyrosine kinase inhibitors (TKI) in metastatic renal cell carcinoma, Radiology, AIIMS
13. Evaluation of DNA damage response (DDR) pathways in prostate cancer, Pathology, AIIMS
14. Evaluation of microsatellite instability (MSI) and PDL1 expression in molecular subtypes of upper and lower tract urothelial carcinoma, Pathology, AIIMS
15. Gait Kinematics and neurogenic bladder in incomplete spinal cord injury patients following transcranial magnetic stimulation: a randomized controlled trial, Physiology, AIIMS
16. Hemodynamic profile in the perioperative period in patients undergoing pheochromocytoma and paraganglionoma surgery with and without low-dose diltiazem infusion, Anesthesia
17. Incidence and Risk Factors, for complications of urinary catheters used in PICU, Pediatrics, AIIMS
18. Metabolic profile and quality of life assessment in patients with metastatic carcinoma prostate receiving androgen deprivation therapy, Medical Oncology, AIIMS

19. Molecular characterization and antimicrobial resistance profile of Uropathogenic Escherichia Coli (UPEC) from patients with UTI in India: A cross-sectional study, Microbiology, AIIMS
20. Molecular profiling and phenotype-genotype correlation of patients with Pheochromocytoma/Paraganglioma: Deciphering implications in management and prognostication, Pathology
21. Prevalence of mutations influencing prostate cancer risk and progression, Medical Oncology, AIIMS University hospital network, Toronto
22. Prospective observational study to assess the utility of da Vinci™ robotic system for brachial plexus exploration and reconstruction, Burns & Plastic surgery, AIIMS
23. To study gene expression, epigenetic alterations, oxidative DNA damage in infertile men after yoga intervention and to analyse effect of their serum on cancer cell lines, Anatomy, AIIMS
24. Understanding the role of circular RNAs in prostate cancer progression, Reproductive Biology, AIIMS
25. 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, AIIMS

Completed

1. Analgesic Efficacy of Ultrasound-Guided Triple-Level Erector Spinae Plane Block Versus Triple-Level Costotransverse Foramen Block in Patients Undergoing Percutaneous Nephrolithotomy Surgery: A randomized parallel-group double-blind non-inferiority trial, Anesthesia, AIIMS
2. Characterization of Renal Cell Carcinoma with Dual Energy Computed Tomography and Multiparametric Magnetic Resonance Imaging and Correlation with Histopathology, Radiology, AIIMS
3. Contemporary Outcomes of Surgery for Primary and Recurrent Genitourinary Fistulae and assessing quality of life, Obst and Gynae, AIIMS
4. Evaluation of PDL1 expression and tumor mutational burden (TMB) in subtypes of muscle-invasive bladder cancer (MIBC), Pathology, AIIMS
5. Studying the effects of miRNAs on RASSF1A modulation in Urothelial Carcinoma of Bladder, Biochemistry, AIIMS, New Delhi

Research projects over 3 years

	2021-2022	2022-2023	2023-2024
Total funded research projects	6	6	4
Total amount of extramural/ intramural funding (Rs)	3, 81, 52, 345	3, 15, 34, 345	1, 71, 48, 605

PUBLICATIONS: 38

Journals: 26 **Abstracts: 7** **Chapters in books: 4** **Books: 1**

Total Publications over last 3 years

Item	2021-2022	2022-2023	2023-24
Total	**44**	**39**	**38**
Journal articles	33	27	26
Abstracts	06	09	7
Chapters in books	05	03	4
Books	-	-	1

PATIENT CARE

(a) Facilities available in the department (including special clinics and/or special laboratory facilities)

Total number of patient-related work in a tabular form

	2021-2022	2022-2023	2023-2024
Main Hospital Department			
Main OPD new cases	7688	20051	15700
Main OPD old cases	14075	37392	29821
BRAIRCH Uro-malignancy clinic New cases	437	581	724
BRAIRCH Uro-malignancy clinic Old cases	5155	7740	8705
Andrology and Infertility Clinic New cases	323	861	725
Andrology and Infertility Clinic Old cases	277	1014	682
Long Admissions	1051	1437	1847
Short Admissions	513	649	694
Discharges	1367	2081	2559
Main OT surgical procedures – open	269	368	455
Main OT surgical procedures – endourology	675	782	1249
Main OT surgical procedures – laparoscopic	65	149	182
Main OT surgical procedures – robotic	105	130	156
Main OT surgical procedures – microsurgery	11	20	14
Main OT surgical procedures – local anesthesia	-	495	551
Minor OT	9363	15982	18190
Stone Lab	-	-	292
ESWL	390	682	810
Ultrasound guided procedures	366	650	398
NCI Jhajjar			
NCI Jhajjar OPD, New Cases	-	328	481
NCI Jhajjar OPD, Old cases	-	630	1988
NCI Jhajjar, Ward admissions	-	-	394
NCI Jhajjar, Discharges	-	-	397
NCI Jhajjar, OT Surgical procedures	185	412	328
JPNA Trauma center			
Trauma center, OT Surgical procedures	-	72	24

Details of Main OT Surgical Procedures: 2607

***Open surgery*: 455**

Radical cystectomy	54	Radical or cytoreductive nephrectomy	28
Radical cystectomy with nephroureterectomy	10	Radical nephrectomy with IVC thrombectomy	6
End To End Urethroplasty	17	Simple nephrectomy	31
Anterior lay open	5	Partial nephrectomy	22
Progressive perineal urethroplasty	30	Graft urethroplasty	25
Urethrocutaneous fistula repair	9	Second stage closure	15
Augmentation Cystoplasty	2	Pyeloplasty	16
Adrenalectomy	4	Ureterolithotomy/ Cystolithotomy	7
VVF repair	38	Pyelolithotomy	6
AUS implantation/Penile prosthesis	2	Chordee correction	6
Perineal urethrostomy	13	Epispadias/Hypospadias	11
Ureteric reimplant	13	Partial penectomy	16
Boari Flap	4	Others	65

***Endourology*: 1249**

Upper tract: 669		**Lower tract : 580**					
PCNL	322	TURP/TUIP/TUEB	115	CLT/PCCLT	27	DJS/DJR	-
URS	218	TURBT	349	PVP	-	Clot evacuation	-
RIRS	89	TUR fulguration	-	HOLEP	-	OIU/BNI/ Endodilatation	30
Endopyelotomy	-	Endoevaluation/ RGP	-	Ureterocele incision	-	Others	57
Others	40	TURED	2				

***Laparoscopic*: 182**

Radical or cytorecuctive nephrectomy	29	Partial nephrectomy	-
Simple nephrectomy	84	Adrenalectomy	18
Nephroureterctomy	21	Ureterolithotomy	5
Pyeloplasty	6	Diagnostic lap / orchiopexy	12
Ureteric reimplant	-	Others	7

***Robotic*: 156**

Radical prostatectomy	43	Pyeloplasty	47
Inguinal lymph node dissection	6	Ureteric reimplant/Boari flap	1

Radical cystectomy	4	Augmentation cystoplasty	4
Partial nephrectomy	44	Others	7

***Microsurgery*: 14**

VEA	6	VVA	1	MVL	7
Scrotal exploration	0	TESE	0		

***Local anesthesia procedures:* 551**

DJS/DJR	245	Cystolithotripsy	30
B/L Orchidectomy	54	Circumcision	64
Frenuloplasty	-	Sclerotherapy	-
Retrograde pyelography	68	Cystoscopy	20
Partial Penectomy	-	Nephrostogram	15
High inguinal orchiectomy	18	Others	37

Minor OT: 18190

Endoscopic	3097
Open	-
Minor cases	7391
Uroflowmetry	7332
Urodynamic Study	370

ESWL: 810

New cases	304	Old cases	506

Ultrasound Room Procedures: 398

Prostate TRUS biopsy	235	SPC	0	PUC	-
MRI- TRUS Fusion biopsy	52	PCN	0	HIVEC	101
In Bore biopsy	0	USG	10		

NCI Jhajjar OT Surgical Procedures: 328

***Open surgery*: 50**

Radical cystectomy	7	Radical or cytoreductive nephrectomy	1
Radical cystectomy with nephroureterectomy	3	Radical nephrectomy with IVC thrombectomy	-
Salvage cystectomy	-	Radical Nephroureterectomy	-
Ilioinguinal lymph node dissection	-	RPLND	-

High Inguinal Orchiectomy	8	Total /radical penectomy	2
Malignant VVF repair	-	Partial Penectomy	5
Bilateral orchidectomy	19	Others	5

***Laparoscopic*: 8**

Radical nephrectomy	5
Radical nephroureterectomy	3

***Endourology*: 268**

TURBT	201
Check CPE	30
Channel TURP	-
CPE + Clot evacuation	1
DJ stenting	26
DJ removal	3
Others	7

***USG guided procedures:* 2**

PCN insertion	1
SPC insertion	1

Trauma centre OT Surgical Procedures: 24

***Open Surgeries:* 14**

Perineal Urethroplasty	10	Transpubic Urethroplasty	-
Simple Nephrectomy	1	Rectourethral fistula repair	-
Ureteric Injury Repair	-	Genital Injury	-
Bladder Repair	3		

***Endourology:* 10**

Cystoscopy	-
Cystolithotripsy	2
Endodilatation± OIU	-
RGP + DJS	8
Others	-

(b) community services/camps etc.

1. 'Hello Doctor' - Health talk on Prostate enlargement: prevention and general treatment measures on DD Urdu, 21 Dec 2023 (Dr Amlesh Seth, Dr Rishi Nayyar, Dr Siddarth Jain)

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Amlesh Seth was Elected as Council Member (North Zone representative) of USI, February 2023; Member- Subject Expert Committee on Urology and Reproduction under DCGI; Member of the International Peer Review Committee of Tata Memorial Hospital at Mumbai; External Expert for Selection Committee for assessment of faculty under Assessment Promotion Scheme and Selection of Faculty in the Department of Urology, AIIMS, Jodhpur.; Subject Expert for Selection Committee for assessment of faculty under Assessment Promotion Scheme and Selection of Faculty in the Department of Urology, AIIMS, Bhubaneswar; Subject Expert in Project Evaluation Committee (PEC) meeting of Department of Science and Technology at Madurai, 5-6th August 2023; PI: "The Bern Comprehensive Complication Index - complication reporting in major urological surgeries: a multicentric validation study"; DC member in respect of Mr. Rohit Banerjee, Ph. D. student, Department of Physiology, AIIMS, New Delhi; External Examiner for MCh (Urology) exit examination on 3 December 2023 at Chandigarh; Subject Expert for Standing Selection Committee of JIPMER for Selection of Faculty in the Department of Urology, JIPMER, Puducherry.

Rajeev Kumar was Appointed President, Société Internationale d'Urologie; Delivered UAA Lecture at 43rd SIU Meeting, Istanbul, Turkey (October 2023); Delivered Androcon Oration, Andrology Section of Urological Society of India (July 2023); Appointed International jury member for Vattikuti Robotic Surgery Awards, Ghent, Belgiu.

Rishi Nayyar was Member- Subject Expert Committee on Urology and Reproduction under DCGI; Member - USI Guidelines for the conduct of live operative workshops ; Scientific review committee, SIU; Honorary Secretary, NZUSI, November 2023; Associate Editor, Indian Journal of Urology; Did first stabilized fusion perineal prostate biopsy at AIIMS, New Delhi, May 2023; Helped start first-ever Robotic nerve transposition and repair in India for brachial plexus injuries along with plastic surgery department, July 2023; Did first robotic augmentation ileo-cystoplasty at AIIMS, New Delhi, August 2023; Started Laparoscopic radical cystectomy with intracorporeal ileal conduit at AIIMS, New Delhi, August 2023; Achiever's award 2023 from Delhi Urological Society and Gurgaon Urology Club, December 2023; Best Paper of the Journal (Indian J Urol) - Second Prize for the year 2023, February 2024.

Brusabhanu Nayak was awarded AIIMS International travel fellowship by AIIMS Research Section- Availed and visited Desai Sethi Urology Center & Miller School of Medicine, University of Miami, USA for 3 weeks in August 2023; Japanese Urological Association Fellowship - Availed in May - June 2023 and visited Tottori University, Yonago, Japan; USI Best paper award, USICON, February 2024.

Manoj Kumar was awarded Certificate Course in Advanced Laparoscopic Urology- Radical Prostatectomy, IMMAST, Mumbai, July 2023; Awarded MAMS, NAMSCON, October 2023; North zone Got Talent - NZUSICON, 2023 - 2ND Prize, October 2023; DUSCON Award + Gold Medal for Outstanding Contribution to Basic Sciences / Research as applied to Urology, NZUSICON, October 2023; Hargobind Singh Memorial Travel Fellowship, NZUSICON, October 2023.

Sanjay Kumar was Invited as peer reviewer from the American Urological Association (AUA) for the upcoming draft of "Salvage Therapy for Prostate Cancer Guidelines- 2023".

Sridhar Panaiyadiyan was awarded the "Best Paper Award of the year 2022- Asian Journal of Urology", received in July 2023

VISITING SCIENTIST

None

10.1 Cardiothoracic Centre

Blood Transfusion Services

Chief Medical Officer
Anjali Hazarika

Additional Professor
Gopal Patidar

Chief Tech Officers
Bijay Majhi, Gulshan Mehta, Gajendra Singh Chauhan
PS Rajput, Sushma Maken

Cardiac Anaesthesia And Critical Care

Professor and HOD
Sandeep Chauhan

Professors
Neeti Makhija, Poonam Malhotra, Minati Choudhury
Sambhunath Das, Parag Gharde, Suruchi Hasija
Arindam Choudhury

Cardiac Pathology

Professor and HOD
Ruma Ray

Professor
Sudheer Kumar Arava

Cardiology

Professor and HOD
R Narang

Professors

Sandeep Seth, Nitish Naik
Rakesh Yadav, G Karthikeyan
Sandeep Singh, Gautam Sharma, Ambuj Roy
S Ramakrishnan, Saurabh Kr Gupta

Associate Professor
Neeraj Parakh

Assistant Professors
Deepti S Satyavir Yadav, Nirmal Ghati, Sourabh Agstam
Aseem Basha M, Lamk Kadiyani

Department of Cardiac Biochemistry

Professor and Head
Lakshmy Ramakrishnan

Scientists

Manoj Kumar Tembhre — Ransi Ann Abraham

Tech Officers

Rajiv Kumar — Mrs Saroj Rana

Department of Cardio-Thoracic And Vascular Surgery

Professor and Head

SK Choudhary

Professors

AK Bisoi, V Devagourou, Milind P Hote, Sachin Talwar, P Rajashekar, Manoj Kumar Sahu

Additional Professors

Sarvesh Pal Singh, Ramesh P Menon

Associate Professors

Pradeep Ramakrishnan, Ummed Singh Dhatterwal

Assistant Professors

Mayank YadavRanjith S (Till July 2023), Amitabh Satsangi, Sushma Gayatri, Navnita Kisku, Bharath HV

Department of Cardiovascular Radiology And Endovascular Interventions

Professor and Head

Priya Jagia

Additional Professor

Sanjeev Kumar

Assistant Professors

Niraj Nirmal Pandey

Nuclear Medicine Department

Professor

Chetan D Patel

Stem Cell Facility

Professor and Head

Sujata Mohanty

HIGHLIGHTS

Blood Transfusion Service

The Blood Transfusion services of C.N. Centre cater to round-the-clock transfusion needs of patients admitted to CN Centre of AIIMS by collecting, processing and providing safe and quality blood and blood components. The activities include both in-house and outdoor blood collection, blood donor motivation and pre-donation and post-donation counselling, 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 nos. at all times. Facility for Apheresis procedures and autologous donation is available. Surplus plasma is being sent for plasma product fractionation. Blood components are subjected to irradiation for heart transplant patients.

Serological tests performed in the BTS include tests for blood grouping, screening for irregular antibodies, and 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, and Malaria. Automation is used in most of the laboratories in the department for better output and quality. Donor blood samples are also being subjected to NAT (Nucleic Acid Amplification test) screening as an additional screening test to detect HIV/HCV/HBV and thus improve blood safety.

The quality management system is in place for its products like blood and blood components, equipment, processes, and services. The BTS also participates in External Quality Assessment Scheme by SDMH Jaipur and IRCS Mumbai, for its various Lab Tests.

Haemovigilance, the department participates in the Haemovigilance Programme of India. (HvPI) for both recipient as well as donor haemovigilance on a regular basis.

A pneumatic Tube System is available for transporting Patient blood samples and forms.

Computerisation of the Blood Bank procedures through e-blood bank software module by NIC, for real-time data generation and integration with the HIS is in place.

Cardiac Anaesthesia and Critical Care

1. The Faculty and the Resident doctors from the Department of Cardiac Anaesthesia are awarded at National and International Conferences.
2. All Professors and Additional Professors had been examiners for various DM Cardiac Anaesthesia, MD Anesthesia and DNB anaesthesia courses all over India.
3. Department has been a pioneer in starting a fellowship in Pediatric Cardiac Anaesthesia and approval sanctioned to start fellowship in vascular Anaesthesia soon
4. All the faculties in the department are the Editors, Editorial Board/Review members of various national and international Cardiac Anaesthesia, Anaesthesia and Echocardiography journals
5. 45 publications by the Department of Cardiac Anaesthesia published in various national and international journals.
6. The faculties of the Department attended several international conferences and presented papers /delivered lectures
7. Dr Neeti Makhija was a chairperson in Internal DM Cardiac Anaesthesia exit examination.
8. She was an external examiner for DM Cardiac Anaesthesia exit exam in a government Institute and also fellowship exit exams of scientific bodies in the Cardiac Anaesthesia specialty.
9. She was an expert for appointment and upgradation of faculty position in a government Institute of repute.
10. She Chaired a session on Didactic lectures in Cardiac Anaesthesia that included the following lectures:

    i) "Well begun is Half done" Viability Assessment for cardiac surgery

    ii) Tranexemic acid for elective surgery

    iii) Anaesthetic consideration for a pregnant patient with congenital heart disease in the 70th Annual National Conference of Indian Society of Anesthesiologists organized by ISA Haryana state branch held at Le Meridian, Gurugram, Haryana from 22 to 26 November 2023.

- She Chaired a session on Medical Ethics and hemodynamics Assessment in the pre-lunch session which included following lectures

    i) Ethics lecture on Legal Issues in Medical Practice, "Current Perspective".

    ii) Assessment of hemodynamics and ventricular function by point-of-care echocardiography in the Update on Peri-operative Echo-cardiography organized by the Department of Anaesthesiology, Pain & Perioperative Medicine, Sir Ganga Ram Hospital, New Delhi under the aegis of Society of Transesophageal Echocardiography and Indian College of Anaesthesiology on 17 March 2024 at Sir Ganga Ram Hospital.

In the post-lunch session also Chaired a session on Basic Transesophageal echocardiography that included the following lectures.

i) TEE probes: Parts, Insertion, Manipulation, Caveats and ii) Basic TEE views.

Also, conducted hands-on training in Transthoracic Echocardiography and TEE simulator sessions.

- Dr Poonam Malhotrta Kapoor received the "Icon of the Cardiac Anesthesia and ECMO in the World Award" on the Occasion of Multispecialty International Consensus on Heart Failure in Women (MIC-HFW-2024). Sunday, February 25 February 2024. (Appendix 1)
- She also received the "Iconic National Award" from the Indian Medical Association New Delhi branch on the occasion of the National Doctor's Day Celebration (16 July 2023) for her contribution to Medical Sciences (Appendix 2).
- She is continuing her term as Guest Editor of JAAPI–an International journal in Medicine and Healthcare from USA.
- She is continuing as President of South West Asia and Africa Chapter of the. Extracorporeal Life Support Organization (SWACELSO) for the year 2022-24.
- She is Chief Editor of TCCC (Textbook of Cardiac Critical Care) at Hands-on CME and Workshop on ECMO on 18-21 May 2023 at New Delhi by Director, AIIMS.
- She is continuing as Founding Secretary and Chairman Academics of "The Simulation Society"
- She is the Founder and Editor-In-Chief of the Journal of Cardiac Critical Care, where she released three issues 7.2, 7.3 and 8.1 of the journal in the year 2023–24.
- She is continuing as a "Fellow of International Society of Cardiovascular Ultrasound: 2023-24" by the International Society of Cardiovascular Ultrasound (ISCU) Society, Alabama USA, for my contribution to Echocardiography in cardiac sciences.
- She is continuing as President of SCA-Delhi and NCR Branch for a term of 5 years (2022-2027). Continue to be a founder member of SCA-Delhi & NCR Branch of IACTA.

Under the Stalwart leadership of Professor Sandeep Chauhan, Head, of Cardiac Anaesthesia and Critical Care, now the Chief of CT Centre, AIIMS, New Delhi, the faculties and residents of the department in both Phase II and Phase III of the COVID-19 Pandemic, rendered round the clock ICU and ward management services of COVID-19 patients with PPE and all universal precautions. Morbidity, ventilatory management, ICU positioning and all allied critical care and administrative issues were managed in an exemplary manner along with the Department of Medicine and other allied departments of AIIMS. It was a great learning experience.

Cardiac Pathology

- Routine diagnostic reporting of Histopathology & Cytopathology cases
- Teaching undergraduate students (Lectures, practicals, seminars, Group discussions, Clinicopathological case discussions, gross and microscopy demonstrations)
- Teaching Postgraduate students (MD,)
- Teaching of Superspeciality students (DM, Mch residents)
- Coordinating post-graduate seminars, journal clubs
- Conducting Cardiopulmonary Pathology interdepartmental case discussions
- Conducting regular Dermatopathology case discussions
- Research and developmental activities, especially related to Cardiac,

Pulmonary, forensic and Dermatopathology

Cardiology

In the years 2023–24, the Department of Cardiology catered to nearly 1,11, 000 outpatient visits and a substantial number of teleconsultations. Over 6500 patients underwent interventional procedures, including angioplasty, pacemakers, device implantations, and balloon valvoplasties.

During this period, the Department participated in several research projects studying patients across a broad spectrum of cardiac diseases. Important publications relating to STEMI, hypertension, heart failure, rheumatic heart disease, and congenital heart disease were published in high-impact scientific journals. The faculty were part of many important international and national meetings. The department's faculties are part of major cardiology journals, including the 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 significantly 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.

Department of Cardiac Biochemistry

None

Department of Cardio-Thoracic and Vascular Surgery

After 2021, when the COVID-19 pandemic subsided, the clinical work at entire AIIMS started limping back towards normalcy. In keeping with these trends, during the period between 1 April 2022 and 31 March 2023, the Department of CTVS was actively involved in pursuing the goals of patient care, teaching, and research in the subspecialty of Cardiothoracic and Vascular surgery. Close to 3349 patients underwent various cardiac surgical procedures. These encompassed the entire spectrum of Cardiothoracic and Vascular surgery. More than 1255 were pediatric cases below five years of age with critical cardiac illnesses since birth. An important highlight was that with the active support from the JSSK scheme of the Govt of India, the number of patients below 1 year of age (n= 217) undergoing surgery increased. Using a multidisciplinary team approach, the department actively pursued the transplant program; seven patients underwent cardiac transplantation and although lung transplantation was not performed this year, its protocols were still being built up. The protocols of the latter have evolved in the last year. Protocols for the conduct of ECMO have allowed surgical management of more complex cardiac defects.

In collaboration with the Department of Cardiology, 2335 patients of all ages were admitted to CTVS wards were treated on an in-patient basis. Close to 148832 patients were attended to in the outpatient services. These included 31722 new cases, 79399 old cases and 37771 old cases. The acticaigolation clinic catered to 930 cases and the aortic clinic catered to 109 cases.

The departmental faculty participated actively in webinars and physically attended and delivered invited lectures as and when feasible and paper presentations were exclusively online as part of webinars. The departmental faculty delivered 65 invited lectures and papers at various conferences and had more than 29 publications in peer-reviewed national and international journals of repute.

Steps Taken to Improve Patient Care Activities:

The department has steadily been seeing an increasing number of patients in the weekly held “Anticoagulation Clinic “ on Sunday facilitating the follow-up of patients of Valvular heart surgery who are mostly from underprivileged sections of Society. This not only provides all the desired amenities in a single visit, but it also prevents final losses to patients. It is first of its first-of-its-kind initiative in India which provides all the required services to follow-up patients on a walk-in basis. A dedicated aortic clinic is held to faciliataeorotocol based management of patients with diseases of the aorta and the vascular tree.

Action Plan for 23-24

Besides all the current activities, the Department plans to undertake the following three initiatives:

1. To strengthen the lung transplant program
2. To attempt to establish the heart-lung transplant program
3. To actively increase the number of percutaneous valvular heart replacements and endovascular interventions in collaboration with the Departments of Cardiology and Department of Cardiac Radiology and endovascular interventions. initiate hybrid aortic interventions in CTVS OT
4. Develop Minimally Invasive Cardiac Surgery
5. To aim to start the Pediatric Cardiac Surgery Fellowship
6. To restart the MSc (Perfusion) Course

Department of Cardiovascular Radiology and Endovascular Interventions

11. The department successfully conducted a day-long dedicated Cardiac MRI CME on 2 December 2023 under aegis of the CVREF foundation at the Board Room, AIIMS, New Delhi which was well attended by 34 national and 6 International Faculties with approx 200 delegates. Dr Priya Jagia, HOD, was the organizing Chairperson and all three departmental faculty delivered talks and participated in the scientific deliberations during this CME.

Education:

- The faculty of the department delivered lectures at various National and International Scientific Meetings.
- The faculties are members of Editorial Boards and Reviewers for numerous Scientific Journals.

Research:

- The departmental faculty members have been running Research Projects and Thesis. They published Research Papers in various peer-reviewed international journals. Papers were presented at an international meeting. In addition, Chapters were published in books.

Clinical care:

- The department continues to provide Cardiovascular Imaging and Vascular Interventional treatment services to patients referred from various specialty departments in the hospital.

Nuclear Medicine

Nuclear Medicine in the Cardiothoracic Centre (CTC) performs diagnostic nuclear cardiology procedures. It was equipped with a Dual Head SPECT-CT Gamma Camera which was replaced with a dedicated cardiac CZT camera in August 2023. SPECT imaging for assessment of myocardial perfusion and PET studies for evaluation of myocardial viability and infective/inflammatory cardiomyopathies are routinely performed. The unit is also actively involved in teaching and research work. Postgraduate students pursuing an MD degree in Nuclear Medicine and MSc. Nuclear Medicine Technology are posted on a rotational basis and are trained in reporting and understanding technical aspects of nuclear cardiology studies, respectively. I am also involved in the thesis or research paperwork of 19 DM, MD, PhD and MSc. (Nuclear Medicine Technology) students. We are participating in a multinational project titled *"Transthyretin Amyloid Cardiomyopathy study (iTAC study)"* which will evaluate the role of Tc99m-PYP in the diagnosis of cardiac amyloidosis. The project is funded by International Atomic Energy Agency, Austria. I am also Chief Investigator in international multi–center research project titled "*International study on imaging in Cardio-Oncology Study (iCOS)*", funded by International Atomic Energy Agency, Austria.

Stem Cell Facility

Stem Cell Facility (SCF) is committed to rendering excellent patient care services with an integral part dedicated towards basic, pre-clinical, and clinical research in Stem Cell & Regenerative Medicine, during the past financial year, 2023–24. Overall, the Facility is currently engaged in 18 ongoing projects in collaboration with other departments of AIIMS and funded by DBT, ICMR, DST, IUSSTF, AIIMS etc. In terms of ad-hoc manpower, a dedicated team of 4 PhD research scholars, 5 MD & DM students, and 7 trainees are registered for degree, along with a team of 4 Scientists currently recruited in Govt. funded projects at the Facility. In the current year, the Facility has successfully published a total of 14 research publications in high-impact peer-reviewed journals. Dr Sujata Mohanty has presented her research findings at various national (17 nos.) scientific forums. She is part of editorial board committees of reputed international scientific journals, namely, 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 & National scientific bodies like the International Society for Cellular Therapy (ISCT), the International Society for Stem Cell Research (ISSCR), the International Society of Biological Chemists (ISBC), The Indian Science Congress (TISC), The Indian Immunological Society (TIIS), and International Society of Extracellular Vesicles (ISEV). During this financial year, she has taken the initiative to form the Indian Society of Extracellular Vesicles(InSeV), as a President. She was also involved in organizing Immunocon-50 as a Co-convenor and 7th ICTR as a Convenor at AIIMS, New Delhi.

Activities/steps taken to improve patient care services, education and research: SCF is providing amniotic membrane grafts to the trauma center, RPC for patient care services at AIIMS and to hospitals outside AIIMS. We are also isolating limbal stem cells from patients for corneal regeneration in collaboration with RPC. We have initiated a clinical trial for the implantation of bioengineered cross-linked human corneal graft for keratoplasty surgery in collaboration with RPC and IIT-Delhi. Recently we have initiated the provision of stromal vascular fraction-based osteoarthritis treatment in collaboration with the Department of Orthopedics, AIIMS. We are also involved in the pilot study with the Department of Gynecology and Obstetrics for the treatment of the Asherman Syndrome and Atrophic Endometrium using Autologous Bone Marrow derived Mononuclear Cells. Regarding research, we are collaborating with various national and international institutes for knowledge transfer.

Education

Cardiac Anaesthesia and Critical Care

- __6__ DM candidates including __1__ sponsored and __4__ other MD-Junior resident doctors from Main Anesthesia department have undergone super specialty training in Cardiac-Thoracic-Anesthesia.
- 11 Candidates are pursuing DM in the department
- 2 Non-DM candidates
- 1 candidate is pursuing a Fellowship in Paediatric Cardiac Anaesthesia

Cardiac Pathology

- In charge of undergraduate classes (Second MBBS)
- Nodal officer for the development of undergraduate teaching modules according to the NMS guidelines
- Coordination and conduction of all UG and PG-related examinations in the department of pathology
- Development of Massive online open courses (MOOCS) for the HRD ministry for Swayam Prabha channels
- In charge of autopsy in the department of pathology
- Working to develop a sudden cardiac death registry in INDIA with collaboration from the forensic department
- Developed a routine diagnosis and follow-up of all cardiomyopathy patients including family screening, early detection and health education
- Cardiac amyloidosis subtyping in the early detection and proper management in collaboration with cardiology and cardiac radiology
- Regular contribution of MCQ-based questions to the AIIMS Examination section
- Development of smart undergraduate classroom and practical hall of international standards
- Other duties as & when rendered by the department and the Institute
- Co-organizing secretary in the APCON 2023 annual pathology conference. AIIMS. New Delhi

Cardiology

The Department of Cardiology is involved in the education and training of undergraduate and postgraduate students. The daily online academic activities include journal club, mortality meeting, cath conferences, short and long seminars, debates, clinical case discussions, and spotters by faculty.

Department of Cardiac Biochemistry

The faculty and scientists of the department are actively involved in patient care, teaching and research. The sample collection of all the OPD patients is carried out by departmental staff and the specialized tests are being carried out for both OPD and IPD patients. Four students are currently pursuing PhD and the faculty and scientist from cardiac biochemistry are involved in 9 other PhD thesis as co-guides. Two MD Biochemistry students are doing their thesis in the department. The department is also involved in training and demonstration for M Sc and MD students from the department of Biochemistry during their laboratory posing. Currently, 10 research projects are ongoing in the department. The department participated in the Institute Research Day held on 30 January and presented posters. Our scientist DR Manoj K T was awarded the AIIMS-Research Excellence Award-2022 (Awarded in January 2024) and one of the posters won the award of appreciation.

The department Faculty is a member of the project review committee for ICMR in the area of cardiovascular diseases and also in the area of endocrinology. The faculty of the department is a member of the scientific advisory committee of the National Institute of Nutrition, Hyderabad. The faculty and scientists in the department have published fourteen papers in peer-reviewed journals and have reviewed multiple papers in various journals. The faculty and scientists are members of the ethics committee, advisory boards and editorial board.

Department of Cardio-Thoracic and Vascular Surgery

The department was actively involved in the teaching of undergraduates, post-graduates, MCh students, BSc, and MSc Nursing students. These academic activities included regular classroom and online teaching activities comprising journal

club presentations, mortality meetings, seminars, debates, and clinical case discussions. The departmental faculty was actively involved in examiner panels of reputed universities.

Currently, 25 students are pursuing MCh in CTVS, and 8 are pursuing DM in cardiac surgical intensive care. 8 students have completed and passed in MCh in CTVS. One has passed DM in cardiac surgical intensive care. During the period, 1 April 2022 to 31 March 2023, 7 qualified post-MCh Senior Residents have actively contributed towards clinical and educational activities of the department at various stages. The department has been actively training postgraduates from the department of General Surgery, department of Cardiology and physiotherapists.

12. Department of Cardiovascular Radiology & Endovascular Interventions

Teaching:

Extra-departmental

- Undergraduates: Lectures on the basics of Cardiovascular Imaging and Vascular Interventions
- Postgraduates: Cardiac Radiology Quiz, Moderating Seminars in departments of allied specialties viz. Medicine,

13. Surgery, Gastroenterology, Cardiology and Cardiothoracic Surgery

Clinico-radiology meetings with the Department of Cardiology and CTVS

Participation in Clinical Combined Rounds and Clinical Grand Rounds with Allied specialties

Intra-departmental

- Daily case presentations
- 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

Nuclear Medicine Department

Number of lectures for undergraduates allotted & delivered:

- No. of Postgraduate students: 62 (25 MD Nuclear Medicine students & 37 MSc. Nuclear Medicine Technology students on a rotational basis in Nuclear Cardiology)
- No. of Thesis/research papers completed: 8
- Moderator in Journal Club/Seminars/Intra-department lectures: 8
- No. of new thesis started: 8
- 'On-site' teaching of MD students while reporting clinical studies

Stem Cell Facility

S. No	Program	Number of Students
1	MSc	NA
2	Ph.D.	04
3	DM & MD	05
4	**Training:**	
	a. Short term	07
	b. Long term	NA

CMES/WORKSHOPS/SYMPOSIA/NATIONAL AND INTERNATIONAL CONFERENCES

Cardiac Anaesthesia and Critical Care

1. Hands-on CME and Workshop on ECMO The "Cardiac Critical Care and ECMO Textbook" and Special issue of ECMO Journal, released at AIIMS, New Delhi during the workshop, 18-21 May 2023, AIIMS, New Delhi
2. ECMO and Patient Blood Management: Online Symposium to be held online for students across the medical colleges in India, Nepal, Srilanka and Bangladesh, 10-11 June 2023, Online
3. Organized 4 seminars, 4 Webinars and 2 workshops under TSS and SCA-Delhi & NCR Branch as academic administrative in-charge, 2023–24, New Delhi
4. CME on "Patient Blood Management in Critical Care, ECMO and Cardiac Anaesthesia", 24 January 2024, New Delhi
5. Echocardiography workshop as course director at NIEGREMS, Meghalaya, SOPACON 2023, 20 September 2023, AIIMS, New Delhi
6. TTE workshop as course director at IAPCCON, 17 November 2023, AIIMS, New Delhi
7. TTE workshop as course director at 11th comprehensive perioperative echocardiography workshop, 1-3 December 2023, Medanta the Medicity, Gurugram
8. Course director for Hemodynamic monitoring at IAPACON2024, 9 February 2024, Postgraduate Institute Of Child Health, Noida
9. Workshop on 'Haemodynamic monitoring' at Annual Conference of the Society of Onco-Anaesthesia and Perioperative Care 2023., 25 August 2023, All India Institute of Medical Sciences, New Delhi

Cardiac Pathology

1. 71st Annual Conference of IAPM & lAP-ID, 6-10 December 2023, AIIMS, New Delhi

Cardiology

Name of the Event, Venue, City
Cardiovascular research convergence, IGIB, New Delhi
Current perspective in PH diagnosis and management, AIIMS, New Delhi

Department of Cardiac Biochemistry mmmm

None

Department of Cardio-Thoracic &Vascular Surgery mmm

None

Department of Cardiovascular Radiology & Endovascular Interventions mmm

1. The department successfully conducted a day-long dedicated Cardiac MRI CME on 2 December 2023 under aegis of CVREF foundation at Board Room, AIIMS, New Delhi which was well attended by 34 national and 6 international faculties with approx 200 delegates. Dr Priya Jagia, HOD, was the organizing Chairperson and all three faculty delivered talks and participated in the scientific deliberations during this CME.

1. Cardiac MRI CME, 2 December 2023, AIIMS, New Delhi

Nuclear Medicine Department

Stem Cell Facility

1. Immunocon-2023, 5-8 October 2023, AIIMS, New Delhi
2. 7th International Conference on Translational Research, 16-18 October 2023, AIIMS, New Delhi
3. Hands-on workshop on Flow cytometry, 4 October 2023, AIIMS, New Delhi
4. Fundamentals of Immunology, 4 October 2023, AIIMS, New Delhi
5. Flowcytometry Workshop, 15 October 2023, AIIMS, New Delhi
6. CRISPR-based technologies for Cell, Virus and Animal Genome editing, 15 October 2023, AIIMS, New Delhi

Lectures Delivered: 200

Anjali Hazarika: 2	**Gopal Kumar Patidar: 8**	**Neeti Makhija: 6**
Poonam Malhotra : 72	**Sambhunath Das: 2**	**Suruchi Hasija: 5**
Arindam Choudhury: 4	**Sudheer Kumar Arava: 5**	**Sandeep Seth: 4**
Ambuj Roy: 9	**S Ramakrishnan: 15**	**Sourabh Agstam: 3**
Nirmal Ghati: 2	**Lakshmy Ramakrishnan: 4**	**Manoj Kumar Tembhre: 15**
Sachin Talwar: 23	**Milind P Hote: 5**	**V Devagourou: 4**
P Rajashekar: 4	**Manoj Kumar Sahu: 3**	**Sarvesh Pal Singh: 5**
Ummed Singh Dhatterwal: 2	**Amitabh Satsangi: 1**	**Priya Jagia: 18**

Lectures delivered over past 3 years

2021-22	2022–23	2023–24
45	308	200

Oral papers/posters presented: 33

Oral/poster presentations over past 3 years

2021-22	2022–23	2023–24
22	26	33

Research

Blood Transfusion Services

Departmental projects (including thesis/dissertations)

Ongoing

1. A pilot study to assess the items for the anxiety related events among blood donors and establish their face and content validity at a tertiary care academic institute in North India
2. A randomized control trial to determine the efficacy and schedule of oral calcium supplementation for prevention of adverse citrate reaction in plateletpheresis donors
3. A randomized controlled trial to assess the effectiveness of Artificial Intelligence based game AINAR to conquer needle fear in blood donors
4. Assessment of appropriateness of donor selection criteria regarding pre-donation haemoglobin value and inter-donation interval.
5. Assessment of blood transfusion practices in adult CTVS ICU patients in a tertiary care hospital, AIIMS, New Delhi
6. Assessment of knowledge of Vasovagal reaction (VVR) mitigation strategies in blood centers: An online survey from Indian perspective
7. Factors associated with peripheral blood stem cell yield in donors mobilized with granulocyte colony stimulating factors: the impact of donor characteristics

Completed

1. A randomized control trial for evaluation of transfusion related immuno-modulation in patients with meningioma
2. Bulk transfer of blood: A way forward for inventory management in blood centre
3. How to meet blood and CCP demand (including matching demand to supply using MODELLING/ artificial intelligence)

4. Knowledge assessment of a donor adverse reaction severity grading tool by the National Blood Donor Vigilance Programme of India.
5. Multi-centre Cross-sectional Questionnaire Survey on effectiveness of Haemovigilance Programme of India
6. Prevention strategies for vasovagal reaction in whole blood donors: A quadri-armed randomised control trial

Research

Collaborative Projects

Ongoing

1. A study of immune responses in the pathophysiology of human Chronic Pancreatitis, Department of Biochemistry, AIIMS
2. Comparing the Vascularising potential of MSCs and MAPCs in monoculture and coculture systems with human OECs under normoxia and hypoxia, Stem cell Facility, AIIMS
3. Complement factor H (CFH)-related protein 1 (CFHR1) and its role in maintenance of immunological tolerance", Regional Centre for Biotechnology, Fbd
4. Defining the Fc receptor based immune landscape in Rheumatoid Heart Disease, Department of Cardiac-Biochemistry, CNC, AIIMS
5. Development of Diagnostics and experimental therapeutics using CRISPR-based technologies, Department of Biochemistry, AIIMS
6. Effect of Hyperglycaemia on Macrophage Function in Pathophysiology of Pulmonary TB, Department of Biochemistry, AIIMS
7. Evaluation of Mesenchymal Stem Cell derived exosomes on neutrophil–induced tissue damage in the animal models of liver and heart disease, Stem cell Facility, AIIMS
8. Exploring the potential of Extracellular exosomes derived from Endothelial Colony forming Cells (ECFCs) primed with Mesenchymal Stromal Cells (MSCs) as a cell free therapy for Cardio vascular Diseases (CVDs), Department of Cardiac-Biochemistry, CNC, AIIMS
9. Regulation of HIV Reservoirs through Autophagy, Department of Biochemistry, AIIMS
10. Study the Potential Role of HLA-G mediated Immunomodulation by Tissue Specific Human Mesenchymal Stem Cells, Stem cell Facility, AIIMS
11. Targeting Telomerase Reverse Transcriptase (TERT) gene to immortalize Peripheral Blood Mononuclear Cells of patients with coronary artery disease, Stem cell Facility, AIIMS
12. To study the immunomodulatory effect of tumour-derived exosomes on γδ T-cells, Department of Biochemistry, AIIMS

Cardiac Anaesthesia and Critical Care

Funded projects

Ongoing

1. A prospective observational study to make An estimate of blood and bl0od products Requirement in corrective congenital Cyanotic heart surgeries, Sandeep Chakraborthy PI: P Rajshekar Co-PI: Poonam Malhotra Kapoor, AIIMS, 2 Year, 2022-24, Rs 2 Lakhs
2. Correlation of FIBTEM and platelet reactivity in post cardiac surgery patients undergoing ECMO; Using verify now, Omer Mujahid, Poonam Malhotra Kapoor, JCCC-TSS research Grant, 2 Year, 2022–24, Rs 2 Lakhs
3. Restrictive transfusion triggers on ECMO, Poonam Malhotra Kapoor, JCCC-TSS research Grant, 2 Year, 2023–25, Rs 2 Lakhs

Completed

1. Pre-operative use of Febuxostat in Cardiac Surgery. A double blind prospective randomized phase-II trial, Akshay Narayan, Co PI: Poonam Malhotra Kapoor, AIIMS, New Delhi, 3 Years, 2021-24, ????

2. Does measurement of biomarker like suPAR (soluble urokinase plasminogen activated receptor) help reduce mortality in Type 2 diabetes mellitus patients undergoing Coronary artery bypass grafting (CABG)?, Mohit Prakash, Poonam Malhotra Kapoor, JCCC-TSS Research Grant, 1 Year, 2022-23, 2 Lakhs
3. Comparison of del nido cardioplegia solution and Microplegia in paediatric patients undergoing elective Repair of tetralogy of fallot-a prospective, Randomized clinical trial, Jaydeep Malakar, PI: Sachin Talwar, Co-PI: Poonam Malhotra Kapoor, JCCC-TSS research Grant, 2 Year, 2022-24, Rs 2 Lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. Left atrial strain as a predictor of postoperative atrial fibrillation after mitral valve replacement for mitral stenosis-A prospective observational study
2. A comparison of Multiple injection Costo-transverse block (MICB) and Erector spinae plane block (ESPB) for post-sternotomy pain relief in paediatric patients undergoing cardiac surgery-A prospective, randomized, comparative study
3. Comparison of del nido cardioplegia solution and Microplegia in paediatric patients undergoing elective Repair of tetralogy of fallot-a prospective, Randomized clinical trial
4. Correlation of FIBTEM and platelet reactivity in post cardiac surgery patients undergoing ECMO; Using Verify Now
5. Clinical utility of electrocardiometry based parameters in the management of patients with congenital heart diseases undergoing corrective surgery
6. Comparative study of intrathecal morphine vs. intrathecal buprenorphine for fast-track cardiac anesthesia: a randomized controlled trial

Completed

1. A prospective observational study to make An estimate of blood and bl0od products Requirement in corrective congenital Cyanotic heart surgeries.
2. Comparison of thoracic fluid content in off pump and on pump coronary artery bypass graft surgery by impedance cardiometry
3. Del Nido cardioplegia based BD Glenn surgery with inflammatory markers IL6, IL-18 and TNF α
4. Effects of intranasal Dexmedetomidine versus intranasal Midazolam as premedication in children with Tetralogy of Fallot undergoing cardiac surgery
5. FLEV & FIBTEM A5 as Point of Care Testing in Cyanotic cardiac children–DM thesis
6. Outcomes in Low flow ECMO–perfusion based project

Collaborative projects

Ongoing

1. 3D ECHO in Right Sided Prosthetic Valve, International Society of Cardiovascular ultrasound with no funding–only observations on ECHO for publication

Cardiac Pathology

Sudheer Arava

1. Clinicopathological correlation and amyloid subtyping in cases of cardiac amyloidosis: AN observational study, DBT-ICMR, 3 Years, 2023-25, Rs 80 Lakhs
2. Sudden cardiac death in young: An autopsy and molecular study to identify the cause, ICMR, 3 Years, 2019-23, Rs 70 Lakhs
3. Sudden unexplained death in young individuals, ICMR, 2 Years, 2023-25, Rs 3 Crores
4. To evaluate the genetic association in undiagnosed idiopathic cardiomyopathy patients, ICMR, 3 Years, 2022-25, Rs 86 Lakhs

5. To identify the genetic landscape of hypertrophic cardiomyopathy (HCM) in Indian Scenario**,** ICMR, Th, 2024–27, Rs 1.2 Crores

Departmental projects (including thesis/dissertations)

Ongoing

Ruma Ray and Sudheer Arava

1. Clinicopathological and radiological features and MIR 21 levels in cases in interstitial lung disease
2. Clinicopathological correlation and amyloid sub-typing in cases of cardiac amyloidosis: An observational study
3. MYBPC3 mutations in idiopathic cardiomyopathies
4. Sudden cardiac death histopathology and molecular study to identify the cause
5. To evaluate the genetic association in undiagnosed cardiomyopathy patients

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 disease) for transplantation in vitiligo

14. Histomorphological and clinical study in patients of ENL reactions
15. MYH7 mutations in idiopathic cardiomyopathies

Collaborative projects

Ongoing

1. Association of LOX L 2 in cardiac fibrosis, Cardiology. AIIMS
2. Autologous non cultured dermal cell suspension transplantation in treatment of facial volume loss, Dermatology, AIIMS
3. Clinicopathological evaluation of viral myocarditis, Cardiology. AIIMS, New Delhi
4. Comparative evaluation of MicroRNA profiling and cytokine profiling analysis in patients with Pulmonary Sarcoidosis and Mediastinal tuberculosis, Pulmonary Medicine, AIIMS
5. Electron microscopic and genetic study in primary ciliary dyskinesia, Pediatric pulmonology, AIIMS, New Delhi
6. Exploring the phenotypic and functional role of γδ T cell subsets along with Pattern recognition receptors (PRRs) in the immunopathogenesis of Pemphigus Vulgaris", Pharmacology, AIIMS
7. Study of cardiac markers, gross findings and histopathological Changes in heart in cases of suspected cardiac death, Forensic Medicine, AIIMS
8. Study of histomorphological, proteomics and collagen in Rheumatic heart valve specimens, CTVS, New Delhi
9. Study of Sesamol in Bleomycin induced pulmonary toxicity in rat, Pharmacology, AIIMS

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	3	5	5
Total funding	Rs 1 Crores	Rs 2 Crores	Rs 3 Crores

Cardiology

Funded projects

Ongoing

1. A global registry to study the demographics, socioeconomic and clinical factors, etiologies, pathophysiology, management, barriers to outcomes of heart failure patients. (G-CHF), Dr Ambuj Roy, Population Health Research Institute, Canada, 8 Years, 2016-24, Rs 98,00,000
2. A multicenter study to evaluate long-term safety and tolerability of open label sacubitril/valsartan in pediatric patients with heart failure due to systemic left ventricle systolic dysfunction who have completed study CLCZ696B2319, S. Ramakrishnan, Novartis Healthcare Pvt. Ltd., 4 Years, September 2020–24, Rs 14,38,200/-
3. A Prospective Cohort Study To Assess Right Atrial and Ventricular Reverse Remodeling After Transcatheter Device Closure In Adult Patients With Atrial Septal Defects, Dr Nirmal Ghati, AIIMS intramural grant, 2 years, 2023-25, Rs 5,00,000
4. An Open Label, Observational, Practice Based, Non-Comparative, Multicenter, Prospective, Active Surveillance To Evaluate The Safety And Tolerability Of Bosentan 62.5mg/125mg Oral Tablets In Patients With Pulmonary Arterial Hypertension (Pah) [Who Group I], S. Ramakrishnan, Cipla Pvt. Ltd., 2 Years, June 2023-24, Rs 3,59,997/-
5. COLchicine and Thiamine in Heart Failure due to Ischemic Heart Disease (COLT-HF), Dr Ambuj Roy, Population Health Research Institute, Canada, 4 Years, 2024-28, Rs 50,00,000
6. Developing and testing a Collaborative Quality Improvement initiative for prevention of cardiovascular disease in India (C-QIP study)., Dr Ambuj Roy, National Institute of Health, 5 years, 2019-24, Rs 10,05,040
7. Effectiveness of Yoga based Cardiac Rehabilitation (Yoga-CaRe) in Heart Failure: A Randomized Controlled Clinical Trial, Dr Ambuj Roy, ICMR, 3 Years, 2023-26, Rs 30,00,000
8. Establishing a repository of biological samples for Coronary Artery Disease on a cohort of patients undergoing angiography at a Tertiary Hospital, Dr Ambuj Roy, ICMR, 3 Years, 2023-26, Rs 87,12,580
9. Evaluation of a health system-based intervention on change in thrombolysis rate in ST segment elevated myocardial infarction (STEMI) acute coronary syndrome (ACS) across selected districts of the country–A health implementation research project. (ICMR-STEMI-ACT), S. Ramakrishnan, ICMR, 3 Years, February 2020–24, Rs 87,93,131/-
10. Identification and functional validation of candidate microRNA biomarkers in coronary artery disease: An exploratory study, Dr Ambuj Roy, ICMR, 3 Years-, 2022–25, Rs 23,00,000
11. Impact of Indian Adaptation of Mediterranean Diet versus Low fat diet on Dietary Inflammatory Index in patients with Coronary Artery Disease., Dr Ambuj Roy, ICMR, 3 Years, 2023–26, Rs 70,65,584
12. Indian Bifurcation Stenting (IBIS) Registry, S. Ramakrishnan, Unrestricted research grant from Cardiovascular Research Society, Ernakulam, Kerala, 3 Years, 2021–24
13. Influenza vaccine to reduce Cardiovascular Events in patients with recent Myocardial Infarction: a multicentric randomized, double-blind, placebo-controlled trial., Dr Ambuj Roy, ICMR, 4 years, 2024–28, Rs 6,00,00,000
14. INVICTUS (Investigation of rheumatic AF Treatment Using vitamin K antagonists, rivaroxaban or aspirin Studies), G Karthikeyan, Population Health Research Institute, Canada, 4 Years, 2016–20, Rs 16.7 Crores
15. Ischemia Trial, Balram Bhargava, NIH, 13 Years, 2012–25, Rs 1 Crore
16. Multicenter, open-label, study to evaluate safety, tolerability, pharmacokinetics and, pharmacodynamics of LCZ696 followed by a 52-week randomized, double-blind, parallel group, active-controlled study to evaluate the efficacy and safety of LCZ696 compared with enalApril in pediatric patients from1 month to < 18 years of age with heart failure due to systemic left ventricle systolic dysfunction, S. Ramakrishnan, Novartis Healthcare Pvt. Ltd., 5 Years, January 2019–24, Rs 11,38,720/-
17. National Medical College Network, Dr Ambuj Roy, Ministry of Health and Family Welfare, Govt of India, 3 years, 2022-26, Rs 2,00,000,000 per annum
18. NN6018-4914 : ATHENA: Effects of Ziltivekimab versus placebo on heart failure symptoms and physical function in patients with heart failure with mildly reduced or reserved ejection fraction and systemic inflammation, Dr Ambuj Roy, Novo Nordisk, 2 years, 2024–26, Rs 35,00,000
19. Oral Anticoagulation (Vitamin K antagonist) for Pulmonary Artery Hypertension (PAH)-A Pilot Randomized Control Trial, Satyavir Yadav, ICMR, 3 years, 2024–27, Rs 49,48,164/-
20. Routine Invasive Vs Ischemia Driven Strategy In Patients With ST-Segment-Elevation Myocardial Infarction Presenting Between 12-72 Hours Of Symptom Onset (LATECOMER TRIAL), S. Ramakrishnan, ICMR, 4 Years, May 2024 to April-2028, Rs 1,25,06,192/-

21. Semaglutide effects on cardiovascular outcomes in people with overweight or obesity. (SELECT), Dr Ambuj Roy, Novo Nordisk, 5 years, 2019–24, Rs 38,00,000
22. To investigate atherosclerotic risk factors related miRNA network regulating the inflammasome pathway in coronary artery disease, Satyavir Yadav, ICMR/DHR, 3 years, 2024–27, Rs 34,28,460
23. To study the role of Natriuretic peptides, NPs (NPPA, NPPB) in hypertensive heart disease and to investigate the effect of MTHFR-NPPB locus (containing both NPPA and NPPB) polymorphism and its epigenetic modifications on cardiovascular risk, Satyavir Yadav, ICMR/DHR, 3 years, 2024–27, Rs 71,72,137
24. Treatment optimization for Blood Pressure with Single-Pill combination in India (TOPSPIN), Dr Ambuj Roy, Imperial College of London, 2 Years, 2022–24, Rs 10,00,000

Completed

1. Aortic & Lung inflammation following COVID: A marker of cardiac events, Dr Ambuj Roy, Department of Science & Technology, 1.5 Year, 2022–23, Rs 17,00,000
2. Delhi Emergency Life Heart Initiative (Mission Delhi) Phase II, S Ramakrishnan, ICMR, 3 Year, January 2023 to February 2024, Rs 3 Crores

Departmental projects (including thesis/dissertations)

Ongoing

1. 4D MRI in aortic valve PHVT
2. Characterization of atrial functional mitral regurgitation
3. Dapagliflozin in children with heart failure
4. Incidence of vascular complications following pediatric interventions
5. MRI, advanced echocardiography, BNP in rheumatic MR
6. Prediction of improvement in LV function after CABG in MV CAD by cardiac MRI
7. Prevalence of HFpEF among admitted patients in medicine wards
8. Tenecteplase Vs. alteplase in PHVT
9. Transcranial Doppler in PHVT

Completed

1. A PROBE trial to evaluate the efficacy of yoga-based cardiac rehabilitation in Post-Percutaneous Coronary Intervention patients
2. Cardiac MRI in acute rheumatic fever
3. Correlation of Imaging and other characteristics with clinical features in Ebstein's anomaly
4. Echocardiographic features of rheumatic mitral valve disease
5. Lung ultrasound pre and post-PDA device closure
6. Metoprolol in Eisenmenger syndrome–A double-blind placebo-controlled trial

Collaborative projects

Ongoing

1. Evaluation of a liposome-based cholesterol efflux assay against a macrophage-based efflux assay for measurement of reverse cholesterol transport capacity of HDL. (Co-I), Department of Biochemistry, AIIMS, New Delhi
2. Partnership for Education of Health Professionals (PEP): A Novo Nordisk Foundation project to develop a Centre for Excellence in Medical Education at AIIMS (Co-PI), SET Facility, AIIMS
3. The Integrated Tracking, Referral, and Electronic Decision Support, and Care Coordination (I-TREC) Platform (Co-PI), Department of Endocrinology, AIIMS, New Delhi, Emory University, Atlanta, USA

Completed

1. Identification of delays and barriers to acute cardiac care in NCR. (Co-PI), Department of Community medicine, AIIMS, New Delhi

Department of Cardiac Biochemistry

Funded projects

Ongoing

1. "Effect of augmentation of intracellular BH4 levels, by GTPCH-1 gene transfer, on nitric oxide synthase activity, protein levels and dimerization in ECFCs from CAD patients and its effect on ECFC functionality, R Lakshmy, ICMR, 2 years, 2023-25, Rs 43,83,288/-
2. Analysing the expression profile of angiogenesis-related proteins to understand the effect of aging on angiogenesis in geriatric population, Dr Ransi Ann Abraham, AIIMS Intramural grant, 2 years, 2022-24, Rs 10 Lakhs
3. Deciphering the impact of Fc? receptors on Neutrophil extra-cellular trap (NETs) formation potential of neutrophils in active psoriasis and its psoriasis and its correlation with diseases severity", Dr Manoj K. Tembhre, ICMR, New Delhi (extramural grant), 3 years, 2023-25, Rs 50 Lakhs
4. Defining the whole exome sequencing based genetic determinants in Indian patients with congenital heart diseases, Dr Manoj K Tembhre, DHR (ICMR), 3 years, ongoing, Rs 50 Lakhs
5. Diet and Biomarker Survey in India, R Lakshmy, ICMR, 2 years, 2023-25, Rs 60,17,202/-
6. Effect of Vitamin D on functionality of Endothelial Colony forming Cells (ECFC) cultured from Coronary Artery Disease patients, R Lakshmy, AIIMS, 1 year, 2024-25, Rs 2,00,000/-
7. Exploring the potential of Extracellular Vesicles (EVs) derived from Endothelial Colony Forming Cells (ECFCs) primed with Mesenchymal Stromal Cells (MSCs) as a cell free therapeutic tool for cardiovascular diseases (CVDs), R Lakshmy, ICMR, 3 years, 2021-24, Rs 49,00,000/-
8. The development of AI/ML-based pipeline for expediting drug development against ssRNA Viruses" (N-2377), Dr Manoj K. Tembhre, Australian Alumni Grant Scheme, 2 years, 2023-25, Rs 11 Lakhs
9. The impact of co-administration of probiotic Bacillus coagulans Unique IS-2 with plant protein on post-prandial protein absorption in young adults, Dr Ransi Ann Abraham, Unique Biotech, 1 year, 2023-24, Rs 20 Lakhs
10. To study the association of circulating Endothelial Progenitor Cells (EPC) with Intrinsic Capacity (IC) in older adults, R Lakshmy, ICMR, 2 years, 2023-24, Rs 63,40,005/-

Completed

1. Effect of a probiotic formulation on iron absorption in iron deficient women of reproductive age: a double-blind, randomized placebo-controlled trial, R Lakshmy, Unique Biotech, 2 years, 2021-23, 45,00,000/-
2. Elucidating the role of alarmins in triggering the Neutrophil Extracelluar Trap (NETs): Implication in immune regulation and skin homeostasis in psoriasis. (A-862), Dr Manoj K Tembhre, AIIMS, New Delhi (Intramural grant), 2 years, 2021-23, Rs 10 Lakhs
3. Elucidating the role of TNIP1, IL2B and NFkBIA and their target micro RNA in regulating the inflammation and skin homeostasis in psoriasis. (ICMR-1125) as PI*, Dr Manoj K Tembhre, ICMR, New Delhi (extramural grant), 3 years, 2019-23, Rs 45 Lakhs
4. External quality assurance for testing of blood samples for diabetes National Model Study (DNMS) , R Lakshmy, ICMR, 1 year, 2023-24, Rs 15,00,000/-

Departmental projects (including thesis/dissertations)

Ongoing

1. "Defining the Fcγ receptor based immune landscape in Rheumatoid Heart Disease"
2. "Elucidating the intricate network of alarmins-autophagy-necroptosis in driving inflammation, immune regulation and cardiac homeostasis in cardiomyopathy"
3. Effect of Vitamin D on functionality of Endothelial Colony forming Cells (ECFC) cultured from coronary artery disease patients

4. Exploring the potential of Extracellular Vesicles (EVs) derived from Endothelial Colony Forming Cells (ECFCs) primed with Mesenchymal Stromal Cells (MSCs) as a cell free therapeutic tool for cardiovascular diseases (CVDs)
5. Therapeutic potential of extracellular vesicles derived from endothelial colony forming cell (ECFC-EVs) indirectly primed with mesenchymal stromal cell (MSCs) in a mouse model of hind limb ischemia

Collaborative projects

Ongoing

1. A randomized placebo control study to evaluate the effect of AYUSH SR as adjunct to usual care for cardiac rehabilitation on biochemical, physical and psychological parameters in adult patients who underwent Coronary artery bypass graft (CABG) surgery, Cardiac Anesthesia
2. Clinical and immunological factors predicting relapse in patients with pemphigus treated with Rituximab: A prospective cohort study (Ref. No. IEC-738/07 February 2020, RP-46/2020), Dermatology & Venereology
3. Development of longitudinal growth reference and assessment of growth velocity cardio metabolic measures and its correlation among children in India A prospective study, Biostatistics
4. Establishing a repository of biological samples for Coronary Artery Disease on a cohort of patients undergoing angiography at a Tertiary Hospital, Cardiology
5. Impact of Indian Adaptation of Mediterranean Diet versus Low fat diet on Dietary Inflammatory Index in patients with Coronary Artery Disease, Cardiology
6. Predictors of low milk volume among mothers of preterm admitted in a tertiary care facility, Nursing College
7. Th2/Th17 inflammation modulating filaggrin expression and disease severity in children with moderate atopic dermatitis, Dermatology & Venereology
8. Th2/Th17 inflammation modulating filaggrin expression and disease severity in children with moderate atopic dermatitis, Dermatology & Venereology
9. Th2/Th17 inflammation modulating filaggrin expression and disease severity in children with moderate atopic dermatitis, Dermatology & Venereology
10. Validating Biomarker Panel in Five Different Cohorts to Define and Predict Biological Ageing, Disease Burden and Mortality in Human Subjects-A Pilot Prospective Cohort Study, Geriatrics

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	**5**	**10**	**10**
Total funding	1,55,00,000/-	3,51,23,293/-	3,59,40,492/-

Department of Cardio-thoracic &Vascular Surgery

Funded Projects

(Completed and Ongoing)

Collaborative projects

Ongoing

1. A randomized placebo control study to evaluate the effect of AYUSH SR as adjunct to usual care for cardiac rehabilitation on biochemical, physical and psychological parameters, in adult patients who underwent Coronary Artery Bypass Graft (CABG) surgery. (funding agency-CCRAS)., CENTRAL COUNCIL FOR RESEARCH IN AYURVEDIC SCIENCES (CCRAS) (Deptt. of AYUSH, Ministry of Health & Family Welfare, Govt. of India)
2. Clinical utility of liquid biopsy in cardiac allograft rejection, Department of Transplant Immunology and Immunogenetics, AIIMS, New Delhi

Completed

1. Early Enteral Feeding with supplemented mother's milk in post-operative Pediatric cardiac surgical patients: A randomized controlled trial (A collaborative Project with Institute of Home Economics, Delhi University), Institute of Home Economics, Delhi University

Departmental projects

1. Comparison Of Del Nido Cardioplegia Solution And Microplegia In Pediatric Patients Undergoing Elective Repair Of Tetralogy Of Fallot–A Prospective Randomised Clinical Trial
2. Comparision of recovery of Pulmonary function in patients with LV dysfunction undergoing CABG on-pump vs Off-pump
3. Factors leading to early onset degeneration in bioprosthetic valves implanted in a younger population-a multidisciplinary analysis
4. Evaluation of Right Ventricular function in patients undergoing Mitral Valve replacement with Pulmonary artery systolic pressure of more than 50 mmHg
5. Mid-term follow up of heart transplant patients in a tertiary care centre: A Retrospective analysis
6. Measurement of change in thoracic fluid content by impedance cardiometry in infants with congenital heart disease undergoing BT shunt surgeries: a prospective longitudinal observational study
7. Prospective Study On Histology Observation On Aorta And Pulmonary Artery In Cases Of Transposition Of Great Arteries Undergoing Arterial Switch Operation In Different Age Group
8. Comparison Of Early And Midterm Outcomes Of Mechanical Vs Bioprosthetic Valve In Pulmonary Position In Tof–Primary And Redo Surgery
9. Surgical Outcomes Of Coarctation Of Aorta In Adults–Retrospective Observational Study
10. A study of presentation, surgical management and outcomes of pediatric mitral valve
11. Prognostic value of metabolic profiling in rheumatic valvular heart disease
12. Outcomes of BD glenn in less than one year old children
13. Factors leading to early onset degeneration in bioprosthetic valves implanted in a younger population-a multidisciplinary analysis
14. Comparison of early and midterm outcomes of mechanical versus bioprosthetic valve in pulmonary position in TOF patients-primary surgery and redo surgery (corrected TOF)

Ongoing

1. A comparative study of intrathecal morphine vs intrathecal buprenorphine for fast-track cardiac anaesthesia: A randomized control trial
2. A Meta-analysis of published studies in which Total cavopulmonary connection was performed with or without extracorporeal circulation
3. A Pilot Profiling of Haemoglobin F (Hbf) Ant Its Transition During Open Heart Surgery In Infants (up to 1 Year Of Age), And In The Early Post-Operative Period
4. A randomized placebo control study to evaluate the effect of AYUSH SR as adjunct to usual care for cardiac rehabilitation on biochemical, physical and psychological parameters, in adult patients who underwent Coronary Artery Bypass Graft (CABG) surgery
5. A Study To Assess Mitral Valve Resistance In Cases Of Severe Ms Undergoing MVR
6. Anatomy And Hemodynamics In Patients Undergoing The Extracardiac Fontan Operation–Comparison Of Echocardiography, Computed Tomography And Cardiac Magnetic Resonance Imaging : A Prospective Observational Study
7. Anatomy And Hemodynamics In Patients Undergoing The Extracardiac Fontan Operation–Comparison Of Echocardiography, Computed Tomography And Cardiac Magnetic Resonance Imaging : A Prospective Observational Study

8. Comparision of left ventricular myocardial interstitial fibrosis in 2 group of patients with rheumatic mitral valve stenosis (Wilkins score < 8 vs > 10) and their early postoperative outcome
9. Comparison Level Of Heat Shock Protein Expression On Saphenous Venous Graft Preserved In Normal Saline And Preserved In Situ Until Grafted In Off Pump Cabg
10. Comparison Of Left Ventricular Myocardial Interstitial Fibrosis In Two Groups Of Patients With Rheumatic Mitral Valve Stenosis (Wilkins Score <8 Vs >10) And Their Early Post-Operative Outcome
11. Discordant Atrioventricular with Concordant Ventriculoarterial connections in Normally Related and Anatomically corrected Malposition of Great Arteries
12. Early And Late Post Operative Outcomes Of Children Presenting With Transposition Of Great Arteries With Intact Ventricular Septum Beyond 1 Month Of Age–A Retrospective Observational Institutional Study From 2013–2022
13. Early and late postoperative outcomes of children presenting with TGA with IVS beyond 1 month of age-A retrospective observational institutional study from 2013-2022
14. Early And Mid Term Post Operative Outcomes Of Children Presenting With Taussig Bing Anomaly–An Ambispective Observational Study
15. Effect of peri-operative use of vasopressin on pleural effusion after fontan operation
16. Effect of prone position on regional ventilation distribution of the lungs measured by Electrical Impedance Tomography in postoperative pediatric cardiac surgical patients with ARDS: A Prospective Non-randomized lnterventional Study
17. Fate of false lumen in post Type A dissection repair-ambispective study
18. Neo Aortic Root Pathology After Arterial Switch Operation For Transposition Of The Great Arteries In A Single Institution.
19. Oral Sildenafil Administration In Patients Undergoing Extracardiac Fontan Procedure–A Double Blind Randomized Study
20. Outcomes of ASO in TGA IVS with regressed LV using two stage vs integrated ECMO
21. Outcomes Of Aso In Tga With Intact Ventricular Septum With Regressed Lv In The Age Group 2-6 Months Using Two Stage Vs Integrated Ecmo–A Prospective Observational Study
22. Outcomes Of Patients Undergoing Mics CABG Vs Conventional CABG: A Prospective Comparative Study
23. Palliative Atrial switch procedure leaving the ventricular septaI defect open in patients with d-Transposition of great arteries, Ventricular septal defects and severe pulmonary arterial hypertension
24. Retroprospective Study On Mechanisms Of Calcification In Diseased Native Cardiac Valves And Degenerated Bioprosthetic Heart Valves
25. Risk Factors And Outcomes Of Prolonged Mechanical Ventilation With Different Duration In Post Cardiac Surgical Pediatric Patients–A Prospective Observational Study
26. Role Of Neutrophil Lymphocyte Ratio (Nlr) And Lymphocyte Monocyte Ratio (Lmr) In Prediction Of Outcomes In Children Undergoing Elective Repair Of Tetralogy Of Fallot
27. Study The Short Term Clinical And Hemodynamic Outcomes Of Patients Undergoing Aortic Valve Neocuspidisation Using Ozaki's Technique
28. The Effects Of Leaving Antegrade Pulmonary Blood Flow Open On The Development Of Pulmonary Arteriovenous Malformations Post Bidirectional Superior Cavopulmonary Anastamosis–A Retrospective Observational Study
29. The Fate Of False Lumen In Post Type A Aortic Dissection Repair: An Ambispective Observational Study
30. To Assess The Role Of Copeptin And Bnp As Biomarkers For Heart Failure In Relation To Diffuse Interstitial Myocardial Fibrosis In Patients Having Pure Severe Aortic Stenosis
31. To Evaluate The Outcomes After Minimally Invasive Cardiac Surgery In Adult Patients With Tof Physiology

Department. of Cardiovascular Radiology & Endovascular Interventions

Funded Projects

Ongoing

1. Measuring and treating iron overload in thalassemia patients in India to improve the survival, Dr Priya Jagia, AIIMS–UCL Grant, 2 years, 2022-24, Rs 5 Lakhs
2. Precision Cardiovascular Disease Phenotyping and Pathophysiological Pathways in the CARRS cohort (Precision-CARRS), Dr Nikhil Tandon (Dr Priya Jagia as one of investigator), National Institute of Health, USA,---,---,---,---
3. Safety and efficacy of Bariatric artery embolization in class 1 Obesity, Sanjeev Kumar, ICMR, 2022-24, Rs 5 Lakhs

Completed

1. 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-Intramural, 2 with extension, 2019-22, Rs 4.9 Lakhs

Research over past 3 years

Research projects	2021-22	2022-2023	2023-2024
Total funded projects	1	1	1
Total funding	Rs 5 Lakhs	Rs 5 Lakhs	Rs 5 Lakhs

Research projects	2021-22	2022-2023	2023-2024
Total funded projects	1	1	1
Total funding	Rs 5 Lakhs	Rs 5 Lakhs	Rs 5 Lakhs

Departmental Projects (including Thesis/Dissertations)

Ongoing

1. Assessment of aortic flow patterns and wall shear stress maps by 4D-flow cardiovascular magnetic resonance in patients with bicuspid aortic valve
2. Assessment of Impact of Thyroid Arteries' Embolization on Quality of Life in Nodular Thyroid Goiters-A Pilot Study
3. Comparison of 4D flow and 2D Phase contrast MRI in the evaluation for pulmonary hypertension in patients with ventricular septal defect
4. Comparison of 4D Flow and 2D Phase contrast MRI in the evaluation of pulmonary hypertension in patients with ventricular septal defects
5. Comparison of Image quality, radiation dose and diagnostic accuracy of Retrospective gated CTVS gated flash in the evaluation of coronary arteries in older children with CHD
6. Correlation of different myocardial scar quantification method by cardiac MRI for prognostication of patients with hypertrophic cardiomyopathy
7. Correlation of epicardial adipose tissue burden and hepatic attenuation with coronary artery calcium score in patients with diabetic mellitus
8. Double Blinded Randomized Controlled Trial evaluating the feasibility, safety and efficary of Obturator Nerve combined with femoral nerve block for analgesia in patients with varicose veins being treated by Endovenous Laser Ablation of Great Saphenous Vein
9. Evaluation of left arterial in patients with hypertrophic cardiomyopathy and comparison with healthy controls on cardiac magnetic resonance imaging study
10. Evaluation of left ventricular outflow tract and direct quantification of mitral regurgitation in hypertrophic cardiomyopathy using four dimensional phase contrast MRI

11. Evaluation of prognostic value of quantitative and qualitative coronary plaques analysis in predicting major adverse cardiovascular events in patients of coronary artery disease
12. Potential role of Native T1, T2 mapping and left ventricular myocardial strain in cardiac magnetic resonance imaging as imaging biomarkers in patients with server aortic stenosis undergoing surgical aortic valve replacement and correlation with outcome
13. Safety and efficacy of uterine artery embolisation in adenomyosis refractory to conservative management
14. Superior Rectal artery embolisation for grade II/III hemorrhoids-a pilot study
15. Superior Rectal artery embolization for grade II/III hemorrhoids-a pilot study
16. Supplementary role of CT Coronary Angiography in the assessment of cardiac diastolic function
17. Trams-arterial embolisation for chronic Achilles tendinopathy refractory to conservative management
18. Transaterial Embolization For Clinical Improvement In Adhesive Capasulitis

Completed

1. Assessment of impact of thyroid artery embolization on quality of life in nodular goiter patients
2. Correlation of intrathoracic fat parameters and extra coronary calcium with the presence and severity of coronary artery disease and major adverse cardiovascular events
3. Dose reduction at coronary artery calcium scoring using low tube voltage and tin filtration with advanced calcium-aware image reconstruction technique
4. Evaluation of left Ventricular Myocardial involvement in Rheumatic Heart Disease (Progressive & Asymptomatic Severe Compensated Valvular Heart Disease) Using Cardiac Magnetic Resonance Imaging
5. Evaluation of routability of interventricular communication/VSD in patients of DORV using virtual dissection of multidetector CT angiography images
6. Randomized controlled rial evaluating the efficacy of trans-catheter genicular arterial embolisation with knee pain in Kellgren Lawrence grade II/III osteoarthritis refractory to optimal non-surgical management
7. Role of 4D Flow MRI parameters (Wall shear stress and pulse wave velocity change) in assessing disease activity and detection of deceased vascular segments in Takayasu's arteritis
8. Role of Cardiac magnetic resonance strain analysis in myocardial iron overload
9. Transaterial Embolization For Clinical Improvement In Adhesive Capasulitis

Collaborative Projects

Ongoing

1. Cine–fluoroscopy and phonocardiographic based data acquisition in patients with prosthetic Heart Valves, IIT, New Delhi & AIIMS
2. Short and mid-term outcomes of iatrogenic femoral arterial and venous thrombosis in children with heart disease: A prospective observational study, Cardiology
3. The effects of leaving Antegrade Pulmonary Blood flow open on the Development of Pulmonary arteriovenous malformations post bidirectional superior Cavopulmonary Anasamosis–A Restrospective Observational Study, CTVS

Completed

1. Applied novel statistical learning and modeling techniques on CT imaging features for prediction of growth of Stanford Type B Aortic Dissection and real options financial assessment of such health care technology, AIIMS-IIT Project
2. DE-CMR compared with FDG-PET for assessment of viability and prediction of functional improvement in patients with CAD and LV dysfunction, Cardiology
3. Impact of bariatric surgery in reduction of cardiovascular risk in morbid obesity, Surgery
4. Preparation and study of radiochromic film as radiation dosimeter for medical applications, Radiation Physics

5. Role of 68 Ga-DOTANOC PET/CT in cardiac sarcoidosis; comparison with cardiac MR, Nuclear Medicine
6. Role of cardiac magnetic resonance imaging in identification of myocardial fibrosis and wall morphology in patients of nonischemic dilated cardiomyopathy, Cardiology

NUCLEAR MEDICINE DEPARTMENT

Funded *projects*

Ongoing

1. International study on imaging in Cardio-Oncology Study (iCOS), Dr Chetan D Patel, International Atomic Energy Agency (IAEA), 5 years, September 2019-ongoing, Rs 25,000 Euros
2. Transthyretin Amyloid Cardiomyopathy study (iTAC study), Dr Bangkim Chandra (PI) & Dr Chetan D Patel (co-PI), International Atomic Energy Agency (IAEA), 5 years, 2021-ongoing, Rs 25,000 Euros

Completed

None

Department projects (including thesis/dissertations)

Ongoing

1. A Machine learning approach to classify skeletal metastasis in bone scintigraphy
2. Comparison of Emory, Cedar Sinai, 4D-MSPECT and Myometrix softwares for the assessment of Left Ventricular Ejection fraction & Left ventricular volumes using Tc99m-MIBI on CZT SPECT: Correlation with 2D-Echocardiography
3. Comparison of Ga-68 DOTANOC PET-CT with F-18 FDG PET-CT in diagnosis of Cardiac Sarcoidosis
4. Comparison of normal field of view and extended field of view in obese patients undergoing myocardial perfusion SPECT on CZT camera
5. Design and methods of the YOGICAD study-A probe trial to evaluate the efficacy of yoga based cardiac rehabilitation in Post PCI patients
6. Establishment of normal values of LVEF on 99mTc-MIBI myocardial perfusion CZT SPECT in the Indian population: A correlative analysis with four cardiac software platforms and 2D echocardiography
7. Normative data of percent colonic transit and its correlation with colonic geometric center
8. Prediction of high-volume disease in treatment naïve prostate cancer patients undergoing PSMA PET/CT: a machine learning approach
9. Radionomics for prostate cancer risk stratification: a machine learning approach
10. Role of pre-processing before compression nuclear medicine image in discrete cosine transformation
11. SPECT Image enhancement using fuzzy logic INT operator

Completed

1. Dynamic salivary scintigraphy: normal pattern and reference values in Indian Population
2. Hepatobiliary scintigraphy evaluation of gall bladder ejection fraction using fatty meal protocol: establishment of reference values in the Indian population
3. Incremental value of CT over planar and SPECT alone in evaluation of solitary lesion on bone scintigraphy
4. Role of 99mTc-Pyrophosphate Imaging in detection of transthyretin cardiac amyloidosis (ATTR-cardiac amylodosis) in high risk population
5. Role of PET-CT in assessment of treatment response to neo adjuvant chemotherapy in primary extraocular retinoblastoma
6. Role of SPECT-CT bone scan in evaluation of vertebral lesions and its advantages over planar bone scintigraphy

7. Study of prevalence of concomitant Transthyretin Amyloidosis in elderly patients with severe aortic stenosis by PYP scan
8. Validation of Dynamic stochastic resonance for converting a low count nuclear medicine image into a high count image: a phantom study

Collaborative projects

Ongoing

1. Aortic and lung inflammation following COVID: a marker of cardiac event an Indo-Australian joint project-funded by Department of Science & Technology, Cardiology
2. Diagnostic Accuracy of 68Ga PSMA-11 PET-CT and conventional Imaging for Initial staging of Intermediate and High Risk Prostrate cancer Patients (PROCA study), Urology
3. Efficacy of yoga based cardiac rehabilitation in Post-PCI patients: A prospective randomized, open-label, blinded end-point trial-funded by Ministry of AYUSH, CIMR, Cardiology
4. Inflammatory Cardiomyopathy: A study using Artificial Intelligence to validate a diagnostic algorithm combining novel proteomic biomarkers, non-contrast MRI and somatostatin receptor based PET/CT, Cardiology, Cardiac Radiology

Completed

1. A study to determine the prognosis of patients with cardiac involvement with sarcoid: development of diagnostic and treatment algorithms., Cardiology, Cardiac Radiology
2. Gastric Emptying Scintigraphy using a Standard Vegetarian Meal: Establishment of Reference Values in Post-Sleeve Gastrectomy Patients on Mid-Term Follow-up, Surgery

Research over past 3 years

Research projects	2021-2022	2022-2023	2023-2024
Total funded projects	1	2	2
Total funding Project 1-25, 000 Euros Project 2-25, 000 Euros	 5000 euros/year -	 5000 euros/year 5000 euros/year	 5000 euros/year 5000 euros/year

Stem Cell Facility

Funded projects

Ongoing

1. A comparative analysis of secretome of mesenchymal stem cells derived from different sources, with a focus on immunosuppressive potential in acute GvHD, Dr Ranjit Sahoo (PI), Dr Sujata Mohanty (Co-PI), ICMR, 3 years, 2022–25, Rs 61 Lakhs
2. Autologous ex-vivo cultivated limbal epithelial transplantation for the treatment of unilateral limbal stem cell deficiency due to ocular burns: a multi-centre randomized control trial, Dr Radhika Tandon (PI), Dr Sujata Mohanty (Co-PI), DHR, 3 years, 2022–25, Rs 90 Lakhs
3. Centre Of Excellence for Stem Cell Research: Basic and Translational (Phase-II), Dr Sujata Mohanty, DBT, 5 years, 2017–22, Rs 292 Lakhs
4. Development of Amniotic Membrane and Nano-Fiber Composite Scaffold for Tissue Regeneration, Dr Sujata Mohanty, DBT, 2 years, 2022–24, Rs 82 Lakhs
5. Development of exosome based off the shelf product for wound healing, Dr Sujata Mohanty, DBT-BIRAC, 2 years, 2020–22, Rs 50 Lakhs
6. Indo-US joint center: “Cellular reprogramming in Regenerative Medicine” with University of Indiana, Dr Sujata Mohanty, IUSSTF, 3 years, 2019–22, Rs 38 Lakhs

7. Intra-articular injection of autologous tissue-derived stromal vascular fraction or Hyaluronic acid for the treatment of symptomatic knee OA: a randomized control trial, Dr Sujata Mohanty, AIIMS, 1 years, 2020–21, Rs 5 Lakhs
8. Strategies to enhance stem cell delivery to the retina using iron oxide nanoparticle, Dr Sujata Mohanty, DBT, 4 years, 2019–23, Rs 85 Lakhs
9. To Investigate the Role of human Mesenchymal Stem Cell Derived Exosomes as a Cell Free Therapeutic Approach for amelioration of symptoms of autism spectrum disorders, Dr Sujata Mohanty, DBT, 3 years, 2022–25, Rs 75 Lakhs

Department projects (including thesis/dissertations)

Ongoing

1. Development of Bioengineered extracellular vesicles derived from human mesenchymal stem cells as a therapeutic intervention for liver disease
2. Development of human amniotic membrane and silk-based 3D printed scaffolds for stem cells and regenerative medicine
3. Elucidating the regenerative capabilities of exosomes derived from tissue specific mesenchymal stem cells in skin injury model

Completed

1. Evaluation of immunomodulatory properties of human mesenchymal stem cells
2. Hepatic regenerative potential of exosomes derived from human mesenchymal stem cells in liver fibrosis model

Collaborative projects

Completed

1. 3D printed tracheal grafts for regenerative applications
2. Immunomodulatory properties of mesenchymal stem cells in graft-versus-host-disease
3. Synthesis and characterization of the carbon-based nanostructures from bio-wastes for stem cell differentiation
4. Understanding the role of platelet-neutrophil interaction in dengue pathogenesis

Oral/poster presentations over past 3 years

Year	2020-2021	2021-2022	2022-2023	2023-24
Total number of funded projects	17	08	11	11
Total amount of extramural/intramural funding (Rs)	66,800,000	64,500,000	85,110,797	46,600,000

PUBLICATIONS

Blood Transfusion Services: 1

Journal articles: 1 **Abstracts: 0** **Chapters in books: 0**

Cardiology

Journal articles: 89

Department of Cardio-Thoracic & Vascular Surgery:

PUBLICATIONS: 24

Journal articles: 22

Department of Cardiovascular Radiology & Endovascular Interventions

PUBLICATIONS: 24

Journal Articles: 16 **Abstracts: 1** **Chapters in Books: 7**

Nuclear Medicine Department:

PUBLICATIONS: 21

Journal articles: 10 **Abstracts: 11**

STEM CELL FACILITY:

Total number of publications: 12

Total number of Journal articles: 10

Total numbers of chapters in book: 02

Blood Transfusion Services

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total	9	7	8
Journal articles	9	7	8
Abstracts	0	1	1
Chapters in books	0	1	1

Cardiology

Publications over past 3 years

Item	2021–2022	2022–2023	2023–2024
Total			
Journal articles	11	8	14
Abstracts	-	-	
Chapters in books	2	4	-
Books			

Department of Cardio-thoracic & Vascular Surgery

Department of Cardiovascular Radiology & Endovascular Interventions

Publications over past 3 years

Item	2021–2022	2022-2023	2023-2024
Total	62	53	42
Journal Articles	61	52	41
Abstracts	1	1	1
Chapters in books	1	1	5
Books	0	0	0

Nuclear Medicine Department

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Journal articles	14	10	10
Abstracts	5	18	11
Chapters in books	-	-	-
Books	-	-	-

STEM CELL FACILITY

Journals articles

Publications over past 3 years

Year	2021-2022	2022-2023	2023-24
Total number of publications	27	24	14
Total number of Journal articles	25	18	10
Total number of Abstracts	NIL	NIL	NIL
Total numbers of chapters in book	02	06	02
Total numbers of books/ Monograph	NIL	NIL	NIL

PATIENT CARE

Blood Transfusion Services

Blood Units Collected	2021-22	2022-23	2023-24
Replacement donors	9090	12318	13819
Voluntary donors in the department	241	399	222
Voluntary through blood mobiles	683	693	1371
Family Voluntary Donors	5995	5865	4880
SDP Donors	55	47	68
Blood received from Hosp. Blood Bank, AIIMS	63	94	224
Blood received from JPNATC, AIIMS	29	41	77
Blood received from other hospital	68	87	149
Total No. of Blood units collected	16224	19591	20742
BLOOD UNITS ISSUED			
Blood units issued to CTVS/NS	16832	20471	21560
Blood issued to Hosp. Blood Bank, AIIMS	308	396	40
Blood issued to JPNATC	215	469	141
Blood issued to other hospitals	910	1974	2251
HIV/HBsAg/HCV reactive units discard	504	696	810
Total No. of blood units issued	18265	23310	23992

LAB PROCEDURES			
Total no. of Blood grouping(ABO)	66142	89425	87935
Total no. of Blood grouping(Rh)	66142	89425	87935
Total no. of Cross matching done	97981	127806	147186
INFECTIOUS MARKERS			
HIV Testing	19437	22316	22809
HBV Testing	18521	21655	21981
HCV Testing	18491	21539	21948
Syphilis Testing	18637	21244	21763
MP testing	17300	20800	20325
Total TTI Tests	92386	107554	108826
NO. OF BLOOD COMPONENTS ISSUED			
Fresh Frozen Plasma (FFP)	15858	20158	20004
Platelet Concentrate	9907	10663	11791
Cryoprecipitate	1326	1798	2451
Packed Red Cells	18265	23310	23992
Single Donor Plateletpheresis	55	47	68
Total	**45411**	**55976**	**58374**

Cardiac Anaesthesia and Critical Care

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 cogitative 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. Special involvement with anesthesia for complex congenital heart surgery
6. Team member of heart failure treatment like heart transplant & LVAD
7. Transesophageal Echocardiography
8. Community Service-Charitable health camps and health education
9. Special involvement with anesthesia for complex congenital heart surgery and OPCAB
10. Team member of heart failure treatment like heart transplant & LVAD
11. Transesophageal Echocardiography
12. Community Service-Charitable health camps and health education

Cardiac Pathology

Specimens

Routine - 2850 Nos. of cases
Research - 1400 Nos. of cases
Others works - Immunohistochemistry-276 slides
H & E stain-4200 slides
Special stains-1608 slides

Manual processing of post-transplant biopsies-276 cases
Cutting of blocks (unstained sections)-534 slides
CARDIOLOGY

Total numbers

New OPD cases	**31, 722**
Old Cardiology Cases	**79, 339**

Patient Services

• TMT	696
• Holter	2937
• Echocardiography	31, 390
• ECG	37, 906
• ABP	108
• TEE	288
• HUTT	156

Cath Lab Services

CART	1564
Cath	759
Balloon Dilatation	141
PTMC	300
PDA	114
ASD Device	153
VSD Device	09
PTCA	1493
Pacemakers	431
ICD	44
CRT	66
RFA	156
CARTO	33
DSA	91
Coil Embolization	160
BAS	62
EM Biopsy	42
TAVI/TMVR/TPVI	35

Department of Cardiac Biochemistry

The Cardiac Biochemistry laboratory offers diagnostic to patients of CN Centre and the lab operates as combined centralized laboratory for CN Centre catering to more than 1.85, 772 patients (Table below) . The lab offers blood collection facility to all patients attending OPD of C N center and samples for routine tests are transferred to the SMART LAB in a timely manner. Diagnostic testing in the area of Hematology (hemogram, PT/INR, APTT, protein C, protein S, D-Dimer and fibrinogen): HbA1c: Cardiac markers such as Troponin t, NT-pro-BNP, myoglobin CK MB.): sepsis markers procalcitonin, IL-6 and drug testing for digoxin and tacrolimus are done for C. T. Centre forward and OPD patients. The Diagnostic Test facility statistics for the FY-2023-24 is provided in the table below.

Diagnostic Test facility statistics for the FY-2023-24 (Cardiac Biochemistry)

Diagnostic Test facilities	CNC Lab	Sample sent to SMART Lab
(A) Blood Collection	1, 85, 772	Nil
(B) Hematology		

Complete blood count (Differential)	13, 674 (only Cardio wards)	21, 880 (OPD samples sent to SMART lab)
(C) Coagulation Profile		
PT/APTT	49, 414	Nil
Protein C	24	Nil
Protein S	25	Nil
Fibrinogen	12	Nil
D-Dimer	50	Nil
(D)HbA1c	15, 000	16, 392
(E) Chemiluminescence Analyzer based testing		
1. Tacrolimus	5000	Nil
2. NT-proBNP	2660	Nil
3. IL-6	350	Nil
4. Procalcitonin	2700	Nil
5. Trop T	260	Nil
6. Myoglobin	50	Nil
7. CKMB	380	Nil
8. Digoxin	150	Nil

Department of Cardio-thoracic &Vascular Surgery

Close to 3349 patients underwent various cardiac surgical cardiac procedures. These encompassed the entire spectrum of Cardiothoracic and Vascular surgery. More than 1255 were pediatric cases below five years of age with critical cardiac illnesses since birth. An important highlight was that with the active support from the JSSK scheme of the Govt of India, the number of patients below 1 year of age (n= 217) undergoing surgery increased. Using a multidisciplinary team approach, the department actively pursued the transplant program In collaboration with department of Cardiology; In collaboration with department of Cardiology, 2335 patients across all ages were admitted to CTVS wards were treated on an in-patient basis. Close to 148832 patients were attended to in the outpatient services. These included 31722 new cases, 79399 old cases and 37771 old cases. The acticaigolation clinic catered to 930 cases and the aortic clinic catered to 109 cases.

The department has steadily being seeing an increasing number of patients in the weekly held “Anticoagulation Clinic “ on Sunday that facilitates the follow up of patients of valvular heart surgery who are mostly from underprivilege section of society. This not only provides all the desired amenities in a single visit, but it also prevents loss of wages. It is first of its kind initiative in India which provides all the required services to follow up patients on walk-in basis. A dedicated aortic clinic is held to faciliataeorotocol based management of patients with diseases of the aorta and the vascular tree.

The facilities and infrastructure

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.

ICU Beds: The Department has 4 ICUs (54 beds) fully equipped with all advanced facilities for postoperative cardiovascular surgical care.

ICU-A: 16 Beds	ICU–B: 18 Beds
Neonatal ICU: 8 Beds	CT-5 ICU: 12 Beds

All beds are fully equipped and all facilities for cardiac intensive care are available.

General Beds: The bed strength in the wards is follows:

CT-4 Ward: 42 Beds + 2 Isolation beds

CT-5 Ward: 24 Beds (In addition, 12 beds in CT5 ICU as above) + 2 Isolation beds

CT-6 Ward: 12 Beds

CN Tower (Private Ward): Thirty-two (32) beds in private / paying ward, shared with Department of Cardiology

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.

Supportive services: Five cardiac catheterization labs including, advanced CT scan, MRI, nuclear medicine, ultra-sound, and echocardiography lab, state-of-the-art blood bank, and laboratory services.

Department of Cardiovascular Radiology & Endovascular Interventions

Item	2021–2022	2022-2023	2023-2024
MRI	819	1105	1218
CT	4597	6564	8039
DSA/venogram	713	1275	1805
Doppler and Ultrasound	4027	6830	6826

Nuclear Medicine Department

Nuclear medicine (CTC) underwent renovation and the old conventional camera was replaced by a dedicated cardiac CZT SPECT system. Due to which the services were disrupted during this period and fewer number of patient studies were performed compared to last year. The new camera is now fully functional and the diagnostic nuclear cardiological procedures are now routinely performed. We also performed cardiac PET imaging for both ischemic and non-ischemic causes of Cardiomyopathy. F-18 FDG for assessment of myocardial viability, infective endocarditis and Gallium-68 DOTANOC for inflammatory cardiomyopathies was performed routinely. Technetium-PYP scans were also performed for patients referred for cardiac Amyloidosis.

Total Number of patients investigated in Nuclear Cardiology from 1 April 23 to 31 March 2024

Myocardial perfusion study: 993

RNV study: 32

Cardiac PET 220

Misc. (V/Q scan, PYP scans): 65

Total number of studies performed-1308

Item	2021-2022	2022-2023	2023-2024
OPD consultations (Diagnostic procedures)	1613	2531	1308

Stem Cell Facility

1. Clinical Research: I am actively involved in the ongoing Clinical trials using autologous bone marrow derived mononuclear cell to evaluate their safety & feasibility in various disorders, like, Corneal Opacity (ocular surface disorder), Vitiligo, Bone regeneration.
2. Dedicated cGMP (current good manufacturing practices) laboratory for clinical research and patient care.
3. Establishment of animal Models for various diseases, like, liver fibrosis, skin wound model etc. for pre-clinical studies using Stem Cells.

4. Maintaining Quality Assurance and Quality Control of all procedures involved in isolation and processing of Stem Cells.
5. Cryopreservation of Stem Cells from Bone Marrow and Umbilical Cord Blood.
6. iPSCs generation from healthy and Megalencephalic leukoencephalopathy patients and development of *in vitro* model of traumatic hemorrhage shock syndrome.
7. Amniotic Membrane Grafts: Recently, we have extended the Amniotic Membrane Graft distribution services from RPC, AIIMS to other departments of AIIMS (Pediatrics Surgery, Trauma Center, AIIMS) and to other Hospitals within and outside Delhi (ESI Hospital, Safdarjung Hospital, Dr Ram Manohar Lohia Hospital, etc.).

S. No.	Service Provided	Number of samples processed		
		2021-2022	2022-2023	2023-24
1.	Stem Cell Isolation from Bone Marrow	25	22	
2.	Stem Cell Isolation from Adipose Tissue	05	06	
3.	Stem Cell Isolation from Wharton's Jelly	12	20	
4.	MNC Isolation from Bone Marrow	02	06	
5.	MNC Isolation and Cryopreservation from Umbilical Cord Blood	04	03	
6.	Cryopreservation of Apheresis sample	09	20	
7.	Cultured Oral Mucosa Epithelial Transplantation	04	28	
8.	Culture Limbal Epithelial Transplant	03	05	
9.	Viability of stem cells (pre & post transplantation/infusion)	15	06	
10.	Amniotic Membrane preparation for grafting	20 batches (500 vials)	14 batches (420 vials)	
11.	Stem Cell Enumeration (CD34+ count)	06	05	

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Blood Transfusion Services

None

Cardiac Anaesthesia and Critical Care

Professor Neeti Makhija was felicitated in the inaugural function of 16th Annual Perioperative and Critical Care Echocardiography workshop from 11-13 March 2022 at PGIMER, Chandigarh; Chaired the session titled "ECHO in Hemodynamics and CPB weaning" & "congenital heart disease" in the 16th Annual Perioperative and Critical Care Echocardiography workshop from 11-13 March 2022 at PGIMER, Chandigarh that included following topics: Hemodynamic Calculation using TEE; Strain and speckle tracking–technique, advances and limitations; Echo in CPB weaning; Systematic approach to segmental analysis in congenital heart disease; Chaired a session on "How the expert handle adversaries?" on 22 October in the 21st Annual Conference of Pediatric Cardiac Society of India–PCSI 2021 held from 16 and 24 October 2021 in hybrid mode. The session included following lectures: Failure to wean from ventilator, Post op refractory low cardiac output, Severe pulmonary hypertension with extubation failure; The following paper with myself as co-guide was awarded third prize in the oral free paper session-Malhotra R, Das SN, Chauhan S, Makhija N, Choudhury M, Lakshmy R. Impact of Preoperative Vitamin D deficiency on Post operative outcomes in adult cardiac surgery. Paper was presented surgery in 25th Annual Conference of the Indian Association of Cardio Thoracic and Vascular Anesthesiologists (IACTACON 2022) held in the cultural capital of Tamil Nadu-Madurai from 25 March 22-27 March 22.

Professor Poonam Malhotra Kapoor Received the "Icon of the Cardiac Anesthesia and ECMO in the world Award" on the Occasion of Multispecialty International Consensus on Heart Failure in Women (MIC-HFW-2024). Sunday, February

25 February 2024; Received the "Iconic National Award" by Indian Medical Association New Delhi branch on the occasion of National doctor's day Celebration (16 July 2023) for contribution to Medical Sciences; Appointed as Guest Editor of JAAPI–an International journal in Medicine and Healthcare from USA; Continuing as President of South West Asia and Africa Chapter of the. Extracorporeal Life Support Organization (SWACELSO) for the year 2022-24; Chief Editor of TCC (Textbook of cardiac critical care) released in February 2023 at Indore ISCCM Conference released in April 2023; Continuing as Founding Secretary and Chairman Academics of "The Simulation Society"; Founder Editor-In-Chief. Journal of Cardiac Critical Care, 7.2, 7.3 and 8.1 issues of JCCC TSS in the year 2022–2023 from 2016 to till date; Continuing as "Fellow of International Society of Cardiovascular Ultrasound: 2023-24" by the International Society of Cardiovascular Ultrasound (ISCU) Society, Alabama USA, for my contribution to Echocardiography in cardiac sciences; President of SCA-Delhi and NCR Branch for a term of 5 years (2022-2027). Continue to be a founder member of SCA-Delhi & NCR Branch of IACTA; Editor in Chief of Textbook of Cardiac Critical Care, released by Hon'ble Director of AIIMS.

ACTIVITIES UNDERTAKEN IN 2023-24

1. Released 3 issues of the Journal of the JCCC TSS journal as Editor in Chief.
2. (7.1, 7.2, 7.3 and 8.1 issue) and getting it higher indexing in 2023-24
3. Edited the Textbook of Cardiac Critical Care and released it at AIIMS by Professor M Srinivas-Director, AIIMS, New Delhi
4. Organized 7 seminars, 10 Webinars and 2 workshops under TSS and SCA-Delhi & NCR Branch as academic administrative in-charge
5. Online TSS JCCC fellowships and examinations in Cardiac Critical care, ECMO, Echocardiography and Cardio Diabetes

Continuing the Charitable work in Gurukul and Ram Memorial Clinic in New Delhi, last 20 years with 19 students in the Gurukul residing for free and studying "Kashividhya



Examiner:

a. Was Examiner for:

i. DM Cardiac Anaesthesia (AIIMS, New Delhi)

ii. DM Cardiac Anaesthesia (UN Mehta)

iii. DM Cardiac Anaesthesia, PGIMER, Kolkata; Moderated and Examiner for DNB Cardiac Anaesthesia

iv. DM Cardiac Anaesthesia at SCITMST

v. Moderated DNB Questions papers in July 2023

b. Checking of DISSERTATIONS and Thesis for

MD, Cardiac Anaesthesia, PGIMER, Kolkata (Online)

MD, Cardiac Anaesthesia, U. N Mehta, Ahmedabad (Online)

MD Anaesthesia Delhi University (Online)

Professor Minati Choudhury Invited as a faculty by Royal University Hospital Liverpool, UK to deliver lectures [online]; Selected as the associate editor of Journal of Neonatal critical care and anaesthesia; Invited as external expert in several meetings of Indian college of Anaesthesiologist; My work titled as "Anesthetic management of neonate Blacock Taussig shunt received the best paper award in 2nd Neonatal Anaesthesia conference[LHMC, New Delhi 30 July 2023); Felicitated by The Society of Cardiac Anaesthesia and Journal of Critical care for the outstanding Clinical work and teaching in Cardiac anaesthesiology and critical care.

Professor Suruchi Hasija was AIIMS Research Excellence Award 2022: Dr Surendra K Chawla award for best paper in Cardiothoracic Surgery. AIIMS 3rd Research Day, 30 January 2024, AIIMS, New Delhi.

Professor Arindam Choudhury was CARDIAC PATHOLOGY; Treasure, Dermatopathology society of India (DSI); Member, Indian society of heart research (ISHR); Executive member, Indian society of atherosclerotic research (ISHR); Member, Indian society of heart and lung transplantation (ISHLT); Associate editor, IJDPPD journal; Reviewer, Indian journal of pathology and microbiology (IJPM); Member. International academy of Pathology-Indian division (IAPID); Reviewer, Journal of practice of cardiovascular sciences (JPCS).

Cardiology

Professor Sandeep Seth-Editor in Chief, JPCS.
Professor Nitish Naik was Editor, Indian Heart Journal.
Professor Rakesh Yadav was Vice President, CSI.
Professor Sandeep Singh was Executive director, School of International Biodesign.
Professor Karthikeyan G was Director, Translational Health Science and Technology Institute; Executive editor, Heart; Associate Editor, European Heart Journal, South Asia.

Professor Gautam Sharma was Distinguished Professor (Honorary) in the division of Yoga & Life Sciences of Swami Vivekananda Yoga "Anuswandhana Samsthana" (S-VYASA), Bengaluru, Karnataka.

Professor Ambuj Roy-Nodal Officer, National Resource Centre of National Medical College Network of MOHFW, GOI; Member, Institute Body, JIPMER, Puducherry; Head, Skill, e-Learning & Telemedicine (SET) Facility, AIIMS, New Delhi, India; Expert, Standing Selection Committee Meeting by AIIMS Patna; Expert Selection Committee, AIIMS, Bhubaneswar; Expert Selection Committee, Nizam's Institute of Medical Sciences, Hyderabad; Elected Fellow, National Academy of Medical Sciences (India); Steering Committee Member and National Principal Investigator of G-CHF (Global Congestive Heart Failure) Registry; Steering Committee Member and National Co-Principal Investigator of COLchicine and Thiamine in Heart Failure due to ischemic heart disease (COLT-HF); Steering Committee member of The National Heart Failure Registry; Steering Committee member of NIH-sponsored I-TREC study; Steering Committee member of TOPSPIN Trial; Member of the GBD India CVD Expert Group; Fellowship, Royal College of Physicians, Edinburgh (UK); Member, Task Force Committee of ICMR for Cardiovascular Research in India; Chairperson, Project Review Committee (cardiovascular diseases) of ICMR, New Delhi; Member, Managing Committee, KL Wig Center for Medical Education and Technology, AIIMS, New Delhi, India; Member, Dean's Committee, AIIMS, New Delhi, India; Member, Dean's Research Committee, AIIMS, New Delhi; Member, Institute Ethics Committee (Post Graduates) at AIIMS, New Delhi, India; Member, Institute Ethics Committee-Subcommittee for Serious Adverse Events in clinical trials; Chairman, National Health Research Priority ICMR project "An implementation research study on developing a high-quality patient-centric integrated model for emergency care systems in selected districts of India" (INDIA-EMS)".

Professor S Ramakrishnan was Chief Editor of Annals of Pediatric Cardiology; Treasurer of National Rheumatic Heart Consortium; Associate editor of JPCS; National PI. Latecomer clinical trial in STEMI; Co-PI and task force member, India Hypertension Management Initiative (IHMI); National coordinator, STEMI-ACT, an ICMR initiative; Member, International Travel Grant Award Committee, ICMR; Member, A National Program for the Management of STEMI in India; FPICS (Fellow of Pediatric and Congenital Interventional Cardiovascular Society); Performed the first fetal aortic valve balloon dilatation; Expert Selection Committee, JIPMER, Puducherry; Expert Selection Committee, ESI hospitals.

Professor Saurabh Gupta was Treasurer of Pediatric Cardiac Society of India; Executive editor, Annals of Pediatric Cardiology.

Dr Sourabh Agstam was Fellowship of American College of Cardiology (FACC).

Dr Lamk Kadiyani was Sujoy B Roy award Delhi CSI; Young investigator award PCSI 2023; Best intervention of the year-India Live 2024.

Department of Cardiac Biochemistry

For individual faculty members

Professor R Lakshmy was Technical expert for the Diet and Biomarker study (DABS) conducted by ICMR; Member of Scientific Advisory Committee (SAC) for National Institute of Nutrition, Hyderabad; Member of Project Review Committee for ICMR in the area of Diabetes; Member of Project Review Committee for ICMR in the area of NCD; Member of Ethics committee of Center for Chronic Disease Control (CCDC); Member of Ethics committee of Center for Nutrition Foundation of India (NFI); Reviewed articles for PLoS Global public health, Biomedicine & Pharmacotherapy, PloS one, Journal of Developmental Origins of Health and Disease, Medicine, , Frontiers in Public Health, The Journal of Nutritional Biochemistry, science.

Dr Manoj KT; AIIMS-RESEARCH EXCELLENCE AWARD-2022 (Awarded in January-2024); Review Board member of OBRS ethics committee (Delhi based start-up).; Advisory board member of Gowda (AI-ML-based start up with IIT-D partnership); Nominated as member of Review Board of MDPI journals (Applied Sciences, Bioengineering, Diagnostics, Journal of Clinical Medicine, Healthcare, Medicina, IJMS, Sensors etc.), PLOS One, Frontiers in Immunology, Cancer International etc.; Nominated as emerging Editors in the journal of Immunology and Immunology, Journal of Experimental Immunology (Wiley Publications); Nominated as member of Review Board of Indian Journal of Dermatology, Venereology and Leprology (IJDVL); Reviewer of National (IJDVL, Impact Factor = 3) and international Journal (British Journal of Dermatology, Impact Factor = 11.11).

Dr Ransi Ann Abraham; Reviewed articles for Journal of Lipid and Atherosclerosis

Department of Cardio-thoracic &Vascular Surgery
Professor Milind Hote; Received " Notable Contribution award for support of Organ transplant coordination for heart and lungs" by NOTTO at 13th Indian Organ Donation Day on 3 August 2023 at Manekshaw Centre New Delhi.

Professor Sachin Talwar was Conducted the Medical Camp organized by Ashoka Mission from 17-24 September 2023 at Leh, Ladakh; Appointed as a member of the Research Council of the Sree Chitra Thirunal Institute for Medical Sciences and Technology (SCTIMST), Thiruvananthapuram for the period of 3 years (2023-2026); Nominated as the President-elect of the Pediatric Cardiac Society of India (PCSI) for a period of two years; Appointed as an External Member for the Constitution of the Board of Studies in the Department of Cardiothoracic and Vascular Surgery at AIIMS, Bathinda; Conducted a live workshop on: "Fontan without Cardiopulmonary Bypass." the workshop on Surgeries for Congenital Heart Diseases at Sri Padmavathi Children's Heart Centre in Tirupati from 4-6 July 2023; Conducted paediatric cardiac workshop at SKIMS, Srinagar from 14-16 November 2023.

External Examiner

(a) Conducted the practical examination of Cardio Thoracic Surgery at Sri Jayadeva Institute of Cardiovascular Sciences & Research, Bangalore for NBEMS on 23-24 February 2024

(b) Conduct the practical examination of MCh (CTVS) from 8-9 December 2023 at GB Pant Hospital New Delhi

(c) Conduct the practical examination of Cardio Vascular & Thoracic Surgery at Sri Sathya Sai Institute of Higher Medical Sciences, EPIP Area, Whitefield, Bangalore-560066, Karnataka on 29-30 August 2023 for NBEMS

(d) Conducted the Practical examination in the subject of M.Ch (CTVS) on 23-24 September 2022 at the Sher-i-Kashmir Institute of Medical Sciences (SKIMS), Srinagar, Jammu & Kashmir

(e) Conducted the practical examination of Cardio Vascular & Thoracic Surgery (Part-1 Direct 6 years Course) at Sir Ganga Ram Hospital, New Delhi for NBEMS on 9-10 June 2022

Assisted the Selection Committee for faculty interview

(a) Assisted the Selection Committee of AIIMS, Bathinda as an External Expert for selection of faculty in the department of CTVS on 1 March 2024

(b) Assisted the Standing Selection Committee of AIIMS, Rishikesh for selection of faculty in the department of CTVS on 23 February 2024 through hybrid mode

(c) Assist the selection committee of AIIMS, Bhubaneswar as a Subject Expert for the selection of faculties in the department of CTVS at AIIMS, Bhubaneswar on 9 April 2023

(d) Assisted the Standing Selection Committee of PGI Chandigarh as an External Expert for promotion under APS to the post of Additional Professor, Cardiovascular and Thoracic Surgery on 28 July 2023

(e) Assisted the Selection Committee of George's Medical University, Lucknow as an Expert for the selection to the post of faculty in the department of CTVS on 6 November 2023

(f) Assisted the Selection Committee of the AIIMS, Bhubaneswar as an External Subject Expert for the selection of faculties in the Department of CTVS on 1 December 2023

Miscellaneous Academic assignments

(a) Executive director of the Society of Pediatric and congenital Heart Surgeons

(b) Governing council member of World Society of Pediatric and Congenital Heart surgery

(c) Governing council member of Asian Society of Pediatric and Congenital Heart surgery (APCHS)

(d) Governing council member of Asian Society of Pediatric and Congenital Heart surgery (ASVTS)

(e) Guest reviewer for Journal of Thoracic and Cardiovascular Surgery

(f) Guest reviewer for Annals of Thoracic Surgery

(g) Guest reviewer World Journal Pediatric and Congenital Heart surgery

(h) Guest reviewer for European Journal of Thoracic Surgery

(i) Guest reviewer for and Cardiovascular and Thoracic Annals

(j) Guest reviewer for Annals of Pediatric cardiology

(k) Practical Examiner for DNB exam for National Board of Examinations

(l) Setting Theory Question Papers in the specialty of Cardio Thoracic Surgery. National Board of Examinations

(m) Practical Examiner for DNB exam for National Board of Examinations

(n) Practical examination of M.Ch (CTVS) at SGPGIMS, Lucknow

A. Developed Newer techniques:

- **a.** Open techniques for completion of the Total Cavopulmonary Connection.
- **b.** Bidirectional Glenn: Open technique of anastomosis on cardiopulmonary bypass
- **c.** Simplified technique of Intra-Extracardiac Fontan.
- **d.** Simplified technique of Extracardiac Fontan without Bypass
- **e.** Simplified technique of BDG without Bypass

Professor V Devagourou; Conducted repair workshop at SMS Hospital, Jaipur on 9 June 2023; Chairperson on the following topics during the IACTS TECHNOCOLLEGE CME at UNMICRC, Ahmedabad from 28-30 April 2023; Ecmo: Update, Timing And Technique; Lvads, When And What; When To Refer For Transplant; Impella In Cardiac Surgery; Heart Transplant, The Process, Live In A Box; Post Op Considerations In Heart Transplant; Co-chaired a session on the following topics during the 3rd Annual Conference of the Heart Failure Foundation at Hotel Taj Airport–Bangalore from 22-23 July 2023; Does pre-transplant circulating antibodies predict AMR? Biopsy Negative rejection: an official new ISHLT rejection category? Strategies to prevent vasculopathy in Heart Transplant to improve survival; Invited to participate as a chairperson on the following topics during the 7th Amrita Heart Conclave 2023, a Workshop on Aortic Surgery at Amrita Institute of Medical Sciences and Research Center, Kochi from 9-10 December 2023; Surgical Repair of TAAA (Case demonstration and discussion); Postoperative Coagulopathy in Aortic Surgery.

Interviews

1. Assisted the selection committee for the interview of faculties at PGICH, Noida in the morning of 1 December 2023.
2. Assisted the Standing Selection Committee for the selection of faculty in the department of CTVS on 23 February 2024 through hybrid mode

Examiner

1. Conducted Practical Examination for MCh (CTVS) as an external examiner at SMS Hospital, Jaipur on 28 December 2023

2. conducted the practical examination at Shri Ramachandra Institute, Chennai from 2-3 February 2024

Moderator for the following Free Paper sessions during The 70th Annual Conference of the Indian Association of Cardiovascular & Thoracic Surgeons at Mayfair Lagoon & Convention, Bhubaneswar from 8-11 February 2024

i) Surgical valvuloplasty for neonatal aortic stenosis

ii) Ozaki operation in India: Where are we headed?

iii) Managing Supra-valvular Aortic stenosis in children

iv) Review of Techniques for Repair of Supra-valvular Aortic stenosis

Professor P Rajashekar; Interviews; Member for Staff Selection Committee as Subject expert for CTVS; JIPMER, Pondicherry and assisted in APS and Faculty selection for the Pediatric Cardiac Surgery & Vascular surgery; Member for Staff Selection Committee as Subject expert for CTVS, IGIMS, Patna and assisted in APS selection for the Department of CTVS; Member for Staff Selection Committee as Subject expert for CTVS, NIMS, Hyderabad and assisted in Faculty selection for the Pediatric Cardiac Surgery, Cardiac Surgery and Vascular **Surgery.**

Examiner

1. 27-28 November 2023, External Examiner, for CTVS, NIMS, Hyderabad
2. 16-17 December 2023 Internal Examiner M.Ch CTVS, AIIMS, New Delhi.

Notable Achievement

Assisted and made the Cardiac Surgical Team of Safdarjung Hospital to perform the Institute's First Cardiac Transplant and also extended surgical expert assistance and guidance in surgical management of complex congenital cardiac cases at Safdarjung Hospital.

Professor Manoj Sahu; Life Member of Indian Society of Anaesthesiologists (M-1077); Life Member of Indian Association of Cardiovascular and Thoracic Anaesthesia (CLS 171); Life Member of Indian Society of Critical Care Medicine (S-1197); Life Member of Pediatric Cardiology Society of India (L-678); Life Member of Indian Society of Echocardiography; Life Member of Indian Society of Heart & Lung Transplantation; Associate Editor of Journal of Cardiac Critical care.

Dr Sarvesh Pal Singh; Associate Editor: Journal of Cardiac Critical Care TSS; Member of the Advisory Board of the Indian Society for Heart and Lung Transplantation (INSHLT); Member of the Executive Committee of the Indian Society for Heart and Lung Transplantation (INSHLT); Member of the Bylaws Committee of the Indian Society for Heart and Lung Transplantation (INSHLT).

Dr Bharath HV; Participated as a faculty in PCSI 2023 surgical workshop held in Chennai during November 2023; Attended as a faculty in thoracic CME organized by IACTS virtually in December 2023; Reviewer of prestigious EACTS journal; Participated as a faculty in SENTIENT 2024 conference held in Bengaluru during January 2024; Participated as Chairperson in HFAI 2024 conference organized by Heart Failure Association of India during February 2024.

Dr Amitabh Satsangi; Awarded 2nd prize for best surgical poster in PCSI 2023; Awarded fellowship of American college of surgeons in 2023; Awarded membership of Asian Association for Pediatric and congenital Heart Surgery IN 2023; Awarded Membership of National academy of medical sciences in 2023.

Department of Cardiovascular Radiology & Endovascular Interventions

Professor Priya Jagia Editor (Volume Editor) for the IRIA Textbook of Radiology for the Volume III on Cardiac Imaging; Elected Subspecialty Head for 2 years for 2nd time for "Cardiac Radiology" by Indian Radiological Association IRIA; Conceptualized and moderated six month long teaching course in Cardiac Radiology by Indian Radiological Association IRIA (Total of 26 weekly seminars done for nationwide broadcast); Special Executive Member, Indian Association of Cardiac Imaging; President, CVREF (Cardiovascular Research and Education Forum); Examiner for DM Exam in CVR and IR in SCTIMST, Trivendrum; Examiner for Theory & Practical DNB Radiology Examinations, by National Board of Examinations; Examiner for Fellowship in Cardiac Imaging at AIIMS, Jodhpur; Reviewer for many National and International Radiology and Cardiology Journals - As Chairperson: "Aortic Stentgrafting" in Endovascular Live held on 10 August 2023 at Gangaram Hospital, New Delhi; "IR Treatment related to Head and Neck AVMs" in ISVIR Delhi NCR Chapter held on 20 August 2023 in New Delhi; Special Session on Cardiomyopathy–I: CME on Cardiac MRI held on 2 December 2023 in AIIMS, New Delhi; "Vision of Aortic India–Aortic aneurysm and Dissection" & Live/ Live in Box Case in 15th Asia Pacific Vascular Intervention Course (APVIC) held on 16 December 2023 in New Delhi;

Special Session on Intervention Radiology in Delhi Imaging Update 2023 by Delhi Branch of IRIA on 17 December 2023 in AIIMS, New Delhi; Session on foundation course in interventional radiology by Indian Society of Vascular and Interventional Radiology (ISVIR) held on 11-12 January 2024 in Jaipur-As Expert: Reading Challenging CMR Cases: Interactive Reporting with the Experts: CME on Cardiac MRI held on 2 December 2023 in AIIMS, New Delhi - As Panel Member: Discussion: How do I do CMR–Five Common Cases: CME on Cardiac MRI held on 2 December 2023 in AIIMS, New Delhi.

Dr Sanjeev Kumar Member of the ICMR STW committee in Interventional Radiology-drafted the STW for Aortic dissection; Reviewer for many National and International Radiology and Cardiology Journals; Secretary, Society of image guided therapy; Elected member of IR Subspecialty 2 years by Indian Radiological Association IRIA; Executive Member ISVIR; Examiner for DM Exam in CVR and IR in SCTIMST, Trivendrum and GGSIPU university; Examiner for Theory & Practical DNB Radiology Examinations, by National Board of Examinations - As Chairperson : Imaging in Non-Ischemic Cardiomyopathy : CME on Cardiac MRI held on 2 December 2023 in AIIMS, New Delhi; Special Session on Cardiomyopathy–II : CME on Cardiac MRI held on 2 December 2023 in AIIMS, New Delhi.

Dr Niraj Nirmal Pandey Editorial positions in journals: Deputy Editor, Radiology Advances, Radiological Society of North America; Academic Editor, Journal of Cardiac Surgery; Academic Editor, PLOS One; Academic Editor, BMC Cardiovascular Disorders; International Editorial Board Member–Cardiology in The Young; Guest Editor, Collection on Adult congenital heart disease (in progress)-BMC Cardiovascular Disorders; 1st prize in paper presentation for the work titled "Outcomes of Percutaneous Transluminal Renal Angioplasty in Non-specific Aorto-arteritis: A Single Centre Experience" at TSVIR, 2023 organized by the Thai Society of Vascular and Interventional Radiology from 13-15 October 2023 at Bangkok, Thailand; "Young Investigator Award 2023" by Indian Society of Vascular and Interventional Radiology at ISVIR, 2024 held at Jaipur, India; Best Image Contest Award Winner by Society for Cardiovascular Magnetic Resonance at CMR 2024 held at London, UK; Member of the ICMR STW committee in Interventional Radiology-drafted the STW for Image guided therapies for critical limb ischemia.

Nuclear Medicine Department

1. Editor, Indian Journal of Nuclear Medicine (Official Journal of Society of Nuclear Medicine, India) (Held this position till December 2023)
2. Reviewer for national and international academic journals
3. Executive Member, Nuclear Cardiological Society of India
4. External examiner for MD Nuclear Medicine examination at AIIMS, Rishikesh on 20 May 2023
5. Subject expert for faculty interview at King George's Medical University (KGMU), Lucknow, UP on 16 October 2023
6. Thesis evaluation for MD Nuclear Medicine, AIIMS, Rishikesh, September 2023
7. Paper Setter for MD Nuclear Medicine, SVIMS, Tirupati, August 2023
8. External examiner for PG Diploma in Radiation Medicine (DRM) Annual Examination-2024 (Batch-2021) held on 1-2 February at INMAS, Timarpur, Delhi
9. Member Store Purchase Committee of Center for Integrative Medicine & Research (CIMR)
10. Chairman, Selection Committee for recruitment of core staff at CIMR under COE Scheme, AYUSH

Stem Cell Facility

1. Convenor of Internation Conference-7th International Conference on Translational Research (7th ICTR)
2. Convenor of International Conference-IMMUNOCON50
3. Received the Third Prize under the Best Publication Award 2023 for the paper entitled "Promoting in vivo bone regeneration using facile engineered load-bearing 3D bioactive scaffold" at the AIIMS Research Day 2023
4. Received second prize in oral presentation in IMMUNOCON50 for the work entitled "Enhancing the immunomodulatory properties of human Mesenchymal stem cells derived small Extracellular Vesicles via hypoxia priming"
5. Received third prize in oral presentation in 7th ICTR for the work entitled "Extracellular Vesicles Derived from Hypoxia Primed Mesenchymal Stem Cells Play a Pivotal Role in Promoting Skin Tissue Regeneration"

6. Received Second Prize in oral presentation in 3rd AIIMS Annual Research Day for the work entitled "Dual Modification Strategies To Enhance The Targeting Efficiency Of Mesenchymal Stem Cell-derived Small Extracellular Vesicles
7. Received Third Prize in poster presentation in 3rd AIIMS Annual Research Day for the work entitled "Optimizing wound microenvironment via Mesenchymal Stem Cell derived small extracellular vesicles-loaded bioinspired scaffold with potent anti-inflammatory and anti-oxidative effects

Thesis reviewed

Institute	Title
NIRRCH (ICMR)	Investigating the effects of Neonatal Exposure to Estrogen on Mouse Testicular Stem Cells
Manipal (MAHE)	Significance of Wnt Signaling in the Regulation of Epigenetic
	Modifications of Mesenchymal Stem Cell Derived Cardiomyocytes
Manipal (MAHE)	Deciphering the role of p32 in melanoma tumor progression and metastasis
CSIR-IIIM, Jammu	Combatting Depression by targeting BDNF-TrkB axis using small molecule/s" University of Mumbai Studies on Stem Cells and their Niche in Mouse Ovary
KIIT Bhubaneshwar	Protein based Vascularized and Innervated Bioactive Scaffolds for Bone Tissue Engineering
NIRRCH (ICMR)	Investigating the effects of Neonatal Exposure to Estrogen on Mouse Testicular Stem Cells

Scientific Committee Member: I have been nominated as Member in various scientific bodies:

Member of Institute Committee for Stem Cell Research	• National Institute of Immunology, New Delhi • Institute of Liver & Biliary Sciences, New Delhi • National Brain Research Centre, Manesar • THSTI, Faridabad • IIT, Indore • University of Delhi • CSIR-Institute of Genomics & Integrative Biology (IGIB) • Indian Spinal Injuries Centre, New Delhi • Kavikrishna Lab IIT–Guwahati • Jamia Hamdard University • Shri Govind Singh Try-centenary University. • Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Puducherry • Regional Centre of Biotechnology (RCB), Faridabad. • Amity University, Noida • IISER Bhopal • Chairman, AIIMS, Jammu

Member: International/ National Bodies	• 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) • Board Member, International Society of Extracellular Vesicles (ISEV) • President, Indian Society for Extracellular Vesicles (In SEV)
Member of Advisory Bodies	• Core Committee for Stem Cell Donor Registry for Bone Marrow Transplant in India • Stem Cell Donor Registry, Ministry of Science &Family Welfare, Govt. of INDIA • High Powered Committee by Ministry of Health and Family Welfare, Govt. of India • Brainstorming meeting on Bio-fabrication& 3D Bio-printing • 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
Member of Advisory Bodies	• National Centre for Cell Science • Indian Association for Cancer Research • Aditya Jyoti Eye Hospital, New Delhi • Frontier Lifeline Hospital, New Delhi • AMITY University, Noida • Gangaram Hospital, New Delhi • Yash Raj Biotechnology, New Delhi • Vallabhai Chest Institute, New Delhi • MEDANTA, Gurugram • ICMR Bioethics Unit, Bangalore, CECHR • Subject Expert for selection and promotion of faculties, KGMU, Lucknow • IEC, IIT Delhi

Member-Research Grant Review Committee	• Project Monitoring Committee (BIRAC), DBT, Govt of India • Biotechnology Career Advancement and Reorientation Program 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 • SERB-Department of Science and Technology • DBT Technical/ Advisory Core Committee (TACC) • Project Monitoring Committee (PMC) • BIRAC-BIG Scheme
Member-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 • Future Science OA • Journal of Clinical and Translational Research • Asian Journal of Dental Sciences • Complementary Therapies in Clinical Practice • Frontiers Cellular Neuroscience • Research and Reviews of Infectious Diseases • International Wound Journal • Frontiers of bioengineering and biotechnology • Journal of Extracellular Vesicles
Member-Editorial Committee	• 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 & Treatment • Indian Pediatrics

Visiting Scientists

Blood Transfusion Services

None

Cardiac Anaesthesia and Critical Care

None

Cardiac Pathology

None

Cardiology

None

Department of Cardiac Biochemistry

None

Department of Cardio-thoracic &Vascular Surgery

None

Department of Cardiovascular Radiology & Endovascular Interventions

None

Nuclear Medicine Department mmm

None

Stem Cell Facility

Dr Dean E Brenner (Professor), University of Michigan, USA

10.2 Center for Dental Education and Research

Chief

Ritu Duggal
(Orthodontics and Dentofacial Deformities)

Professors

Ajoy Roychoudhury
(Oral and Maxillofacial Surgery)

Veena Jain
(Prosthodontics)

Ongkila Bhutia
(Oral and Maxillofacial Surgery)

Vijay Prakash Mathur
(Pedodontics)

Ajay Logani
(Conservative Dentistry Endodontics)

Dalim Kumar Baidya
(Anesthesia)

Devlina Goswami
(Anesthesia)

Additional Professors

Deepika Mishra
(Oral Pathology and Microbiology)

Kalpana Bansal
(Pedodontics)

Rahul Yadav
(Oral and Maxillofacial Surgery)

Dheeraj Kholi
(Prosthodontics)

Nitesh Tewari
(Pedodontics)

Amrita Chawla
(Conservative Dentistry Endodontics)

Vijay Kumar
(Conservative Dentistry Endodontics)

Shalini Gupta
(Oral Medicine)

Harsh Priya
(Public Health Dentistry)

Kunaal Dhingra
(Periodontics)

Prabhat Kumar Chaudhari
(Orthodontics and Dentofacial Deformities)

Vilas Samrit
(Orthodontics and Dentofacial Deformities)

Vikender Singh
(Periodontics)

Associate Professors

Krushna Bhatt
(Oral and Maxillofacial Surgery)

Aditi Nanda
(Prosthodontics)

Rahul Morankar G
(Pedodontics)

Sidhartha Sharma
(Conservative Dentistry Endodontics)

Anika Dawar
(Periodontics)

Bharti M Purohit
(Public Health Dentistry)

Assistant Professors

Rajiv B
(Orthodontics and Dentofacial Deformities)

Varun Surya
(Oral Pathology and Microbiology)

HIGHLIGHTS

Orthodontics

Division of Orthodontics at the CDER, AIIMS has provided QUALITY orthodontic care to patients with malocclusion, dentofacial deformities and cleft lip and palate. Department has provided leadership in the field at national and international levels. 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.

Oral and Maxillofacial Surgery

Division of Oral and maxillofacial surgery at the CDER, AIIMS has been providing state-of-the-art treatment for all the spectrum of maxillofacial surgery patients, Ours is one of the best centres for the management of complex cases of TMJ ankylosis, sleep apnea, maxillofacial deformities (congenital or acquired).

Conservative Dentistry Endodontics

The division entails management of endodontic emergencies, dental trauma, restorative and advanced nonsurgical/surgical endodontic manoeuvres. It has started 3D dynamic navigation for management of complex non-surgical and surgical cases.

It has established a preclinical simulation laboratory. New dental units have been added. New speciality clinics namely, dental trauma, esthetics and retreatment have been initiated. It has achieved ten publications in leading international and national peer-reviewed journals. Furthermore, the division has been granted two extramural-funded research projects in the last year.

Periodontics

Division of Periodontics, CDER, deals with prevention, diagnosis and treatment of periodontal diseases. This department provides optimum care to a huge number of patients visiting daily to seek periodontal treatment as well as those referred from other departments. Various types of treatment procedures such as conventional non-surgical and microsurgical periodontal therapy, periodontal plastic surgery, soft and hard tissue regenerative procedures, diode laser-assisted soft tissue excision and adjunctive pocket debridement procedures are being carried out in the division. The division currently has strength of 02 Additional Professors, 01 Associate Professor as faculty and 5 senior residents. The division also has five dental hygienists who are trained to provide basic periodontal care under specialist's supervision.

Pedodontics

This year the department has been active and professionally served as experts to various National Research and regulatory bodies.

Oral pathology and Microbiology

The Division of Oral Pathology and Microbiology organized the XX National Post Graduate Convention of the Indian Association of Oral and Maxillofacial Pathologists 2023 at AIIMS, held on 21-22 July 2023. This convention featured a series of lectures and workshops meticulously crafted to enrich the knowledge of attendees. The division was also involved in organizing the 71st Annual Conference of IAMP & IAP-ID and organized a workshop on Update on Odontogenic Pathologies on 6 December 2023. Furthermore, in collaboration with VMMC & Safdarjung Hospital, Delhi, the division hosted a workshop on the Collaboration of Forensic Medicine and Odontology. This workshop delved into the crucial role of forensic medicine and odontology in victim identification and released recommendations for the implementation of a collaborative working model between forensic medicine and forensic odontology. The division initiated a National task force project under ICMR in which, as a national collaborating centre for oral and maxillofacial lesions, it is collaborating with the Indian Institute of Science Bengaluru and various dental institutes across the country. The division has launched its speciality website to display our work and promote research through collaborations. The division also started tele-oral pathology services (virtual teaching and expert opinion/discussion of cases) and virtual microscopy. Additionally, the division initiated a PhD program this year. The department presented 2 clinicopathological conference cases at the international oral pathology conference and secured a travel grant for the same. This year, the department started offering advanced diagnostic modalities such as direct immunofluorescence studies and in situ hybridization services for patients.

Oral Medicine

Oral Medicine and Radiology is the main OPD at CDER where all new and old patients including EHS reporting to CDER are first examined and undergo radiological and other investigations before definitive treatment. It also does opportunistic screening for oral cancer and management of oral potentially malignant disorders. It runs a special clinic Oral Ulcer Clinic and soft tissue laser clinic where all oral mucosal lesions are managed. It also is the coordinating department for patients referred for Dental Clearance from IRCH, Medical Oncology, Cardiology, and Endocrinology before definitive treatment. It also does oral and dental screening for members of GOI Antarctica team. It looks after all 2D dental radiological investigations like IOPA, Occlusal, OPG, Lateral Ceph, and 3D imaging with CBCT for all the clinical departments at CDER.

Public Health Dentistry

Division of Public Health Dentistry seeks to prevent oral disease burden and promote oral health of populations rather than individuals. Dental Public Health works towards a comprehensive understanding of the factors that influence oral health and conducts health services research to bring about effective changes. The department runs a Preventive Clinic and tobacco Cessation service, conducts Capacity-building programs for health and allied health professionals, organizes Outreach oral health promotion activities and caters to the preventive and curative dental needs at the Comprehensive Rural Healthcare Project, Ballabhgarh and Rotary Hospital at Trilokpuri.

Public Health Dentistry department actively participates in the functioning of the WHO Collaborating Centre for Oral Health Promotion in the South East Asian Region and the National Centre of Excellence for the Implementation of the National Oral Health Programme (NOHP) at CDER, AIIMS, New Delhi.

Anesthesia

Provides comprehensive perioperative care to all types of complex maxillofacial surgery patients of all age groups and surgeries including but not limited to temporomandibular joint disorders, trauma, tumours, and deformities. Clinical care includes pre-operative check-ups, intraoperative management including invasive and non-invasive monitoring and postoperative follow-up.

EDUCATION

Orthodontics

- **Undergraduate**
  - BSc Course in DORA and DH
- **Postgraduate**
  - At present Centre is conducting MDS full-time Postgraduate programs in Orthodontics, PhD and a fellowship in Cleft Lip and palate.
- **Paramedical teaching**

Short-term/long-term training/Continuing Medical Education

- High-end training workshop on, "artificial intelligence in oral health science: from basics to clinical applications, " from 18-22 March 2024.
- Workshop on, "Digital Orthodontics: The Future" from 12 and 13 August 2023
- Workshop on, "A to Z of naso-alveolar molding" from 1 and 2 April 2023.

Oral and Maxillofacial Surgery

- **Undergraduate**
  - BSc Course in DORA and DH
- **Postgraduate**
  - At present Centre is conducting MDS full-time Postgraduate programs in Oral and maxillofacial surgery

Prosthodontics

- **Undergraduates**
  - Clinical teaching of 7th-semester MBBS students
  - Clinical and theory teaching of Dental Operating room Assistants (DORA) & Dental Hygienists (DH)
- **Postgraduates**
  - Organized and conducted Seminars, journal clubs, clinical case discussions for MDS Prosthodontic students.
  - Supervise and guide the postgraduate students in clinics and for laboratory work.

Conservative Dentistry Endodontics

- **Post-graduate teaching:** Since our department is a postgraduate teaching unit (MDS), it contributed to
  - **Pre-clinical training**:
    - One-to-one demonstration of the exercises to be accomplished.
    - Tell-show-do preclinical laboratory work including casting, finishing etc.
    - Selection of thesis topic, literature search, writing of thesis protocol, etc.
  - **Clinical training:**
    - Case selection, treatment planning and its execution.
    - Demonstration of the clinical manoeuvres.
  - **Academic training:** Under the guidance of senior faculties,
    - Preparation of seminars, journal clubs and case presentations.
    - Making posters, essays and PowerPoint presentations for national conferences.
    - Lectures and preparation of theory questions and MCQs for their internal assessment examination.

- **Undergraduate teaching:**
    - Lectures and chair side demonstrations for DORA and DH students.
    - Examiner for DH professional examination
    - Prepared and submitted MCQs for various national undergraduate and postgraduate examinations.

Pedodontics

The Post-graduate course in Pedodontics and Preventive Dentistry was started in January 2017 (Master in Dental Surgery). The Department is also participating in interdisciplinary training within CDER for other courses like MBBS, BSc in Dental Hygiene, DORA, Nursing, and allied professional courses.

Oral pathology and microbiology

- **PHD/Postgraduate**
    - Dr Deepika Mishra is a guide for 1 PhD and co-guide for 1 PhD, 4 MD/MCH/MDS and 1 MSc. students. Appointed as the external examiner for PhD student at Jamia Millia Islamia, Delhi.
    - Dr Varun Surya is currently a co-guide for 1 PhD candidate.
- **Paramedical teaching**
    - Course Coordination for the BSc course of Dental Operatory Room Assistants (DORA), preparing monthly schedules encompassing lectures and practical sessions, conducts exams as an Exam Coordinator and Internal Examiner for DORA Phase-II students. The dept conducts lectures and practical sessions for students enrolled in the BSc courses of Dental Operatory Room Assistant and Dental Hygienists, focusing on subjects like Oral Pathology and Microbiology, Dental Anatomy, and Oral Histology. She was appointed twice as external examiner and exam coordinator for DORA phase 2 and phase 3 examinations in this tenure.
- **TEACHING LECTURES**
    - **MBBS-**

      5 lectures in clinical postings.

      External examiner for 3rd Year BDS for Oral Pathology and Microbiology at KGMU, Lucknow UP.
    - **Lectures for Post Graduates**

      4 lectures for post-graduates of the Department of Pathology AIIMS.

      Conducted the examination of MDS IIIrd year for Oral Pathology & Microbiology on 5 July 2023 at I.T.S. Centre for Dental Studies & Research, Ghaziabad.

Oral Medicine

- The department conducts clinical training, lectures and internal assessment for BSc DORA and BSc DH in all the academic years in the subjects of Dental Radiology, Dental Pharmacology, Oral and dental diseases. It also conducts lectures on Oral cancer and precancers for BSc Nursing 2nd year. The department has two PhD students enrolled in 2023.

Periodontics

- **Undergraduate**
    - BSc. Course in DH
- **Short-term/long-term training/Continuing Medical Education**

Dr Kunaal Dhingra

- AIIMS Workshop on 'Microsurgical regeneration of soft tissue periodontal defects' from 7-8 April 2023
- Workshop on 'Microsurgical soft tissue regeneration around natural teeth and dental implants' from 8 – 10 November 2023

Public Health Dentistry

- BSc. Course in DORA and DH
- Training for ASHA, ANMs, Pharmacists, Medical Officers on Oral Health, Early Identification of Oral Cancer and Pre Malignant Lesions and Tobacco Cessation

- Training of State Nodal Officers on implementation of the National Oral Health Program
- ECHO lectures on Tobacco Cessation to Community Medicine postgraduate students
- Training of AYUSH Professionals on Early Identification of Oral Cancer and Pre Malignant Lesions and Tobacco Cessation

CMEs/Workshops/Symposia/National and International Conferences conducted by Faculty Members of CDER (chronological order)

1. National Review Meeting of State Nodal Officers and National Resource Centres on 17-19 February 2023 at AIIMS, New Delhi
2. Training of District Nodal Officers for oral health promotion under the National Oral Health Program on 1-2 March 2023 at AIIMS, New Delhi
3. Correcting Facial Asymmetry "Ortho-Surgical Hands-on Workshop" on 3-4 May 2023 at New Delhi
4. Workshop on 'Economic Evaluation of Health Care Programs' on 11-12 May 2023, at CDER
5. First Brainstorming Meeting on 21 June 2023 in New Delhi
6. XX Indian Association of Oral and Maxillofacial Pathology National PG Convention on 21-22 July 2023 at AIIMS, New Delhi, India
7. 1st AIIMS Tethered Oral Tissues (TOTS) Symposium on 29 July 2023 in New Delhi
8. Digital Orthodontics: The Future on 12-13 August 2023 at AIIMS, New Delhi
9. Final Brainstorming Meeting on 12 September 2023 in New Delhi
10. 57th Indian Orthodontic Society Conference on 16-17 September 2023 at Meerut
11. 63rd Convocation of National Academy of Medical Sciences (India) on 7 and 8 October 2023 at Bengaluru
12. Workshop on "Revolutionising tobacco Cessation through technological interventions" on 6 November 2023 at MAIDS, New Delhi
13. World Implant Expo at Kochi, 26-28 November 2023
14. 12th Convocation of Santosh Deemed to be University on 29 November 2023 at Ghaziabad
15. 27th National Conference of Indian Association of Public Health Dentistry on 1 December 2023 at Gurugram, Haryana
16. 3rd National Steering Group meeting on 4 and 5 December 2023 at CDER, AIIMS, New Delhi
17. 51st Indian Prosthodontic Society Conference on 5-8 December 2023 at GOA.
18. Workshop on Update on Odontogenic Pathologies in 71st Annual Conference of IAMP & IAP-ID (APCON), "on 6 December 2023 at Delhi
19. Online training of 530 Navodaya Vidyalaya Samiti Staff Nurses on the role of sugars on oral and general health on 21 November 2023 to 29 December 2023 (Virtual)
20. Training of Kendriya Vidyalaya Sangathan school teachers on oral health promotion on 6 November and 9 November 2023 (Virtual; ongoing) Training of students on 22 December 2023, 3 and 17 February 2024.
21. 34th Annual Conference of Indian Society for Dental Research (ISDR) on 2-4 February 2024 in Kanya Kumari
22. 20th ISPPD PG Convention (as Scientific Chair) on 22-24 February 2024 in Dehradun, Uttarakhand
23. Workshop on Forensic Odontology: Dental Perspectives in Forensic Investigations on 24 February 2024, Delhi organized by Div of Oral Pathology and Microbiology CDER in collaboration with Department of Forensic Medicine & Toxicology, Vardhman Mahavir Medical College, Delhi
24. The 51st Annual Moyers Symposium on, "Artificial Intelligence: What Should Clinicians Know?" on 1 to 3 March 2024 at Ann Arbor, Michigann, USA
25. Women's Day CDE on 7 March 2024, at CDER, AIIMS, New Delhi
26. Workshop on Maxillofacial Prosthodontics on 7-8 March 2024 at Chandigarh
27. Lectures on "Dentistry Today: Beyond classrooms into clinical practice" on 30 March 2024, Delhi organized by Div of Oral Pathology and Microbiology in collaboration with Div. of Maxillofacial Prosthodontics, CDER, AIIMS, New Delhi

Lectures delivered: 189

Ritu Duggal: 11	**Ajoy Roy Choudhury: 2**	**Vijay Prakash Mathur: 16**
Ajay Logani: 16	**Dalim Kumar Baidya: 16**	
Devalina Goswami: 5	**Kalpana Bansal: 3**	**Rahul Yadav: 1**
Nitesh Tiwari: 27	**Amrita Chawla: 1**	
Shalini Gupta: 5	**Harsh Priya: 28**	**Deepika Mishra: 20**
Kunaal Dhingra: 2	**Vikender Yadav: 5**	
Vijay Kumar: 2	**Rahul Morankar G: 5**	**Sidhartha Sharma: 2**
Bharathi M Purohit: 10	**Anika Dawar: 3**	
Varun Surya: 5	**Rajiv B: 2**	**Kurshna Bhatt: 2**

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
106	140	189

Oral Papers/Posters presented: 143

Total Number of oral/poster presentation over past 3 years

2021-2022	2022-2023	2023-2024
57	52	143

Research

Funded Projects

Ongoing

1. 3D printed aligners as a state-of-the-art smile designing appliance for its integration in Indian Public Hospitals, Dr Prabhat Kumar Chaudhari, Science and Engineering Research Board, Government of India, 3 Years, 2022-2025, Rs 38,26,196
2. A Clinical, radiographical, histological and histomorphometric evaluation of alveolar bone augmentation using allogenous or autogenous block graft along with Guided Bone Regeneration and platelet-rich fibrin before implant placement-a Randomized trial, Dr Arun Kumar N, Early carrier Intra mural project, AIIMS, New Delhi, 2 Years, March 2023-25
3. A longitudinal prospective study to develop progression prediction models of oral leukoplakia based on oral microbiome shifts, salivary microRNA biomarkers and tobacco cessation compliance., Dr Deepika Mishra, ICMR, 3 Years, 2024-27, Rs 50,98,000
4. A Prospective Pilot study to evaluate the clinical success of a Tooth Colored metal free Self-Curing Resin-based material as an alternative to silver amalgam for Class-II Posterior Restoration, Dr Amrita Chawla, AIIMS Intramural grant, 2 Years, 2019-Going, Rs 3,71,900
5. Comparative evaluation of Module for Sports Dental Injury Prevention (MSIP) and combination of MSIP with custom-fabricated mouth-guard for prevention of traumatic dental injuries in 10-18 years old Kabaddi Players of Delhi-NCR region in a sports season: a cluster randomized controlled trial, Dr Nitesh Tewari, ICMR, 3 Years, 2020-23, Rs 42,00,000
6. Comparison between aligners and Quadhelix appliance for transverse correction in cleft lip and palate subjects: a randomized clinical trial, Dr Rajiv B, AIIMS Early Career Intramural Research Projects, 2 Years, 2024-25, Rs 3,43,662

7. Comparison of the outcomes of using tissue graft versus volume-stable collagen matrix with modified coronally advanced flap for the treatment of multiple adjacent gingival recessions: A randomized clinical trial with molecular analysis, Dr Vikender Singh, ICMR, 3 Years, March 2023-26, Rs 42,97,562
8. Comparison of transoral versus transnasal humidified rapid-insufflation ventilatory exchange for intubating conditions in children with difficult airway: A prospective, randomized, controlled trial", Dr Devalina Goswami, ICMR(ICMR Project ID IIRP-2023-6867/F1), 3 Years, 2023-26, Rs 99,00,000
9. Design and development of a safe, portable, economical non-invasive, Point of Care digital infrared imaging system for screening and early detection of oral cancer: An exploratory pilot study, Dr Shalini Gupta, ICRC ICMR task force project, 3 Years, 2023-26, Rs 1,13,65,548
10. Development and evaluation of artificial intelligence system for detection and classification of occlusal caries, Dr Amrita Chawla, ICMR, 3 Years, 2022-25, Rs 62,00,000
11. Development and testing of 3D printed tooth prototype with anatomic complexity for pre-clinical endodontic training, Dr Siddhartha Sharma, AIIMS Intramural grant, 1 Year, 2020-Going, Rs 4,48,000
12. Development and Validation of a mobile application in Hindi for prevention of Oral diseases., Dr Kalpana Bansal, AIIMS, Intra-mural, 3 years, 2020-24, Rs 8,00,000
13. Development of a dataset of Fluoride and other heavy metals and sugar levels for the commercially available Baby food supplements, Dr Harsh Priya, Intramural AIIMS, 2 years, 2020-23, Rs 10,00,000
14. Development of a low-cost multimodal optical imaging microscopic device for early oral cancer diagnosis, Dr Varun Surya, ICMR, 3 Years, 2024-2027, Rs 38,96,482
15. Development of a prototype lab-on-a-chip for rapid microbial detection during nonsurgical endodontic therapy., Dr Siddhartha Sharma, ICMR, 3 Years, 2024-27, Rs 80,00,000
16. Development of an objective bioimpedance-based non-invasive pulp vitality testing device as an alternative to traditional non-invasive pulp vitality testing methods" ethical approval No. IEC-774/2022, Dr Rahul Morankar, AIIMS-IITDcollaborative research grant, 2 Years, 2022-2024, Rs 20,00,000
17. Development of Indigenized Digital Dentistry Solutions, Dr Ritu Duggal, M/o Electronics & Information Technology, Government of India, 2 years, 2023
18. Development of patient-specific additively-manufactured mandibular implants with biotechnology-inspired functional lattice structures, Dr Ajoy Roychoudhury, Indo German Science and Technology, 3 years, 2022-25, Rs 90,00,000
19. Development of transparent strip crowns for tooth restorations in Pedodontics, Dr Vijay Mathur, AIIMS-IITD collaborative research grant, 2 Years, 2020-24, Rs 20,00,000
20. Effectiveness of a Smartphone-based educational app versus conventional method to improve the oral health of children in daycare centres-a cluster randomized trial, Dr Kalpana Bansal, ICMR, 2 years 4 months, 2023-26, Rs 24,42,175
21. Evaluation of non-invasive adjuncts in OPMDs for early detection of oral cancer and development of risk-based OPMD management protocol in a primary healthcare setting, Dr Shalini Gupta (Co-PI), ICMR, 3 years, 2024-27, Rs 3,82,99,319
22. Evaluation of Osteocalcin and Metalloproteinase 8 levels in the perimplant crevicular fluid (PICF) around immediate dental implant placed with socket shielding technique (SST) and conventional technique (CT) in maxillary anterior region- A randomized controlled pilot study., Dr Dheeraj Kumar Koli, Intra mural project, AIIMS, New Delhi, 2 Years, 2022-24, Rs 8,60,000
23. Generating Medical Imaging datasets for tobacco-induced oral lesions to enhance health in research in India, Dr Deepika Mishra, ICMR, 3 Years, 2023-26, Rs 2,96,27,425
24. Impact of simulation-based teaching on knowledge of performer, actual conduct of aerosol-generating procedures and self-confidence while handling patients with COVID-19, Dr Devalina Goswami, AIIMS, Intramural grant, 2 Years, 2021-23, Rs 4,58,600
25. Intramural project titled "Cytotoxicity of intracanal medicaments used for root canal disinfection and their effect on proliferation and differentiation potentials of Stem Cells from Apical Papilla-An in-vitro study" operative approval No. F.8.A840/2020/RS, Dr Rahul Morankar, AIIMS Intramural grant, 2 Years, 2021-2023, Rs 10,00,000

26. Low-intensity pulsed ultrasound (LIPUS) as a therapeutic adjunct to enhance periodontal healing subsequent to luxation dental injuries, Dr Vijay Kumar, AIIMS Intramural grant, 2 Years, 2019-Going, Rs 3,86,000
27. Microsurgical interproximal tunnelling with customized connective tissue graft or volume-stable collagen matrix for interdental papilla reconstruction after orthodontic treatment: a split-mouth, double-blind, randomized controlled trial, Dr Kunaal Dhingra, Royal College of Physicians and Surgeons of Glasgow (TC White International Research and Training Award), 2 Years, 2023-25, Rs 5,00,000
28. Molecular characterization of odontogenic Cysts and Tumors in Indian population, Dr Varun Surya, AIIMS Intramural grant, 2 Years, 2024-26, Rs 10,00,000
29. Multiregion sequencing to unveil the intratumoral heterogeneity and novel biomarkers in oral squamous cell carcinoma in an Indian population: Case-Control Study, Dr Deepika Mishra, ICMR, 3 Years, 2023-2026, Rs 52,14,272
30. Optimization, clinical validation and product realization of dental trauma splint prototype, Dr Ajay Logani, DST, 3 Years, 2024-27, Rs 91,94,441
31. Role of the intra-tumoral microbiome in progression of Oral Squamous, Dr Shalini Gupta (Co-PI), ICMR extramural, 3 years, 2023-26, Rs 49,84,770
32. Serum and Saliva Metabolomic Profiling and Identification of Potential Biomarkers in Periodontitis by Nuclear Magnetic Resonance Spectroscopy, Dr Anika Dawar, AIIMS Intramural early career, 2 Years, 2022-24, Rs 9,20,000
33. The detection of current and persistent oral HPV infection using non-invasive method in Oral Potentially Malignant Disorders with their clinical and molecular characteristics, Dr Shalini Gupta, ICMR extramural, 3 years, 2021-24, Rs 49,38,528
34. The role of novel self-assembling peptide matrix (SAPM) in prevention of post radiation caries in head and neck cancer patients: Randomized clinical trial, Dr Vijay Kumar, ICMR, 3 Years, 2021-24, Rs 41,14,821
35. To evaluate the efficacy and stability of transport disk distraction osteogenesis in ramus condyle unit reconstruction in adult population with temporomandibular joint ankylosis, Dr Rahul Yadav, ICMR, 4 Years, 2024-27, Rs 2,75,01,126
36. Traumatic implant injury: Finite element analysis and its mechanical validation, Dr Nitesh Tewari, AIIMS-IITD collaborative research grant, 2 Years, 2022-24, Rs 20,00,000
37. Treatment of temporomandibular joint disorders based on Vienna Concept of Functional Occlusion., Dr Ritu Duggal, Austria-Scientific & Technological Cooperation, Department of Science and Technology, Government of India, 2 years, 2020, Euro 15,000 (Austria)

Completed

1. "Clinical, Histomorphometric and 3-Dimensional Cone Beam Computed Tomographic Analysis of Autogenous Tooth Bone Graft Mixed with Injectable Platelet Rich Fibrin for Ridge Preservation", Dr Vikender Singh, Intramural project, 2 Years, 2019-21, Rs 8,89,800
2. Development and validation of Dental Trauma Awareness Tool for School Teachers, Dr Nitesh Tewari, ICMR, 3 Years, 2019-23, Rs 15,00,000
3. Effectiveness of an Oral Health Toolkit for Pediatric Oncology Patient against standard of care in the improvement of oral health status in 2-14 year-old paediatric cancer patients, Dr Harsh Priya, Intramural AIIMS, 2 Years, 2018-20, Rs 5,00,000
4. Evaluation of the effect of newer simplified protocols for fabrication of complete denture on denture quality, patient satisfaction, and nutritional status, Dr Aditi Nanda, Intra mural project, AIIMS, New Delhi, 2 Years, 2021-23, Rs 4,89,400
5. Explore the novel use of fluorescence-based microendoscopy and Raman spectroscopy for detection of oral cancer and dysplasia., Dr Deepika Mishra, AIIMS-IIT-Delhi Inter-Institutional Collaborative Research Grant, 2 Years, 2020-22, Rs 20,00,000
6. Genetic profiling of non-syndromic Pierre Robin Sequence patients by whole exome sequencing and microarray, Dr Deepika Mishra, AIIMS Intramural project, 1 Year, 2017-18, Rs 5,00,000
7. High-end training workshop on 'Microsurgical soft tissue regeneration around natural teeth and dental implants', Dr Kunaal Dhingra, Science and Engineering Research Board, Government of India, 3 Days, 2023, Rs 5,00,000

8. High-end training workshop on, "Artificial Intelligence in oral health science: from basics to clinical applications ", Dr Prabhat Kumar Chaudhari, Science and Engineering Research Board, Government of India, 6 Days, 2024, Rs 5,00,000
9. HLA related genetic propensity for manifestation of Oral Submucous Fibrosis among North Indians, Dr Bharathi M Purohit, AIIMS Early Career Intramural Research Grant, 2 Years, 2021-23, Rs 10,00,000
10. Molecular and immunological characterization of fibro-osseous lesions affecting oral and maxillofacial region., Dr Deepika Mishra, AIIMS intramural Research Grant, 2 Years, 2020-22, Rs 10,00,000
11. NLRP3 Inflammasome gene polymorphisms and their expression in Periodontitis-a genetic study in North Indian population, Dr Anika Dawar, AIIMS Intramural collaborative Research Project, 2 Years, 2021-2023, Rs 16,50,000
12. Optimizing Antibiotic prescriptions in treatment of Oro-dental infection, Dr Vijay Prakash Mathur, World Health Organization (WHO), 5 Months, May 2023-September 2023, Rs 1,906,740
13. Periodontal ridge preservation in humans using 3-D scaffold matrices: Clinical trial for periodontal ridge augmentation, Dr Ajoy Roychoudhury, IIT Mumbai, 3 years, 2019-22, Rs 25,00,000
14. To determine the concentration of Betel nut alkaloids and Catechin in current and past betel nut users and their association with pro-oncogenic cytokines and oral potentially malignant disorders, Dr Shalini Gupta, AIIMS Intramural research fund, 2 Years, 2021-23, Rs 10,00,000

Departmental projects

Ongoing

1. "A randomized control trial comparing the efficacy of arthrocentesis, mandibular manipulation and anterior repositioning splint versus arthrocentesis and mandibular manipulation in the management of temporomandibular joint disc displacement without reduction"
2. "Comparsion of articular disc position following closed functional treatment and open reduction in condylar fracture of Mandible-MRI study"
3. "Cross sectional study to evaluate osseous and soft tissue changes on contralateral side after unilateral TJR"
4. A comparative assessment by EMG activity and bite force of autogenous reconstruction of ramus condyle unit done with transport disc distraction osteogenesis and costo-chondral grafting in patients with TMJ ankylosis
5. A comparative study to evaluate alkaline phosphatase levels and implant stability quotient in Immediate implants placed by Using socket shield technique and conventional Technique in maxillary anterior region- a randomized Controlled trial (Dr Harish)
6. A comprehensive kinematic analysis of the jaw after unilateral and bilateral total temporomandibular joint replacement in temporomandibular joint ankylosis patients
7. A non inferiority randomized controlled trial to compare lingual split bone technique and bur technique for post operative pain and trismus following impacted mandibular third molar surgery
8. A prospective cohort study to compare post-operative accuracy in virtual surgical planning and use of patient-specific implant versus conventional planning and fixation of Lefort I osteotomy
9. A randomized clinical trial comparing the outcomes of revascularization in immature non-vital permanent teeth using calcium hydroxide and triple antibiotic paste as an intracanal medicament-A pilot exploratory study" (Ethical clearance Ref no. IEC-330/04 June 2021, RP-07/2021)
10. A randomized controlled trial to evaluate the success of single versus two-visit protocols of silver-modified atraumatic restorative treatment (SMART) in primary molars
11. An ambispective to evaluate the changes in pharyngeal airway volume in the patients of temporomandibular joint ankylosis treated with total TMJ replacement
12. An evaluation of Oral Health-related Quality of Life in Children and Adolescents affected by Traumatic Dental Injuries
13. An observational study to evaluate bone healing and recurrence rate within 1 year after topical application of 5FFU in the treatment of odontogenic keratocyst
14. Artificial intelligence for classification of oral mucocutaneous lesions: A prospective study

15. Association between the concentration of neutrophil extracellular traps and outcome of pulpotomy in permanent mature teeth with symptomatic irreversible pulpitis-a prospective cohort study
16. Comparative Evaluation of Gingival Health with Preformed Zirconia Crown and Bioflx Crown in Primary Molars: A non-inferiority Randomized Clinical Trial
17. Comparative evaluation of occlusal wear of polished CAD CAM fabricated translucent zirconia, polished heat pressed lithium disilicate crowns and natural antagonist enamel-a split-mouth study (Dr Poovitha)
18. Comparative evaluation of patient acceptance for the conventional and prefabricated Band and Loop Space Maintainers in children with Premature Loss of Primary Molar: A randomized clinical trial
19. Comparative evaluation of wear of CAD CAM fabricated polished monolithic PEEK, Zirconia crowns and natural antagonist teeth-an in vivo study (Dr Soundhar Rajan)
20. Comparison between superior trunk block and interscalene brachial plexus block for analgesia in open shoulder surgery
21. Comparison of a novel dynamic needle tip positioning approach vs palpatory approach for USG guided dorsalis pedis artery cannulation: randomized controlled trial
22. Comparison of bone density and implant stability between Osseodensification and conventional drilling technique- A split-mouth randomised controlled trial (Dr Sanofar)
23. Comparison of effects of twin-block with acrylic capping and twin-block with McNamaras modification on mandibular incisor inclination in growing patients with mandibular retrognathism
24. Comparison of efficacy of intra-articular injection of platelet-rich fibrin in conjunction with arthrocentesis and conventional arthrocentesis for the treatment of internal derangement of temporomandibular joint: A randomised controlled trial
25. Comparison of mechanical power between PCV and VCV in children undergoing laparoscopic surgery under general anaesthesia
26. Comparison of postoperative swelling after single dose of submucosal dexamethasone versus platelet-rich fibrin in third molar extraction: A randomised controlled clinical trial
27. Cone-beam computed tomography-based descriptive classification for transverse root fracture
28. Correlation between thyromental distance and the ease of passing a nasotracheal tube through the glottis: A prospective observational study
29. Descriptive evaluation of delayed complications of traumatic dental injuries in children and adolescents reporting to a tertiary care hospital in North India
30. Development and application of AI-based algorithm to capture data from CT scan to determine age, gender and identity of the victim
31. Development and testing of a yardstick for the treatment difficulty of maxillary impacted canines using two-dimensional radiographs-A prospective study
32. Diagnostic accuracy of thermal and electric pulp tests for pulp sensibility assessment after pulpotomy-a histomorphometric study
33. Effect of Application of Silver Diamine Fluoride (SDF) Alone Compared to SDF with Potassium Iodide on Retention of Composite Resin Restorations in Carious Primary Molars-A Randomized Clinical Trial
34. Effect of driving pressure guided PEEP titration on postoperative pulmonary complications in patients undergoing scoliosis surgery: a randomized controlled trial
35. Efficacy and Safety of Methylene Blue Compared to Vasopressin as Second Vasopressor in the Management of Septic Shock in Adults: A Randomised Open-Label Trial
36. Efficacy of fixation of subcondylar fracture with Lambda plate versus 2mm high profile plate: A randomised controlled trial
37. Efficacy of platelet-rich fibrin (i-PRF) to reduce orthodontic treatment duration- A randomized controlled trial
38. Evaluating the learning curve of an endodontic resident and the minimum number of dynamic navigation procedures to be performed for achieving a plateau phase and competency: a clinical study

39. Evaluation and comparison of the effect of translucent zirconia and lithium disilicate crown on IL-6 and TNF-? Levels in gingival crevicular fluid (GCF) at various time intervals: a split-mouth comparative pilot study
40. Evaluation of Dental pulp calcification in cancer survivors receiving chemotherapy and/or radiotherapy as a part of anticancer therapy". (Ethical clearance Ref no. IEC-962/13 January 23)
41. Evaluation of the effectiveness of concentrated platelet-rich fibrin compared to injectable platelet-rich fibrin on the rate of en-masse retraction in orthodontic patients a three-arm randomized controlled trial
42. Evaluation of the effect of injectable platelet-rich fibrin (i-PRF) on root resorption in patients undergoing fixed orthodontic therapy a biochemical and CBCT analysis-A randomized controlled trial
43. Evaluation of the role of low-intensity pulsed ultrasound on midpalatal sutural bone formation after rapid palatal expansion through cone beam computed tomography: A pilot randomized controlled trial
44. Intratracheal Dexmedetomidine vs Intratracheal Lignocaine in attenuation of cough reflex while extubation in patients of oral and maxillofacial surgery: A Randomized Controlled Trial
45. Investigate the use of fluorescence-based microendoscopy, developing image repository and artificial intelligence-based deep learning to oral squamous cell carcinoma and dysplasia in the Indian population
46. Prevalence and pattern of Traumatic dental injuries among children and Adolescents with severe to profound hearing impairment reporting to a tertiary care centre in North India
47. Prevalence of temporomandibular disorders in prospective orthodontic patients evaluated with diagnostic criteria for temporomandibular disorders: A cross-sectional study
48. Prospective retrospective cohort study to evaluate bone formation in alveolar bone grafting cases treated with autologous iliac crest graft versus beta-tricalcium phosphate graft at 6 months follow-up
49. Reliability of pulp sensibility tests in class II division I malocclusion patients with different facial patterns treated by Enmasse retraction-A pilot clinical study
50. Response of dental pulp to cryotherapy when used as a hemostatic agent during pulpotomy-a histomorphologic study
51. Sternocleidomastoid and trapezius muscle activity before and after Twin Block therapy in skeletal Class II growing patients

Departmental projects (including thesis/dissertations)

Completed

1. "A randomized controlled trial to evaluate the outcome of subcondylar fracture treated with operative and non-operative method."(Dr Silambarasan)
2. A Comparative Clinical Study To Assess The Outcome Of Full Pulpotomy Performed In Either Deep Or Extremely Deep Carious Mature Permanent Mandibular Teeth With Symptomatic Irreversible Pulpitis
3. A non-inferiority randomised controlled trial to compare lingual split bone technique and bur technique for post-operative pain and trismus following impacted mandibular third molar surgery
4. A prospective cohort study to compare postoperative accuracy in virtual surgical planning and use of patient-specific implants versus conventional planning and fixation of Le Fort 1 osteotomy
5. A randomised controlled trial to compare postoperative pain in buccal delivery approach in mandibular third molar surgery between the treatment groups using chisel and mallet and piezotome
6. A randomised controlled trial to evaluate the outcomes of subcondylar fracture of mandible treated using operative and non-operative methods
7. A randomized control trial to compare chisel and mallet with prezotome for third molar extraction in terms of intraoperative and post-operative parameters. (Dr Aswathy)
8. An ambispective study to evaluate the changes in oropharyngeal airway volume in the patients of temporomandibular joint ankylosis treated with total temporomandibular joint replacement
9. An evaluation of oral Health-related Quality of Life in children and adolescents affected by Traumatic dental injuries

10. An observational study to evaluate bone healing and recurrence rate within one year after topical application of 5-fluorouracil in the treatment of odontogenic keratocyst
11. Assessment of anatomical danger zone thickness in the mesial roots of mandibular molar teeth with furcation involvement-A retrospective cone beam computed tomography study
12. Association between Pre-operative frailty and Post-Operative Delirium and Cognitive dysfunction in elderly patients undergoing spinal surgery under general anaesthesia: A Prospective Observational Study
13. Carotid artery corrected flow time & 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
14. Comparative evaluation of Interleukin-6 levels and AHI score between mandibular advancement device group and continuous positive airway pressure group in obstructive sleep apnea patients- A pilot study (Dr Shilpa; June 2023)
15. Comparative evaluation of retention rates of fissure sealant with silver
16. Comparative evaluation of surface roughness of denture base material processed by using three different techniques following daily immersion in different denture cleansing methods- an invitro study (Dr Kiran; June 2023)
17. Comparative evaluation of the accuracy and cost-effectiveness of rapid-prototyped orthodontic models 3D printed in vertical and horizontal orientations
18. Comparative study to evaluate the occurrence of non-union (malunion in the double mandibular fracture patients who are treated with one load-bearing fixation in anterior fracture and one load-sharing fixation in posterior fracture VS two load-sharing fixation-Randomized controlled trial. (Dr MS Kishore)
19. Comparative study to evaluate the occurrence of nonunion/malunion in the double mandibular fracture patients who are treated with one rigid and semirigid fixation vs two semirigid fixations-a randomised controlled trial
20. Comparison of articular disc position following non-surgical treatment and open reduction in condylar fracture of mandible-MRI study
21. Comparison of Caudal epidural block with Multiple injection Costotransverse block for pyeloplasty in paediatric patients: A prospective randomised, blinded clinical trial
22. Comparison Of CMAC-D Blade And CMAC-Macintosh Blade For Nasotracheal Intubation In Patients With Limited Mouth Opening-A Prospective Randomized Controlled Trial
23. Comparison of hands-on ORSIM simulator training versus high fidelity mannequin training of novice anesthesiology residents for fiberoptic intubation proficiency and retention ability- A prospective randomized controlled trial
24. Comparison of Spontaneous breathing versus Paralyzed technique during fibre-optic intubation in anaesthetized children and adolescents with Temporomandibular joint ankylosis: randomized parallel-group trial
25. Comparison of standard vs trans pulmonary pressure guided intraoperative PEEP on postoperative oxygenation in patients undergoing laparoscopic lower abdominal surgery
26. Comparison of the accuracy of implant placed with 3d printed surgical guide and with conventionally prepared surgical guide: split mouth (Dr Jyoti Kutum, November 2023)
27. Correlation of periodontal characteristics with cephalometric and CBCT parameters in anterior dentition of individuals with different growth patterns
28. Designing and validation of an adhesive tape-based positioner for stabilization of mobile injured tooth
29. Development and validation of a novel pain assessment tool based on pulpal symptoms
30. Development and validation of clinical decision support tool for management of deep carious lesions in primary dentition
31. Diagnostic accuracy of diaphragmatic pulse-wave tissue Doppler imaging parameters in predicting weaning outcomes in critically ill mechanically ventilated patients
32. Effect of incremental PEEP titration on postoperative lung atelectasis in adult patients undergoing elective major abdominal surgery: A randomized controlled trial
33. Effects of Parenteral Omega-3 Fatty Acid Supplementation on Clinical Outcomes and Organ Failure in Acute Pancreatitis-A Randomised Controlled Trial
34. Efficacy of a Novel Technique for Percutaneous Dilatational Tracheostomy in critically ill patients
35. Efficacy of decremental PEEP trial on postoperative oxygenation status in adult patients undergoing emergency laparotomy: A pilot randomized controlled trial

36. Efficacy of high volume Pericapsular Nerve Group (PENG) Block in Patients with Acetabular Fracture For Positioning for Subarachinoid Block: Prospective observational study
37. Etiology of Oral cancer in Indian population younger than 30 years. Non-funded
38. Evaluation of mesotherapy and diode laser for gingival depigmentation: A preliminary randomized clinical trial
39. Isotonic bicarbonate vs. Balanced Salt Solution as resuscitation fluid in patients with severe metabolic acidosis: a randomized control trial
40. Low Dose Aspirin in Moderate to Severe SARS-CoV-2 Infected Patients: A Pilot Randomized Controlled Trial
41. Outcome Of Coronal and Deep Pulpotomy In Mature Permanent Teeth With Extremely Deep Carious Lesion And Symptomatic Irreversible Pulpitis-A Preliminary Randomized Clinical Trial (Pilot Study)
42. Post-operative pulmonary complication with high FiO2 or standard FiO2 in adult patients undergoing abdominal surgery: A non-inferiority trial
43. Prevalence of teething problems during eruption of primary teeth-a prospective cohort study
44. Psychometric properties of NDESC Index for white spot lesions in orthodontic patients- A cross-sectional study
45. Retrospective study of oral pathology specimens: incisional vs excisional specimens and cytopathology vs histopathology. Non-funded
46. Soft tissue norms for North Indian adults- A cephalometric study
47. The Doppler Renal Resistive Index and semiquantitative power Doppler ultrasound for early detection of Acute Kidney Injury after Perforation Peritonitis Surgery
48. The Role of Renal Arterio Venous Coupling In The Prediction Of Acute Renal Injury In Patients With Sepsis: A Prospective Observational Study
49. To evaluate osseous changes on the non-operated temporomandibular joint after unilateral total joint replacement
50. Velocity-time integral and stroke volume measured in the ascending aorta for prediction of volume responsiveness in spontaneously breathing patients

Collaborative Projects

Ongoing

1. A descriptive study to evaluate the extracutaneous and systemic involvement in children with inherited epidermolysis bullosa, Dermatology and Venereology, AIIMS, New Delhi
2. A longitudinal prospective study to develop progression prediction models of oral leukoplakia based on oral microbiome shifts, salivary microRNA biomarkers and tobacco cessation compliance. Rs 5098000 (ICMR), Oral pathology CDER, AIIMS, New Delhi
3. A phase III randomised controlled study comparing xerostomia after tubarial salivary gland sparing IMRT versus standard IMRT in patients with locally advanced oropharyngeal squamous cell carcinoma, Division of Oral Pathology and Microbiology, CDER and Radiation Oncology, AIIMS, New Delhi
4. A prospective, active-controlled, randomised, double-blind, multicentre, phase III study to compare the safety and efficacy of biosimilar denosumab of Enzine Biosciences Limited Versus innovator denosumab in the treatment of postmenopausal osteoporosis, as Co-PI, Orthopedics, Endocrinology, Radiology, AIIMS, New Delhi
5. An in-vitro evaluation of histological characteristics of prematurely erupted teeth in newborns, Division of Oral Pathology and Microbiology, CDER and Div of Pedodontics, CDER, AIIMS, New Delhi
6. Analysis of gut and oral microbiome to explore the lifestyle factor associated risk in development of oral cancer and periodontitis, Periodontics, CDER, AIIMS, New Delhi
7. Artificial intelligence for classification of oral mucocutaneous lesions: A prospective study. Non-funded, Oral pathology CDER, AIIMS, New Delhi
8. Assessment of Quality of Life Among Adult Survivors of Head and Neck Ewing Sarcoma Family of Tumours, Department of Medical Oncology IRCH AIIMS, New Delhi
9. Certificate Course on Tobacco Cessation and Oral Cancer Screening, Training Program, Department of Public Health Dentistry, CDER, AIIMS, New Delhi in collaboration with Centre for Health Innovation and Policy (CHIP) Foundation in collaboration with ECHO India (February 2023 to April 2023)

10. Childhood Cancer Survivorship Program (CCSP) Program comprised effects of cancer-related chemotherapy, radiotherapy and bone marrow transplantation of dentofacial and oral structures as Co-Investigator (Interdisciplinary collaborative project with IRCH department, Department of Medical Oncology IRCH, AIIMS, New Delhi
11. Clinical, histomorphometric and 3-Dimensional Cone Beam Tomographic analysis of Autogenous Tooth Bone Graft mixed with Injectable Platelet Rich Fibrin for ridge preservation, Division of Periodontics, CDER, AIIMS, New Delhi
12. Comparative evaluation of occlusal wear of polished CAD CAM fabricated translucent zirconia, polished heat pressed lithium disilicate crowns and natural antagonist enamel-a split mouth pilot study., Division of Prosthodontics, CDER, AIIMS, New Delhi
13. Comparison between aligners and Quadhelix appliance for transverse correction in cleft lip and palate subjects: a randomized clinical trial, AIIMS, New Delhi
14. Cultural factors and family influences on adolescent oral health: qualitative research in a socially disadvantaged population, Dr Bharathi M Purohit, Public Health Dentistry (PI), AIIMS, New Delhi in collaboration with Department of Community and Family Medicine, All India Institute of Medical Sciences (AIIMS), Patna
15. Dental conditions and co-morbidities in an elderly Population in North India, Department of Geriatric Medicine, AIIMS, New Delhi
16. Developing guidance for analysis and reporting of oral epidemiological studies to inform burden estimation., Dr Harsh Priya, Public Health Dentistry (PI), AIIMS, New Delhi in collaboration with Professor Eduardo Bernabe, Institute of Dentistry Queen Mary University of London
17. Development of a nursing protocol for ICU patients on mechanical ventilators, College of Nursing
18. Development of an objective bioimpedance-based non-invasive pulp vitality testing device as an alternative to traditional non-invasive pulp vitality testing methods" Traumatic implant injury: Finite element analysis and its mechanical validation, Department of Biomedical Engineering, IIT Delhi
19. Development of Engineered Non-woven Textured Surfaces for Gum Pad Cleaning of Infants., Department of Biotechnology and Indian Institute of Technology (IIT), New Delhi
20. Development of Room Temperature Vulcanizing (RTV) Silicon for maxillofacial facial prosthesis with Improved Properties Suitable for Indian Climate, Collaborative project with IIT
21. Effectiveness of a Smartphone-based educational app versus conventional method to improve the oral health of children in daycare centres-a cluster randomized trial (ICMR Funded), Dr Kalpana Bansal, Pedodontics and Preventive Dentistry (PI) CDER, AIIMS, New Delhi
22. Effectiveness of a Smartphone-based educational app versus conventional method to improve the oral health of children in daycare centres-a cluster randomized trial (ICMR Funded), Dr Kalpana Bansal, Pedodontics and Preventive Dentistry (PI) CDER, AIIMS, New Delhi
23. Effectiveness of School Oral Health Programme in Children and Adolescents-An Umbrella Review, Department of Public Health Dentistry, CDER, AIIMS, New Delhi in collaboration with University of Melbourne, Australia
24. Elucidating the cellular functions and clinical significance of Dipeptidyl Peptidase III (DPP III) in oral cancer., Division of Oral Pathology and Microbiology, CDER and Department of Biochemistry, AIIMS, New Delhi
25. Fluoride and Sugar levels for the commercially available Baby food supplements are appropriate (AIIMS Intramural), Dr Harsh Priya, Public Health Dentistry (PI), AIIMS, New Delhi in collaboration with Ocular Pharmacology and Department of Anatomy
26. Generating Medical Imaging datasets for tobacco-induced oral lesions to enhance health in research in India. Rs 29627425 (ICMR)., Oral pathology CDER, AIIMS, New Delhi
27. HLA-related genetic propensity for manifestation of Oral Submucous Fibrosis among North Indians, Dr Bharathi M Purohit, Public Health Dentistry (PI), AIIMS, New Delhi in collaboration with Department of Transplant Immunology, AIIMS, New Delhi
28. Investigate the use of fluorescence-based microendoscopy, developing image repository and artificial intelligence-based deep learning to detect oral squamous cell carcinoma and dysplasia in Indian population. Non-funded, Oral pathology CDER, AIIMS, New Delhi
29. Investigating the Association BetweenTobacco Use and Oral Health Among Security Guards: A Cross-Sectional Study, Department of Public Health Dentistry, CDER, AIIMS, New Delhi in collaboration with Department of Preventive Oncology, IRCH, AIIMS, New Delhi and MCODS, Mangalore

30. Local application of Glycyrrhiza glabra for medical management of Oral submucous fibrosis: A randomized controlled trial. Ministry Of Ayurveda, Yoga & Naturopathy, Unani, Siddha And Homoeopathy, Department of Otolaryngology, Head and Neck Surgery, Department of Pharmacology and Div of Oral Pathology and Microbiology, CDER, AIIMS, New Delhi

31. Multiregion sequencing to unveil the intratumoral heterogeneity and novel biomarkers in oral squamous cell carcinoma in an Indian population: Case-Control Study. Rs 5214272 (ICMR), Oral pathology CDER, AIIMS, New Delhi

32. Oral Health Promotion in Kendriya Vidyalaya Sangathan school teachers and students, Department of Public Health Dentistry, CDER, AIIMS, New Delhi in collaboration with Kendriya Vidyalaya Sangathan Head Quarters

33. Oral Health Screening and Oral Health Promotion, Department of Public Health Dentistry, CDER, AIIMS, New Delhi in collaboration with Municipal Corporation of Delhi, Education Department HQs, New Delhi

34. Oral Potentially Malignant Lesion Atlas Project: Validating the efficacy of a novel, Point-of Care diagnostics and developing an integrated multidimensional, prognostic nomogram, Division of Oral Pathology and Microbiology, CDER and NCI, Jhajjar

35. Point of Care Screening Tool for Oral Cancer. Artificial Intelligence Centre of Excellence in Health Phase I. Ministry of Education. (Rs 2 Crores), Division of Oral Pathology and Microbiology, Div of Public Health Dentistry, Div of Oral and maxillofacial Surgery, CDER, NCI Jhajjar AIIMS and Indian Institute of Science Bengaluru

36. Response of Dental Pulp to Cryotherapy when used as a haemostatic agent during Pulpotomy-A Histomorphologic study, Division of Conservative Dentistry and Endodontics, CDER and Div of Oral Pathology and Microbiology, CDER, New Delhi

37. Risk factors and associated pathway for rural and urban unmet dental prosthetic needs among older adults in Central India, Dr Bharathi M Purohit, Public Health Dentistry (PI), AIIMS, New Delhi in collaboration with Department of Dentistry, Regional Training Centre for Oral health Promotion, All India Institute of Medical Sciences (AIIMS), Bhopal

38. Role of Negative Regulators of IGF-1R in Malignant Transformations of Oral Dysplasia, Division of Oral Pathology and Microbiology CDER and Department of Biochemistry, AIIMS, New Delhi

39. Role of Parecoxib, A Selective Cyclooxygenase-2 Inhibitor, for Reduction of Severity of Acute Pancreatitis: A Randomized Controlled Trial, Department of Gastroenterology and Human Nutrition Professor Jyotirmoy Chatterjee (Head of School, School of Medical Science and Technology, IIT Kharagpur) Dr Basudev Lahiri (Electronics & Electrical Communication Engineering, IIT Kharagpur) PI (AIIMS) Dr Piyush Ranjan (Department of Medicine) Co-PI (AIIMS) Professor Navneet Wig (HoD, Department of Medicine, AIIMS, New Delhi) Dr Prabhat Kumar Chaudhari (Division of Orthodontics, CDER, AIIMS)

40. Role of Sugars in Oral and General Health among Navodaya Vidyalaya Samiti Staff Nurses, Department of Public Health Dentistry, CDER, AIIMS, New Delhi in collaboration with Navodaya Vidyalaya Samiti Head Quarters and Department of Dietectics, AIIMS, New Delhi

41. Strengthening Healthcare National Programs with Artificial Intelligence. Artificial Intelligence Centre of Excellence in Health Phase I. Ministry of Education (Rs 2 Crores), Division of Oral Pathology and Microbiology CDER, Department of Radiodiagnosis, Department of Endocrinology and Metabolism, Department of Obstetrics and Gynaecology, Department of Dermatology, Department of Pediatrics, NCI Jhajjar, Dr RP Center for Ophthalmic Sciences, Center for Community Medicine AIIMS and IIT, Delhi

42. Subepithelial connective tissue graft and injectable platelet-rich fibrin with or without enamel matrix derivative for treating multiple gingival recessions in smokers: a randomized clinical trial, Division of Periodontics, CDER, AIIMS, New Delhi

43. Tobacco Hacking-Opening the Pandora Box, Public Health Dentistry, AIIMS, New Delhi in collaboration with Department of Psychiatry and Community Medicine, AIIMS, New Delhi

44. Training of Frontline Health Workers on Identification of Oral Premalignant Disorders and Oral Cancer in Ballabhgarh-A Randomized Control Trial, Department of Public Health Dentistry, CDER, AIIMS, New Delhi in collaboration with Comprehensive Rural Health Services Project, Ballabgarh, Centre for Community Medicine, AIIMS, New Delhi

45. Training Programme to Impliment WHO Health Promoting School Model, Department of Public Health Dentistry, CDER, AIIMS, New Delhi in collaboration with Directorate of Education, Old Secretariat, Delhi

46. Treatment of temporomandibular joint disorders based on Vienna Concept of Functional Occlusion, Principal InvestigatorProfessor Ritu Duggal (Division of Orthodontics, CDER, AIIMS) Co-Investigators Professor Veena Jain (Division of Prosthodontics, CDER, AIIMS) Dr Prabhat Kumar Chaudhari (Division of Orthodontics, CDER, AIIMS)
47. Treatment of temporomandibular joint disorders based on Vienna Concept of Functional Occlusion, Principal Investigator Professor Ritu Duggal (Division of Orthodontics, CDER, AIIMS) Co-Investigators Professor Veena Jain (Division of Prosthodontics, CDER, AIIMS) Prabhat Kumar Chaudhari (Division of Orthodontics, CDER, AIIMS)
48. Understanding rapid oral health deterioration and its associated factors among older adults: A scoping review, Department of Public Health Dentistry, CDER, AIIMS, New Delhi in collaboration with Manipal College of Dental Sciences, Mangalore

Collaborative Projects

Completed

1. A morphological study of the human Temporomandibular joint., Div of Oral Pathology and Microbiology, CDER and Department of Anatomy, AIIMS, New Delhi
2. A pilot study to evaluate flourescence UV imaging for assessment of malignant and potentially malignant disorders in oral cavity and update and analysis of tongue cancer database., Division of Oral Pathology and Microbiology, CDER and Department of Surgical Oncology, IRCH, AIIMS, New Delhi
3. A study to examine dependence, harm perception and motivation to quit amongst Indian areca nut users and pilot test an intervention module., PSYCHIATRY & NDDTC, AIIMS, New Delhi
4. An observational study to evaluate bone healing and recurrence rate within one year after topical application of 5 fluorouracil in the treatment of odontogenic keratocyst., Division of Oral and Maxillofacial Surgery and Div of Oral Pathology and Microbiology, CDER, AIIMS, New Delhi
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, Div of Oral Medicine and Radiology, Div of Oral Pathology and Microbiology CDER and Department of Biochemistry, AIIMS, New Delhi
6. Cleft Lip and Palate anomaly in India: Clinical profile Risk factors and current status of treatment: A hospital-based study"-Main Phase, Division of Orthodontics and Dentofacial Deformities and Div of Oral Pathology and Microbiology CDER, Genetics and CSIR-IGIB
7. Comparison of 5-factor modified frailty index and ASA classification to predict morbidity and mortality in patients undergoing arthroplasty-A prospective observational study, Department of Orthopedics, AIIMS, New Delhi
8. Cultural factors and family influences on adolescent oral health: qualitative research in a socially disadvantaged population, Dr Bharathi M Purohit, Public Health Dentistry (PI), AIIMS, New Delhi in collaboration with Department of Community and Family Medicine, All India Institute of Medical Sciences (AIIMS), Patna
9. Development and preliminary validation of a novel pain assessment scale based on pulpal symptoms, Conservative Dentistry and Endodontics, CDER, AIIMS, New Delhi
10. Development and testing of 3D printed tooth prototype with anatomic complexity for pre-clinical endodontic training., Conservative and Endodontics, CDER, AIIMS, New Delhi
11. Development and validation of a Smart Phone based application for promotion of oral health among Indian children (AIIMS Intramural), Dr Kalpana Bansal, Pedodontics and Preventive Dentistry, (PI) CDER, AIIMS, New Delhi
12. Development of COVID-19 IEC and BCC video modules, Centre for Dental Education and Research in collaboration with World Health Organisation
13. Development of MOOCs on Oral Health and Oral Cancer, Centre for Dental Education and Research in collaboration with World Health Organisation
14. 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, AIIMS, New Delhi

15. Effectiveness of a Training Program in School Teachers on the Role of Sugars in Oral and General Health, Public Health Dentistry, AIIMS, New Delhi in collaboration with Kendriya Vidyalaya Sangathan HQ and Ministry of Health and Family Welfare, GoI
16. Empowering AYUSH health professionals for oral health promotion., Public Health Dentistry, AIIMS, New Delhi in collaboration with Ministry of Health and Family Welfare, GoI
17. 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 an ICMR tobacco task force project, Div of Oral Pathology and Microbiology, CDER, Department of General Surgery AIIMS and NICPR, Noida
18. Evaluation of two rehydration protocols for Fractured tooth fragments in terms of depth of penetrations of resin tags in dentin using confocal laser scanning microscopy., Division of Oral Pathology and Microbiology, CDER and Div of Pedodontics, CDER, AIIMS, New Delhi
19. Immunoexpression of HLA class II antigen system in Oral Submucous Fibrosis-study of genetic propensity among North Indians, Public Health Dentistry, CDER, AIIMS, New Delhi
20. Impact of Oral Health Promotion Training among Nursing Professionals in India- An Interventional Study, Public Health Dentistry, AIIMS, New Delhi in collaboration with Ministry of Health and Family Welfare, GoI
21. Impact of Training Package on Oral Health Promotion among School Teachers in India: An interventional study, Public Health Dentistry, AIIMS, New Delhi in collaboration with Ministry of Health and Family Welfare, GoI
22. Intercountry Interactions to reduce the Endemic Burden of Oral Cancer: An Exploratory Observership Model in India, Public Health Dentistry & Oral Pathology & Oral Medicine and Radiology, Centre for Dental Education and Research, AIIMS, New Delhi in collaboration with World Health Organisation
23. Interdisciplinary variations in spectrum of oral mucosal lesions, Department of Dermatology and Div of Oral Medicine and Radiology, Div of Oral Pathology and Microbiology CDER, AIIMS, New Delhi
24. Modules for Phasing down of Dental Amalgam among Dental Professionals in accordance with the Minamata Convention, Centre for Dental Education and Research in collaboration with World Health Organisation
25. Multi-Model Autofluorescence, fluorescence, Polarization, Micro endoscopy and Spectroscopy based detection of common cancers of mouth, breast, Gut, respiratory tract, skin and female genital tract., Department of General Surgery and Div of Oral Pathology and Microbiology, CDER. Rs 10 Lakhs (AIIMS-IITD)
26. Randomized controlled trial to assess the efficacy of swallowing exercise on dysphagia among post-extubated patients admitted to ICU of AIIMS, College of Nursing, AIIMS, New Delhi
27. Readiness and Motivation of ASHAs towards Their Participation in Non-Communicable Disease Control Programme in North India: A Cross-Sectional Study, Public Health Dentistry, AIIMS, New Delhi in collaboration with Department of Preventive Oncology, IRCH, AIIMS, New Delhi
28. Risk factors and associated pathway for rural and urban unmet dental prosthetic needs among older adults in Central India, Dr Bharathi M Purohit, Public Health Dentistry (PI), AIIMS, New Delhi in collaboration with Department of Dentistry, Regional Training Centre for Oral Health Promotion, All India Institute of Medical Sciences (AIIMS), Bhopal
29. Role of human Heterogeneous Nuclear Ribonucleoprotein D (hnRNPD) in oral cancer., Division of Oral Pathology and Microbiology, CDER and Department of Biochemistry, AIIMS, New Delhi
30. Sugar-sweetened beverage consumption and socioeconomic status: A systematic review and meta-analysis, Public Health Dentistry, AIIMS, New Delhi in collaboration with Centre for Community Medicine
31. The Burden and Correlates of Waterpipe (Hookah) Smoking among Adolescents and Youth: A Systematic Review, Public Health Dentistry, AIIMS, New Delhi in collaboration with Indian Council of Medical Research, New Delhi
32. To assess the potential ability of Cathepsin L and Cathepsin B as universal biomarkers of cancer, Division of Oral Pathology and Microbiology CDER and Department of Biochemistry, AIIMS, New Delhi
33. Tumors and cysts of jaw: Evaluation by dual energy computed tomography with limited MRI correlation., Department of Radiodiagnosis and Div of Oral Pathology and Microbiology, CDER, AIIMS, New Delhi

Publications: 142

Journal: 128 Abstract: 10 Chapters in Book: 4

PATIENT CARE

In patient care/supportive activities include information regarding

Division of Orthodontics and Dentofacial Deformities

During the year under review, we have provided greater emphasis on Interdisciplinary treatment of patients with Cleft Lip & Palate and combined orthognathic surgery patients suffering from facial deformities in addition to the routine orthodontic care.

Oral & Maxillofacial Surgery

We have been providing state-of-the-art treatment to complex cases of maxillofacial deformities (congenital and Acquired), we are one of the best centers in management of any TMJ-related abnormalities

- o Preoperative planning and Follow-up clinic- every Friday from 2 to 4 pm.
- o 3-D printing facility available in the department for pre-operative planning.

Division of Prosthodontics

We have been managing outpatient duties for dental rehabilitation of complete and partially edentulous patients. We are running specialty clinic on Oral & Maxillofacial Prosthodontics, implant dentistry and temporomandibular disorders. Different types of prostheses which we are fabricating for the patients are Complete denture, Removable Partial Denture, Crown and Bridgework, Laminates, Occlusal splints, Implant supported Prosthesis (Removable & Fixed), and Maxillofacial Prosthesis (Extraoral/ Facial & Intraoral).

At the department, we are running two labs to fabricate removable and fixed Prosthodontic appliances.

Division of Periodontics

Various treatment procedures carried out in the Periodontics Division 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

Division of Pedodontics

This year the department has been active and professionally served as experts to various National Research and regulatory bodies.

EDUCATION

The post-graduate course in Pedodontics and Preventive Dentistry was started in January 2017 (Master in Dental Surgery). The Department is also participating in interdisciplinary training within CDER for other courses like MBBS, BSc in Dental Hygiene, DORA, Nursing, and allied professional courses.

Division of Public Health Dentistry

Emphasis of the department has always been to create oral health awareness and provide preventive and promotive care to the rural, underprivileged sections and special groups of the community. Routine preventive oral care and tobacco cessation services are provided both at the centre and also at the satellite centres in Ballbhgarh and Trilokpuri. In addition to this, these services are extended to various community settings, schools, child care homes in and around Delhi, through outreach activities.

Public Health Dentistry is involved in various projects under the WHO Collaborating Centre for Oral Health Promotion in the South East Asian Region and National Centre of Excellence for the Implementation of the National Oral Health Programme (NOHP) under the Ministry of Health and Family Welfare.

Oral Medicine & Radiology

Facilities available:

- ➢ Oral Medicine & Radiology OPD services

- Speciality Clinic: Oral Ulcers Clinic (Wednesday 2.00 PM)
- Oral cancer Screening
- Management of Oral Potentially Malignant Disorders
- Dental Clearance
- Dental Radiology (IOPA, Occlusal, OPG, Cephalometry)
- Cone Beam Computed Tomography Facility in Oral Medicine & Radiology CDER
- Development of registry for Oral Potentially Premalignant lesions in CDER
- Soft tissue Laser Clinic

Division of Anaesthesiology

Department of Anaesthesiology, CDER provides anaesthesia services for all types of Maxillofacial surgery cases performed under general anaesthesia through out the year. This include pre anaesthesia check up, intraoperative management and postoperative care.

Division of Conservative Dentistry and Endodontics

Department of Conservative Dentistry and Endodontics is one of the busiest departments at Centre for Dental Education and Research, All India Institute of Medical Sciences, New Delhi. Department concerned with the various restorative, endodontic and restorative procedures. It also looks after the management of traumatic dental injuries in adult patients. The department is equipped with state-of-the-art facilities which allow postgraduate students to develop learn and develop best clinical skills. In the past few years there has been a voluminous increase in the number of patients visiting the department.

Facilities available: 17 upgraded dental units for providing patient care. The division is equipped with latest technologies including preclinical simulation laboratory, dental operating microscope, LASER, dynamic navigation system. Etc.

Special clinics: New speciality clinics namely, dental trauma, esthetic and retreatment have been initiated. Patients with traumatic dental injuries and radiation caries are also taken care of.

Division of Oral Pathology and Microbiology

Services	2023–2024
Surgical Pathology	
Specimens processed	2347
H&E staining	4274
Special staining	556
Frozen Section reporting	00
Cytopathology Laboratory	
Total specimens (Exfoliative and FNAC)	58
Immunohistochemistry Laboratory	
Diagnostic	635
Research	141
Direct Immunofluorescence	184
Others works	
Research Block Cutting	186
H & E stain	151
Museum specimens prepared	05

Vital staining, Fluorescence spectroscopy, Autofluorescence spectroscopy for Oral cancer detection	178
Sialometry for assessment of xerostomia in Oral cancer treated patients	07
Hematology	125
Pathology Based registry	1050
Clinical Oral Pathology Clinic	1147

Community services/camps

The Division of Oral PAthology and Microbiology has actively participated in AIIMS Institute Day 2024 by conducting screening for oral precancer and oral cancer among attendees. Additionally, it collaborated with NCI Jhajjar to organize oral cancer screening camps in rural areas. Utilizing techniques such as vital staining, fluorescence spectroscopy, and autofluorescence spectroscopy, the division plays a crucial role in early detection of oral precancer and cancer. Furthermore, the Division serves as a key resource and expert in various oral cancer screening initiatives. It participates in workshops focused on training trainers for oral cancer screening and tobacco control programs, including Training of trainers of ASHAs, ANMs, Dentists, MO, SNOs for screening of Oral Cancer at NICPR and NHSRC, Ministry of Health and Family Welfare, consistently throughout the year.

AWARDS, HONOURS AND SIGNIFICANT EVENT

Professor Ritu Duggal invited as an External Examiner for the MDS Examination by the All India Institute of Medical Sciences, Bhubaneswar in Odisha & by the All India Institute of Medical Sciences, Jodhpur in Rajasthan; nominated by the Odisha Public Service Commission (OPSC) to be the Expert Member of the Interview Board for the recruitment of Assistant Professor (Dentistry); Organising Chairperson for the Conference, viz. Digital Orthodontics: The Future organised by the Division of Orthodontics & Dentofacial Deformities, CDER, AIIMS, New Delhi; was the Chairperson for the 'Correcting Facial Asymmetry "Ortho – Surgical Hands-on Workshop" which was organised by the Jamia Millia Islamia, New Delhi.

Professor Ajoy Roychoudhury was Associate Editor trauma section: Journal of Oral Biology and Craniofacial Research Reviewer for indexed journal; British Journal of Oral and Maxillofacial Surgery; National Medical Journal of India; National Journal of Oral and Maxillofacial Surgery; National Medical Journal of India; Dental Council Inspector to verify the teaching, and infrastructure facility of various dental colleges in India providing Postgraduate education.

Professor Ongkila Bhutia was a chairperson of HICC from CDER and made a major contribution towards the hospital infection control program. HICC team led by her carried out various activities related to "hospital infection prevention and control guidelines" right from daily reinforcement and monitoring of infection control protocol practices by all the HCWs, and conducting awareness programs. She has been the Nodal Officer for COVID-19 from CDER and was actively engaged and participated in various events and workshops organized by the institute for effective prevention and control of COVID cases and successfully resolving all the issues/queries of the positive HCWs and their families. She was appointed as a subject expert for the faculty promotion interview at the Government Institute of Medical Sciences, Greater Noida on 24 August 22, and chaired a scientific session for the TRAUMA 22 on 18 November 2022, at JNU, New Delhi.

Professor Vijay Prakash Mathur was a Member, of the National Steering Group, National Oral Health Programme; Member, Committee for drafting National Oral Health Policy, Govt of India; Member, Committee for drafting Operational Guidelines for National Oral Health Program, Govt of India; Member of the expert committee on Finalization of the list of over-the-counter (OTO) drugs for Ministry of Health and Family Welfare, Govt of India; Member-Council on Continuing Education (for 2021-23), American Academy of Pediatric Dentistry; Member- IADR Awards Review Committee (for 2022-24); President, Indian Society for Dental Traumatology; Vice President - Indian Society for Dental Research (IADR- India Division); Hon. Treasurer, Indian Society of Pedodontics and Preventive Dentistry; Editor in Chief, Journal of South Asian Association of Pediatric Dentistry (JSAAPD); Chairman Scientific, 20th National PG Convention of ISPPD; Member of the Board of Studies for AMU University (Aligarh Muslim University)

Professor Ajay Logani Patent filed on "A splint device" (Application No: 202211041202, Date of Filing: 19 July 2022).

Professor Dalim Kumar Baidya was International Rising Star Award for Best Oral Presentation by the World Federation of Intensive and Critical Care at the World Intensive and Critical Care Conference in Istanbul, Turkey 26-30 August

2023; Chairperson, Neonatal Anesthesia Society Annual Conference, 30 July 2023; Expert, Selection Committee, Faculty recruitment, Department of Critical Care Medicine, King George Medical University, Lucknow - 20 January 2024;

Dr Prabhat Kumar Chaudhari was CHAIR of Tellers Committee: Appointed by the AADOCR and IADR Board Operations Committees of the 2024-2025; Fellow of the National Academy of Medical Sciences (India) (F-1102-2023).

Dr Kalpana Bansal was An updated version (Second) of the mobile application -Healthy-Smile Swasth-Muskaan that was uploaded to the Google Play Store for patient education. This application is the first of its kind for the prevention of early childhood caries in children and is available in two languages (Hindi & English); One poster paper won the Best Paper award in the category of caries prevention at the International Conference-FDI held in Sydney, Australia from 24-27 September 2023.

Dr Nitesh Tewari was Appointed as the Secretary/Treasurer of the Evidence-Based Dentistry Network of the International Association of Dental Research; Appointed as Editorial Board Member for the section of Systematic Reviews and Meta-analysis of the Dental Traumatology Journal; Bengt Magnusson Award 2023 at IAPD Congress Maastricht, Netherlands for the best original research paper given by the International Association of Pediatric Dentistry; Appointed as the Chair of the social media committee of the International Association of Dental Traumatology in October 2023; Appointed as the Member of the Public Relations committee of the International Association of Pediatric Dentistry in July 2023; Awarded with the AIIMS International Fellowship under the AIIMS Endowment Fund awarded by All India Institute of Medical Sciences, New Delhi to conduct research at the Nihon University School of Dentistry, Chiba, Japan from 1 January 2024 to 22 January 2024; Awarded with the Fellowship of International Association of Pediatric Dentistry awarded on 14 June 2023; Completed the observership of two weeks in the Kings College NHS Hospital, London, UK, under the TC White Award to the Faculty of Dentistry, Royal College of Physicians and Surgeons of Glasgow, UK; Nominated for the IADR Hatton Award 2023 in Senior Basic Sciences Category by IADR India Division to compete in June 2023 in Bogota Colombia.; Awarded the J G Kannappan Award for the Best Published Paper in the Indian Journal of Dental Research by the Indian Society of Dental Research; Contributed as the faculty in charge for the CDER Team for the AIIMS Institute's Day 2023; Participated as an expert in various activities of the BHS- SERB DST and the Power Grant.; Appointed as the member of the Board of Studies for the Faculty of Dentistry, VMRF (Deemed to be University), Salem on 29 August 2023 and the Swami Vivekanand Subharti University, Meerut.; Served as an external examiner for MDS for the Swami Vivekanand Subharti University, Meerut, and the DY Patil University, Pune; Research works were awarded for the highest citations in the Dental Traumatology and Special Care in Dentistry Journals.

Dr Amrita Chawla was Awarded best paper for the paper presentation titled "Forty-eight months CBCT based outcome of ENDOVITAL therapy performed on teeth with symptomatic irreversible pulpitis and apical periodontitis" 31st National Conference of Indian Endodontic Society, from 29 September to 1 October 2023; Member of the organising committee of the 31st national conference of Indian Endodontic Society, Bhubaneswar from 29 September to 1 October 2023; Chairperson in 31st national conference of Indian endodontic Society, Bhubaneswar from 29 September to 1 October 2023; Went as external examiner; Jamia Millia Islamia for BDS 2nd year, MAIDS for MDS 1st year examination, MAIDS for BDS II year examination MAIDS supplementary for BDS II year examination.

Dr Harsh Priya was **an** Expert in the Protocol Tool Development for ICMR National Health Research Priority Project, "Anant Muskaan: A multi-site Implementation research on Primary School-based tooth brushing and oral health education in India"; Nominated as Session Proposal Coordinator for the IADR e-Oral Health Network group for the year 2024 -2025 International Association of Dental Research (IADR); Member of IADR/AADOCR Publication Policy for Tobacco Company-Funded Research; Nominated and selected as an alternate candidate for the 2024-2025 Hubert H. Humphrey Fellowship Program; Nominated for Commonwealth Shared Scholarship for MSc Health Analysis and Policy Management; Expert in the workflow development of the Community Health Officer for Health and Wellness Centre for ICMR and NITI Aayog; Selected Executive Committee (EC) member for the Indian Society for Dental Research (IADR India Division) from 2024–26 at the 34th Annual Conference of Indian Society for Dental Research (IADR India Division) held on 2-4 February 2024 at Kanyakumari hosted by Rajas Dental College and Hospital, Tamil Nadu, India; Coordinated at the India International Centre (IIC) for comprehensive oral health talk and oral health screening for the IIC members and workers on the subject of "Be Mouth Smart – Keep Your Smile all the While: Smiling the Miles"; Subject Expert for evaluation of various progress reports of project proposals submitted for funding at ICMR; Chief Coordinator from CDER with Border Security Forces for Oral Health and Oral Cancer awareness among the forces; Appointed as Board of Studies Committee of Department of Public Health Dentistry, Faculty of Dental Sciences, SGT University as External Subject Expert from reputed University/Institute as per letter number SGTU/FDS/27/2023/66 dated 1 March 2023; Contributed as the faculty in charge for the CDER Team for the International Women's Day celebration on 8 March 2024;

Dr Deepika Mishra was felicitated by Dr Subramanian Swamy at the Workshop on Innovation, Knowledge and Awareness in Virtual Autopsy at the Department of Forensic Medicine, AIIMS, Delhi on 23 February 2024. She was invited as Chairperson for the session on Chronic Non-infectious Osteomyelitis (CNO): myths and facts in the CME on Master class in Pediatric Rheumatology, organised by Division of Pediatric Rheumatology and Clinical Immunology at AIIMS New Delhi. She chaired the sessions at the Indian Society of Dental Research at Kanyakumari and 30th National Conference of Indian Association of Oral and Maxillofacial Pathologists (IAOMP) at Belgavi; Chaired the 8th World Cancer Congress – 2024 (WCC-2024). She was nominated by AIIMS to attend the International Women's Day celebration organized by the National Commission for Women Government of India at the Plenary Hall, Vigyan Bhawan, New Delhi on 7 March 2024. Elected as an executive council member of the Indian Division of the International Association for Dental Research (IADR). She is an expert resource person for Oral Care sessions in the National Training of Trainers program for Community Health Officers and Staff Nurses, organized by the National Health Systems Resource Centre (NHSRC) in Delhi. She also serves as an expert resource person on Oral Cancer Screening sessions at the Indian Council of Medical Research - National Institute of Cancer Prevention and Research (ICMR NICPR) ECHO's Advanced Cancer Screening Training Program for Dentists (ACSTP-O7 and ACSTP-O8).

Dr Kunaal Dhingra; Awarded Fellowship FDS RCS (Eng) of Faculty of Dental Surgery of the Royal College of Surgeons of England, UK; Appointed as International Dental Ambassador (India region) of the Faculty of Dental Surgery of The Royal College of Surgeons of Edinburgh; Awarded grant by SERB (Science and Engineering Research Board) under 'Accelerate Vigyan' scheme for organizing Periodontal Microsurgery workshop as Organizing Secretary in 2023; Awarded grant by SERB (Science and Engineering Research Board), DST for organizing Periodontal Microsurgery workshop as Organizing Secretary in 2024**;** Awarded as 'Top Reviewer' for the Evidence-Based Dentistry journal for the year 2023; Awarded 'Top cited article for year 2021-22' by Wiley Publication House for the article published in *Food Science & Nutrition* journal; Awarded J H West bursary by the Royal Statistical Society (RSS), UK to present poster at RSS Conference 2023; Appointed as Associate Editor of *Frontiers in Oral Health* journal; Awarded Borrow Foundation travel grant to attend European Association of Dental Public Health Congress 2023; Appointed as Reviewer for *Micro & Nano Letters* journal; Appointed as Guest Editor for special collection 'Cell technologies: advances and applications' in *BMC Biotechnology* journal**;** Appointed as Associate Editor of *Periodontal and Implant Research* Journal; Appointed as Editorial Board Member of *Journal of Periodontal Research;* Delivered Lecture as a guest speaker at 34th Annual Conference of the Indian Society for Dental Research in February 2024; Appointed as reviewer for the R&D Proposals under Research Grants for Women Scientists (CSIR-ASPIRE)**;** Conducted a Hands-on workshop on 'Microsurgical modified coronally advanced tunnel technique for root coverage' at King George's Medical University, Lucknow, India in March 2024; Delivered Lecture as a guest speaker in High-End Training workshop on "Artificial Intelligence in Oral Health Science: From Basics to Clinical Applications" in March 2024 at AIIMS, New Delhi.

Dr Vijay Kumar Awarded fellowship of Royal College of Physicians and Surgeons – Glasgow; Awarded the certificate for completing "Basic Course in Biomedical Research" by ICMR-NIE, Chennai.; Summer faculty research fellowship at Indian Institute of Technology, New Delhi.

Dr Vikender Singh Appointed as Member of ISP Scientific Research Committee; Elected as Executive Committee member of the Indian Society of Periodontology; Awarded Dr TN Chawla Oration at 45th IDA UP State Dental Conference on 25 November 2023.

Dr Sidhartha Sharma Completed the "Basic Course in Biomedical Research" by ICMR-NIE, Chennai; Outstanding reviewer award for the journal Endodontology, the official journal of the Indian Endodontic Society; Awarded the runner-up prize for best delegate paper presentation at IACDE national conference 2023 in Kolkata; One research was selected as one of the five abstracts under the Original Scientific Poster Prize competition in the European Society of Endodontics held in Helsinki, Finland between 3-6 September 2023; Selected as a member of fellowship standing committee for the International Association of Dental Traumatology; Selected as a Mentor for the Indian Board of Endodontics diplomat examination; Member of Dentistry MHD-08 committee, Bureau of Indian Standards; Reviewer in Clinical Oral Investigations, BMC Oral Health, Case Reports in Dentistry, Journal of Conservative Dentistry, and Endodontology; Member of International Association of Dental Traumatology, Indian Society of Dental Traumatology, Indian Endodontic Society, Indian Association of Conservative Dentistry and Endodontics.

Dr Aditi Nanda; Associate Fellow, American Academy of Implant Dentistry (Virtual attendance at the induction ceremony held in Las Vegas (1-4 November 2023); Reviewer at the Journal of Oral Implantology; Member of the American Academy of Implant Dentistry -Communications section; Adjunct faculty Jacksonville University, Florida (online only) (Spring-Summer Session); Expert for the Dentistry section (Including Prosthodontic & Implant equipment) sectional committee at BUREAU OF INDIAN; STANDARDS, Manak Bhavan, (Ministry of Consumer Affairs, Food and Public Distribution, Government of India).

Dr Rahul Morankar G Awarded the best research paper in the faculty original research category at an International conference organized by the South Asian Association of Pediatric Dentistry held from 9-11 February 2024 in Hyderabad, Telangana, India; Recommended and nominated by the IADR-Indian Division for the prestigious IADR Hatton Award in IADR general sessions and Exhibitions held from 13-16 March 2024 in New Orleans, USA for our work titled - "Culture, characterization, and effect of different intracanal medicaments used for root canal disinfection during regenerative endodontic therapy on the cytotoxicity and differential potentials of stem cells from apical papilla" in Senior Basic Research category.; The International Association of Pediatric Dentistry (IAPD) congress held from 14-17 June 2023, at Maastricht, The Netherlands our abstract was selected as best in the pedodontics Endodontics category.

Dr Bharathi M Purohit Invited as National Trainer for various **capacity-building programs for Dentists & Medical officers conducted by ICMR-NICPR (National Institute of Cancer Prevention and Research) and National Health Systems Resource Centre (NHSRC)**; Invited as session Chair at 27th National Conference Indian Association of Public Health Dentistry organized by SGT Dental College, Gurugram, Haryana held from 1-3 December 2023.

Dr Varun Surya has initiated the NABL accreditation process of the Oral Pathology laboratory. He has also been involved in the NABH accreditation process for CDER, and AIIMS. He has also developed "Hospital infection control manual" for CDER AIIMS for the purpose of NABH accreditation. He has also worked for upgradation of the CDER subdomain of the AIIMS website by taking initiative of creating departmental videos. He was also invited as an External Examiner for Himachal Pradesh University & Atal Medical & Research University Shimla Himachal Pradesh for conducting practical examination of BDS 3rd year for the subject of Oral Pathology & Microbiology. He also formulated recommendations for the implementation of a collaborative working model between forensic medicine and forensic odontology during workshop on "Forensic Odontology: Dental Perspectives in Forensic Investigations" in collaboration with Department of forensic medicine VMMC & Safdarjung Hospital on 24 February 2024. He is also a Co-lead in the consortium for the AI Centre of Excellence (COE) in health, led by the Indian Institute of Science, Bangalore. He was also the organizing secretary and scientific session moderator for XX IAOMP National PG Convention 2023, 21-22 July 2023 at AIIMS, New Delhi. He was also nominated as External Member to conduct interview for the post of "Senior Project Associate" held on 25 October 2023 at Maulana Azad Institute of Dental Sciences for the project entitled "Development of artificial intelligence based tool for automated 2D-3D comparison of smile photographs with digital casts" funded by DST, Govt. of India;

Dr Anika Dawar; Chairing of scientific session at 47th National Conference of Indian Society of Periodontology held on 1-3rd December at Amritsar, Punjab**;** Reviewer in Journal of American Dental Association

VISITING SCIENTIST

- Dr Brian O'Conell,

  Dean, Health Sciences, Trinity College Dublin and President International Association for Dental Research and Mrs Dr Anne O'Conell in December 2022.zK
- Dr Jaffery Alan Dean,

  Ralph E. McDonald Professor of Pediatric Dentistry and Professor of Orthodontics and Dentofacial Orthopedics, Riley Hospital for Children at IU Health, Indianapolis, Indiana USA
- Eyal Botzer

  Director of Pediatric Dentistry at Tel Aviv Medical Center, Israel
- Dr Rajeev Agarwal

  Paediatrician and Tongue Tie Expert, Director, Agave Pediatrics, Phoenix, Arizona, USA
- Dr Soni Stephen

  President Elect, International Association of Pediatric Dentistry, Southside Pediatric Dentistry, Suite 1/541, ingsway, Miranda, NSW – 2228, Australia

10.3 Dr BR Ambedkar Institute Rotary Cancer Hospital

Chief

Sushma Bhatnagar

Additional MS

Sanjay Thulkar

Department of Onco-Anaesthesia & Palliative Medicine

Professor & Head

Sushma Bhatnagar

Professors

Seema Mishra
Rakesh Garg
Nishkarsh Gupta
Vinod Kumar
Sachidanand Jee Bharati
Brajesh Kumar Ratre

Associate Professors

Anuja Pandit
Saurabh Vig
Shweta Bhopale
Balbir Kumar

Assistant Professors

Raghav Gupta
Prashant Sirohiya

Department of Medical Oncology

Professor & Head

Sameer Bakhshi

Professor

Atul Sharma
(Superannuation on July 2023)

Additional Professors

Ajay Gogia
Ranjit Kumar Sahoo
Prabhat Singh Malik
Sameer Rastogi
Atul Batra
Raja Pramanik
Chandra Prakash Prasad
Thoudam Debraj Singh
Mayank Singh

Associate Professors

Sachin Khurana
Deepam Pushpam
Akash Jha

Assistant Professors

Chethan R
Babita Kataria
Aparna Sharma

Scientists

Bharat Bhushan
Sachin Kumar
Sampa Ghose
Surender K Sharawat

Department of Surgical Oncology

Professor & Head

SVS Deo
(up to 31 January 2024)

Sunil Kumar
(From 1 February 2024 to till date)

Professor

Mukurdipi Ray

Associate Professors

Ashutosh Mishra | Sandeep Kumar Bhoriwal | Jyoti Sharma

Assistant Professors

Babul Bansal | Naveen Kumar | Jyoutishman Saikia
Amitabh Mandal | | Raghuram K

Department of Radiation Oncology

Professor and Head

DN Sharma

Professors

Suman Bhasker | Sushmita Pathy
Subhash Gupta | Haresh KP

Additional Professors

Rambha Pandey | Ahitagni Biswas

Associate Professors

Surendra Kumar Saini (Medical Physics) | Gopishankar N (Medical Physics) | Subramani V (Medical Physics) | Dhanbalan R (Medical Physics)

Assistant Professors

Abhishek Shankar | Anjali VR

Radiology Unit, Dr BRA IRCH

Professors

Sanjay Thulkar | Chandrashekhara SH

Additional Professors

Ekta Dhamija | Mukesh Kumar

Associate Professor

Krithika Rangarajan

Technical officer

Vijay Chandel

Laboratory Oncology, IRCH)

Professors

Ritu Gupta | Sanjeev Kumar Gupta
Anita Chopra | Pranay Tanwar

Additional Professor

Amar Ranjan

Assistant Professor

G Smeeta

Scientists

Gurvinder Kaur — Deepshi Thakral
Vivek Kumar Singh — Ngangyola Tuikhar

Medical Physics

Professor & In-charge
Pratik Kumar

Assistant Professor
Raj Kishore Bisht
(joined on 10 February 2023)

Scientist-II
Susama Rani Mandal

Preventive Oncology
Associate Professor
Pallavi Shukla

Scientists II

Sujata Pathak — Kumar Sandeep

Scientists I

Asrar Alam — Pawan Kumar

DCR

Head

SVS Deo (1 April 2023 to 31 January 2024) — Sunil Kumar (1 February 2024 to 31 March 2024))

Scientist
N Manoharan

Scientist - II
Rajeev Kumar Malhotra

Chief MSWO
Ashok Kumar Singh

Medical Record Section

Medical Record Officer — Jagdish Prasad Bhadula

DR BRAIRCH

The Chief	:	Professor Sushma Bhatnagar
Addl. M.S.	:	Professor Sanjay Thulkar
Accounts Officer	:	Sh Trilok Chand
Stores Officer	:	Sh Manohar Arya
Admn. Officer	:	Sh Ashok Kumar

Total No. of Officials at Dr BRAIRCH

Faculty Member	54
Resident Doctor	94
Group 'A' Official	45
Group 'B' Official	419
Group 'C' Official	102
Part-Time Social Guide	06
Outsourced House Keeping Staff	182
Outsourced Security Staff	81
Outsourced Fire Staff	03
Outsourced Patient Care Coordinator	08
Outsourced MLT	02
Outsourced MTS	06
Outsourced Data Entry Operators	45
Outsourced Sanitation Staff	81

HIGHLIGHTS

Onco-Anaesthesia & Palliative Medicine

The Onco-Anaesthesia and Palliative Medicine Department provides oncology patients comprehensive care (Perioperative care, palliative medicine, and intensive care). We also provide comprehensive cancer care services at the National Cancer Institute (NCI), Jhajjar. We have a functioning cardiorespiratory Exercise Testing (CPET) lab for perioperative screening of high-risk cases. We have started an initiative to integrate the concept of palliative care across the specialities of pulmonary medicine, cardiology, emergency medicine, neurology, nephrology, and geriatric medicine to improve patient care and quality of life. We have also started various diagnostic interventions, including anaesthesia for endoscopies, ERCP and stenting and pediatric sedation The department has developed and published protocol and SOPs book for better patient management.

Laboratory Oncology

- **Patient care:** A total of 2,81,361 diagnostic tests were done.
- **Research:** Involved in high end research. Three faculty members were awarded during AIIMS Research Excellence Award. Published in high-impact journals.
- **Education:** Involved in training PhD students.

Medical Oncology

Department of Medical Oncology is known for its high-level academic program, busy clinical service, stem cell transplant program, and research activity. Its academic programs, PhD, DM and BMT Fellowship, are very competitive and sought after. The department also attracts students from National science academies and universities for summer training. Publications in high-impact journals, research grants, and recognition of faculty members and scientists by various government /grant agencies are a testament to their quality contribution.

After serving 3 decades at IRCH, Professor Atul Sharma (HOD) superannuated in July 2023, and Professor Sameer Bakhshi took charge as the HOD of Medical Oncology from August 2023.

Activities/steps taken to improve patient care services, education and research

1. Regular seminar by '**Distinguished Speakers' Seminar series**" by eminent speakers (both from India and abroad) have given invited seminars on a range of topics, these have been liked by young faculty members.

2. NCI Foundation Day was conducted at NCI-AIIMS Jhajjar.
3. CMIE BOOT CAMP – A 3-day bootcamp in Oncology (31 January- 3 February 2024) was organized by Centre for Medical Innovation and Research to promote interaction and brainstorming for start-ups and individuals interested in commercialization of their research. Our faculty members were actively engaged since inception to the final closure. Our faculty helped prepare the agenda items, took lectures and actively participated in brainstorming sessions.

Medical Physics

Medical Physics Unit, IRCH looks after radiation safety and image quality in medical radiological imaging and radiation application in medicine pertaining to about 150 radiation equipment and facilities across about 20 Departments/Centers/ Sections at AIIMS and NCI Jhajjar. We provide regular Quality Assurance services to x-ray equipment, take care of the regulatory compliance of these x-ray equipment and facilities as per Atomic Energy Regulatory Board (AERB) rules, provide consultancy for radiation safety to patients, staff and public, carry out irradiation of blood bags, research related with optimization of radiation dosimetry and imaging and education in diagnostic medical physics area. During 2023-2024 we carried out 7886 measurements, tests, consultancy, experiments and radiation sterilization of blood bags for blood transfusion.

Preventive Oncology

Major activities of the department

1. Health Promotion and Education: Reaching the unreached through awareness generation is the major arena of Preventive Oncology. Awareness of the masses for common preventable cancers was enhanced through various platforms, including mass media through the media cell and Twitter handle of AIIMS, awareness sessions in schools and colleges, and celebrations of important cancer awareness days and months.
2. Outreach activities: We took initiatives and collaborated with other agencies to reduce and limit cancer burdens through vaccination drives and screening/early detection. Outreach activities include health and wellness, vaccination, and screening camps for underprivileged individuals.
3. Teaching, training and capacity building: Initiated PhD programme in the Department. Capacity building of various cadres of healthcare professionals, in risk assessment and common cancer screening, both within and outside the institute. As a technical resource, for Delhi State in NP-NCD programme, conducted training of Medical Officers and nurses. Facilitated training of the scientists in Preventive Oncology in tobacco cessation for providing these services for the IRCH patient and their attendants.
4. Patient care: Initiated yearly follow-up of clinic patients. Streamlined HPV vaccination for EHS beneficiaries. Initiated HPV vaccination for non-EHS beneficiaries through the support of NGOs. Facilitated mammography screening for EHS beneficiaries above 50 years of age.
5. Research: Faculty and scientists are actively engaged in intramural and extramural grants pertaining to early detection, prevention, and immunotherapy in cancers. Research is also underway to accelerate cancer early detection and treatment initiation as part of the National Programme.
6. Advocacy: As a technical resource person, I help in training and capacity building of the health care professionals of Delhi state and also help in formulating the State PIP for NP-NCD programme in Delhi. As one of the sites selected by the National Health Priority of ICMR for accelerating cancer screening and treatment initiation, recommendations will be provided to the Government of India for improving the implementation of the National Programme for Non-communicable Diseases.

Radio Diagnosis

The department is actively involved in research activities of artificial intelligence, machine learning and medical robotics. The faculty of the department were key participants and organisers in the Oncology bootcamp conducted by the CMIE in NCI Jhajjar. Departmental faculty also participated on rotation to provide radiology services, x-ray, ultrasound and CT scan to cancer patients cared at NCI-AIIMS, Jhajjar, in addition to the work at BRAIRCH. The department took a keen interest and provided mentorship in the functioning of new radiology equipment and formulating the protocols at NCI-AIIMS, Jhajjar. The department held weekly multidisciplinary discussions/ tumor boards specifically addressing gastrointestinal malignancies, lung cancer and sarcoma. In addition, there was active participation in organizing workshops with other departments of national and international conference during this year. The department has been actively involved in mentoring and introducing advanced interventions in NCI Jhajjar, such as intravascular procedures (TACE), gastrostomy, Vacuum Assisted Mammography Biopsies and MRI guided Breast Biopsies.

Radiation Oncology

The Department of Radiation Oncology is delivering high-quality comprehensive cancer care services. The department is engaged in teaching and research work along with taking care of cancer patients. The department has always aimed to achieve excellence in all domains of cancer care by collaborating with other departments at Dr. BRAIRCH and AIIMS. The department has an excellent team and a mix of faculty members with varying experience, making guidance and mentoring more balanced.

Currently, the department is equipped with high-end state of art Radiation therapy facilities with Linear Accelerators and Brachytherapy units to deliver the most advanced radiation treatment like IMRT, VMAT, SBRT, and brachytherapy. Our department has achieved many milestones in clinical care, teaching standards, and research contribution and always striving to improve in subsequent years. The Department runs post-graduate academic courses like MD and Ph.D. There are about 21 postgraduate residents and 23 senior residents. Our department has highly motivated faculty members who are actively engaged in clinical care, academics, and research activities. Many ongoing research studies and clinical trials are being conducted with the research grants of Indian funding agencies and international research organizations. Our research work focused on brachytherapy has been recognized globally on multiple occasions and acclaimed worldwide. The department is also working on innovation in oncology and a project on the role of artificial intelligence and machine learning to provide improved and personalized patient care is underway.

Surgical Oncology

During the year 2023-24 the Department of Surgical Oncology contributed significantly to patient care, training and research. The department has expanded surgical services at NCI and started advanced and complex cancer surgical services and comprehensive endoscopy services at NCI. The faculty of the department participated in various cancer registry, cancer awareness and prevention activities in collaboration with Govt. organizations and NGOs. A total of **2636** complex major cancer surgeries were performed during the current year along with **10137** diagnostic and therapeutic endoscopy procedures and minor procedures.

Activities /Steps taken to improve patient care services, education and research:

1. Successfully performed more than **13000** major and minor cancer surgeries at IRCH and NCI with excellent outcomes. (Morbidity and Mortality benchmarks at par with best global outcomes)
2. Initiated a special drive to decrease the waiting time for common cancer surgery patients at AIIMS (IRCH and NCI)
3. Implemented ERAS program for decreasing hospital stay of surgical patients and optimizing hospital resource utilization
4. Implemented Departmental Quality Control Program including morbidity and Mortality audit and quality metric evaluation
5. Implemented a robust clinical database program and captured patient-related data in a computerized structured format
6. All residents including M.Ch and non-academic SRs were assigned Organ specific clinical databases and mentored by faculty for data analysis of presentations in conferences and publication in journals
7. Started hybrid teaching programs to connect two campuses (IRCH and NCI)
8. The Department has initiated a number of RCTs, collaborative research projects with prestigious national and International scientific organizations like IIT, ICMR, DBT and IISc
9. The Department organized international and national scientific events
10. The year 2023-24 was highly productive as far as research is concerned and we managed to publish more than 40 articles in high-impact scientific journals with many international presentations

Action Plan for Coming Year:

The department is committed and determined to expand and strengthen cancer patient care activities further during the year 2024-25. Our vision is to introduce emerging surgical technologies like robotic surgery, navigational surgeries, and IORT and improve patient care services through introduction of tale-oncology services, computerized clinical databases, implementation of ERAS and fast-track surgery programs. The faculty of the department is also planning a number of innovative research projects applicable to Indian cancer patients.

Summary: Overall in the year 2023-24, the department of surgical oncology set up the new standards by performing the highest number of complex oncology procedure in comparison to previous years. The department conducted various activities that helped in patient care, academics and research.

DCR

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 and covers 97.5% of Delhi population according to 2011 census. When the registry was established in 1988 it registered 5854 new cancer cases and over the years the new cancer incidence has been increasing and in 2016 the registered incidence was 21684 cases (11567 males and 10117 females). The common sites of cancer among Delhi males are lung, mouth, tongue, prostate, and larynx and in females the common sites of cancer are breast, cervix, gallbladder, Ovary, and corpus uteri. The median age of diagnose of cancer for males is 58 and for females 55 years. The top ten cancer leading sites cover 55.1% and 67.2 % of total cancer cases in males and females, respectively. The reports prepared by registry are being widely used by medical students, researchers, govt. organization etc.

The Delhi PBCR data pertaining to the years 2013-2015 has been also accepted for publication in Cancer Incidence in Five Continents, Vol. XII and available in https://gco.iarc.who.int/media/ci5/data/vol12/Registries/435601099.pdf

As per the latest Hospital Cancer Registry Report of Dr BRAIRCH, during the 2014-1019 period 60105 new malignant cases were registered in the Dr BRA IRCH, AIIMS, New Delhi. Among these cases, 70% caseswere non-residents of Delhi with Uttar Pradesh contributing the highest number of cases (32.1%) which was nearly one-third of total cases followed by Delhi (30.1%). The median age at diagnosis was 50 years in males and 49 years in females. 6.8% of the total registered cancer attributed to pediatric age group (0-14 years) with boys count were more than double compared to girls.

EDUCATION

Onco-Anaesthesia & Palliative Medicine

The department is successfully running 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 months of June and November and Foundation course on Palliative care once in a year in the month of March.

Departmental Seminar	Every Monday and Friday at 8-9 AM (Hybrid Mode)
IRCH Seminar	Every Thursday at 8.30-9.30 AM (Hybrid Mode)
Tutorials:	Every Tuesday 3-5 PM (Physical)
Radio Conference	Every Saturday at 9-10 AM (Physical)
Journal Club/Audit/Case discussion	Every Saturday at 10-12 Noon. (Hybrid Mode)

A complete and comprehensive video of introduction and concept of Palliative Care and Cancer Pain is uploaded on SARAL Platform of AIIMS, New Delhi for UG, PG and SR Teaching.

Total Number of Trainees

2022-2023
Acad. JR(MD)- 18
Acad. SR(DM)-22
Non-Acad. SR-8
Non-Acad SR (PM)- 5

Laboratory Oncology

The Laboratory Oncology is involved in training PhD students. In addition, it is involved in training DM students from Medical Oncology, Pediatric Oncology and Hematopathology.

S. No.	Name of The faculty members	No. of Ph.D Students
1	Dr Ritu Gupta	01
2	Dr Sanjeev Kumar Gupta	02
3	Dr Anita Chopra	03
4	Dr Pranay Tanwar	02
5	Dr Amar Ranjan	01

Medical Oncology

The Department of Medical Oncology is running successfully the following programs

1. DM Program
2. PhD in Medical Oncology
3. BMT Fellowship
4. Summer internship/training

Regular classes and seminars

Departmental Faculty Seminar	Every Monday at 8.15 -9.00 AM
Journal Club/Case discussion	Every Wednesday at 8.15 -9.00 AM
IRCH Seminar	Every Thursday at 8.30-9.30 AM
Molecular Oncology Class	Every Tuesday at 2.00-3.00 PM

Departmental Projects

Ongoing

1. Abhirup Mukhopadhyay, 15 October 2020, Evaluation of the Expression, Regulation and Clinical Relevance of APOBEC3B in Non-Small Cell Lung Cancer
2. Akanksha Kashyap, 4 December 2021, Evaluating the theranostic potential of canonical and non-canonical WNT signaling in Gall Bladder Cancer
3. Ann Alex, 30 September 2023, to characterize the immune landscape in acute myeloid leukemia
4. Arundhathi Dev JR, 3 November 2020, Prognostic and Therapeutic Relevance of Human Antigen R (HuR) in Triple Negative Breast Cancer
5. Ashna Gupta, 14 October 2020, Generation and characterization of Therapeutic BCMA (B Cell Maturation Antigen) specific antibodies in Multiple Myeloma (MM)
6. Christine Wilson, 14 February 2020, Role of long non-coding RNA HOTAIRM1 in Acute Myeloid Leukemia
7. Deepak Gulwani, 14 October 2020, To investigate the significance of Estrogen Related Receptor Gamma (ERR?) expression in thyroid cancer and study its potential as a therapeutic target
8. Harshul Kapoor, 12 April 2022, Mechanistic Insights on the role of OneCut Homeobox 2 transcription factor in Small Cell Lung Cancer
9. Meetu Rathee, 5 October 2023, Uncovering the molecular basis of PM 2.5 induced carcinogenesis and formulating preventive approach
10. Mohini Mendiratta, 12 February 2020, Immunomodulatory properties of Mesenchymal Stem Cells in Graft- versus-Host-Disease
11. Rajiv Ranjan Kumar, 30 September 2023, Unravelling the role of mitophagy in the biology and outcome of acute myeloid leukemia
12. Ravi Chauhan, 14 February 2020, “Deciphering the oncogenic potential of Deubiquitinating enzymes (DUBs) in Gynaecological Cancers”

13. Ridhima Goel, 14 October 2020, Evaluation of the potential of AP1-functionalised Elastin Like Polypeptide nanocarriers for multivalent targeting-based delivery of paclitaxel in human ovarian carcinoma
14. Sheikh Mohammad Umar, 13 February 2020, Role of ?-catenin induced metabolic changes in Triple Negative Breast Cancer (TNBC) prognosis and therapeutics
15. Vaishnavi Vishwas, 5 October 2023, To see the early effect of Sorafenib on cognition, cardiovascular and reproductive functions in patients with fibromatosis

Ongoing Research by Postgraduates (fellows)

DM students with Thesis title

1. Dr Aastha Goel, Dr Ajay Gogia, The clinicopathological profile and outcomes of hormone positive breast cancer: a 10-year retrospective analysis
2. Dr Adhip Arora, Dr Atul Batra, A Phase II, Randomized, open labelled study to Evaluate low dose Pembrolizumab plus Chemotherapy vs Chemotherapy as Neoadjuvant Therapy for localized Triple Negative Breast Cancer (TNBC). [PLANeT Trial - Pembrolizumab Low dose in Addition to NACT in TNBC]
3. Dr Alan Shaji, Dr Ajay Gogia, Clinico-pathological outcomes of Ca breast -10-yr retrospective Single centre analysis
4. Dr Anura Kantak, Dr Raja Pramanik, Assessment of CfDNA as a biomarker in GI malignancies
5. Dr Archana Sasi, Dr Ranjit Kumar Sahoo, Monitoring for CMV Reactivation in Patients Undergoing Treatment for Hematologic Malignancies and Hematopoietic Stem Cell Transplant
6. Dr Bhoor Singh Bhati, Dr Sachin Khurana, Low dose Oral Metronomic Cyclophosphamide and Etoposide combination in Recurrent/Refractory High Grade Endometrial Cancer, a Single Arm Phase 2 Study
7. Dr Chitrakshi Nagpal, Dr Raja Pramanik, Palbociclib and Anastrozole in Recurrent or Metastatic Estrogen Receptor Positive Endometrial Cancer; a Single Arm Phase 2 Study
8. Dr Deepak Garg, Dr Ranjit Kumar Sahoo, Upfront low dose nilotinib in CML CP patient in Indian scenario- a randomised phase II active control study
9. Dr Gurmeet Kaur, Dr Deepam Pushpam, A Phase III, Randomized, open label non-inferiority study to Evaluate the efficacy of Oral Ondansetron and Dexamethasone vs Intravenous Ondansetron and Dexamethasone in prevention of chemotherapy induced nausea and vomiting in patients receiving highly emetogenic chemotherapy (HEC)-ONDEXCEL TRIAL
10. Dr Hemavati B, Dr Prabhat Singh Malik, Liquid biopsy-based risk stratification and intensification of treatment In EGFR mutant advanced NSCLC
11. Dr Mouna B M, Dr Akash Kumar, Metformin with neoadjuvant chemotherapy in localized Triple negative and Her2neu positive breast cancer a-prospective phase-2 open label randomised controlled trial (McBETH)
12. Dr Navin Bhati, Dr Raja Pramanik, Real world patterns of care and clinical outcomes in relapsed multiple myeloma: ambispective analysis
13. Dr Neelima V, Dr Sameer Rastogi, A phase II study of Cabozantinib in metastatic/unresectable GIST
14. Dr Niranjan Biswal, Dr Prabhat Singh Malik, Evaluation of low dose Nivoluamb with Neo adjuvant chemotherapy in NSCLC: An open label phase II randomised clinical trial
15. Dr Prabhat Gautam Roy, Dr Prabhat Singh Malik, Feasibility of predicting febrile neutropenia with vital data monitoring using wearable devices in patients with acute myeloid leukemia undergoing induction chemotherapy and patients undergoing autologous stem cell transplantation
16. Dr Praful Pandey, Dr Atul Batra, Randomized double-blind, placebo-controlled study of oral Gabapentinfor prevention of neuropathy in patients receiving paclitaxel
17. Dr Rajiv Mohan, Dr Deepam Pushpam, Study of Impact of Tyrosine kinase Inhibitors on Endocrine Function and Fertility
18. Dr Rishabh Jain, Dr Atul Batra, Carboplatin in patients with metastatic castrate resistant prostate cancer harboring somatic or germline homologous recombination repair (HRR) gene mutations: A phase II single-arm trial
19. Dr Sabitha P, Dr Ranjit Kumar Sahoo, Venetoclax with chemotherapy for remission induction in AML patients - phase 1/2 study

20. Dr Sanal Fernandes, Dr Sameer Rastogi, Phase 2 study of regorafenib in advanced, refractory synovial sarcomas
21. Dr Santhosh Kumar K N, Professor Sameer Bakhshi, Extended aprepitant in control of delayed Emesis among adults undergoing AML induction chemotherapy - EACODE AML
22. Dr Saurabh Sharma, Dr Sachin Khurana, Low dose Nivolumab in combination with Neoadjuvant Chemotherapy followed by concurrent Chemoradiation in advanced Carcinoma Cervix: A phase II study
23. Dr Shubham Saini, Professor Sameer Bakhshi, Olanzapine for weight Gain for Children Undergoing Chemotherapy for Solid Malignancies: An Open-Label, Phase III Randomized Controlled Trial
24. Dr Sushant Chib, Professor Sameer Bakhshi, Clinical features and outcomes of hematopoietic stem cell transplantation at AIIMS Delhi: a 15-year retrospective analysis
25. Dr Swasthik Upadhya P, Dr Sachin Khurana, A single arm phase II study of single agent pemetrexed in platinum resistant/refractory epithelial ovarian or primary peritoneal cancer
26. Dr Vinith, Dr Sameer Rastogi, A Phase 2 study of high dose Ifosfamide in metastatic relapsed synovial sarcoma patients

Medical Physics

Medical Physics Unit carried out teaching assignments regarding radiation physics of medical imaging, radiation protection, radiation dose measurement and quality assurance in medical imaging to the students of MD Radiology, MBBS, and BSc (Hons.) in Radiography and Nursing. At present 2 Ph.D. students are carrying out their research works in the Department.

Preventive Oncology

Teaching

Lecture for DM students:

- Topic: Cervical Cancer Elimination: An Aspirational Goal- Dr Pallavi Shukla
- Topic: CRISPER/CAS Technology- Dr Pawan Kumar
- Topic: Metabolic Reprogramming in Cancer- Dr Sujata Pathak
- Topic: Advances in early diagnosis of lung cancer- Dr Asrar Alam

Short-term, long term trainees:

One PhD Student

One MSc student under SSR Scheme of SERB

Radio Diagnosis

Faculty participated in undergraduate, postgraduate, and super specialty teaching, radio conferences, tumor board meetings, Clinical Combined Rounds, and Clinical Grand Rounds. They also participated in the various symposiums and CMEs held at IRCH and the institute.

Radiation Oncology

Surgical Oncology

a. Undergraduate teaching: The faculty was involved in undergraduate teaching by giving didactic lectures and by participating/moderating seminars on oncological topics
b. Post graduate teaching: The faculty was involved in teaching and training of 17 M.Ch surgical oncology students and 12 surgical oncology senior residents, DM medical oncology residents and MD radiotherapy junior residents by giving didactic lectures, moderating seminars, journal clubs etc. & clinical teaching during ward rounds and in special cancer clinics of IRCH. The faculty acted as a guide and co-guide for M.Ch Surgical oncology, DM medical oncology, MD radio diagnosis, MD radiation oncology thesis projects, and PhD projects from various departments. of BRA- IRCH & AIIMS. The faculty was also involved in teaching & training of general surgery &dental surgery residents and MCh Breast & Endocrine surgery trainees, M.Ch Gynecology Oncology trainees on rotation
c. Para clinical teaching/training: The faculty was involved in the teaching of the MSc nursing oncology students

DCR

Dr Rajeev Kumar Malhotra has been taking Biostatistics lectures regularly in academic schedule of Dr BRAIRCH and also involved as a Co-supervisor in Radio-Therapy and Onco-Anesthesia MD students thesis.

CME/Workshop/Symposia/National and International Conference

Onco-Anaesthesia & Palliative Medicine

Lectures delivered: 60

Sushma Bhatnagar: 25 **Seema Mishra: 15** **Rakesh Garg: 11** **Nishkarsh Gupta: 9**

Preventive Oncology

Lectures delivered: 10

Surgical Oncology

Lectures delivered: 04

Laboratory Oncology

Lectures delivered: 35

Ritu Gupta: 9 **Sanjeev Kumar Gupta: 7**
Anita Chopra: 1 **Pranay Tanwar: 4** **Amar Ranjan: 1**
G Smeeta: 2 **Gurvinder Kaur: 3** **Deepshi Thakral: 2**

Medical Oncology

Lectures delivered: 124

Sameer Bakhshi: 52 **Prabhat Singh Malik: 6**
Sameer Rastogi: 7 **Raja Pramanik: 16**
Chandra Prakash Prasad: 6 **Thoudam Debraj Singh: 7**
Mayank Singh: 4 **Sachin Khurana: 3**
Deepam Pushpam: 5 **Akash Kumar: 2**
Chetan R: 1 **Babita Kataria: 7**
Aparna Sharma: 7 **Raj Kishor Bisht: 1**

Lectures delivered: 9

Pratik Kumar: 8 **Raj Kishor Bisht: 1**

Preventive Oncology

Lectures delivered: 14

Pallavi Shukla: 13 **Sujata Pathak: 1**

Radio Diagnosis

Lectures delivered: 23

Chandrashekhara SH: 5 **Ekta Dhamija: 2**
Mukesh Kumar: 6 **Krithika Rangarajan: 10**

Radiation Oncology

Lectures delivered: 90

DN Sharma: 14 **Suman Bhasker: 3** **Subhash Gupta: 6**

Haresh KP: 3 **Ahitagni Biswas: 10** **Surendra Kumar Saini: 7**

Subramani V: 6 **Gopishankar Natanasabapathi: 1** **Abhishek Shankar: 40**

Surgical Oncology

Lectures delivered: 88

Sunil Kumar: 7 **SVS Deo: 15** **MD Ray: 11** **Ashutosh Mishra: 31**

Sandeep Kumar Bhoriwal: 4 **Jyoti Sharma: 4** **Naveen Kumar: 4** **Babul Bansal: 6**

Jyoutishman Saikia: 2 **Amitabha Mandal: 4**

DCR

Lectures delivered: 3

Rajeev Kumar Malhotra: 3

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
112	131	278

Oral papers/posters presented:

Onco-Anaesthesia & Palliative Medicine: 84

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
58	90	232

RESEARCH

Onco-Anaesthesia & Palliative Medicine

Funded projects

Ongoing

1. Effect of goal-directed therapy on post-operative neutrophil gelatinase-associated lipocalin profile in Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy: a randomized control study, Dr Raghav Gupta, AIIMS Intramural, 2 years, 2024-26, Rs 5 plus 5 Lakhs
2. Effect of Regional Anaesthesia on immune response, recurrence, and metastasis in breast cancer surgery: a prospective randomized control study, Dr Nishkarsh Gupta, ICMR, 3 Years, 1 January 2022, 31 December 2024, Rs 36,89,048/-
3. Homoeopathic treatment as an add-on therapy for pain management in cancer patients: A prospective, Randomized Exploratory study, Dr Sushma Bhatnagar, Central Council for Research in Homeopathy (CCRH), Ministry of AYUSH, Government of India, 3 years, July 2023 to July 2025,
4. Novel Video Laryngoscope for Endotracheal Intubation in Patients with Reduced Mouth Opening, Dr Nishkarsh Gupta, AIIMS-IIT, 2 Years, 31 March 2023, Rs 10,00,000/-
5. To build the capacity of Palliative Care Services in 10 hospitals in North India to reduce suffering in patients with chronic debilitating conditions, Dr Sushma Bhatnagar (PI), Dr Brajesh K Ratre (Co-PI), Dr Raghav Gupta (Co-PI), Dr Prashant Sirohiya (Co-PI), ICMR, 3 years, February 2023, 2026, Rs. 2 Crores

Completed

1. AIIMS-IIT development of a videolaryngoscope, Dr Balbir Kumar, AIIMS-IIT, 2 years, 2021-23, Rs 5 Lakhs each
2. Comparison of kind vision Videolaryngoscope channeled and non-channeled blades with direct Laryngoscope for intubation in mannequin by medical students: a randomized mannequin study, Dr Balbir Kumar, AIIMS, 1 year, 202122, Rs 2 Lakhs

Laboratory Oncology

Funded projects

Ongoing

1. A prospective study to elucidate genetics, clinical and molecular factors in gall bladder carcinoma in Indian patients, Dr Pranay Tanwar, Cancer Foundation, 7 years, 2017-24, Rs 40,00,000 (Forty Lacs)
2. Analysis of expression of biomarkers in ovarian cancer, DrAmar Ranjan, AIIMS, N. Delhi, 2 years, 2019-22, Rs 10 Lakhs
3. Cellular functions and clinical significance of NRf2 signaling T-ALL, Dr Anita Chopra, DHR, 3 years, 2021-24, Rs 52 Lakhs
4. Centre for Advanced Research & Excellence in Leukemic Stem Cells (LSC) for Prognosis and Treatment (CARE-LSCPT) in Acute Myeloid Leukemia, Dr Ritu Gupta, ICMR, 6 years, 2019-25, Rs 5,63,97,360/-
5. DBT-Wellcome trust intermediate career fellowship, Dr Anita Chopra, DBT Wellcome India Alliance, 5 years, 2018-24, Rs 3.86 Crores
6. Identification and characterisation of plasma-derived cell free nucleic acid-based markers for early detection and monitoring of relapse in AML, Deepshi Thakral, DHR, MOHFW, 3 years, 2022-25, Rs 55,80,647 (Fifty-five lacs, eighty thousand six hundred and forty-seven)
7. Identification of neoantigens for T cell therapy for Chronic Lymphocytic Leukemia (CLL), Gurvinder Kaur, ICMR, 3 years, 2022-25, Rs 10820376
8. Identification of Novel markers for monitoring of Minimal residual disease in Acute Myeloid Leukemia by Multiparametric Flowcytometry, Dr G Smeeta, Intramural (AIIMS, New Delhi), 2 years, 2022-25, Rs 10,00,000 (Ten Lacs)
9. Role of Cancer Testis Antigen gene (CT45) as a Diagnostic and Prognostic biomarker in Ovarian Cancer, Harshita Dubey/Amar Ranjan, ICMR- SRF, 3 years, 2022, SRF Scheme
10. Study of expression, function, and clinical significance of DNA damage repair pathway genes in acute lymphoblastic leukemia', Dr Anita Chopra, ICMR, 3 years, 2022-25, Rs 56 Lakhs
11. Study of peripheral blood megakaryopoiesis in chronic myeloid leukemia, Dr Anita Chopra and Prof S. S. Chauhan, AIIMS interdisciplinary project, 2 years, 2021-23, Rs 20 Lakhs
12. Study of prevalence and profile of predictive and prognostic molecular genetic aberrations in BCR-ABL1 negative B-cell acute lymphoblastic leukemia (B-ALL): A step towards personalized medicine, Sanjeev Kumar Gupta, DHR, 3 years, 2021-24, Rs 30,00,000
13.
14. Targeting the tumor Microenvironment for novel therapeutic approaches in Multiple Myeloma (MM), Dr Ritu Gupta, DST-SERB, 3 years, 2022-25, Rs 59,78,368/-
15. To determine the incidence and prevalence of second primary malignancies (SPMs) both preceding or following CLL diagnosis and their impact on the disease course and overall survival (OS), Dr Ritu Gupta, Harmony Alliance, 2 years, 2023-25, Rs 18,67,367/-
16. To establish Cryopreservation system for Multiple Myeloma (MM) cells, Dr Ritu Gupta, FMER, United States, 2 years, 2023-25, Rs 4,000,925/-
17. Understanding the role of RhoBTB2 in acute myeloid leukemia, Dr Anita Chopra, SERB, 3 years, 2022-25, Rs 51 Lakhs
18. Utility of DDPCR as novel method to detect CT-DNA in Head & Neck Cancer, Dr Pranay Tanwar, ICMR, 3 years, 2022-26, Rs 43,00,000 (Forty Three Lacs)

Completed

1. Development of risk-stratification algorithm to select BCR-ABL1 negative pediatric B-ALL patients for detailed genetic analysis- a step towards optimum use of next generation sequencing platform, Sanjeev Kumar Gupta, ICMR, 3 years, 2020-23, Rs 49,50,000

Medical Oncology

Ongoing

1. "A Phase III, Open-Label, Multicenter, Randomized Study Evaluating The Safety And Efficacy Of PolatuzumabVedotin In Combination With Rituximab Plus Gemcitabine Plus Oxaliplatin (R-Gemox) Versus R-Gemox Alone In Patients With Relapsed/Refractory Diffuse Large B Cell Lymphoma (Stage 2)", Dr Sameer Bakhshi, Roche Products (India) Private Limited, 3 years, 2021, Ongoing, Rs 2.92 Lacs (per patient)
2. "Improving survival in childhood -Acute Lymphoblastic Leukemia in India (IS-CALL): ICICLE implementation study", Akash Kumar, ICMR, 3 years, 2023-26, Total - Rs 55 Lacs
3. 165 rDNA amplicon and metagenomic nonopore sequencing for rapid detection of bacterial pathogens in febrile neutropenia for pediatric acute leukemia and hematopoietic stem cell transplantation, Dr Sameer Bakhshi, ICMR, 1 year, 2024, Ongoing, Rs 31.21 Lacs (One year)
4. A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study of Acalabrutinib in Combination with Rituximab, Cyclophosphamide, Doxorubicin, Vincristine and Prednisone (R-CHOP) in Subject? 70 Years with Previously Untreated Non-Germinal Center Diffuse Large B-Cell Lymphoma., Dr Sameer Bakhshi, Azerta, 1 year, 2023, Ongoing, Rs 8.28 Lacs (One year)
5. A Phase III, Randomised, Controlled, Multi-centre, 3-Arm Study of Neoadjuvant Osimertinib as Monotherapy or in Combination with Chemotherapy versus Standard of Care Chemotherapy Alone for the Treatment of Patients with Epidermal Growth Factor Receptor Mutation Positive, Resectable Non-small Cell Lung Cancer (NeoADAURA), Dr Prabhat Singh Malik, Astrazeneca Pharma India Ltd, 5 years, 2021-25, Approx Rs 50 Lacs
6. A Randomized, Active-Controlled, Multicenter, Open label, Two Arm Study to Assess Safety, Efficacy, Pharmacodynamics, and Pharmacokinetics with Pegfilgrastim PFS of Intas Pharmaceutical Limited Compared with Neupogen® Injection in Paediatric Patients Under 6 years of Age with Rhabdomyosarcoma or Wilms' Tumour on Myelosuppressive Chemotherapy (CmT) Regimen, Dr Sameer Bakhshi, Intas Pharmaceutical Limited, 2 years, 2022, Ongoing, Rs 2.87 Lacs
7. A Randomized, Multiple-dose, Multicenter, Comparative Parallel Study to Evaluate the Pharmacokinetic, Pharmacodynamic, Efficacy and Safety of Subcutaneous Injection of Denosumab (Hetero) and Reference Medicinal Product (Denosumab, Amgen Inc.) in patients with bone metastases from solid tumors, Dr Sameer Bakhshi, Hetero Biopharma Limited, 2 years, 2022, Ongoing, Rs 2.96 Lacs per patient
8. A Randomized, Open-Label Study of the Efficacy and Safety of Galinpepimut-S (GPS) Maintenance Monotherapy Compared to Investigator's Choice of Best Available Therapy in Subjects with Acute Myeloid Leukemia Who Have Achieved Complete Remission After Second-Line Salvage Therapy, Dr Sameer Bakhshi, PPD Pharmaceutical Development India Private Limited, 5 years, 2022, Ongoing, Rs 8.13 Lacs per patient
9. A study of familial aggregation in non-small cell lung cancer, Dr Prabhat S. Malik, Lady Tata Memorial Trust: Institute Research Grant, 2 years, 2023-25, Rs 37,00,000
10. Addition of low-dose pembrolizumab to capecitabine for residual triple negative breast cancer post neoadjuvant chemotherapy: An investigator-initiated multicentric open-labeled phase III randomized controlled clinical trial- Rs 7.33 Crores
11. AIIMS Early Career Intramural Research Project 2023-2024. Title "Phosphorylated ALK expression in ALK positive Non small cell lung carcinoma and its impact on survival outcomes", Aparna Sharma, AIIMS, Early Career Intramural Research Project 2023-2024 for project entitled, 2 years, 2023-25, Rs 5,00,000
12. American Society of clinical Oncology, Conquer Cancer Foundation International Innovation Grant 2023 for project entitled "Role of celecoxib in reducing cognitive impairment in patients receiving definitive chemoradiation for head and neck carcinoma: A phase II randomized placebo-controlled trial, Aparna Sharma, American Society of clinical Oncology, Conquer Cancer Foundation, 1 year, 2024-24, Rs 16,00,000
13. Carboplatin in patients with metastatic castrate-resistant prostate cancer harboring somatic or germline homologous recombination repair (HRR) gene mutations: A phase II single-arm trial (CiPHeR), Rs 64 Lacs
14. Cessation of imatinib in pediatric CML patients, Deepam Pushpam, AIIMS, Delhi, 2, 2021, 2 years
15. Childhood Cancer Survivorship Program, Dr Sameer Bakhshi, CanKids KidScan, 5 years, 2020, Ongoing, Rs 12 Lacs

16. Deciphering gene networks associated with altered mitochondrial DNA copy number for identification of novel potential therapeutic targets in pediatric AML, Dr Sameer Bakhshi, DST SERB, 3 years, 2022, Ongoing, Rs 58 Lacs
17. Decoding mitochondrial heterogeneity and deciphering potential therapeutic targets in pediatric acute myeloid leukemia, Dr Sameer Bakhshi, ICMR, 3 years, 2023, Ongoing, Rs 54 Lacs
18. Developing Artificial Intelligence based model for detection of malignant potential of pulmonary nodules in sarcoma using computed tomographic imaging and its prospective validation, Dr Sameer Bakhshi, ICMR, 2 years, 2023, Ongoing, Rs 67.50 Lacs
19. Developing precision immunotherapy for value-based treatment of lung cancer in India, From AIIMS- Dr Prabhat Singh Malik, The DBT/Welcome Trust India Alliance, 5 years, 2021-25, Rs 18000000
20. Development of BCMA based Chimeric antigenic receptor T cell (CAR T) cell against Multiple myeloma, Dr Mayank Singh, DBT, 3 years, 2021-24, Rs 105,00,000
21. Development of Liquid biopsy, cf (cell free) DNA based assay for prognosis of Cervical Cancer., Dr Mayank Singh, AIIMS, 2 years, 2021-23, Rs 10,00,000
22. Elucidating the role of circular RNA circLIFR in the pathogenesis of small cell lung cancer, Dr Sachin Kumar, SERB, 3 years, 2022-25, Rs 41,28,360.00
23. Elucidation of Molecular mechanism of Oncogenesis mediate by Ubiquitin specific peptidase 37 (USP37) and its therapeutic potential in prostate cancer, Dr Mayank Singh, ICMR, 3 years, 2023-26, Rs 48,00,00
24. Elucidation of the role of long noncoding RNAs as a biomarker in lung tumorigenesis, Dr Sachin Kumar, DBT, 3 years, 2021-24, Rs 33,93,360.00
25. ERR-? as a biomarker and therapeutic target for lung Cancer and to investigate the synergetic anti-tumor effect of DN200434 (ERR? inverse agonist) and MK2206 (Akt inhibitor) in lung cancer in vivo, Dr Thoudam Debraj Singh, ICMR (Extramural), 3 years, 2023-25, 82 Lacs
26. Establishing a nutritional counseling program and developing a nutritional database in pediatric patients with cancer, Dr Sameer Bakhshi, Cuddle Foundation, 10 years, 2016, Ongoing, Rs 13.37 Lacs
27. Establishing a registry for breast and ovarian cancers with mutations in hereditary cancer predisposition genes and a germline DNA repository at AIIMS, New Delhi, Dr Raja Pramanik, Department of Health Research (DHR)-ICMR, GoI, 5 years, 2022-27, Rs 2.4 Crores
28. Estimation of the prevalence of Epstein Barr virus positivity in aggressive mature B-Non-Hodgkin lymphoma in the Indian subcontinent and deciphering the genetic basis of its impact on disease biology and survival, Dr Sameer Bakhshi, ICMR, 3 years, 2023, Ongoing, Rs 2.64 Lacs
29. Estrogen Related Receptor Gamma (ERR?) as a potential biomarker and therapeutic target for human colorectal cancer and to investigate the antitumor efficacy of GSK5182 (Estrogen Related Receptor-? inverse agonist) in combination with MK2206 (a novel Akt inhibitor) in colon cancer in vivo, Dr Thoudam Debraj Singh, DHR (Extramural), 3 years, 2021-24, Rs 49 Lacs
30. Evaluating the theranostic potential of canonical and non-canonical WNT signaling in Gall Bladder Cancer, Chandra Prakash Prasad, ICMR, 3 years, 2023-26, Rs 46 Lacs
31. Evaluating the therapeutic significance of ?-catenin in Gallbladder cancer, Chandra Prakash Prasad, AIIMS, 2 years, 2023-25, Rs 10 Lacs
32. Evaluation of BRCA and HRR genes in uterine leiomyosarcoma, Dr Sameer Rastogi/Dr Ruchi - Co PI, AIIMS, New Delhi, 1 year, 2022-23, Rs 10 Lacs
33. Evaluation of low dose nivolumab with neoadjuvant chemotherapy in non small cell lung cancer, Dr Prabhat Singh Malik, ICMR-ICRC, 3 years, 2023-26, Rs 87,00,000
34. Improving Survival in Childhood Acute Lymphoblastic Leukemia in India (ISCALL): ICiCLe Implementation Study, Dr Sameer Bakhshi, ICMR, 1 year, 2023, Ongoing, Rs 20.89 Lacs (One year)
35. Indian Childhood collaborative leukaemia group multicentre national standardization study for newly diagnosed acute lymhoblastic leukemia (ALL), Dr Sameer Bakhshi, National Cancer Grid, 9 years, 2017, Ongoing, Rs 57.6 Lacs
36. Mechanistic insights on the role of circular RNA circCAMSAP1 in the pathogenesis of small cell lung cancer, Dr Sachin Kumar, CSIR, 3 years, 2023-26, Rs 24,36,000.00

37. Molecular and Pharmacogenetic marker evaluation in relation to the toxicity and clinical response of acute lymphoblastic leukemia treatment in Indian children (MPGx-INDALL), Dr Sameer Bakhshi, DBT, 4 years, 2023, Ongoing, Rs 69.252 Lacs
38. Phase II, multi-arm, randomised non-comparative parallel design trial to test efficacy of consolidation chemotherapy in locally advanced cervical cancer, Dr Babita Kataria, AIIMS, Delhi, 2 years, 2024-26, Rs 10,00,000/-
39. Study of HuR mediated metabolic changes in Triple Negative Breast cancer (TNBC), Chandra Prakash Prasad, SERB, 3.5 years, 2020-24, Rs 45 Lacs
40. The role of ERR? in tumor energy metabolism, pyruvate dehydrogenase kinase 4 (PDK4) expression, and tumor progression, Dr Thoudam Debraj Singh, NRF Mobility Grant (South Korea), 1 year, 2023-24, Rs 15 Lacs
41. To investigate the synergetic anti-tumor effect of DN200434 (a potent inverse agonist of Estrogen Related Receptor-?) and MK2206 (Akt inhibitor) in anaplastic thyroid cancer and papillary thyroid cancer in vivo, Dr Thoudam Debraj Singh, SERB Core Grant (Extramural), 3 years, 2024-6, Rs 54 Lacs
42. To investigate the synergetic anti-tumor effect of DN200434 (a potent inverse agonist of Estrogen Related Receptor-?) and MK2206 (Akt inhibitor) in Ovarian cancer, Dr Thoudam Debraj Singh, AIIMS (Intramural), 2 years, 2024-25, Rs 10 Lacs
43. To see the early effect of sorafenib on cognition, cardiovascular and reproductive functions., Dr Sameer Rastogi, DTRF, USA (Desmoid tumor research foundation, USA), 3 years, 2023-26, Around Rs 16 Lacs yearly

Completed

1. A phase III, randomized, double-blind, placebo-controlled, multicenter, international study of osimertinib as maintenance therapy in patients with locally advanced, unresectable EGFR mutation-positive non-small cell lung cancer (stage III) whose disease has not progressed following definitive platinum-based chemoradiation therapy (LAURA), Dr Prabhat Singh Malik, Astrazeneca Pharma India Ltd, 5 years, 2021-25, Approx. Rs 50 Lacs
2. A Phase IV Multi-Centric Post-Marketing Sudy Evaluating the Safety, Immunogenicity and Efficacy of the Marketed Formulation of Hetero - Rituximab, Dr Sameer Bakhshi, Hetro Pharma Ltd., 6 years, 2018-24, Rs 12 Lacs
3. Elucidation of Propofol mediated anti-metastatic effects in Triple Negative Breast Cancers, Chandra Prakash Prasad, AIIMS-UG, 2 years, 2021-23, Rs 2 Lacs
4. Estrogen Related Receptor Gamma (ERR?) as a potential biomarker and therapeutic target for thyroid cancer and its correlation with iodine handling genes in thyroid, Dr Thoudam Debraj Singh, DST-SERB Core (Extramural), 3 years, 2020-23, Rs 50 Lacs
5. Evaluating the significance of extracellular lactate in cancer progression, Chandra Prakash Prasad, AIIMS, 2 years, 2021-23, Rs 10 Lacs
6. Exploring how PFK-1 induced metabolic changes can be exploited for -Triple Negative Breast cancer (TNBC) prognosis and therapeutics, Chandra Prakash Prasad, ICMR, 4 years, 2019-23, Rs 26 Lacs
7. Multivalent targeting-based delivery of paclitaxel using elastin like polypeptide containing IL-4 receptor targeting peptide (AP1-ELP) for ovarian cancer therapy, Dr Thoudam Debraj Singh, ICMR(Extramural), 3 years, 2019-23, Rs 36 Lacs
8. Olanzapine to improve Quality of life in metastatic solid cancer patients on chemotherapy: A phase II randomized placebo controlled trial, Dr Babita Kataria, AIIMS Delhi &IASCC (Indian Association of Supportive Care in Cancer), 2 years, 2022-23, 4,00,000/-
9. Single-day Intravenous Fosaprepitant vs. 3-day oral Aprepitant anti-emetic regimen in pediatric patients receiving highly-emetogenic chemotherapy: An Investigator-initiated, Randomized, Open-label, Non-inferiority trial, Dr Sameer Bakhshi, Glenmark Pharmaceuticals Ltd, 3 years, 2020-23, Rs 5.5 Lacs
10. To study the role of USP37 in oncogenesis of ovarian cancer by using carbon nanodots embedded 3D cell culture platform, Dr Mayank Singh, AIIMS IITD, 2 years, 2020-22, Rs 10,00,000
11. Validation of USP37 as a Diagnostic prognostic marker in Osteosarcoma, Dr Mayank Singh, AIIMS, 2 years, 2017-19, Rs 10,00,000

Medical Physics

Funded projects

Ongoing

1. Development of new and novel radiation dosimetric OSL materials by ion implantation technique and chemical methods for improved dosimetry, Dr Pratik Kumar, DRDO, 3 years, 2019-23, Rs 23,65828/-

Preventive Oncology

Funded projects (for entire department, without mention of funds it shall be deleted)

Ongoing

1. Detection of HPV circulating tumor DNA in cervical cancer patients before and after chemoradiotherapy by droplet digital PCR, Dr SujataPathak, AIIMS-Intramural, 2 years, 2019-21, Rs. 9.5 Lacs
2. Development and evaluation of a recombinant Mycobacterium indicus prani based therapeutic vaccine against HPV, Dr Pawan Kumar, ICMR, 3 years, 2024-27, Rs. 55 Lakhs
3. Development of a novel cancer immunotherapeutic agent by integrating tumour antigen TRP-2 with Mycobacterium indicus pranii and analysis of its antitumour efficacy and immune-mechanisms using a mouse model, Dr Pawan Kumar, AIIMS Research Section, 2 years, 2019-21, Rs 10 Lakhs
4. Development of novel cancer immunotherapy by incorporating cancer/testis antigen NY-ESO-1 into Mycobacterium indicus pranii and evaluation of its antitumor efficacy and immune mechanisms using a mouse tumor model, Dr Pawan Kumar, SERB, 3 Years, 2022-25, Rs. 36 Lakhs
5. Development of SARS-CoV-2 vaccine by incorporating its spike protein into Mycobacterium indicus pranii funded by AIIMS, New Delhi., Dr Pawan Kumar, AIIMS Research Section, 2 years, 2020-22, Rs 10 Lakhs
6. Effect of Smartphone application on breast self examination practice and adherence to follow-up screening schedule for female cancers: a pilot study, Dr Pallavi Shukla, AIIMS Intramural, 2 years, 2023-25, Rs. 8.25 Lakhs
7. Identification of immunogenic regions from SARS-CoV-2 spike protein capable of eliciting robust humoral response, Dr AsrarAlam, AIIMS-Intramural, 2 year, 2020-22, Rs. 10 Lacs
8. Sensitization effect of chloroquine and artemisinin on multidrug-resistant small cell lung cancer cell lines, Dr AsrarAlam, AIIMS-Intramural, 3 years, 2019-22, Rs. 10 Lacs
9. Targeting multiple antigens for cancer immunotherapy with a recombinant Mycobacterium indicus pranii (MIP)-based approach and its evaluation using mouse tumor model, Dr Pawan Kumar, SERB, 3 Years, 2022-25, Rs 40.74 Lakhs

Completed

1. A study to quantify the burden of insulin resistance in breast cancer women and its relation with other known prognostic and predictive factors of breast cancer, Dr Pallavi Shukla, AIIMS-intramural, 2 years, 2020-22, Rs 3.25 Lacss
2. Early and Late development of Castration Resistant Prostate Cancer and its correlation with Androgen Receptor Ligand Binding Domain Mutations, Dr Kumar Sandeep, AIIMS Research Section, 3 years, 2017-20, Rs 7 Lakhs

Radio Diagnosis

Funded projects

Ongoing

1. Comparison of methods of margin delineation for vacuum-assisted excision in breast cancer patients with radiological complete response post neoadjuvant chemotherapy, KrithikaRangarajan, AIIMS Intramural, 2 years, April 2023 to April 2025, Rs 4,06,000
2. Indigenous design and fabrication of auxetic vascular stents using the laser powder-bed fusion techniques- a pilot study, Chandrashekhara S H, AIIMS-IIT D project, Two years, 2023-24, Rs 10,00,000
3. Pilot study on imaging parameters and metabolomic profiling in breast cancer patients, EktaDhamija, AIIMS Intramural Interdisciplinary Collaborative, Two Years, 2023-25, Rs 15,36,000
4. Strengthening Healthcare National Programs with AI, KrithikaRangarajan, Ministry of Education, 6 months, March 2020- March 2023, Rs 2,00,00,000

Completed

1. Artificial Intelligence in detection of cancer on mammography in the Indian Scenario, KrithikaRangarajan, DBT, Three years+1 year extension, March 2020-March 2024, Rs 80,00,000

Radiation Oncology

Ongoing

1. "MGMT expression profiling and its correlation with response to TMZ in high grade gliomas in pediatric and AYA population", Dr Subhash Gupta, AIIMS, 2-3 Years, 2023-25, Rs 10 Lakhs
2. A pilot study to develop and validate an artificial intelligence platform for the management of breast cancer, Dr Haresh KP, ICMR, 3 years, 2022, Rs 66,13,008
3. A single-arm, open-label Phase 4 study of darolutamide in addition to standard androgen deprivation therapy for participants in Indian with high-risk non-metastatic castration-resistant prostate cancer (nmCRPC), Dr Haresh KP, BAYER Pharmaceuticals, 5 years, 2022-26, Rs 2.32 Lakhs per patient
4. An institutional phase I/II study to evaluate safety and efficacy of high dose weekly hypofractionated palliative breast radiotherapy in fungating advanced unresectable or metastatic breast cancer., Dr Haresh KP, ICMR, 3 years, 2022, Rs 35,07,462
5. ARANOTE study (Protocol BAY 1841788/21140): A randomized, double-blind, placebo-controlled Phase 3 study of darolutamide in addition to androgen deprivation therapy (ADT) versus placebo plus ADT in men with metastatic hormone-sensitive prostate cancer (mHSPC), Dr Haresh KP, BAYER Pharmaceuticals, 5 years, 2021-25, Rs 60 Lakhs
6. Clinical validation of synergistic effect of Vardhamana Pippali Rasayana along with conventional treatment after unravelling its mechanism of action in Breast cancer: From Experimental model to Clinical trial Collaboration with All India Institute of Ayurveda, Dr Subhash Gupta, ICMR, 3 Years, 2022-25, Rs 75 Lakhs
7. In-house development of 3D printing-based brachytherapy template device for treating pelvic cancers and validation using in-house developed pelvic phantom, Gopishankar Natanasabapathi, AIIMS Intramural Fund, 2 years, 2022-24, Rs 4 Lakhs/Annum
8. Involved quadrant irradiation (IQI) post breast conservation surgery: A phase 3 randomized control study, Prof DN Sharma, ICMR, 3 years, 2023-26, Rs 61,64,550/-
9. NAVIGATE Study (Protocol BAY No. 2757556/20289). A Phase 2 Basket Study of the Oral TRK Inhibitor larotrectinib in Subjects with NTRK Fusion-Positive Tumors, Dr Haresh KP, BAYER Pharmaceuticals, 4 years, 2021-24, Rs 6 Lakh per patient if patient is screened.For Pre-Screening Rs 15, 345 per patient
10. Pilot study to compare moderate hypo fractionated radiotherapy versus stereotactic body radiotherapy (SBRT) in intermediate and high risk prostate cancer, A toxicity and quality of life comparison, Dr Haresh KP, ICMR, 3 years, 2022, Rs 35,07,462
11. Prediction of cervical cancer recurrence by deep learning model, Surendra Kumar Saini, ICMR, 02 Years, December 2022, December 2024, Rs 30,00,000/-
12. Prevalence of BRCA mutations in young Indian women less than 40 years of age with TNBC, Dr Subhash Gupta, AIIMS, 2 Years, 2022-24, Rs 10 Lakhs

Completed

1. A prospective pilot study to evaluate the effectiveness and toxicity of Stereotactic body radiotherapy (SBRT) for Portal Vein Thrombosis in patients with advanced Hepatocellular carcinoma (HCC) (DHR Grant), Dr Haresh KP, DHR, 3 years, 2020-23, Rs 31 Lakhs

Surgical Oncology

Funded Projects

Ongoing

1. "Understanding the impact of gut microbiome dysbiosis and metabolic alterations in the pathogenesis of early onset (EOCRC) Colorectal Cancer (CRC)", Jyoti Sharma, AIIMS, 2 years, 2021-23, Rs 10,00,000/-

2. A randomized trial comparing neoadjuvant chemotherapy vs upfront surgery and adjuvant chemotherapy for gastric cancer, Sunil Kumar, DST (Multicentric), 3 years, 2022-24, Rs 10 Lakhs
3. Cognitive approach based analysis of genomic information in blood plasma for diagnosis of cancer, Sunil Kumar, IIIT, Delhi, 2 years, 2023-24, Rs 9 Lakhs
4. Evaluation of peri-operative efficacy of Divya-Cystogrit-Diamond capsules as Immunonutrient in patients with Advanced Ovarian Cancer undergoing Cytoreductive Surgery and HIPEC: A Double-blind Randomized Placebo-controlled Pilot study, Prof M D Ray, Patanjali Research Institute, Haridwar, 2 years, 2023-25, Rs 5,39,000
5. HBCR &Pattern of care and survival studies in breast, head & neck and cervical cancer., SVS Deo, ICMR, NCDIR, 8 years, 2014, Ongoing, INR Rs 47,00,000/-/Year
6. Indian Breast Cancer Genome Atlas (An ICGA Project), SVS Deo, CSIR, Multi-centric, 3 years, 2023-26, Rs 50 Lacs
7. Pattern of Recurrence and Clinico-Molecular correlation in Relapsed Epithelial Ovarian Cancer patients undergoing Secondary CRS+ HIPEC, Prof M D Ray, ICMR DHR, 3 years, 2023-26, Rs 35,67,858
8. Patterns of Care and Survival Studies on Head & Neck, Breast and cervical cancers under ICMR- National Cancer Registry Programme (NCRP), Sunil Kumar, ICMR, 3 years, 2023-26, Rs 31 Lakhs
9. Pilot study on imaging parameters and metabolomic profiling in breast cancer patients, Dr Jyoti Sharma, AIIMS, New Delhi, 2 years, 2023-25, Rs 15,36,000/-
10. POCSS for PBCR -Head &Neck, Breast and Cervix cancers, SVS Deo, ICMR, NCDIR, 7 years, 2019-23, Rs 200000
11. Role of circulating tumour DNA (Ct-DNA) as a surrogate marker in ovarian cancer - A pilot study., Dr Ashutosh Mishra, AIIMS, 2 years, 2021-24, Rs 10,00,000/-

Funded Research Projects

Completed

1. Comparison of pulmonary metastasis detected with PET-CT vs NCCT chest with surgical pathology, Dr Sunil Kumar, AIIMS, New Delhi, 2 years, 2020-22, On actual cost basis
2. Designing of Self retaining Vascular Forceps, Prof M D Ray, PRISM of DSIR, DST, 1.5 years, 2021-23, Rs 6,00,000/-
3. Oral Cancer Awareness Drive, Prof M D Ray, DST, 1.5 years, 2022-23, Rs 16,95,600/-
4. Patterns of Care and Survival Studies on Gall Bladder Cancer under ICMR- National Cancer Registry Programme (NCRP), Sunil Kumar, ICMR, 5 years, 2019-23, Rs 13 Lacs
5. Predicting the response to neo-adjuvant chemotherapy by analysis of exome and transcriptome in squamous cell carcinoma of esophagus, Dr Sunil Kumar, 4BaseCare, 2 years, 2020-22, On actual cost

DCR

1. Establishment of Hospital based Cancer Registries and patterns of care and survival studies on Cancer Breast, Cancer Cervix and Head & Neck Cancers, Dr SVS Deo, National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore, Eleven years, 2014-24, Rs 7,00,000/- per annum(approx.)
2. Patterns of Care and Survival Studies on childhood, lymphoid and hematopoietic malignancies and Gynaecological malignancies (except cervix), Dr SVS Deo, National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore, Eight Years, 2017, Rs 2,00,000/- per annum (approx..)
3. Population Based Survival Studies on Cancer Breast, Cervix and Head & Neck Cancers, Dr SVS Deo, National Cancer Registry Programme, National Centre for Disease Informatics and Research, Indian Council of Medical Research, Bangalore, Eight Years, 2017, Rs 6,80,000/- per annum (approx..)

Departmental projects (including thesis/dissertations)

Onco-Anaesthesia & Palliative Medicine

Ongoing

1. A prospective randomized control trial to compare post-operative pain and complications after colorectal cancer surgery under different anaesthetic techniques; intraoperative total intravenous anaesthesia (tiva) with propofol versus sevoflurane-based anaesthesia
2. Analysis of symptom burden and quality of life in patients undergoing hemodialysis and under the follow-up of a tertiary care center: a prospective observational study
3. Assessment of Quality of Life and Emotional well-being in Patients diagnosed with Metastatic Spinal Cord Compression Presenting to the Palliative Medicine Department in a Tertiary Care Centre: A Prospective Observational Study. Co-PI. Guide
4. Autonomic dysfunction and breast surgery
5. Comparison of effect of crystalloids versus albumin for Goal-directed fluid therapy on peri-operative outcomes in major abdomino-pelvic oncological surgeries: a Randomized control trial. Co-PI. Guide
6. Comparison of effect of intrathecal hyperbaric bupivacaine (0.5%), hyperbaric levobupivacaine (0.5%) and hyperbaric ropivacaine (0.75%) during interventional brachytherapy: A prospective, double blind randomized control study
7. Cricoid ultrasonography and CT scan to predict the size of double lumen tube in the Indian Population
8. Effect of COVID-19 on quality of life of patients
9. Effect of early integration of palliative care on QOL in patients with CA breast
10. Effect of opioid free anesthesia on chronic post mastectomy pain
11. Effects of intraoperative goal directed hemodynamic therapy on post-operative pulmonary complications and kidney functions after lung resection surgeries by thoracotomy- a randomized controlled trial
12. Effects of intra-operative Pulse Contour Analysis (PCA) based Goal-Directed Hemodynamic Therapy (GDHT) on Post-operative Pulmonary Complications (PPCs) and Acute Kidney Injury (AKI) in open thoracotomies for lung resection - an RCT
13. Modulation of inflammatory markers following perioperative vitamin C supplementation in head and neck oncosurgeries: a prospective double-blinded randomised trial in a tertiary care centre
14. Palliative care needs of patients with life-limiting illnesses presenting to the emergency department
15. Predictors Of Post-Operative Morbidity and Mortality After Debulking Surgeries ForGynaecological Malignancies
16. Role of empirical antibiotics for asymptomatic leukocytosis in non-hematological malignancy patients admitted to the palliative care ward at a tertiary care centre - an ambispective observational study
17. The Value-Origins of the Palliative Care Movement in India
18. To assess the impact of advanced airway imaging (3d ct reconstruction and virtual endoscopy of airway) on airway management in adult patients undergoing head and neck cancer surgeries under general anaesthesia: randomized controlled study
19. To assess the palliative care needs, symptom burden and quality of life in geriatric patients attending the tertiary care centre in India- a cross-sectional observational study
20. To compare the efficacy of continuous bilateral quadratus lumborum block with continuous epidural block for providing effective analgesia and perioperative outcome in patients undergoing exploratory laparotomy for colorectal cancer surgery: a non-inferiority randomised controlled trial
21. To study the efficacy of palliative surgeries in patients of advanced surgeries in patients of advanced Head and neck and upper GI malignancies facing feeding difficulties: An ambispective observational study
22. To study the potential of a predictive Artificial Intelligence tool to foster early identification of symptoms and criticality in breast and cervical cancers in Indian patients

Completed

1. A study to compare the efficacy of combination regimen of dexmedetomidine and midazolam versus ketofol (ketamine+ propofol) for sedation in awake fiberoptic intubation (AFOI) in head and neck cancer patients- A randomized clinical trial
2. AIIMS-IIT development of a videolaryngoscope

3. Assessment of cognitive changes due to opioid usage among cancer patients attending the tertiary care centre in India- a cross-sectional observational study
4. Assessment of insomnia, depression & anxiety in newly diagnosed lung cancer patients: a cross-sectional study
5. Calculating 95% effective dose (ED 95) of hyperbaric bupivacaine for intracavitary radiotherapy under sub-arachnoid block in patients with carcinoma cervix: A sequential allocation study
6. Comparison of different video laryngoscopes for Nasotracheal intubation in manikin with difficult airway by experienced anesthesiologists: A randomized, self-controlled, crossover trial
7. Comparison of different video laryngoscopes for Nasotracheal intubation in manikin with difficult airway by experienced anesthesiologists: A randomized, self-controlled, crossover trial
8. Comparison of effect of crystalloids versus albumin for goal-directed fluid therapy on peri-operative outcomes in major abdomino-pelvic oncological surgeries: a randomized control trial
9. Comparison of impact of erector spinae plane block versus Thoracic epidural analgesia on perioperative quality of Recovery in onco-surgical patients undergoing unilateral Thoracotomy: a prospective, randomized control, open-label, Non-inferiority, preliminary trial (cepet trial)
10. Comparison of kind vision Videolaryngoscope channeled and non-channeled blades with direct Laryngoscope for intubation in mannequin by medical students: a randomized mannequin study
11. Comparison of Macintosh Laryngoscopy in Bed-Up-Head-Elevated Position with Conventional C-MAC Video Laryngoscopy: A Randomized Non-Inferiority Trial
12. Comparison of Mc Grath-MAC and C-MAC video laryngoscopes for intubation in mannequin by donned anesthesiologists using an intubation box during COVID-19: pandemic: a prospective randomized study
13. Comparison of Mc Grath-MAC and C-MAC video laryngoscopes for intubation in mannequin by donned anesthesiologists using an intubation box during COVID-19: pandemic: a prospective randomized study
14. Feasibility of eras (enhanced recovery after surgery) protocol in patients undergoing gastrointestinal cancer surgeries in tertiary care hospital- a prospective interventional study
15. Impact of preoperative frailty and its utility in predicting postoperative outcomes in indian population undergoing major abdominal cancer surgery- a prospective, observational study
16. Mortality in Two Waves of COVID-19 - a Comparative Analysis of a Tertiary Care Hospital in India
17. Muscle activity during intubation in a difficult airway
18. Muscle activity during intubation in a difficult airway
19. Nasotracheal intubation in patients with oropharyngeal carcinoma under general anaesthesia: A comparative evaluation between fibreoptic bronchoscope and C-MAC D blade videolaryngoscope
20. Nasotracheal intubation in patients with oropharyngeal carcinoma under general anaesthesia: A comparative evaluation between fibreoptic bronchoscope and C-MAC D blade videolaryngoscope
21. Outcomes of cancer patients requiring intensive care unit admission at tertiary care centre India: a retrospective study
22. Palliative care needs assessment in non-malignant respiratory diseases: a cross-sectional study
23. Psychological distress and quality of life in lung cancer patients receiving chemotherapy: - a prospective observational study
24. Quality OF Life and Cognitive Function Assessment in patients diagnosed with Brain Metastasis Presenting to the Palliative Medicine Department in a Tertiary Care Center - A Cross Sectional Study
25. Symptom burden and quality of life assessment in advanced cervical cancer patients presenting to the palliative care department in a tertiary care centre
26. To compare the efficacy of opioid free general anesthesia with opioid based general anesthesia on post-operative morphine consumption in patients undergoing breast cancer surgery: a prospective randomized control study
27. To compare the efficacy of opioid free general anesthesia with opioid based general anesthesia on post-operative morphine consumption in patients undergoing breast cancer surgery: a prospective randomized control study
28. To study the long term benefits of ultrasound guided erector spinae plane block on post mastectomy pain syndrome in patients undergoing breast surgery: a randomized controlled trial

Laboratory Oncology

Ongoing

1. A study of plasma cell and B-cell compartment in plasma cell proliferative disorders (PCPD). (Ms. Meetu Dahiya)
2. Bioinformatics Based Mutational Profiling and Structural Variations Analyses in Gallbladder Carcinoma
3. Deciphering the landscape of circular RNA in B-ALL (other study)
4. Dissecting the molecular pathways in Dux4-rearranged B-ALL, PhD thesis (ongoing)
5. Elucidating the role of NRF2 signaling pathway in acute myeloid leukemia, PhD thesis (ongoing)
6. Elucidation of role of PAX5r in B-ALL (other study)
7. Evaluating autophagy-related pathways to overcome drug resistance in AML (Ms. Aafreen Khan), Dr, Sanjeev Kumar Gupta
8. Evaluating autophagy-related pathways to overcome drug resistance in AML (Ms. Aafreen Khan)
9. Identification of differentially expressed protein based biomarkers involved in downstream signalling pathways of gall bladder carcinoma
10. Identification of genetic alterations in Indian paediatric Ph-like Acute lymphoblastic Leukemia, PhD thesis (completed)
11. NGS based characterization of pathways involved in the development of breast cancer among Indian women
12. Non-invasive evaluation of genomic aberrations in multiple myeloma (Mr. Atul Basnal)
13. Non-invasive evaluation of genomic aberrations in multiple myeloma (Mr. Atul Basnal)
14. Profiling of predictive and prognostic molecular genetic aberrations in BCR: ABL negative B-ALL
15. Profiling of predictive and prognostic molecular genetic aberrations in BCR: ABL negative B-ALL (Ms. Gadha K Leons)
16. Relevance of WT gene expression in AML
17. Role of RhoBTB2 in AML (ongoing)
18. To study the interaction of IKZF1 alterations with cell adhesion molecules in B-cell acute lymphoblastic leukemia
19. Transcriptomic Profiling of Leukemic Stem Cells (LSCs) to study tumorigenesis and chemoresistance in AML (Aafreen)
20. Transcriptomic profiling of Leukemic Stem Cells to study tumorigenesis and chemoresistance in AML

Medical Oncology

Ongoing

1. A randomised double blinded placebo controlled two arm phase 3 study to assess efficacy and safety of Xevinapant and radiotherapy compared to placebo and radiotherapy for demonstrating improvement of disease free survival in patients with resected squamous cell carcinoma of the head and neck who are at high risk for relapse and are ineligible for high dose cisplatin
2. A single arm phase 2 study of single agent pemetrexed in platinum resistant /refractory epithelial ovarian or primary peritoneal cancer
3. A study of impact of tyrosine kinase inhibitors on endocrine function and fertility. Observational cross-sectional study
4. Anti-Emetic Prophylaxis for Chemotherapy-Induced Vomiting without Dexamethasone for Children and Adolescents Receiving Highly Emetogenic Chemotherapy: Investigator-Initiated, Open-Label, Multi-Center, Non-Inferiority, Phase-III Randomized Controlled Trial.
5. Assessment of baseline procalcitonin level and kinetics of serial levels to predict bacteraemia and outcome in pediatric febrile neutropenia
6. Assessment of Liquid biopsy as a biomarker for common gastrointestinal cancers
7. Assessment of Quality of Life among Adult Survivors of Head and Neck. Ewing Sarcoma Family of Tumors

8. Assessment of sex bias in treatment abandonment in childhood cancer from a tertiary care oncology center in India
9. Blastic plasmacytoid dendritic cell Neoplasm (BPDCN) International Registry
10. Clinical Characteristic, Pathological Features and Outcomes of Paediatric Acute Myeloid LeukemiaA Multicentric Retrospective Study
11. Clinicopathological profile and treatment outcomes in unresectable thymoma
12. Comparison of the outcomes of Paediatric B-NHL in pre and post Rituximab era
13. Deciphering the Oncogenic potential of Deubiquitinating enzymes (DUBs) in gynecological cancers. (Ravi Chauhan)
14. Diagnosing hereditary cancer predisposition in Indian men with prostate cancer: a pilot study
15. Estrogen Related Receptor Gamma (ERR?) as a potential biomarker and therapeutic target for human colorectal cancer and to investigate the antitumor efficacy of GSK5182 (Estrogen Related Receptor-? inverse agonist) in combination with MK2206 (a novel Akt inhibitor) in colon cancer in vivo. (Research Associate: Dr Priyanka Upadhyay)
16. Evaluation of clinic-pathological characteristics, prognostic factors and treatment outcomes in patients with Ewing sarcoma in children and young adults
17. Evaluation of low dose nivolumab with neoadjuvant chemotherapy in no small cell lung cancer a phase II open label randomised clinical trial
18. Evaluation of the potential of AP1-functionalised Elastin Like Polypeptide nanocarriers for multivalent targeting-based delivery of paclitaxel in human ovarian carcinoma. PhD Thesis: Ridhima Goel
19. Extended aprepitant in control of delayed emesis during induction chemotherapy for acute myeloid leukaemia (AML) (EACODE-AML)
20. Feasibility of predicting febrile neutropenia with vital data monitoring using wearable devices in patients with acute myeloid leukemia undergoing induction chemotherapy and patients undergoing autologous stem cell transplantation
21. Generation and characterization of Therapeutic BCMA (B Cell maturation antigen) specific antibodies in Mutiple Myeloma (MM). (Ashna Gupta)
22. Immune Responsiveness following Vaccination against SARS-Cov2 in Cancer Patients Belonging to the Children/ Adolescent/Young Adult Age Group
23. Indian Childhood Acute Promyelocytic Leukemia Study (I-ChAMPs)
24. Line between mitochondrial morphology and mitochondrial biogenesis in Pediatric Acute Myeloid Leukemia (AML)
25. Liquid biopsy-based risk stratification and intensification of treatment in EGFR mutant advanced NSCLC
26. Low dose Nivolumab in combination with Neoadjuvant Chemotherapy followed by concurrent Chemoradiation in advanced Carcinoma Cervix: A phase II study
27. Low dose oral metronomic cyclophosphamide and etoposide combination in Recurrent/refractory High grade endometrial cancer: A single arm phase II study
28. Metformin with neoadjuvant chemotherapy in localized triple negative and HER2neu-positive breast cancer: A prospective phase 2 open label randomised controlled trial (McBETH)
29. Modulation of mitochondria-related differentially expressed gene on mitochondrial functionality and its effect on disease biology on acute myeloid leukemia
30. Molecular and Pharmacogenetic marker evaluation in relation to the toxicity and clinical response of acute lymphoblastic leukemia treatment in Indian children (MPGx-IND ALL)
31. Olanzapine for weight gain for children undergoing chemotherapy for solid malignancies; An Investigator-Initiated, Open-Label, Multi-Center, Phase III Randomized Controlled Trial
32. Ondansetron and Dexamethasone Comparative Efficacy trial- ONDEXCEL TRIAL
33. Oral Metronomic therapy in high grade recurrent or metastatic endometrial cancers
34. Palbociclib and Anastrozole in Recurrent or Metastatic Estrogen Receptor Positive Endometrial Cancer; a Single Arm Phase 2 Study
35. Phase 2 study of cabozantinib in advanced GIST (Gastrointestinal Stromal tumors) in 4th line

36. Phase 2 study of ifosfamide in advanced synovial sarcoma
37. Phase 2 study of regorafenib in Advanced synovial sarcoma
38. Phase-3 Randomised trial of Neo-adjuvant Vs Adjuvant Chemotherapy in patients with resectable gastric cancer
39. Prognostic and therapeutic relevance of HuR in Triple Negative Breast Cancer- PhD Thesis, Ms. Arundhathi Dev
40. Prognostic factors Outcomes in Patients with Osteosarcoma Treated at a Tertiary Care Centre: A Retrospective Analysis
41. Real world patterns of care and Clinical outcomes in relapsed Multiple myeloma: an ambispective analysis
42. Role of Beta Catenin induced metabolic changes in Triple Negative Breast Cancer Prognosis and Therapeutics - PhD Thesis, Mr. Umar Sheikh
43. Role of Canonical Wnt/beta catenin signaling in Gall Bladder Cancer- PhD Thesis, Ms. Akanksha Kashyap
44. To investigate the significance of Estrogen Related Receptor Gamma (ERR?) expression in thyroid cancer and study its potential as a therapeutic target. PhD Thesis: Deepak Gulwani
45. Uncovering the molecular basis of PM 2.5 induced carcinogenesis and formulating preventive approaches -PhD Thesis, Ms. Meethu Rathee

Completed

1. A study of familial aggregation in non-small cell lung cancer
2. Assessment of BRCA and non-BRCA mutations with Multi gene panel testing in patients of ovarian cancer: A Cross-sectional observational study
3. Assessment of Sexual health related problems in cancer patients undergoing chemotherapy.
4. Gender Inequity in the Oncology Healthcare Services for childhood malignancies in India during COVID-19 Pandemic
5. Olanzapine versus fosaprepitant for prevention of chemotherapy induced nausea and vomiting in patients receiving carboplatin (AUC ? 4) containingchemotherapy regimen: A phase 3 randomized, double-blind, placebo-controlled trial
6. Patient survey on artificial intelligence in medicine
7. The feasibility of weekly paclitaxel in improving performance status of advanced NSCLC patients with poor performance status: A single arm phase two trial.

Medical Physics

Ongoing

1. Development of bolus material for radiation treatment
2. Study of biological effects in low-level medical imaging ionizing radiation and their relevance to Radiation Protection

Completed

1. Development of new luminescence material for dosimetry purpose

Preventive Oncology

Ongoing

1. Targeting multiple tumor antigens with a recombinant Mycobacterium indicus prani based cancer immunotherapy and its evaluation using a mouse tumor (melanoma) model

Radio Diagnosis

Ongoing

1. Technical feasibility and effectiveness of CT guided glossopharyngeal nerve radiofrequency ablation for pain management in oropharyngeal carcinoma
2. 'Developing and Using Robotic arm for performing Ultrasound remotely' in collaboration with IIT Delhi

3. Contrast enhanced ultrasound-guided celiac plexus block in upper abdominal cancer pain
4. To evaluate the safety and efficacy of hepatic hilar nerve block in patients undergoing PTBD
5. To assess the impact of percutaneous transhepatic biliary drainage on the quality of life of patients suffering from carcinoma of gall bladder
6. To analyze the incidence of complications and failures of Peripherally inserted central catheter is placed under fluoroscopic guidance in patients with malignancies
7. Dual Energy CT in assessing response to tyrosine kinase inhibitors (TKI) in metastatic renal cell carcinoma (mRCC)
8. Concordance Vacuum assisted biopsy with surgical pathology in patients with complete clinical response to neoadjuvant chemotherapy
9. Artificial intelligence and radionics in predicting pathological complete response on pre-operative imaging in patients with complete response to chemotherapy
10. Contrast Enhanced mammography in dense breasts
11. Detection and Characterization of breast masses on contrast enhanced mammography using machine learning tools

Completed

1. Role of whole-body MRI in the evaluation of lung cancer
2. Role of Contrast enhanced Ultrasound for response assessment to Medical therapy in superficial desmoid fibromatosis

Radiation Oncology

Ongoing

1. A phase III randomised controlled study comparing xerostomia after tubarial salivary gland sparing IMRT versus standard IMRT in patients with locally advanced oropharyngeal squamous cell carcinoma
2. A phase III randomized controlled study comparing xerostomia after tubarial salivary gland sparing IMRT versus standard IMRT in patients with locally advanced oropharyngeal squamous cell carcinoma
3. A Prospective feasibility study of very accelerated partial breast irradiation (vAPBI) using interstitial brachytherapy in early stage carcinoma of the breast
4. A prospective study to assess the feasibility of hypo-fractionated external beam radiotherapy in patients with locally advanced carcinoma cervix
5. A randomized phase 2 study of ypofractionated radiation therapy with simultaneous integrated boost (SIB) versus conventional radiation therapy in glioblastoma
6. A retrospective analysis of patients with early glottic cancer (stage I-II) treated with radiotherapy at AIIMS, New Delhi from 2011-21
7. Accelerated Hypofractionated Palliative Radiotherapy Vs Standard Hypofractionated Palliative Radiotherapy with Concurrent Chemotherapy in Locally Advanced Head and Neck Squamous Cell Carcinoma: A Randomised Controlled Study
8. Accelerated Hypofractionated Palliative Radiotherapy Vs Standard Hypofractionated Palliative Radiotherapy with Concurrent Chemotherapy in Locally Advanced Head and Neck Squamous Cell Carcinoma: A Randomised Controlled Study
9. Comparative study on Brachytherapy Boost Vs SBRT Boost Following EBRT in Intermediate and High Risk Prostate Cancer
10. Comparative study on Brachytherapy Boost Vs SBRT Boost Following EBRT in Intermediate and High Risk Prostate Cancer
11. Four ongoing MD Radiation Oncology thesis and three MD Ophthalmology thesis
12. Interstitial Brachytherapy Versus Extreme Hypofractionated External Beam Radiation Therapy After Breast Conserving Surgery in Early Stage Female Breast Carcinoma
13. One Co-Guide ongoing PhD thesis, at Dr BRAIRCH
14. Role of Adjuvant Therapy in Early-Stage Oral Cavity Squamous Cell Carcinoma: An Ambispective Analysis

Completed

1. A prospective pilot study to evaluate the role of stereotactic body radiotherapy in portal vein thrombosis in patients with hepatocellular carcinoma
2. A retrospective analysis of patients with solitary plasmacytoma treated at AIIMS, New Delhi from 2011-21
3. A retrospective analysis of patients with orbital rhabdomyosarcoma treated at AIIMS, New Delhi from 2010-19

Surgical Oncology

Ongoing

1. A comparative prospective clinical observational study in HIPEC vs NIPAC in the management of advanced epithelial ovarian cancer
2. A Phase II Randomised controlled trial comparing pulmonary complications in retrosternal vs posterior mediastinal gastric conduit placement in patients undergoing Esophagectomy
3. A pilot study to evaluate fluorescence uv imaging for assessment of malignant and potentially malignant disorders in oral cavity and update and analysis of tongue cancer database"
4. A prospective study evaluating the optimal margins in extremity soft tissue sarcomas and ambispective analysis of computerized clinical database of soft tissue sarcomas
5. A Prospective study on microbiome dynamics and gut dysbiosis in early onset colorectal cancer patients And A prospective study on critical anatomical evaluation of sphincter complex in low rectal cancer patients
6. A Prospective study to assess the role of Contrast Enhanced Mammography in evaluation of multifocal and multicentric breast carcinoma in comparison with Conventional Imaging Modalities and Update and analysis of breast cancer
7. Ambispective study of orbital and salivary gland tumours for clinical profile, surgical management, morbidity and outcome analysis and update and analysis of thyroid cancer database
8. Comparison of efficacy between neoadjuvant chemotherapy and neoadjuvant concurren chemoradiation in squamous cell carcinoma esophagus: A pilot randomized control study
9. Comparison of PET-CT and Endobronchial ultrasound with surgical histopathology for Mediastinal nodal staging of Non-small cell lung cancer in patients undergoing surgery
10. Cytoreductive Surgery and Hipec in Relapsed Epithelial Ovarian Cancer - A Phase III Randomised Control Trial and Descriptive Study to Evaluate Effect of HIPEC in HRD/BRCAWT Genomic Profile
11. Feasibility and Accuracy of SLNB In Primary Epithelial Ovarian Cancer (PEOC) (FIGO Stage I-III)- A Prospective Pilot Study And Retrospective analysis to evaluate the prognostic and predictive significance of Ki-67 and p53 in treated primary advanced epithelial ovarian cancer
12. Phase 2 randomised controlled trial in operable oral cavity cancer with oral metrononic therapy with surgery vs surgery alone.long with p53 anlaysis of chemotherapeutic response
13. Randomised controlled trial comparing NACTRT VERSES NACT in SCC esophagus (a.) The feasibility of implementation and compliance of "enhanced recovery after surgery (ERAS)" protocol in cytoreductive surgery (CRS) with Hyperthermic intraperitoneal chemotherapy (HIPEC) at a tertiary care centre - a prospective cohort study and audit and analysis of ovarian cancer database

Completed

1. A pilot study to assess role of preoperative chemoradiotherapy in locally advanced/recurrent extremity soft tissue sarcoma & audit of soft tissue sarcoma database
2. A study evaluating MIS for of colorectal cancer patients and learning basic laboratory techniques of molecular biology for miRNA extraction in colon and rectal cancer patients
3. Ambispective study comparing perioperative outcomes between Hyperthermic Intraperitoneal Chemotherapy (HIPEC) and Early Postoperative Intraperitoneal Chemotherapy (EPIC) with audit and analysis of peritoneal surface malignancy database
4. Feasibility and Accuracy of SLNB In Radiologically Node Negative Primary Advanced Epithelial Ovarian Cancer (PAEOC) (FIGO Stage II-III)- A Prospective Pilot Study And Retrospective analysis to evaluate the prognostic and predictive significance of Ki-67 and p53 in treated primary advanced epithelial ovarian cancer

5. Feasibility study of indocyanine green fluorescence dye for intraoperative assessment of gastric or colonic conduit perfusion in oesophageal cancer surgeries - a prospective validation studyand update and analysis of hepatobiliary and pancreatic cancer database
6. Functional recovery and Return to work after Thoracic surgery in patients with Malignant thoracic Diseases: A Prospective study
7. Nomogram for predicting health related quality of life in esophageal cancer patients after esophagectomy
8. Pilot study to evaluate the role of Toluidine Blue Dye and Narrow Band Imaging for assessment of malignant and potentially malignant disorders in oral cavity and update and analysis of Oral Cancer Database
9. Prospective study of in-person versus online cancer genetic counseling AndAmbispective evaluation of patients undergoing risk reducing surgery
10. Prospective study on the expression of cancer-testis antigen (CT45) in the patients of advanced epithelial ovarian cancer undergoing Hyperthermic Intraperitoneal Chemotherapy and its correlation with response to platinum based chemotherapy
11. The feasibility of implementation and compliance of "enhanced recovery after surgery (ERAS)" protocol in cytoreductive surgery (CRS) with Hyperthermic intraperitoneal chemotherapy (HIPEC) at a tertiary care centre - a prospective cohort study and audit and analysis of ovarian cancer database
12. The prevalence of BRCAness related somatic mutations in uterine leiomyosarcoma

Collaborative projects

Onco-Anaesthesia& Palliative Medicine

Ongoing

1. Cognitive function in breast cancer patients on opioids, Physiology

Completed

1. Effect of repetitive transcranial magnetic stimulation on pain and quality of life in post mastectomy pain syndrome, Physiology

Research over past 3 years

2021–2022	2022–2023	2023-24
5	2	8

Laboratory Oncology

1. Characterizing the functional role of DNA binding domain lacking novel alternative splice form of TETI in acute myeloid leukemia, leukemic stem cells and can it be chemically targeted. Funded by ICMR**,** SCMM, JNU, New Delhi
2. Deciphering the molecular mechanisms of cell adhesion and chemoresistance in BCR-ABL positive B-cell acute lymphoblastic leukemia (B-ALL) and B-lymphoid blast phase of chronic myeloid leukemia (CML) carrying IKZF1 mutations, IIT, Delhi
3. Development of Electrochemical biosensor for detection of circulating tumor DNA mutations in Acute myeloid leukemia, Jaypee Institute of Information Technology, Noida
4. Functional genomics of hepatobilliary cancers, IIT, Delhi
5. Role of T cell activation and Follicular helper T cell in Multiple Myeloma **Funded by (ICMR),** Amity Institute of Virology & Immunology, Noida
6. Study of the erythroid and megakaryocytic lineages under normal development and pathological myeloproliferation, IIT, Delhi

Research over past 3 years

2021-2022	2022-2023	2023-2024
5	3	4
9, 95, 34, 968	4, 19, 25, 010	6, 82, 44, 020
2	2	1
79, 50, 000	79, 50, 000	30, 00, 000
5	4	4
5, 95, 00, 000	5, 65, 00, 000	5, 65, 00, 000
0	1	1
0	10, 000, 00	10, 000, 00
0	1	1
0	10820376	10820376
1	3	3
10, 00, 000	1, 07, 41, 647	1, 07, 41, 647

Onco-Anaesthesia & Palliative Medicine

Ongoing

1. Cognitive function in breast cancer patients on opioids, Physiology

Completed

1. Effect of repetitive transcranial magnetic stimulation on pain and quality of life in post mastectomy pain syndrome, Physiology

Research over past 3 years

2021–2022	2022–2023	2023-24
5	2	8

Medical Oncology

Ongoing

1. Analysis of HUWE-1 regulated Metabolic and Immunological attributes in TNBC, Pathology, AIIMS
2. Assessment of Anxiety And Depression in Patient wWith Epithelial Ovarian Cancer After 1st line Chemotherapy: A Cross sectional Observational Study, Psychiatry, Medical Oncology, Gynecology, and obstetrics
3. Clinical outcome and biological characteristics of ovarian cancer patients with positive germline mutations in hereditary ovarian cancer predisposing genes and acceptance of cascade testing in Indian women., Medical Oncology, Gynecology and obstetrics, Surgical oncology
4. Comparison of telegenetics versus face-to-face genetic counselling by clinical team in women with Epithelial Ovarian Cancer, Medical Oncology, Gynecology and obstetrics, Surgical oncology
5. Designing and implementation of health care model in patients with stage 2 breast cancer, Radiation Oncology
6. Elucidation of Propofol mediated anti-metastatic effects in Triple Negative Breast Cancers, Onco-Anaesthesia& Palliative Medicine, DR BRA IRCH, AIIMS
7. Evaluating the theranostic potential of canonical and non-canonical WNT signaling in Gallbladder Cancer Funding Agency: ICMR, Duration: 2023-2026, PI: Dr Chandra Prakash prasadPrasad, Additional Professor Department of Medical Oncology Lab BRAIRCH AIIMS New Delhi

8. Evaluating the therapeutic significance of ?-catenin in Gallbladder cancer; Funding Agency: AIIMS (Delhi), Duration: 2024 to 2026, PI: Dr Chandra Prakash prasad, Additional Professor Department of Medical Oncology Lab BRAIRCH AIIMS New Delhi
9. Evaluation of Secondary cytoreductive surgery in relapsed ovarian cancers: an ambispective study, Surgical Oncology & Medical Oncology
10. ICICLE 2, Multi-institutional collaboration
11. Indian Council for Medical Research (ICMR) (2023-2026) as Co PI, PI: Dr Seema Singhal, Additional Professor Department of Gynaecology AIIMS New Delhi
12. To investigate the metabolic perturbations in endometrial cancer in Indian cohort, Pathology, AIIMS
13. Understanding the role of FAPI scans in multiple myeloma, Nuclear Medicine and Medical oncology

Completed

1. Comparison of short course radiotherapy followed by neoadjuvant chemotherapy with long course concurrent chemoradiotherapy in locally advanced rectal cancer: a randomized controlled trial, Radiation oncology, medical oncology, Surgical oncology, GI surgery, Radiology
2. Hypo-fractionated palliative radiotherapy using "Quad shot regimen" with concurrent cisplatin in patients with locally advanced head and neck squamous cell carcinoma unsuitable for curative treatment, Radiation Oncology, Medical oncology, Radiology

Preventive Oncology

Ongoing

1. A descriptive cross-sectional study to identify the prevalence and risk factors of oral-premalignant lesions through visual screening among security personnel working at AIIMS, New Delhi, Public health dentistry, CDER, AIIMS, New Delhi
2. A Study of Gut (oral, fecal and bile) Microbiome in Patients with Gallbladder Cancer, Department of Surgical Disciplines, Department of Gastroenterology, Translational Health Science and Technology Institute, Faridabad
3. Assessment of Second-hand Tobacco smoke (SHS) exposure and evaluation of m-Health promotion strategy among attendants of cancer patients at a tertiary cancer hospital, Preventive Oncology
4. Cancer Awareness and Referral Engagement (CARE) program for medical- officers/Specialists in selected district hospitals of Haryana., Preventive Oncology, NCI
5. Clinico-genetic prognostic signatures for development of metastatic Castration Resistant Prostate Cancer, Department of Urology, AIIMS, New Delhi
6. Development of a novel cancer immune therapeutic agent by incorporating NY-ESO-1 into Mycobacterium indicus pranii and evaluation of its antitumor efficacy/immune mechanisms using mouse model of tumor, Preventive Oncology, Dr BRAIRCH, AIIMS, New Delhi
7. Genomics of Gall Bladder Carcinoma in Indian patients, Laboratory Oncology Unit, Dr BRAIRCH, AIIMS, New Delhi
8. Prevalence of BRCA1/2 germline mutations in young Indian women (<40 years) with triple negative breast cancers, Department of Surgical Disciplines, AIIMS, New Delhi
9. To elucidate the impact of micronutrients and vitamins on sex -steroid mediated stromal epithelial interactions in prostate cells: role in maintenance of normal prostate physiology., Reproductive Biology, AIIMS, New Delhi
10. To evaluate the mutation detection performance of various BRCA testing eligibility criteria tools among Indian females with breast cancer and in their immediate family members, Preventive Oncology
11. To study the Interplay between Cancer-Testis germline POTE antigen and Notch signaling and its association with global DNA methylation in Ovarian Cancer, Department of Biochemistry, AIIMS, New Delhi
12. Topoisomerase2? and Anthracycline induced Cardio Toxicity (TACT) among females treated for malignant breast tumors, Preventive Oncology

Radio Diagnosis

Ongoing

1. An integrated metabolomics and lipidomics approach for identifying biomarkers for early diagnosis and histological subtyping of the Non-Small-Cell-Lung Cancer, Department of NMR
2. Assessment of cell free DNAS (cf-DNA) as a biomarker in common gastrointestinal track cancers, Department of Medical Oncology
3. Childhood cancer survivorship program, Department of Medical Oncology
4. Cricoid ultrasonography and CT scan to predict the size of double lumen tube in Indian population- A prospective observational study, Department of Oncoanaesthesia and palliative medicine
5. Development of neuro-vascular coupled computational modelling in stroke using multimodal imaging, NMR
6. Early integration of point of care ultrasonography (POCUS) in oncopalliative patients, Department of Oncoanaesthesia and palliative medicine
7. Enteral feeding practices and their outcomes in advanced aerodigestive tract malignancies: an ambispective observational study., Department of Oncoanaesthesia and palliative medicine
8. Evaluation of 68Ga-NOTA-Ubiquicidin PET-CT for diagnostic differentiation of infective and malignant lesions in oncology patients, Department of Nuclear Medicine
9. Exploring neuroimaging and metabolomic markers associated with opioid dependent subjects on buprenorphine maintenance treatment, NMR
10. Exploring the role of AI in differentiating metastasis from granuloma in patients with pediatric sarcomas, Department of medical oncology, IIT Delhi
11. Genetic changes of p53 and its role in management of patients with advanced soft tissue sarcomas, Pathology
12. Low dose Livonumab in combination with neoadjuvant chemotherapy followed by concurrent chemoradiation in advanced carcinoma cervix: a phase II study, Department of Medical Oncology
13. Low dose oral metronomic cyclophosphamide and etoposide combination in recurrent/refractory high grade endometrial cancer, A single arm phase 2 study, Department of Medical Oncology
14. Neoadjuvant chemotherapy followed by surgery versus surgery followed by adjuvant chemotherapy for resectable gastric adenocarcinoma- Phase 3 MulticentricRandomised controlled trial (NAGA Study), Department of Medical Oncology
15. PD-L1 and PD1 immunoreactivity in Undifferentiated Pleomorphic Sarcoma of Soft tissue, Pathology
16. Prospective Randomized trial of preoperative stereotactic body radiation therapy in soft tissue sarcoma, Radiation Oncology
17. Prospective study of in-person versus online cancer genetic counselling and Retrospective evaluation of a prospectively maintained database of patients undergoing breast conservation surgery, Surgical Oncology

Completed

1. A Prospective study to assess the role of Contrast Enhanced Mammography in evaluation of multifocal and multicentric breast carcinoma in comparison with Conventional Imaging Modalities, Surgical Oncology
2. Analysis of clinico-radiological outcomes of patients with extremity fibromatosis after stoppage of sorafenib post one year of treatment- single arm, two-staged, phase 2 Study, Medical Oncology
3. Diagnostic performance of iota -simple rules, iota- adnex, gi-rads and o-radsusg reporting system in evaluation of adnexal masses, Gynecology
4. Impact of advanced airway imaging (3D CT reconstruction and virtual endoscopy)on airway management in patients undergoing head and neck cancer surgeries - Prospective randomized study, Oncoanaesthesia and Palliative care
5. Role of multimodality imaging and liquid biopsy for response assessment in colorectal carcinoma: An Ambispective study, Department of radio-diagnosis, 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

Radiation Oncology

Ongoing

1. A randomized, double-blind, placebo-controlled, 2-arm Phase III study to assess efficacy and safety of xevinapant and radiotherapy compared to placebo and radiotherapy for demonstrating improvement of disease-free survival in participants with resected squamous cell carcinoma of the head and neck, who are at high-risk for relapse and are ineligible for high-dose cisplatin (XRAY VISION study), Departments of Medical Oncology & Radiation Oncology, AIIMS New Delhi and other collaborating centres
2. An investigator-initiated phase II randomized controlled trial of low-dose pembrolizumab in addition to standard neoadjuvant chemotherapy in patients with triple negative breast cancer, Medical Oncology
3. Can pre-session intra-ductal administration of N acetyl-cysteine in each Wharton duct decrease xerostomia and improve quality of life in adult patients of oropharyngeal squamous cell carcinoma treated by single modality of radical external beam radiotherapy treatment?, Departments of Otorhinolaryngology & head-neck surgery, Radiation Oncology & Pharmacology, AIIMS New Delhi
4. Exploring targeted delivery and anticancer potential of cisplatin- loaded HPV virion for cervical cancer treatment using Cryo-Electron Tomography, Anatomy
5. Investigating therapeutic implication of intra-tumoral heterogeneity in triple-negative breast cancer, Medical Oncology
6. Non-invasive detection of tumour hypoxia in cervical cancer with FMISO PET and correlation with hypoxic gene signature on directed biopsy and evaluate prognostic difference after chemo-radiotherapy, Nuclear Medicine
7. Project A-951 entitled "Development of 3D Printed Patient Specific Phantoms to improve Radiation Dosimetry", Medical Physics and Radiation Oncology, AIIMS, New Delhi
8. Stereotactic Body Radiotherapy (SBRT) boost versus Simultaneous Integrated Boost (SIB) to pelvis nodes among patients receiving radical chemoradiation in Carcinoma Cervix: A Prospective, Phase II Single Arm Study comparing safety profiles, Radiation Oncology
9. The role of novel self-assembling peptide matrix (SAPM) in prevention of post radiation caries in head and neck cancer patients: Randomized clinical trial, Division of Conservative Dentistry and Endodontics, Centre for Dental Education and Research (CDER) & Department of Radiation Oncology, AIIMS New Delhi

Research over the past 3 years

Research projects	2021-2022	2022-2023	2023-24
Total funded projects	1	**1**	**1**
			3
			6
			1
Total funding	Rs 27,50,000/-	Rs 61,64,550/-	Rs 61,64,550/-
			Rs 95,00,000/-
			Rs 2,00,00,000/-
			Rs 30,00,000/-

Surgical Oncology

Ongoing

1. A Pilot Study on the Evaluation of Genetic Predisposition to Breast, Ovarian, and Prostate Cancer in South Asia, Medical Oncology
2. A Pilot Study on the Evaluation of Genetic Predisposition to Breast, Ovarian, and Prostate Cancer in South Asia, Medical Oncology
3. Addition of low dose Pembrolizumab to capecitabine for residual triple negative breast cancer post neoadjuvant chemotherapy: A phase 3 randomized double blinded placebo controlled clinical trial, Medical Oncology, ICMR
4. Addition of_low-dose pembrolizumab to capecitabine for residual triple negative breast cancer post neoadjuvant chemotherapy: An investigator initiated multicentric open labelled phase III randomized controlled clinical trial, Medical Oncology
5. Addition of_low-dose pembrolizumab to capecitabine for residual triple negative breast cancer post neoadjuvant chemotherapy: An investigator initiated multicentric open labelled phase III randomized controlled clinical trial, Medical Oncology
6. Adherence and compliance to treatment, diet, physical activity, Obesity, alternative medicine for breast cancer patients and correlation with outcome (ACTION), RO, ICMR
7. An integrated metabolomics and lipidomics approach for identifying biomarkers for early diagnosis and histological subtyping of the Non-small cell lung cancer. Department of NMR
8. An investigator-initiated phase II randomized controlled trial of low-dose pembrolizumab in addition to standard neoadjuvant chemotherapy in patients with triple negative breast cancer, Medical Oncology
9. An investigator-initiated phase II randomized controlled trial of low-dose pembrolizumab in addition to standard neoadjuvant chemotherapy in patients with triple negative breast cancer, Medical Oncology
10. An investigator-initiated phase II Randomized Controlled Trial of low dose Pembrolizumab in addition to standard neoadjuvant chemotherapy in patients with triple negative breast cancer, Medical Oncology
11. DBT-AIIMS-partnership Clinical & Translational Research Centre at NCI campus, Biochemistry
12. DBT-AIIMS-partnership Clinical & Translational Research Centre at NCI campus, Biochemistry
13. Elucidation of the role of long non-coding RNA-Ginir as a biomarker in lung tumorigenesis, Department of Medical Oncology
14. Establishing A Hereditary Breast-Ovarian Cancer (HBOC) Registry and Germline DNA Repository At AIIMS, New Delhi, Medical Oncology
15. Establishing a Registry and Germline DNA Repository of Breast and Ovarian Cancers with Hereditary Predisposition at AIIMS New Delhi, Medical Oncology
16. Establishing a Registry and Germline DNA Repository of Breast and Ovarian Cancers with Hereditary Predisposition at AIIMS New Delhi, Medical Oncology
17. Evaluation of regulation of programmed death-ligand 1 (PD-L1) expression by microRNA in lung cancer, Department of Medical Oncology
18. Genome wide analysis of microRNA mediated regulation of Cancer Testis Antigen POTE in Triple Negative Breast Cancer, Biochemistry, DBT
19. Identification of Lipid Based Biomarkers as a potential tool for diagnosis and prognosis of breast cancer and their clinic-pathological correlation, Amity
20. Indian Breast Cancer Genome Atlas (IBCGA)- A Multicentric Study, CSIR-IBIG
21. Metformin with neoadjuvant chemotherapy in localised Triple negative and Her2 neu positive breast cancer - a prospective investigator initiated phase-2 open label randomized controlled trial, Medical Oncology
22. Molecular and Genetic Analysis of TNBC, Department of Pathology
23. Paired targeted genomic profiling of triple negative breast cancer to understand the mechanisms of chemoresistance and develop novel treatment targets, Medical Oncology

24. Predicting the response to neo-adjuvant chemotherapy by analysis of exome and transcriptome in squamous cell carcinoma of esophagus, Surgical oncology, medical oncology, Pathology
25. Prevalence and Association of Microsatellite Instability and Lynch Syndrome Pan-cancer and Development of a Personalised Cancer Risk Prediction Tool for Lynch Syndrome Carriers in India, Medical Oncology
26. Prevalence And Association Of Microsatellite Instability And Lynch Syndrome Pan-cancer And Development Of A Personalised Cancer Risk Prediction Tool For Lynch Syndrome Carriers In India, Medical Oncology
27. Prostate, Head & Neck Cancer Screening in Geographic areas near NCI-AIIMS, Preventive Oncology
28. Role of R2TP Complex in Thyroid Cancer, Pathology
29. Role of R2TP Complex in Thyroid Cancer, Pathology
30. Role of R2TP Complex in Thyroid Cancer, Pathology
31. To determine the Immunogenic potency of Prostate, Ovary, Testis, and Embryo (POTE) family members in ovarian cancer, Biochemistry
32. To determine the Immunogenic potency of Prostate, Ovary, Testis, and Embryo (POTE) family members in ovarian cancer, Biochemistry
33. Tumour Immune Microenvironment of follicular cell derived carcinomas across different grades utilizing gene expression and spatial proteomic profiling, Pathology
34. Tumour Immune Microenvironment of follicular cell derived carcinomas across different grades utilizing gene expression and spatial proteomic profiling, Pathology

Completed

1. 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, Department of Onco-Anesthesia
2. Outcomes of Metastatic Colorectal cancers over 15 years- experience from tertiary care centre, Department of Medical Oncology

Research over past 3 years

Research projects	2020–2021	2021–2022	2022–2023	2023–2024
Total funded projects	3	11	11	10
Total funding	Rs 22115480	Rs 16590480	Rs 24990480	Rs 21542000

PUBLICATIONS

Onco-Anaesthesia& Palliative Medicine: 76

Journal articles: 68 Chapters in Books: 7 Books & Monographs: 1

Item	2021–2022	2022–2023	2023–2024
Total	**101**	**106**	**76**
Journal articles	75	72	68
Abstracts	7	9	0
Chapters in books	16	22	7
Books & Monographs	3	3	1

Laboratory Oncology: 62

Journal articles: 60 Abstracts: 2

Item	2021–2022	2022–2023	2023–2024
Total	**70**	**103**	**62**
Journal articles	58	82	60
Abstracts	7	17	2
Chapters in books	5	4	0
Books & Monographs	0	0	0

Medical Oncology: 132

Journal articles: 103 Abstracts: 28 Chapters in Books: 1

Item	2021–2022	2022–2023	2023–2024
Total			**132**
Journal articles			103
Abstracts			28
Chapters in books			1
Books & Monographs			0

Medical Physics

Journal articles: 2

Item	2021–2022	2022–2023	2023–2024
Total			**2**
Journal articles			2
Abstracts			0
Chapters in books			0
Books & Monographs			0

Preventive Oncology: 6

Journal articles: 3 Abstracts: 0 Chapters in Books:3

Item	2021–2022	2022–2023	2023–2024
Total	**8**	**13**	**6**
Journal articles	4	9	3
Abstracts	0	0	0
Chapters in books	0	4	3
Books & Monographs	4	0	0

Radio Diagnosis: 36

Journal articles: 32 Abstracts: 3 Chapters in Books: 1

Item	2021–2022	2022–2023	2023–2024
Total			**36**
Journal articles			32
Abstracts			3
Chapters in books			1
Books & Monographs			0

Radiation Oncology: 60

Journal articles: 41 Abstracts: 18 Chapters in Books:1

Item	2021–2022	2022–2023	2023–2024
Total	**40**	**80**	**60**
Journal articles	31	68	41
Abstracts	7	8	18
Chapters in books	2	2	1
Books & Monographs	0	2	0

Surgical Oncology: 48

Journal articles: 34 Abstracts: 4 Chapters in Books: 9 Books: 1

Item	2021–2022	2022–2023	2023–2024
Total	**30**	**41**	**48**
Journal articles	27	33	34
Abstracts	0	0	4
Chapters in books	2	1	9
Books	1	7	1

DCR: 9

Journal articles: 8 Monographs:1

Item	2021–2022	2022–2023	2023–2024
Total	**7**	**14**	**9**
Journal articles	7	13	8
Monographs	0	1	1

PATIENT CARE

(MEDICAL RECORD SECTION)

ANNUAL REPORT FOR THE YEAR –(APRIL-2023 TO MARCH-2024

1. **Total Bed Strength = 182 + 7 (Day care beds increase w.e.f. 22 September 2023) = 189**

a. Medical Oncology = 78 + 7 = 85

b. Radiation Oncology = 37

c. Surgical Oncology = 61

d. Palliative Care Unit = 06

2. **Total OPD Attendance – (2023-24)(Total = 192088)**

a. New Patient`s Registered = 15521

b. Revisits = 176567

3. **Description of Various OPD/Clinics at Dr Brairch (year 2023-2024)**

S.No.	Name of the Opd/Clinic	New Patient			Registered Revisits		
		MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
1.	Adult Medical Oncology Clinic	1243	1874	3117	18074	34699	52773
2.	Adult Lymphoma Leukemia Clinic	-	-	00	786	654	1440
3.	AML/HL Clinic	81	53	134	2727	1662	4389
4.	ALL/CML Clinic	44	17	61	2791	1884	4675
5.	Breast Cancer Clinic	46	673	719	402	11393	11795
6.	Bone & Soft (Tissue) Clinic	130	92	222	677	502	1179
7.	Cancer Prevention And Screening CL.	06	254	260	-	-	-
8.	Familial Cancer Clinic	13	24	37	11	48	59
9.	Gastro-Intestinal Clinic	553	419	972	2124	1748	3872
10.	Gynaecology Clinic - `A`	-	164	164	-	622	622
11.	Gynaecology Clinic - `B`	-	264	264	-	1360	1360
12.	Gynaecology Clinic - `C`	-	267	267	-	1238	1238
13.	Genitourinary & Gynae Clinic	30	74	104	394	832	1226
14.	Genitourinary & PSM Clinic	37	93	130	236	674	910
14.	Head & Neck (Surgery) - A	370	66	436	1448	484	1932
15.	Head & Neck (ENT) – B	1038	209	1247	4610	1132	5742
16.	Hepatobiliary & Pancreatic Clinic	108	94	202	640	453	1093
17.	Lung Cancer Clinic	643	222	865	5436	3238	8674
18.	NHL/MM/CLL Clinic	117	96	214	1667	1865	3532
19.	Neuro Oncology Clinic	279	160	439	1559	949	2508
21.	Ophthalmic Tumour Clinic	05	02	07	-	-	-
22.	Paediatric Medical Oncology Clinic	293	154	447	7267	5211	12478
23.	Paediatric Lymphoma Leukemia Clinic	233	113	346	4435	2690	7125
24.	Paediatric (Surgery)	67	42	109	1813	1280	3093

25.	Pain Relief Clinic	1031	699	1730	6765	7128	13893
26.	Pain & Palliative Care Clinic (RT-II)	-	-	00	-	-	-
27.	Paediatric Palliative Care Clinic	-	-	00	-	-	-
28.	Radiotherapy Clinic	515	472	987	6151	8304	14455
29.	Surgical Oncology (Clinic)	417	367	784	778	828	1606
30.	Thoracic Oncology Clinic	168	87	255	885	599	1484
31.	Transplant Clinic	63	40	103	1283	684	1967
32.	Urology Malignancy Clinic	605	119	724	5996	2709	8705
33.	Endo Malignancy Clinic	112	63	175	1589	1153	2742
	Total =	**8247**	**7273**	**15521**	**80544**	**96023**	**176567**

Grand Total = 15521 + 176567 =192088

Admissions (2023-24)	
Regular Admissionss	**10986**
Short/Day Care Admissions	**39007**
Total Admissions	**49993**

Discharges (2023-24)	
Regular Discharges	**10702**
Short/Day Care Discharges	**37839**
Total Discharges	**48541**

Total Deaths – (2023-24)	**305**

Operation Theatre Services – (2023-24)	
Major Operations	**1593**
Minor Operations	**8115**
Total Operations	**9708**

Electro-Cardiogram (ECG) – (2023-24)	**5189**

OPD Procedures (Treatment Room No.15)	**6540**

OPD Chemotherapy Services (Treatment Room No. 15)	
Male CT	**4633**
Female CT	**2697**
Male Child CT (PAED.)	**4527**
Female Child CT (PAED.)	**1588**
Total Cases	**13445**

OPD Attendance New Patient`S Registered (Male &Female) – (2023-24)

New Patients's Registered	MALE	FEMALE	TOTAL
April – 2023	548	467	1015
May – 2023	710	630	1340
June – 2023	646	610	1256
July – 2023	635	597	1232
August – 2023	731	662	1393
September – 2023	647	559	1206
October – 2023	641	603	1244
November – 2023	699	584	1283
December – 2023	698	590	1288
January – 2024	721	605	1326
February – 2024	824	704	1528
March – 2024	748	662	1410
Total	**8248**	**7273**	**15521**

Total (Male & Female) = 15521

OPD Attendance Revisits (Male & Female) – (2023-24)

Revisits	Male	Female	Total
April = 2023	5768	7229	12997
May – 2023	6255	8093	14348
June – 2023	6014	7665	13679
July – 2023	6451	8152	14603
August – 2023	7058	8512	15570
September – 2023	6497	7885	14382
October – 2023	6569	8138	14707
November – 2023	6797	8171	14968
December – 2023	6962	8281	15243
January – 2024	6841	7649	14490
February – 2024	7606	8306	15912
March – 2024	7726	7942	15668
Total	**80544**	96023	**176567**

Total (Male & Female) = 176567

Geographical Distribution According to their Residence = 15521

S.NO		TOTAL
1.	Andhra Pradesh	06
2.	Andman Nicobar	01
3.	Assam	41
4.	Arunachal Pradesh	07
5.	Bihar	1860

6.	Chandigarh	05
7.	Chhattisgarh	07
8	Dadar & Nagar Haveli	00
9.	Daman & Diu	00
10.	Delhi	4922
11.	Goa	00
12.	Gujrat	17
13.	Haryana	1075
14.	Himachal Pradesh	149
15.	Jammu & Kashmir	140
16.	Jharkhand	158
17.	Kerala	17
18.	Karnataka	19
19.	Ladakh	34
20.	Lakshdeep	04
21.	Madhya Pradesh	283
22.	Maharashtra	27
23.	Meghalaya	06
24.	Manipur	53
25.	Mizoram	07
26.	Nagaland	05
27.	Orissa	36
28.	Pondicherry	01
29.	Punjab	62
30.	Rajasthan	192
31.	Sikkim	16
32.	Tamilnadu	05
33.	Telangana	14
34.	Tripura	07
35.	Uttar Pradesh	5147
36.	Uttaranchal	1006
37.	West Bengal	150
	TOTAL	**15479**

OTHER COUNTRIES

1.	Afghanistan	00
2.	Bangladesh	08
3.	Behrain	-
4.	Ethopia	01
5.	Fiji	-
6.	Iraq	-

7.	Mauritius	00
8.	Nepal	32
9.	Nigeria	01
	Total	**42**

Grand Total = 15521

Laboratory Oncology Services – (2023-24)

1.	Blood Sampling	159865
	Hemogram (HMG) – (HB, TLC, PLATELETS)	12449
2.	Peripheral Blood Smear (PBS)	3252
3.	Bone Marrow Aspiration (BM)	4541
4.	Cyto-Chemistry	1056
5.	Serum Protein Electrophoresis (SPE)	6134
6.	Immunofixation (IFX)	3693
7.	Urine Electrophoresis (UE)	505
8.	Tumor Marker	-
9.	FLOWCYTOMETRY	60994
10.	C.S.F.	2004
11.	ESR	-
12.	Molicular Biology	9919
13.	Serum Freelight Chain	10937
14.	Cytopathology	-
15.	BETA 2 – MICROGLOBULIN	1305
16.	Cytology	548
17.	HPB DNA	3042
18.	Immunoglobulin	1117
	Total	**281361**

Grand Total = 281361

Apheresis – (2023-24)

1.	Single Donor Platelets (SDP)	1731
2.	Peripheral Blood Stem Cell – Harvest (PBSC)	155
3.	Hemogram	2894
4.	Plasma	-
5.	No.of Granulocytes	31
6.	Plasma Exchange	14
7.	Stem Cell Harvest	-

	Total	**4825**

Grand Total = 4825

Medical Oncology Laboratory Services- (2023-24)

1.	Cytogenetics for Detection of Phildelphia Chromosome	424
2.	Cytogenetics for Chimerism	04
3.	RT-PCR for Detection of P210 and P190 Translocation in CML (Qualitative)	00
4.	RQ-PCR for Detection of P210 and P190 Translocation in CML (Quantitative)	403
5.	CD 34 Counts by Flow Cytometry	00
6.	CD 3 Counts by Flow Cytometry	00
7.	Immuno Phenotyping for Leukemia	00
8.	MNC Counts	156
9.	Cryopreservation of Stem Cells – 80	140
10.	Storage of Stem Cells AT 4	43
11.	Bone Marrow Transplant	00
12.	Infusion of Stem Cells	118
13.	Viabiality of Stem Cell	109
14.	Elisa for Aspergillosis Detection	1325
15.	LDH	00
16.	Magnesium	00
17.	EBV - DNA Detection for EBV Infection	01
	Total =	**2723**

Grand Total = 2723

Medical Physics Services –(2023-24)

1.	No. of blood bags irradiated	2278
2.	Quality Assurance test done on X-Ray machines	4524
3.	Quality Assurance test done on film processor at DR BRAIRCH, AIIMS	-
4.	Quality Assurance test on film processor at Radiology (Main)	-
5.	Radiation output measurements in X-Ray units	934
6.	Quality Assurance test done on film processor at AIIMS	-
7.	Radiation protection survey measurements	76
8.	Advise in inadvertent exposure to pregnancy	06
9.	Q.C. test fluoroscopy done at AIIMS	05
10.	Q.A. test done on Lead apron	63
	Total =	**7886**

Grand Total = 7886

Radiotherapy Services – (2023-24)

1.	Cases on Radiotherapy	90180
2.	Total Field on Radiotherapy	-
3.	Cases on Brachytherapy	957
4.	Treatment Planning and Simulations	3860
5.	Two and Three Dimensional Dose Distributions	3641
6.	Compensators	371
7.	Shielding Blocks Immobilization Devices and Orifits	3258
8.	Radiation Review Clinic	9687
9.	Planning C.T.	2390
	TOTAL	**114344**

Grand Total = 114344

Radio-Diagnosis Services – (2023-24)

1.	C.T. Scan	9755
2.	Ultra-Sound	8107
3.	Mammography	2839
4.	X-Rays (Routine)	18260
5.	Doppler	422
6.	Intervention	2012
7.	Special Investigation (BA, I)	858
8.	Intervention MA	00
	Total =	42253

Grand Total = 42253

Onco-Anaesthesia& Palliative Medicine

Under the title: Patient care/supportive activities: please include information regarding:

(a) facilities available in the department (including special clinics and/or special laboratory facilities)

(b) community services/camps, etc.

Patient care (other items may be added/removed as per activity of department)

Item	2021–2022	2022–2023	2023-24
OPD consultations	2500	2500	3000
Special clinic consultations	NA	NA	NA
Patients provided rehabilitation services	NA	NA	NA
Total inpatient admissions	As per census	As per census	As per census

PATIENT CARE

Patient care (other items may be added/removed as per activity of department)

Item	2021–2022	2022–2023	2023–2024
OPD consultations			2 days a week, OPD for 6 hrs each in palliative medicine and cancer pain, patient load of approximately 50-60 patients per OPD.
Operation theatre	2 operation theatres	3 days a week, running 2 Ots under my supervision.	4 days a week, running 3 OT's per day under my supervision for 8-10 hours for each OT
ICU			ICU rounds for 25 bedded ICU

Laboratory Oncology

S. No.	Name of The Lab	:	No. of test done
1	Blood Sampling	:	159865
2	Hemogram	:	12449
3	Bone Marrow	:	4541
4	Peripheral Blood Smear	:	3252
5	Serum Protein Electrophoresis	:	6134
6	Urine Electrophoresis	:	505
7	Immunofixation	:	3693
8	SFLC	:	10937
9	Immunoglobulin	:	1117
10	Beta 2 macroglobulin	:	1305
11	Cytochemistry	:	1056
12	Cytospin/CSF	:	2004
13	Molecular Biology	:	9919
14	Flowcytometry	:	60994
15	HPV	:	3042
16	Cytology	:	548

Medical Oncology

Prabhat Singh Malik has been involved in multidisciplinary lung cancer clinic, adult medical oncology clinic and leukemia lymphoma clinic. Apart from this he was also involved in the management of admitted patients in medical oncology wards and Stem cell transplantation facility.

Mayank Singh PCR based services (Real time and Nested PCR) for Cancer patients for quantification of Bcr Abl transcript for CML patients from last 3 years,

The number of patients treated in our department during 2023-2024

Sl. No.		2023-24
1.	Patients treated as in-patient	10986
2.	Patients treated in day care facility	39007
3.	Medical Procedures	6540

4.	Outpatient chemotherapy	7330
5.	Outpatient IV antibiotics	27860
6.	Hematopoietic Stem Cell Transplantation	100

Patient care services in Medical Oncology (Lab)

Sl. No.		2023-24
1.	Cytogenetics for Detection of PhildelphiaChromosome	424
2.	Cytogenetics for chimerism	04
4.	RQ-PCR for detection of p210 and p190 Translocation in CML (quantitative)	403
7.	MNC counts	156
8.	Cryopreservation of stem cells -80°C	140
9.	Storage of stem cells at 4°C	43
10.	Infusion of stem cells	118
11.	Viability of stem cell	109
12.	ELISA for aspergillosis detection	1325

Aphaeresis Lab (2022-23)

Sl. No.		2023-24
1.	PBSC harvests	155
2.	SDP apheresis	1731
3.	Granulocyte apheresis	31
4.	Hemogram	2894
5.	Plasma exchange	14

Medical Physics

Medical Physics Services

No. of blood bags irradiated	2278
Quality Assurance tests done on x-ray machines	4524
Radiation output measurements in x-ray units	934
Advices in inadvertent exposure in pregnancy	*06*
Radiation Protection Survey measurements	76
QA tests done on lead aprons at AIIMS	63
QA testsdone on fluoroscopy at AIIMS	05
Total	**7886**

Preventive Oncology

Preventive Oncology Clinics started in April 2022
Participants screened:551 for oral, breast and cervical cancers
EHS Participants vaccinated: 171

Non EHS Participants vaccinated: 350
Community services/camps: 4 screening camps, 9 awareness camps, 12 training programmes

Radio Diagnosis

1 April 2023 to 31 March 2024

X-Ray	18260
Ultrasound	8107
Doppler	422
C T Scan	9755
Mammography	2839
Fluoroscopy procedures, intervention	858
Intervention (USG, CT guided)	2012
Total	42253

Radiation Oncology

Under the title: Patientcare/supportive activities: please include information regarding:

(a) facilities available in the department (including special clinics and/or special laboratory facilities)

(b) community services/camps, etc.

Please also provide data wherever appropriate.

The department of Radiation Oncology has following facilities in providing quality of patient care.

1. Linear accelerators (One each at IRCH and Main RT)
2. Telecobalt (One in IRCH and Two in Main RT)
3. Brachytherapy (Two in IRCH)
4. CT Simulator (One in IRCH)
5. One X-ray Simulator

Department runs Head and Neck Cancer Clinic, Neuro-oncology Clinic, Breast Cancer Clinic, GI Malignancy Clinic, GU Malignancy Clinic, Gynaecological Malignancy Clinic, Lung Cancer Clinic with different concerned departments.

A. Departmental Statistics (IRCH)

1. Total fractions of external beam radiotherapy : 75519
2. Total cases of brachytherapy : 949
3. Treatment Planning and Simulations : 3814
4. 2D and 3D distribution : 3688
5. Compensators : 637
6. Shielding blocks, immobilization devices, moulds : 3200
7. Radiation Review clinic : 9231
8. Planning CT : 2096

OPD Consultations

New – 987 Old - 14455

Special clinic consultations

Breast cancer Clinic: New – 719, Old - 11795

Bone & Soft Tissue Clinic: New – 222, Old - 1179

Gastro Intestinal Clinic: New - 972, Old - 3872

Gynaecology Clinic A: New – 164, Old - 622

Gynaecology Clinic B: New – 264, Old - 1360

Gynaecology Clinic C: New - 267, Old - 1238

Genitourinary & Gynae Clinic: New – 104, Old - 1226

Head & Neck Clinic A: New - 436, Old -1932

Head & Neck Clinic B: New -1247, Old - 5742

Lung Cancer Clinic: New - 865, Old - 8674

Neuro-oncology Clinic: New – 439, Old - 2508

Paediatric Cancer Clinic: New -109, Old – 3093

Thoracic Oncology Clinic: New – 255, Old - 1484

Urology Malignancy Clinic New - 724, Old - 8705

Surgical Oncology

Facilities available in the Department:

1. Inpatient Beds 45 (BRA-IRCH) & 64 (NCI)
2. Major Operation theaters – 4 (IRCH) & 3 (NCI)
3. Endoscopy and Minor OT Complex – 1 each at IRCH and NCI
4. MDT Organ Based Special Clinics and OPDs (10 each at IRCH and NCI).

Special Advanced Oncology Programs

1. Thoracic oncology clinic
2. Hepato-biliary and pancreatic clinic
3. Peritoneal Surface Malignancy & HIPEC program.
4. Minimally Invasive Surgical Oncology Program
5. Cancer Genetics and Risk reducing Surgery Program
6. Palliative Surgical Oncology Program
7. Navigational surgery (ICG)
8. Oncoplasty and Reconstructive Oncology program

Census (Patient care Services)

Item	2023-2024		
	IRCH	NCI	Total
OPD consultations	28920	16504	45424
Total Number of Major Surgeries	1474	1162	2636
Total number of endoscopies & Minor surgeries/ Procedures	2022	8115	10137

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Onco-Anaesthesia & Palliative Medicine

Professor Sushma Bhatnagar received Individual Recognition Award 2024 by the International Association of Hospice and Palliative Care (IAHPC); Cynthia Goh Award 2023 by Asia Pacific Hospice Palliative Care Network (APHN),

Singapore; Dr MJ Joshi IMA Bhushan Award and Oration 2023; Fellow of the National Academy of Medical Sciences (NAMS) 2023; Appointment as External Examiner for DM Onco-Anaesthesia (Batch July 2020), Theory exam on 10 May 2023 at AIIMS, Rishikesh.

Professor Rakesh Garg received the IAMS 2023 Distinguished Training Award from the International Airway Management Society (IAMS) at the International Airway Management Meeting (IAMM2023); member of the ISCCM National Research Committee; Subcommittee Expert member for Telemedicine for the SET (Skills E-learning and Telemedicine) Facility AIIMS, New Delhi and Management Committee for KL Wig Centre for Medical Education, Technology & Innovation (CMETI), AIIMS; member of the Committee for the preparation of the AIIMS Annual Report; Member of Technical Specification and Evaluation Committee (TSEC), Dr BRAIRCH and NCI, AIIMS; coordinator for DR BRAIRCH Foundation Day 2023; Editor-in-Chief of the Indian Journal of Anaesthesia and Journal of Onco-Anaesthesiology and Perioperative Medicine; a member of the WHO Collaborating Centre of the Department of Onco-Anaesthesiology and Palliative Medicine.

Professor Nishkarsh Gupta received the award for best paper in ESRA 2023; was involved in OT, ICU and palliative care of patients at DR BRAIRCH; regularly teaches the residents in seminars, bedside, and journal clubs; organized a workshop for USG-guided regional blocks for residents with my team; regularly contributes questions to the examination section and the National Board of Examinations; an adjunct faculty involved in skill-based learning for students at the SET facility (AIIMS); a core faculty member who teaches AHA-accredited BLS and ACLS, which CMET organizes; reviewer of many medical journals and an editorial board member of IJPC, IJA, IJP, Associate Editor of Medical Journal of DY Patil Vidyapeeth, Indian Journal of Pain; also the council member IAPC and RSACP.

Dr Saurabh Vig was part of organizing team of SOAPCON 2023, and Delhi IAPCON 2023; Provided BLS training in collaboration with SET facility to over 300 staff at NCI Jhajjar.

Dr Raghav Gupta was Commonwealth Scholarship for MSc Palliative Medicine, Cardiff University, United Kingdom; Honored with Fellowship of International Medical Science Academy; Judge for Oral presentation at Mid Term RSACP CME cum workshop ; Organizing committee member in: Delhi IAPC state chapter 1st CME, 2023, Delhi IAPC state chapter 2nd CME & 1st CNE, 2023, -SOPCCON 2023, Delhi IAPC 1st Annual conference, 2023; Certification for Orientation Course on Tobacco Cessation from iCanCare Foundation and Gujarat University; Appointed Associate Nodal Officer for Delhi NCR Local Chapter of NAMS; Resource person for ICMR Project titled: "To build the capacity of palliative care services in 10 hospitals in North India to reduce suffering in patients with chronic debilitating conditions" at Bhagwan Mahavir Hospital and Cancer Research Centre; Third Prize in Scientific Paper Competition by Manipal Hospitals during Pain Awareness Month ; Resource person for ICMR Project titled: "To build the capacity of palliative care services in 10 hospitals in North India to reduce suffering in patients with chronic debilitating conditions" at BHU, Varanasi; Dr BB Mishra Young Anaesthesiologist Award at ISACON 2023; Appointed Assistant Editor of ISA Delhi Newsletter; Provided BLS training to Technicians, Nurses and Patient Care coordinators at NCI, Jhajjar; Token of Appreciation Awarded by Department of MoHFW, DGHS Delhi for imparting training to doctors on Palliative Care as part of National Programme for Palliative Care.

Dr Prashant Sirohiya was Organizing committee member in: Delhi IAPC state chapter 1st CME, 2023, Delhi IAPC state chapter 2nd CME & 1st CNE, 2023, SOPCCON 2023, Delhi IAPC 1st Annual conference, 2023, Visiting Faculty for ICMR Project titled: "To build the capacity of palliative care services in 10 hospitals in North India to reduce suffering in patients with chronic debilitating conditions" at RNT Medical College, Udaipur, AIIMS Jodhpur, GMC Chandigarh, and DMC Ludhiana.

Laboratory Oncology

Professor Ritu Gupta was conferred Fellowship of the Indian College of Haematology (FICH) 2023 by the Indian Society of Haematology & Transfusion Medicine (ISHBT); ICMR-DHR International Fellowship for Senior Indian Biomedical Scientists (March-June 2023); Organized15th TCS Annual conference & Workshops from 26-29 October 2023, with thematic focus on "Flow Cytometry: From Basics to Multi-Omics" at AIIMS, New Delhi; Travel Award from ICKSH 2024 for platform presentation of research work "Leukemic stem cells in acute myeloid leukemia further refine treatment outcomes in ELN molecular risk groups" at Seoul, Korea (28-30 March 2024); Best Oral Paper award at the 6th Annual Conference of the Indian Myeloma Academic Groupe (IMAGe) "IMC 2024" for paper on "Decoding Multiple Myeloma Pathogenesis: Discovery of Oncogenic and Transformative Events with a Targeted Panel of 282 Genes" (12-14 January 2024); Best Oral Paper award at Haematocon 2023 for paper on "Leukemic stem cells emerged as independent predictor of early and long-term treatment outcomes across conventional and ELN genetic risk group in acute myeloid leukemia"; Chairperson, Working Group-Cytogenetics, Flow Cytometry, Molecular Testing to review NABL 112 in accordance with ISO 15189:2022 (2023-2024); Invited faculty panelist for NBEMS webinar series in Medical Oncology for 'MCA in solid tumours and hematological malignancies" (4 October 2023)**;** Invited judge for oral paper awards at the **11th Annual**

Conference of the MPAICON – 2024 (16-18 February 2024); Invited chairperson for session on hematological malignancies at the 11th Annual Conference of the MPAICON – 2024 (16-18 February 2024).

Dr Sanjeev Gupta received AIIMS Excellence Research Award 2022- for outstanding publication (Clinical Sciences) titled, "Clinical and prognostic impact of copy number alterations and associated risk profiles in a cohort of pediatric B-cell precursor acute lymphoblastic leukemia cases treated under ICiCLe protocol", at AIIMS, New Delhi on 30 January 2024; ICMR travel award to present research paper at the 65th annual conference of the Korean Society of Haematology, ICKSH 2024 at Seoul, South Korea, 28-30 March 2024; Invited as Chairperson for the session on "Hematolymphoid neoplasms" at the 10th National Conference of ACPN, 2023, Nepal, 21-22 April 2023; Invited as Chairperson for the Plenary session at the 15th annual TCS meeting 2023, 26-29 October 2023, AIIMS, New Delhi; Invited as Judge for the poster paper session at the Highlights of Past EHA (HOPE) 2023, 18-20 August 2023, New Delhi; Invited for the panel discussion by the Mumbai Hematology Group, "New WHO classification of Lymphomas", by Dr Naresh K, 20 January 2024; Invited for the panel discussion by the Mumbai Hematology Group, "2023 Update on T-cell Lymphomas", by Dr Falini B, 7 May 2023; Conducted the panel discussion, "Journey of Lab Oncology- from past to future", 28 November 2023, AIIMS, New Delhi; Organizing committee member of 15th TCS annual meeting, 26-29 October 2023, AIIMS, New Delhi; Organizing committee member of IRCH foundation day, 28 November 2023, AIIMS, New Delhi; Expert member of the panel constituted by In-vitro Diagnostic (IVD) Division of Central Drugs Standard Control Organization (CDSCO), DGHS, Ministry of Health & Family Welfare to evaluate a new In-Vitro Diagnostic product, ERLY SIGN KIT for early detection of Oral Cancer by M/s. CURO Biosciences Pvt. Ltd.; External examiner for PhD defense, Department of Hematology, PGIMER Chandigarh, 24 February 2024.

Professor Anita Chopra received Travel Award from ICKSH 2024 for research work "Molecular map of T-ALL" Seoul, Korea.; Travel Award from JSH 2024 for research work, "Transcriptome sequencing based subtyping improves risk stratification in B-ALL patients"; AIIMS Oncology Research Award 2022- for outstanding publication titled, "Prognostic utility of key copy number alterations in T cell acute lymphoblastic leukemia", at AIIMS, New Delhi, 2022.

Professor Pranay Tanwar joined EUROGIN grant EUrogin 2024 International Multidisciplinary HPV Congress March 17 - 18 2024 the EUROGIN conference in Stockhom, Sweden; EHA Research Conference award for attending meeting to be held on March 18-21, 2024, in Borovets, Bulgaria.; Travel award from Japenese Society of Medical Oncology Annual Meeting 22-24 February 2024, held at Nagoya, Japan.

Dr Amar Ranjan was Amar R, Harshita D, Ptranay T, Analysis of the development of fatty liver in cases of ovarian cancer, The Liver Week, Seoul, Korea, 18-20 May 2023; Ranjan A, Dubey H, Tanwar P, Serum level of WT1 as a diagnostic marker of ovarian cancer, Max Cancer Congress, April 29-30, 2023, New Delhi- BEST POSTER AWARD; Dubey H, Ranjan A, Tanwar P, Prognotic evaluation of ALK+ lymphoma in gastrointestinal patients, Asia Pacific Digestive Week (APDW), Bangkok, Thailand, 6-9 December 2023; Dubey H, Ranjan A, Tanwar P, An analysis of development of nephropathy in ovarian cancer, KSN, 27-30 April 2023; Ranjan A, Dubey H, Tanwar P, Chemotherapy induced neuropathy in ovarian cancer, Fortis Cancer Congress, 27-28 January 2024; Merla SN, Ranjan A, Dubey H, Tanwar P, "Tackling neuropathy during the management of ovarian cancer" Meeting of Korean Cancer Association, Seoul, Korea, 15-16 June 2023; Dubey H, Ranjan A, Tanwar P, ALK+ large B- cell lymphoma of jejunum with recurrence as skin lesions, The Liver Week, Seoul, Korea, 18-20 May 2023.

Dr Gurvinder Kaur received First Prize in Poster Presentation 'Clonal Evolution in Multiple Myeloma', Indian Myeloma Congress IMAGe 2024, Pune; First Prize Poster 'Creation of in-house panel of normals (PON) for whole exome variant calling in CLL', 7th Conference of Indian Society of Histocompatibilty& Immunogenetics (ISHICON24) 2024, Jaipur; First Prize for Poster Presentation 'T cell receptor beta gene diversity identified by Next Generation Sequencing in Chronic Myeloid Leukemia patients', European Federation of Immunogenetics (EFI) 2023, Nantes, France.

Dr Deepshi Thakral was Member Organizing committee, 15th Annual conference of The cytometry society, India from 26-29 October 2023 at JLN Auditorium, AIIMS; Workshop coordinator for "Multiomics at single cell level", organized by The cytometry society, India on 27 October at CCRF, AIIMS, New Delhi; Workshop coordinator for "Basics of Flow Cytometry", organized by The cytometry society, India on 26 October at FACS Academy Jamia Hamdard, New Delhi; Organizing Secretary, 7th International Conference on Translational Research, 15-18 October 2023, JLN Auditorium, New Delhi, India; Workshop coordinator for "Basics of Flow Cytometry", organized by 7th ICTR on 15 October at SET facility, CCRF, AIIMS, New Delhi.

Dr Vivek Kumar Singh received the International Myeloma Society (IMS) and Paula and Rodger Riney Foundation Career Development Award for the year 2023.

Medical Oncology

Professor Sameer Bakhshi was was awarded fellowship of Indian Academy of Sciences (IASc) 2024; AIIMS Oncology Research Award in 2023 for outstanding published research work during the year 2022; AIIMS Excellence Research Award in 2023 for outstanding published research work during the year 2022.

Professor Atul Batra received ASCO Merit Award for the ASCO Annual Meeting 2023, Chicago; ESMO Developing Nations Travel Award for ESMO World Congress on GI cancers, Barcelona, Spain; ASCO Merit Award for ASCO Breakthrough Meeting, 2023 in Japan; First prize in oral presentation on the Institute Day.

Dr Raja Pramanik was invited Lecture, Guest Faculty Lecture on "Roles and responsibilities of Cancer Genetics Clinic in the current era", AIIMS, Jodhpur, JODHPUR.

Dr Chandra Prakash Prasad won Young Scientist Award 2024 from Indian Academy of Biomedical Sciences (IABS) at Patna during IABSCON-2024; E-Academic Grant in the 7th Korea Digestive Disease Week (KDDW)-2023 held at Grand Wlakerhill Seoul, Korea from 16-18 November 2023; International Travel Award from Asia National Cancer Centers Alliance (ANCCA) to attend 2nd ANCCA Annual Scientific conference 2023 from 2-3 November 2023 at Singapore; Award for Excellence in Research-2023 by Research Wing for Excellence in Professional Education and Industry (EET CRS) during 11th Academic Achievement Awards-23 at Mumbai, India; Name featured in the NABS (National Academy of Biological Sciences) news-letter for our research work on PFKFB3 related to TNBC cancer metabolism in January 2024; Member of Interview committee for PhD program at Sir Ganga Ram Hospital affiliated to Manipal Academy of Higher Education; Active member of Society for Histochemistry (SFH), Europe; Membership no. 172; 2023 onwards; Active member of American Association for Cancer Research (AACR); Membership no. AACR ID 385252; 2023 onwards.

Dr Thoudam Debraj Singh received Best Poster award at 49th Annual Meeting of Korean Cancer Association 2023/ 9th International Cancer Conference, at Seoul, South Korea; AIIMS Excellence Research Award in Basic Sciences - 2022" during the 3rd Research Day organized by the Research Section, AIIMS, New Delhi on 30 January 2024; Review committee in National Bodies: 1. Expert project review committee (PRC): Nanotechnology/Nanomedicine (ICMR), 2. Special Expert Committee (PRC): Nanotechnology (DBT); Editors in International Journal 1. Review Editor in Frontier in Oncology, 2. Review Editor in Biomedical and Pharmacology Journal; Memberships: (1) ISNM (Indian Society of Nano Medicine): Life Membership from September-2018, (2) IACR (Indian Association of Cancer Res.): Life Membership from Sept-2019, (3) ESMO (European Society for Medical Oncology): Membership since 2023.

Dr Mayank Singh received Travel award from ANCAA (Asia National Cancer center alliance) and was invited to present our work on deubiquitinase enzyme "2nd ANCCA (Asia National Cancer center Alliance) Annual Scientific conference 2023" at Singapore from 2 -3 November 2023.

Dr Babita Kataria received ESMO-ICF Clinical unit visit fellowship 2024 - selected as a fellow for the clinical unit visit program of the International Cancer Foundation at University college of London; Dr Edward Kennedy Memorial Award for best oral presentation for abstract "Olanzapine to improve Quality of life in metastatic solid cancer patients on chemotherapy: Phase II randomised placebo-controlled trial" at the 8th World Cancer Congress, New Delhi, India; International Developing Nations Travel Award - ESMO World GI Congress 2022 for poster discussion titled 'Three-arm phase II/III randomized controlled trial in patients with unresectable/metastatic gall bladder cancer with poor performance status: Erlotinib or capecitabine v/s best supportive care"; "Outstanding Young Clinician" at Venus International Healthcare Awards, 2022, India; Protocol Presentation - "Consolidation chemotherapy in cervical cancer" at GCIG KOLGO AIIMS NCI Meeting on 10 February 2024 ; Research protocol presentation - "A prospective study to evaluate the role of HPV-ctDNA as a predictive and prognostic marker in locally advanced cervical cancer" at 50th ICON Golden Jubilee conference, Bhubaneshwar, India (15 -17 March 2024; Participated in "Early career research methodology workshop" organized by Clinical Research Unit, AIIMS New Delhi (August 2023); Participated in "Grant Writing Workshop" organized by Clinical Research Unit, AIIMS, New Delhi (August 2023); Participated in "Study design and Analysis of Clinical Trials" workshop organized by KolgoTrG (December 2023); Participated in "Statistics for clinical Trials" workshop organized by Translational Health Sciences and Technology Institute (THSTI), Faridabad (December 2023); Participated on "REDCap workshop" organized by Clinical Research Unit, AIIMS, New Delhi (December 2023).

Dr Aparna Sharma received International Association for study on Lung Cancer (IASLC) /LCFA/BMS Diparities in Clinical Oncology Research Grant 2023 for project entitled "Comprehensive genomic characterization of young onset lung adenocarcinoma in India (YOLA-I study)"; American Society of clinical Oncology, Conquer Cancer Foundation International Innovation Grant 2023 for project entitled "Role of celecoxib in reducing cognitive impairment in patients receiving definitive chemoradiation for head and neck carcinoma: A phase II randomized placebo-controlled trial"; Selected as member of the Rare Tumor Committee and Thymic tumor subcommittee of International Association of Study of Lung Cancer (IASLC) for a two-year term beginning 2023.

Dr Sachin Kumar was awarded Third Prize in the "AIIMS Excellence Research Award in Basic Sciences - 2022" during the 3rd Research Day organized by the Research Section, AIIMS, New Delhi on 30 January 2024.

Medical Physics

Professor Pratik Kumar was an investigator, Patent No. 425632 was granted to AIIMS, Delhi for the invention of "Non-invasive Method to Characterize Kidney Stones" by the Indian Patent Office, Govt. of India; Member, Indian delegation in the Plenary and Working Group Meeting of International Electrotechnical Commission (IEC) Technical Committee TC-62 at Seoul, Republic of Korea, 15-21 September 2023; Examiner for PhD thesis from JSS Academy of Higher Education and Research, (a deemed university), Mysuru, Karnataka; Expert member of the panel constituted by Biotechnology Industry Research Assistance Council (BIRAC) to evaluate a proposal entitled "Low cost bone mineral densitometer" submitted by M/S AMCAS Innovations, Bangalore; External expert to assist Standing Committee of PGIMER, Chandigarh for promotion under APS for the post of Additional Professor (Medical Physics); Member, Committee to reframe recruitment rules for the post of Physicist cum RSO constituted by UCMS, Delhi University; Visiting Faculty for online / offline theory and practical classes for BSc and MSc Medical Imaging Technology, UCMS & GTB Hospital, Delhi; Chaired a session at 28th International Conference on Nuclear Tracks and radiation Measuirements, Gurugram University, 6-10 November 2023; Member, selection committee, Lady Hardinge Medical College for the selection of Medical Physicist, Deptt. of Radiotherapy, 19 December 2023; Subject expert, Faculty Assessment Promotion Scheme at Indira Gandhi Institute of Medical Sciences (IGIMS) Patna, 4 January 2024; Continued to be member, Project Review & Steering Group constituted by Ministry of Electronics & Information Technology (MeitY) to steer the development of Blood Irradiator by the Society for Applied Microwave Electronics Engineering & Research (SAMEER), IIT, Powai, Mumbai; Subject expert for the selection for the posts of Medical Physicist, AIIMS, Vijaypur, Jammu, 3 October 2023; Continued to be reviewer for the projects submitted for funding to BIRAC, DBT under Biotechnology Industrial Partnership Programme (BIPP), Small Business Innovation Research Initiative (SBIRI) and Promoting Academic Research Conversion to Enterprise (PACE) programs; Reviewer for the manuscript submitted to Sensors & Actuators (Elsevier), Radiation Physics & Chemistry (Elsevier), Indian Journal of Radiological Imaging and Journal of Medical Physics. Continued to be (i) Member, Editorial Board, Indian Journal of Radiology & Imaging (IJRI) (ii) Member, Editorial Board, Journal of Medical Physics (JMP) (iii) Founder Editor, Medical Physics Gazette, the newsletter of Association of Medical Physicists of India (AMPI) (iv) Member, Electromedical and Diagnostic Imaging and Radiotherapy Equipment Sectional Committee, MHD-15, Bureau of Indian Standards (BIS), New Delhi.

Dr RK Bisht was Radiological Safety officer, service to NCI radiology, Blood irradiator and outreach OPD and for NCI- Radiology and Gamma Irradiation Chamber Since April 2023 to February 2024; Invitee for the advisory committee constituted for the installation of new Cyclotron in nuclear medicine department AIIMS; Secretary, AMPINC 2021 onwards; Member selection committee, for Medical Physics recruitment at Lady Hardinge Medical College 11 August 2023; Invited as poster rapporteur in International conference of medical physics at Bhabha Atomic Research Centre Mumbai during 6 -9 December 2023; Question Paper setter for BSc Medical Radiotherapy Technology, Pt. BDS Univ. of Health Sciences, Rohtak and Medical Physics, AIIMS, New Delhi.

Preventive Oncology

Dr Pallavi Shukla - Contributed to the initiation of collaboration between National Disease Modelling Consortium (Consortium), an entity of IIT Bombay and AIIMS New Delhi; Won best e-poster in the 51st Annual National Conference of Indian Association of Preventive and Social Medicine for the study titled "Readiness and motivation of Accredited Social Health Activists (ASHA) towards engagement in cancer control program"; Took membership of following esteemed organization this year: American Society of Clinical Oncology (ASCO), International Papilloma Virus Society (IPVS), European Organisation for Research and Treatment of Cancer (EORTC) and Indian Society of Colposcopy and Cervical Pathology (ISCCP); Registered for a certified colposcopy training course by ISCCP.

Radio Diagnosis

Professor Chandrashekhara SH won 'Outstanding Researcher in Radio-diagnosis' at 6th Venus International Healthcare Awards (VIHA 2023) at Chennai; Won 'Outstanding Scientist Award' in the International Conference for Scientist Award winners on Engineering, Science and Medicine on 15-16 April 2023 in Pondicherry, IndiaJoint Secretary for the Society of Image Guided Therapy for 2023-24; Appointed as Vice president for Delhi ISVIR for 2023-24; Examiner for DNB and DM examinations for 2023-24.

Dr Ekta Dhamija: Selected for Editor Award for Reviewer of IJRI 2023 which would be presented in national conference to be held in January 2025.

Dr Mukesh Kumar was Reappointed as treasurer for society for emergency radiology India for 2023-24; Secretary of Delhi ISVIR for 2023-24.

Dr Krithika Rangarajan was Member of Nation-wide Consensus Guideline group on "Image Guided Breast Interventions"; Member of Working Committee of National Medical Journal of India; Primary Coordinator of the AIIMS Centre of Excellence on Artificial Intelligence.

Radiation Oncology

Professor DN Sharma was Awarded the Sixth Annual Radiation Oncology Chair Oration by SVIMS University Cancer Center, Tirupati, Andhra Pradesh for the year 2023-24; Awarded Dr Samir Desai Memorial Oration by P.D. Hinduja Hospital and Medical Research Centre, Mahim, Mumbai for the year 2023.

Professor Subhash Gupta was Examiner for the evaluation of DNB Radiotherapy papers at National board for the theory and practicals; Appointed as External examiner for MD Radiotherapy practical examination at SPS Medical college, Bikaner, Dr Sampurnanand Medical College, Jodhpur and AIIMS Bhopal.

Professor Haresh KP was Awarded the "Most dynamic Professor of Radiation Oncology in New Delhi" at the Golden AIM Conference Awards for excellence and leadership in Healthcare in 2024; Awarded the "Most Trusted Uro-Radiation Oncologist in Delhi" at the Golden AIM Conference Awards for excellence and leadership in Healthcare in 2023; Member of Project review committee (PRC) in Oncology of Indian Council of Medical Research (ICMR), New Delhi; International Steering committee member for the ARANOTE Study-Darolutamide in prostate cancer; Lead Principal Investigator for India for the international ARANOTE Study of Darolutamide in prostate cancer; Coordinator and Expert for DNB OSCE for Radiotherapy at the National Board of Examinations; Co-ordinator for the DNB practical examination in radiotherapy at the National Board of Examinations; Examiner for the evaluation of DNB Radiotherapy papers at the National board for the theory and practicals.; Appointed as External examiner for MD Radiotherapy practical examination at JIPMER, Puducherry from 24-25 July 2023; Appointed as NBEMS assessor to assess the suitability of the Radiation Oncology department at Jaypee Hospital, Noida to run DNB/DrNB/FNB programme on 9 September 202; Appointed as subject expert for Faculty Assessment Promotion Scheme -2022 & 2023 at IGIMS, Patna on 4 December 2023.

Dr Ahitagni Biswas was Awarded ICMR-DHR international fellowship for young Indian biomedical scientists 2023-24 at the Proton Therapy Centre, Department of Clinical Oncology, The Christie Hospital, Manchester, UK; Peer reviewed 15 manuscripts for PUBMED-indexed journals in 2023-24; Organised the guest lecture- 'Rediscovering the Role of Radiation in improving hematopoietic stem cell transplant outcomes for Hematological Diseases' by Dr Susanta Hui, Professor, Beckman Research Institute, City of Hope National Medical Center, Los Angeles, USA on 15 February 2024 (3-4 PM) in IRCH, AIIMS, New Delhi.

Dr Surendra Kumar Saini was Fellow of International Medical Science Academy; Associate Editor of Journal of Cancer Research and Therapeutics (JCRT); Judge for Poster Presentation in IBSCON 2023, Varanasi (4-8 August 2023).

Dr V Subramani was Elected as Vice-President of Association of Medical Physicists of India; Member, Science Committee, International Organization for Medical Physics (IOMP); Chief Editor, Asia-Oceania Federations of organization for Medical Physics (AFOMP) Newsletter; Standing Selection Committee member for Medical Physicist selection at AIIMS, Raebareli on 3 March 2024; Member Radiotherapy equipment purchase committee by HLL-HITES on behalf of Ministry of Health and family Welfare, Govt. of India.; Awarded to 2 PhD Student under my chief Guide at Bharathiar University, Coimbatore, Tamilnadu; PhD Viva Voce Examiner at Anna University, Chennai on 11 September 2023; PhD Viva Voce Examiner at Rajasthan Health Science University, SMS Jaipur on 27 March 2024; Participated in the Question bank development for Residents selection exam for our institute Exam Section, AIIMS, New Delhi; Developed Booklet on "Standard Operating Procedures for Radiation Safety Committee" at AIIMS, New Delhi, Published February 2024.

Dr Gopishankar Natanasabapathi awarded Provisional Patent Application No 202111061290 entitled "3D printed based brachytherapy implant template" published in Intellectual Property India (IPR), New Delhi on 30 June 2023; Elected as Executive Member in Association of Medical Physicists of India (AMPI, India); Life Member of Indian Brachytherapy Society; Member of International Stereotactic Radiosurgery Society (ISRS); Reviewer of articles in Journals such as Radiological Physics and Technology (RPTE), Journal of Medical Physics (JMP), Journal of Cancer and Journal of Cancer Research and Therapeutics (JCRT), Physica Medica Journal and etc.

Dr Abhishek Shankar was Chair, First Consultative Workshop of Expert Group of Punjab Cancer Care Pathways, Chandigarh; Member of Expert Committee, Punjab Cancer Care Pathways, Department of Health and Family Welfare, Government of Punjab; Member of Steering Committee, Punjab Cancer Care Pathways, Department of Health and Family Welfare, Government of Punjab; Member, Advisory Committee, Non-Communicable Diseases, Wadhwani Initiative for

Sustainable Healthcare (WISH); Member, Program committee, IASLC World Conference on Lung Cancer (WCLC) 2024, San Diego, USA; UICC ICRETT Fellowship at Columbia University, New York, USA; Co-chair, International Cancer Survivors Caregivers Summit 2024, IGCS, Dublin, Ireland; Co-Chair, IGCS Consensus Guidelines on Management of Endometrial Cancer; Member, Program Committee, APOCP General Assembly 2024, Bishkek, Kyrgyzstan; Program Director, APJCP Editorial Fellowship 2024; Guest Editor, Special issue in Frontiers in Global Health ; Guest Editor, Special issue in Frontiers in Oral Health; Country ambassador for India, International Papilloma Virus Society (IPVS); Member, Tobacco Control & Smoking Cessation Committee, International Association for the Study of Lung Cancer (IASLC); Lead, Working Group on Engagement, Tobacco Control & Smoking Cessation Committee, International Association for the Study of Lung Cancer (IASLC); Member, Working Group on Research, Tobacco Control & Smoking Cessation Committee, International Association for the Study of Lung Cancer (IASLC); Member, Working Group on Collaboration, Tobacco Control & Smoking Cessation Committee, International Association for the Study of Lung Cancer (IASLC); Chair-Elect, Cancer Advocacy Committee, International Gynecologic Cancer Society (IGCS); Vice Chair, International Gynaecological Cancer Society Advocacy Network (IGCAN), International Gynecologic Cancer Society (IGCS); Member, Asian National Cancer Centers Alliance (ANCCA); Chair, Clinical Cancer Committee, Asian Pacific Organisation for Cancer Prevention (APOCP); Editor in Chief, Asian Pacific Journal of Cancer Care (APJCC); Associate Editor, Asian Pacific Journal of Cancer Prevention (APJCP); Associate Editor, South Asia Journal of Cancer (SAJC); Reviewer of 47 PubMed Indexed peer-reviewed International Journals; Reviewed 112 manuscripts for PUBMED-indexed journals.

Surgical Oncology

Professor SVS Deo was appointed as member AIIMs- DHR ICMR - policy for faculty innovation and entrepreneurship; Appointed Member Lancet Oncology Commission - Cancer Surgery; awarded Rolling Stone Award - IDEPSO & ISPSM; gave oration at NASOCOM and Delhi - IAPM; signed MoU with Society of Surgical Oncology (USA) as IASO President; signed MoU with Brazilian Society of Surgical Oncology as IASO President; Elected as President of Indian Association of Surgical Oncology; was elected as President of "Association of Breast Surgeons of India".

Professor Sunil Kumar was elected as EC member Oncology forum.

Professor SVS Deo was elected as Member Scientific Committee "Breast Surgery International", Switzerland; elected as President "Indian Society of Peritoneal Surface Malignancies"; elected as President "NCR oncology forum".

Dr Ashutosh Mishra was elected as Editorial Secretary, Indian Association of Surgical Oncology; Elected as Digital Secretary, Indian Association of Surgical Oncology; elected as Executive member Association of Breast Surgeons of India; elected as Executive Member and UICC Coordinator, Oncology Forum, Delhi; selected as Member Abstract Review Committee 2024- UICC, Geneva; appointed as Board of Directors- Breastics 24; nominated as Associate editor- Annals of Breast Diseases; participated as invited guest in Worlds Cancer Leaders Summit (UICC), California.

Community Service

Professor Sunil Kumar provides free cancer care services and student awareness for Cancer in Bihar & Jharkhand through an NGO, Chandrakanti Devi Cancer Foundation; provided services as Surgical Oncologist as a part of the AIIMS team providing clinical care and personal training in Leh (Laddakh) through Ashoka Mission, September 2023.

DCR

Dr Rajeev Kumar Malhotra chaired a session on Biostatistics during CME organized by ABVIMS & Dr RML Hospital collaborated with Biostatistics Consortium, Delhi; Awarded the Member of National Academy of Medical Sciences at NAMSON-2023 convocation held at Bengaluru on 7 October 2023; Appointed as statistical editor to the medical journal "Indian Journal of Dermatology, Venereology and Leprology" for the year 2023-25; Appointed as statistical advisor to the medical journal "Indian Pediatric "for the year 2024-25.



Nukkad Natak Organized on the occasion of Breast Cancer Awareness Month with support of The Cancer Foundation, Rotary Club



Talk on the occasion of Cervical cancer awareness month at Holy Familty College of Nursing



HPV vaccination camps organized for the children who were victims of sexual abuse supported by NGO's, India Child Protection Fund and The Rotary Club Delhi

HPV Screenings Can Avert Cervical Cancer

10-15% Women In 30-60 Age Group +ve For Virus

Anuja.Jaiswal
@timesgroup.com

New Delhi: The persistent high-risk type of Human Papilloma Virus (HPV), a common sexually transmitted infection and main cause of cervical cancer, has been found positive in 10-15% of women in the age of 30-60 years when screened at AIIMS' Preventive Oncology Clinic in the last one year.

Cervical cancer is the second most common cancer among Indian women with 1,23,907 new cases and 77,348 deaths estimated in 2020, according to Global Cancer Ob-

The clinic, which runs twice a week at AIIMS, was started in April 2022. It found that of the 493 women tested, 33 tested positive for the high-risk type of HPV in a year. As January marks cervical cancer awareness month, it is a time to shed light on the importance of prevention and early detection of cervical cancer, doctors at AIIMS said.

Associate professor of preventive oncology Dr Pallavi Shukla advised that every sexually active woman (above 25 years of age) should go through HPV tests at regular intervals to help prevent cer-

in symptoms such as irregular bleeding, post-menopausal bleeding or increased vaginal discharge. More severe symptoms may arise in advanced stages.

"Sometimes, there may be no symptoms at all. Therefore, it is essential that every woman who is sexually active must undergo regular screenings," she said, adding that HPV test results can be available in one hour and self-sampling is possible only in this method of screening.

Once a screening result is positive, the woman may require further tests, such as colposcopy, with or without biopsy. Any woman identified with a pre-cancer/cancer of cervix must be initiated into prompt treatment, the doctor said.

Research suggests that almost 60% of sexually active individuals will encounter an HPV infection once in their lifetime as the virus spreads through skin-to-skin contact. Doctors said that although over 90% of all new HPV infections go away on their own, some HPV types are persistent and may cause cervical cancer if left undiagnosed or untreated.

While HPV is a family of over 200 low and high-risk genotypes, almost 85% of cervical cancer cases in India are caused by the high-risk HPV 16 and HPV 18 types. The most common high-risk type, HPV-16, alone causes 50% of cervical cancers globally.

Dr Shukla added that almost all cases of cervical cancer are linked to persistent HPV infection. "Cervical cancer is a type of cancer that begins in the cells of the cervix, the lower part of the uterus that connects to the vagina. This cancer usually develops slowly over time, starting with precancerous changes in the cells of the cervix before progressing to an invasive cancer if left untreated," she said.

According to doctors, early detection through awareness, HPV vaccination and screening presents a crucial opportunity, with a high cure rate when managed in the early stages. The government is also planning to include a cervical cancer vaccine in the universal immunisation programme.

HOW TO LOWER RISK

One woman dies of cervical cancer every 8 minutes



Reduce risk
- Vaccinate early (9-14 years)
- Screening test regularly (25-65 years)
- Prompt treatment

HPV test
1) WHO recommends it as the primary screening test
2) Can give result within one hour
3) Self sampling is possible only through this method

ctors that may put one at risk
1) Multiple sex al partners
2) Having man children
3) Long-term u e of oral contracep ve pills
4) Family histo
5) Smoking
6) Early marriage
7) Unprotected sex
8) Early child birth

Signs and symptoms
1) Unusual vag al discharge or bleeding
2) Heavier and onger menstrual cyc
4) Pain during intercourse
5) Unexpected weight loss
6) Pelvic pain
7) Loss of bladder control

DOCTOR SA S

This cancer usually develops sl vly over time, startli with precancerous changes in the cells of the cervix before progressing to an invasive cancer if left untreated

10.5 Dr Rajendra Prasad Centre for Ophthalmic Sciences

Chief & Professor of Ophthalmology
Jeewan S Titiyal

Medical Superintendent
DK Sharma

Professors

Radhika Tandon (Ophthalmology)
Mandeep Singh Bajaj (Ophthalmology)
Sanjay Sharma (Radio-Diagnosis)
Pradeep Venkatesh (Investigative Laboratory)
T.Velpandian (Ocular Pharmacology)
Rohit Saxena (Ophthalmology)
Tushar Agarwal (Ophthalmology)
Bhavna Chawla (Ophthalmology)
Alok Kumar Ravi (Ocular Biochemistry)
SK Khokhar (Ophthalmology)
Rajpal (Ophthalmology)
Seema Kashyap (Ocular Pathology)
Tanuj Dada (Ophthalmology)
Praveen Vashist (Community Ophthalmology)
Viney Gupta (Ophthalmology)
M Vanathi (Ophthalmology)
Parijat Chandra (Ophthalmology)
Nabanita Halder (Ocular Pharmacology)
Dilip R Shende (Anaesthesiology (RPC))
Seema Sen (Ocular Pathology)
Namrata Sharma (Ophthalmology)
Neelam Pushker (Ophthalmology)
Jasbir Kaur (Ocular Biochemistry)
Renu Sinha (Anaesthesiology (RPC))
Rajesh Sinha (Ophthalmology)
Senjam Suraj Singh (Community Ophthalmology)

Additional Professors

Noopur Gupta (Ophthalmology)
Vinod Kumar (Ophthalmology)
Nishat Hussain Ahmed (Ocular Microbiology)
Shorya Vardhan Azad (Ophthalmology)
Rohan Chawla (Ophthalmology)
Rachna Meel (Ophthalmology)
Prafulla Kumar Maharana (Ophthalmology)
Neiweti Lomi (Ophthalmology)
Swati Phuljhele Aalok (Ophthalmology)
Vivek Gupta (Community Ophthalmology)
Dewang Angmo (Ophthalmology)
Arshad Ayub (Anesthesiology (RPC))
Shikha Gupta (Ophthalmology)
Rebika (Ophthalmology)
Manpreet Kaur (Ophthalmology)
Amar Pujari (Ophthalmology)
Sridevi Nair (Ophthalmology)
Anu Malik (Ophthalmology)
Devesh Kumawat (Ophthalmology)
Saurabh Verma (Ophthalmology)
Sahil Agrawal (Ophthalmology)
Karnika Saigal (Ocular Microbiology)

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. During the entire academic year junior residents as well as senior residents were trained comprehensively in all the practical and surgical aspects our specialty. Some of the key highlights of Dr RP Centre include:

Unit I provides state-of-the-art services in the field of Pediatric Cataract, Refractive Surgery, Vitreo-retina, Uvea, ROP and Squint. The unit specializes in paediatric cataract surgery and postoperative visual rehabilitation. Unit also manages various sight-threatening vitreoretinal disorders such as Diabetic Retinopathy, Vascular Occlusions, Age-related Macular Degeneration, Retinal Detachment and Uveitis. The unit performs latest sutureless 27G vitreo-retinal surgeries. It is supported by state-of-the-art imaging and investigative tools and LASER delivery systems. Last year, ROP clinic and treatment of ROP was started in the unit. A workshop on "Anti-VEGF: Current Perspectives" was organized at Dr RP Centre in July 2023.

Unit II provides state-of-the-art services in the field of Pediatric Ophthalmology especially in the field of ROP and congenital Glaucoma. RP Centre is the only hospital in North India which is doing ROP surgery in stage 4 & stage 5. The Unit is doing advanced vitreoretinal surgery with latest 3D heads-up system (Ngenuity). A new clinic (inherited vitreoretinal dystrophy clinic) has been started this year.Unit is part of international collaboration in stem cell therapy in dry ARMD and also in various studies related to diabetic retinopathy and wet ARMD. The unit perform the advanced stage 5 ROP surgery which is done in very few centre in India. It is supported by state-of-the-art imaging and investigative tools and LASER delivery systems. Unit is giving intravitreal injection in ROP and in various retinal diseases. A workshop on Anti VEGF current perspectives was organized. Faculty has got International Award in Glaucoma and Oration. Unit has recently started various latest techniques in management of Optic disc pit maculopathy.

Unit III provides state-of-the-art services in the field of Cornea, Cataract and Refractive Surgeries. The residents are provided training in eye banking as well as performing keratoplasties. New automated microkeratomes have been procured that help achieve high quality donor lenticules for use in both anterior lamellar keratoplasties and endothelial keratoplasties. State-of-the-art refractive surgery technology is being used; from bladeless femtosecond laser assisted LASIK to flapless Small incision lenticule extraction (SMILE). Latest versions of implantable collamer lenses (ICL V4c) that obviate the need for a peripheral iridotomy (PI) are being routinely implanted.

Unit IV provides the latest technology in Cataract, Cornea and Refractive Surgeries to the common people at minimal cost. There is a state of art Glaucoma Facility that features the latest equipment viz., Swept Source October HRT, GDxVcc, UBM and ASOCT for high end research and clinical purposes.

Unit V Throughout the duration of 2023-24, our unit, equipped with dedicated services in Strabismus, pediatric ophthalmology, neuro-ophthalmology, oculoplasty, and ocular oncology, continued in its commitment to providing compassionate care to our patients. Every individual presenting with diverse clinical conditions, underwent thorough evaluation and received treatment adhering to the highest standards of care. Within the academic year, both junior and senior residents underwent comprehensive training in both practical and surgical aspects within our specialty, ensuring a well-rounded educational experience. Notably, unit organized a Strabismus workshop in August 2023 and workshops focused on Oculoplasty and Ocular Oncology. Furthermore, faculty actively engaged in sharing their expertise by delivering numerous expert clinical talks at both national and international webinars throughout the academic year. In addition to sharing knowledge, unit made significant contributions to the scientific community by publishing high-quality research papers in various international journals. Moreover, faculty members have embarked on various funded and non-funded thesis projects, as well as other clinical research endeavors.

Unit-VI introduced new facilities such as Gamma Knife treatment for ocular melanoma, Plaque brachytherapy for treatment of ocular malignancies with collaboration of IRCH and upgradation of Low Vision Services with additional rehabilitation services with help of Community Ophthalmology and support of CBM Christoffel Blinden Mission.Dr Radhika Tandon assisted National Health Authority in formulating guideline for ABPMJAY packages for Ophthalmology. She also coordinating Artificial Intelligence Applications in Ophthalmology with Ministry of Health and Family Welfare

Ocular Radiology

The Radiology Section is involved in the regular weekly Radiology-Ophthalmology Conferences in areas of Oncology, Occuloplasty and Neuro-ophthalmology. This provides an opportunity, wherever appropriate, for radiology-based decision making in facilitating clinical management while serving as a forum for one-to-one postgraduate teaching. The section

has conducted over 15000 in-house CT scan examinations in the over past decade. The process of acquiring the new CT and X-Ray machines is now over & the section will see a brand new equipment.

Ocular Microbiology

In addition to the services of light microscopy and culture for all pathogens, immuno-fluorescence for Chlamydia and Herpes Simplex Virus, and molecular assays; the section have started doing fluorescence microscopy for fungal elements in the ocular tissues. Also, antifungal susceptibility testing has been standardized and is being done for refractory cases of ocular mycosis. Identification and antimicrobial susceptibility testing using automated system is now available for difficult-to-diagnose bacteria and yeasts.The section is involved in infection control at the Centre, and investigation and control of clusters and outbreaks of infections. Protocols and SOPs have been prepared to minimize transmission of infection, and occurrence of post-procedure infections. Preparation for renewal of NABL accreditation of the Ocular Microbiology section is in progress.

Ocular Pathology

The section involved in Gene expression profile of human uveal malignant melanoma, Molecular Characterization of Malignant Lacrimal Gland (Notch Signalling) Tumours, Receptor Tyrosine Kinase in Ocular Malignancies: Novel Prognostic Markers and Therapeutic Targets, Immune checkpoint regulators in Ocular Lymphomas and Transcriptome analysis in Adenoid cystic Carcinoma.

Ocular Pharmacology & Pharmacy Division

Provision to enable corneal preservation for transplantation (PECPT) – It is one of the flagship projects enabled through AIIMS-MHFW collaboration. By providing corneal transport media this project enables more than 4000 corneal transplants to blind eyes. Currently, it is rendering this service to 111 Govt eye banks across 24 states in India from 2010 to date. Introduced longer storage media RPC Exstorsol currently for Govt. Eye Banks. Major revelation on the environmental dispersion of active pharmaceutical ingredients antibiotics due to unsegregated waste disposal into landfills resulted in the consideration of policy revision. The innovation of TransReCon a novel reconstitution device is making its way for enabling unstable drugs for emergency ophthalmic practice. A device, method and kit for the reconstitution of a solid or semi-solid pharmaceutical composition (WO2018163201A1 WIPO (PCT), Chinese patent (granted). Ocular Emergency Management Kit (OEM kit): Extemporaneous drugs for ophthalmic emergency conditions

Ocular Biochemistry

Clinical Biochemistry laboratory and Research laboratory facility have been upgraded with State-of-the-art equipment. We have identified some of the biomarkers, which could be used as prognostic/ therapeutic targets of ocular tumours. The research scholar from ocular biochemistry has been awarded and recognized by national and international scientific organization.

Community Ophthalmology

Community Ophthalmology is involved in the activities like comprehensive primary eye care services through 20 vision centres in underprivileged areas, outreach eye camps in community as well as in schools for the blind, school vision screening, low vision rehabilitation and in epidemiological research and surveys, training and capacity building, community awareness and mobilization apart from academic activities. Community ophthalmology is currently running 15 projects on eye care research & services in partnership with National agencies like NPCB&VI, ICMR, CBM, Haryana Government. Close collaborations have been developed with international agencies like World Health Organization, ORBIS, Visionspring, CBM, Seva Foundation and Mission for Vision etc. Under this initiative, vision rehabilitation services are being provided to people with visual disability by a team rehabilitation of Community Ophthalmology. Orientation & Mobility, Reading and writing rehabilitation services, Low vision evaluation, counselling on vocational training, activities of daily living (ADL), Instrumental ADL, issuance of disability certificates, advice for environmental and lighting modification are various components of services being offered to the needy patients and family members etc. Community Ophthalmology has been involved in The National Trachoma Trichiasis only surveys being conducted in 200 districts across India with Tropical data and WHO as partner agencies for the survey, National Corneal blindness and visual impairment survey in India, Project ROSHINI: Pan India Initiative to strengthen Inclusive Comprehensive Eye Care Services.




WHO-SEARO training program for the optometrist/NCD nurses at Jaipur from 17 to 19 September 2023




Training program of DPOs NPCB&VI and Medical Officers under Delhi Government on Community Eye care at Community Ophthalmology Dr R. P. Centre AIIMS on 09 October 2023

EDUCATION

The centre is actively involved in teaching and training of undergraduate MBBS. B.Sc(Optometry) and postgraduate in Ophthalmology.

Details	Numbers
Faculty and Medical superintendent	50
Senior Residents	53
Junior Residents – Postgraduates in Ophthalmology	103
Undergraduate Students	132
Interns	92
Training through NPCB & VI	NIL
Optometry Students	79
Short t& long-term trainees	21

- Teaching undergraduate MBBS, BSc Optometrist¸ BSc Nursing students, PhD Programme
- PG teaching: 103 postgraduate students rotating through Units, symposium classes, ward teaching, clinical and surgical teaching
- Senior Residents: academic interactions & surgical assistance

CMEs/Workshops/Symposia/National and International Conferences

1. Workshop "Anti-VEGF: Current Perspectives"- Date 23 July 2023- at Dr R. P. Centre, AIIMS, New Delhi
2. Organizing Chairman, 57th RP Centre Foundation Day Celebration and CME "Ophthalmic Carnival 2024" at RP Centre, AIIMS, New Delhi, February 2024
3. Organised as Dean Research, 4th AIIMS Research Day at AIIMS, New Delhi, January 2024
4. Organizing Chairman, 7th Annual meeting of Forum of Ophthalmic Teachers of India (FOTI) at RP Centre, AIIMS, New Delhi, January 2024
5. Organizing President of Indian Society of Cornea & keratorefractive surgeons (ISCKRS) - Annual Meeting ISCKRS. August 2023, New Delhi
6. Organized DOS Monthly Clinical Meet of Delhi Ophthalmological Society (DOS), July 2023, New Delhi, India
7. RPC-ORA CME- Update on Ocular Infections. 28 March 2023. LT-6, RP Centre for Ophthalmic Sciences, AIIMS, New Delhi
8. Strabismus and Neurophthalmology Workshop, 20 August 2023, Dr RP Centre, AIIMS, New Delhi
9. Oculoplasty and Oncology Workshop, 17 December 2023, Dr RP Centre, AIIMS, New Delhi
10. Eye Donation Orientation and Awareness Program organized by UCMS & GTBH in association with National Eye Bank, AIIMS, New Delhi on 21 September 2023
11. TT Only Survey review meeting with MoHFW, NPCB & VI, 17 April 2023, New Delhi
12. Preliminary meeting to Initiate for Inclusive Comprehensive Eye Care Services of faculty members from the RIOs and AIIMS, 28-29 April 2023, New Delhi
13. Project review meeting with team CBM about the activities for the project "ROSHINI: Pan India Initiative for Inclusive Comprehensive Eye Care Services- A multi-centric approach, 5 June 2023, New Delhi
14. Training program for the teachers in schools for blind, 5 September 2023, New Delhi
15. WHO-SEARO training program for the optometrist/NCD nurses for screening of Diabetic Retinopathy at primary and secondary level in three districts of Rajasthan, 17-19 September 2023, Jaipur, Rajasthan
16. Training program of DPOs NPCB&VI and Medical Officers under Delhi Government on Community Eye care, 9 October 2023, New Delhi
17. Stakeholders meet for Empowering women in Community eye health practices in partnership with Operation Eye Sight, 19 October 2023, New Delhi
18. Training program for the project staff stationed at 2 Regional AIIMS and 2 RIOs under the project entitled "ROSHINI: Pan India Initiative for Inclusive Comprehensive Eye Care Services- A multi-centric approach", 1-8 November 2023, New Delhi
19. Partners Meet under CBM Roshni Project for strengthening primary eye care and initiating Inclusive eye care services, 30 December 2023, New Delhi
20. Innovation and Translations in Ocular Therapeutics, 69th Annual Conference of Physiologist and Pharmacologists of India (APPICON 2023), AIIMS, Kalyani

Lectures Delivered: 654

JS Titiyal: 15	**Radhika Tandon: 27**	**SK Khokhar: 17**
Pradeep Venkatesh: 2	**Mandeep Singh Bajaj: 6**	**Rajpal: 7**
Seema Sen: 2	**Sanjay Sharma: 3**	**Seema Kashyap: 4**
Namrata Sharma: 45	**Neelam Pushker: 31**	**Rajpal: 7**
Viney Gupta: 6	**Thirumurthy Velpandian: 7**	**Praveen Vashist: 31**
Rohit Saxena: 23	**Renu Sinha: 22**	**Tushar Agarwal: 6**
Rajesh Sinha: 16	**M Vanathi: 46**	**Parijat Chandra: 12**
Suraj Singh Senjam: 11	**Noopur Gupta: 17**	**Rohan Chawla: 4**
Swati Phuljhele: 10	**Vinod Kumar: 14**	**Rachna Meel: 8**

Vivek Gupta: 8
Prafulla K. Maharana: 12
Neiwete Lomi: 9
Sahil Agrawal: 9
Devesh Kumawat: 5
Nishat Hussain Ahmed: 10
Dewang Angmo: 29
Rebika Dhiman: 11
Anu Malik: 23
Amar Pujari: 2
Shikha Gupta: 9
Shorya Vardhan Azad: 3
Manpreet Kaur: 39
Saurabh Verma: 3
Karnika Saigal: 2

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
463	676	654

Oral papers/posters presented: 188

Oral/poster presentations over past 3 years

2020–2021	2021–2022	2022–2023	2023-2024
46	92	165	188

RESEARCH

Funded projects

Ongoing

1. "A Sustainable Model for Comprehensive Outreach Eye Care Service in NCR", Professor Praveen Vashist, Hero Motocorp, 5 Years, 2018-23, Rs 37,04,530
2. "A Sustainable Model for Comprehensive Outreach Eye Care Service for underserved population in Delhi Slums and resettlement colonies", Professor Praveen Vashist, Deepalaya, 7 Years, 2018-25, Rs 1,25,10,800
3. "An Operational Research on Developing Disability Inclusive Eye Health Program in India, Dr Suraj Singh Senjam/ Professor Praveen Vashist, Christoffel Blindenmission(CBM), 3 Years, 2021-23, Rs 33,99,387
4. "Developing CRISPR-Cas based molecular assay for diagnosis of HSV Keratitis", Dr Karnika Saigal, All India Institute of Medical Sciences (AIIMS), New Delhi-Translational Health, Science and Technology Institute (THSTI), Faridabad Faculty Interdisciplinary Research Project, Proposal, 2 years, 2024-26, Rs 10 Lakhs
5. "Epidemiologic and Genetic Study of Anterior Segment Developmental Anomalies with primary infantile corneal opacification in Asian Indian Population", Dr M Vanathi, DHR, 3 years, March 12, 2024-27, Rs 5190788
6. "Long Term Outcomes and Tear Inflammatory Mediator Analysis in Cases Undergoing SMILE & LASIK", Professor JS Titiyal, M/s Carl Zeiss Meditec, 2021, 2021-24, Rs 33,78,254
7. "Phase I clinical trial study to explore the feasibility and evaluate the clinical outcome and safety of keratoplasty using bioengineered cross-linked human corneal graft in comparison with fresh human cornea" Project Code: DHR-1602 at Dr R. P. Centre, AIIMS, Dr Radhika Tandon, DHR, 3 years, 2023-26, Rs 83,12.142
8. "ROSHINI: Pan India Initiative for Inclusive Comprehensive Eye Care Services-A multi centric approach" funded by Christoffel Blindenmission (CBM), Professor Praveen Vashist, CBM, 3 Years, 2023-25, Rs 6,89,40,430
9. 18F-FDG Radiomics and Radiogenomics profiling in Retinoblastoma, PI-Neiwete Lomi, Intramural AIIMS Interdisciplinary Collaborative Research Project, 2 years, 2020-22, Rs 10 Lakhs
10. 3-D binocular motor control in strabismus before and after surgery, Rohit Saxena, CEFIPRA, 3 years, 2022-25, Rs 30 Lakhs
11. 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, Intramural Grant, 4 years, 2019 undergoing, Rs 4,32,000 per year
12. A Double Masked, Parallel Group, Randomized, Multicentre, Clinical Study to Compare Efficacy and Safety of Intas Ranibizumab with Lucentis® in Patients with Neovascular (Wet) Age-Related Macular Degeneration (AMD), Dr Shorya Vardhan Azad, Intas Inc, 2022, Ongoing, Rs 15 Lakhs

13. A Double Masked, Parallel Group, Randomized, Multicentre, Clinical Study to Compare Efficacy and Safety of Intas Ranibizumab with Lucentis® in Patients with Neovascular (Wet) Age-Related Macular Degeneration (AMD), Dr Shorya Vardhan Azad, Roche Inc, June 2024, Rs 10 Lakhs
14. A metagenomic approach to evaluate the human ocular microbiome in patients with dry eye disease and limbal stem cell deficiency, Noopur Gupta, ICMR, 2 years, 2023-24, Rs 4694736/-
15. A phase III multicentric, randomized, double-blinded, parallel group, comparative clinical study to evaluate the efficacy and safety of atropine sulphate 0.05% ophthalmic solution compared to atropine 0.01%ophthalmic solution for controlling progression of childhood myopia, Rohit Saxena, Biosphere Clinical Research Pvt. Limited, 1.5 years, 2023-24, Rs 5 Lakhs
16. A Prospective Collaborative Study for Newly Diagnosed Patients with Retinoblastoma in India Extramural project Funded by CANKIDS, Rachna Meel, NGO: Cankids, 2021-24, 2021-24, Rs 6,15,483.00
17. A study for newly diagnosed patients with retinoblastoma in India, PI-Rachna Meel, CO-PI Neiwete Lomi, CANKIDS, 3 years, 2021-23, Rs 35 Lakhs
18. A Sustainable Model for Comprehensive Outreach Eye Care Service in NCR", Professor Praveen Vashist, Deepalaya, 8 Years, 2017-25, Rs 77,12,242
19. Aberrant Lipid metabolism as molecular targets in aggressive ocular malignancies, PI-Seema Sen, CO-PI Neiwete Lomi, ICMR
20. Aberrant Lipid Metabolism Pathways as Novel Molecular Targets in Aggressive Ocular Malignancies, Dr Seema Sen, ICMR, 3 years, 2023-26, Rs 30 Lakhs
21. An Operational Research on Developing Inclusive Eye Health Program in India, Dr Senjam Suraj Singh, CBM, 4 Years, 2021-24, Rs 92,91,887/-
22. Angiographic Outflow Assessment: Pediatricto Adult-Onset Glaucomas, Dr Shikha Gupta, ARVO Roche Collaborative Research Fellowship, March 2022 onwards, 10,000 USD
23. Aquatic vulnerability of high-volume chemicals including phthalates and metabolites in Delhi and NCR, Dr T Velpandian, DST, Govt. of India, 3 years, 2020-23, Rs 57.13 Lakhs
24. Assess the effectiveness of systane complete on MGD scores in reducing ocular discomfort symptoms of ocular dryness through an Investigator Initiated Trial, Professor Namrata Sharma, Alcon, 1 Year, October 2023-November 2024, Rs 15 Lakhs
25. Assess the effectiveness of systane complete on MGD scores in reducing ocular discomfort symptoms of ocular dryness through an Investigator Initiated Trial, Professor Namrata Sharma, Co-PI-Dr Anu Malik, Alcon, 1 Year, October 2023 to November 2024, Rs 15 Lakhs
26. Assessment of post COVID symptoms and pre-existing health Impairments in individuals aged 18 and older who have recovered from COVID-19, PI-Suraj Senjam, CO-PI Neiwete Lomi, ICMR, 3 years, 2021-24, Approx Rs 1 Crore
27. Assessment of post COVID symptoms and pre-existing health Impairments in individuals aged 18 and older who have recovered from COVID-19, Dr Senjam Suraj Singh, ICMR, 2 Years, 2022-24, Rs 1,08,96,003/-
28. Assessment of post COVID symptoms and pre-existing health Impairments in individuals aged 18 and older who have recovered from COVID-19, Professor Suraj Singh Senjam, ICMR, 2022, 2024, Rs 68,09,418
29. Assessment of unmet needs and access to assistive technologies among the general population through the digital rATA tool: Cross-Sectional Survey in India, Dr Senjam Suraj Singh, ICMR, 2 Years, 2023-25, Rs 23,86,580/-
30. Assessment of visual performance of a new trifocal intraocular lens for visual acuity and safety (Optiflex trio, BioTech Europe Meditech), Professor Namrata Sharma, BioTech Vision Care Pvt. Ltd, 2 Years 3 months, December 2021-March 2024, Rs 13,62,000/-
31. Assessment of visual performance of a new panfocal intraocular lens for visual quality and safety (Naturo, Caregroup SS Pvt Ltd), Professor Namrata Sharma, Caregroup SS, 6 months, December 2023-June 2024, Rs 8 Lakhs
32. Association of Hippo Pathway with pigmentation in the tumor microenvironment of Uveal Melanoma and its clinical relevance, Dr Seema Kashyap, ICMR, 3 years, 2020-23, Rs 32 Lakhs
33. Cell free DNA as a potential molecular marker in retinoblastoma: diagnostic and therapeutic approach, PI-Jasbir Kaur, CO-PI Neiwete Lomi, ICMR, 3 years, 2021-24, Approx Rs 30 Lakhs

34. Clinical relevance of Ferroptosis: A New Emerging Therapeutic Approach for Retinoblastoma, PI-Lata Singh, CO-PI Neiwete Lomi, AIIMS Early Career Intramural Research Project, 2 years, 2021-22, Rs 10 Lakhs

35. Clinicopathological significance of tumor biomarkers in serum, aqueous humor and tumor tissue of intraocular retinoblastoma patients, PI-Rachna Seth, CO-PI Neiwete Lomi, Intramural AIIMS Interdisciplinary Collaborative Research Project, 2 years, 2021-22, Rs 10 Lakhs

36. Comparative evaluation of 26 gauge needle versus kimura spatula for corneal scraping in infective: a randomized comparative study, Prafulla K Maharana, ICMR, 3 years, 2019-22, Rs 500000

37. Comparison of efficacy of topical NSAID versus topical corticosteroid post-cataract surgery, Rohit Saxena, Sun Pharma, 2 years, 2022-24, Rs 20 Lakhs

38. Comparison of VR-display Dichoptics Therapy Vs Patching in Anisometropic amblyopia-prospective randomized control interventional study, Rebika, Cognihab, 2 years, August 2023 to July 2025, Rs 9,25,320

39. Comprehensive Primary Eye Care Services in Rural Areas of Delhi, Professor Praveen Vashist, Divya Jyoti Jagrati Sansthan, 5 Years, 2022-27, Rs 50,00,000

40. Corneal Opacity and Blindness Survey Haryana 2021-22, Professor Praveen Vashist, Haryana State Blindness Control Society, 1 Year, 2023, Rs 10,50,420

41. Cost Effectiveness Analysis of Static Versus Mobile Vision Centres in Delhi, Professor Praveen Vashist, DHR, 1 year, 2022-23, Rs 14,00,344

42. Developing quality control parameters and dispensing M.K. Media for corneal Transplant preservation for Indian Eye banks under Ministry of Health, Dr T Velpandian, MHFW, Govt of India, 14 years, 2009-26, Rs 129 Lakhs

43. Diagnostic utility of aqueous humor as a liquid biopsy for uveal melanoma, PI-Neiwete Lomi, AIIMS Early Career Intramural Research Project

44. Differential, Molecular characterization & translation application of culture expanded human corneal endothelial cells, Professor Namrata Sharma, ICMR, 3 Years, March 2023-26, Rs 50 Lakhs

45. Early Screening of Diabetic Retinopathy, Professor Praveen Vashist, WHO, 6 months, 2023, Rs 17,25,350

46. Effect of yoga based Intervention in Intra Ocular Pressure Quality of Life, Inflammatory Markers and Expression Profile in Glaucoma Patients: A Randomized Controlled Trial, Professor Tanuj Dada, ICMR, 2 years, October 2019 to September 2023, Rs 536536,71,260/-

47. Efficacy of long-term inflammation control with 0.05% Cyclosporine eye drops in preventing development of Keratoconus in Vernal Keratoconjunctivitis: A Randomized Controlled Study, Prafulla K. Maharana, ICMR, 3 years, 2019-22, Rs 900000.00

48. Evaluate the effect of Dexamethasone vs prednisolone on OCULAR TOXICITY INDUCED BY SYSTEMIC CYTARABINE ARABINOSIDE (ARA-C) in AML patients, Dewang Angmo, Collaborative, AIIMS, Intramural, 2 years, April 2023 to April 2025, Rs 20,00,000/-for 2 years

49. Evaluation of endothelin and retinal renin angiotensin system (RRAS) in glaucoma, Dr Nabanita Halder, AIIMS, 2 years, 2021-23, Rs 4.9 Lakhs

50. Exome sequencing based detection of known and novel mutations among Axenfeld Rieger Syndromecases, Dr Shikha Gupta, AIIMS intramural, November 2021 onwards, Rs 10 Lakhs

51. Exploring the interplay of the sex steroid hormone intracrinology with the sphingolipid metabolism in the pathogenesis of vernal keratoconjunctivitis, Dr T Velpandian, ICMR, 2 years, 2023-25, Rs 18.77 Lakhs

52. Gene regulation of Hippo Signaling pathway during cell cycle progression in Uveal Melanoma, Seema Kashyap, ICMR, 3 years, 2023-26, Rs 30 Lakhs

53. Genetic profiling and classification of Childhood and early onset glaucoma, Professor Viney Gupta, DHR, 3 years, 12 March 2024-11 March 2027, Rs 107 Lakhs

54. Immune checkpoint regulators and Immunosuppressive Tumor Microenvironment in Ocular Lymphomas: Novel prognostic Markers and Therapeutic Targets", Dr Seema Sen, ICMR, 3 years, 2021-24, Rs 36 Lakhs

55. Indigenous digital visual acuity test for pre-verbal children(AI-57), Rohit Saxena, AIIMS-IIT, 2 Years, 2023-25, Rs 10 Lakhs

56. Investigating the clinical relevance of mitochondrial dysfunction and morphological alterations in patients with keratoconus, Dr Anu Malik, AIIMS (Intramural Grant), Rs 10 Lakhs

57. Multi Centric study of Impact of exposure of Ultra Violet Radiation (UVR) & aerosol exposure on ocular health in India", Dr Radhika Tandon/Professor Praveen Vashist, ICMR, 5 Years, 2018-23, Rs 4,50,00,000

58. National Corneal blindness and visual impairment survey - A cross sectional situational analysis study in India, Professor Praveen Vashist, ICMR, 1 Year, 2023-24, Rs 7657615

59. National Networking program for artificial intelligence-based methods for healthcare data (SJS in AI), Professor Namrata Sharma, DBT, 5 Years

60. Novel genes in Axen feld Rieger Syndrome Pathogenesis, Dr Shikha Gupta, ICMR, February 2023-onwards, Rs 55 Lakhs

61. Novel genes in the pathogenesis of glaucoma: A validation in glaucoma patients and animal model, Professor Viney Gupta, ICMR, 3 years, January 2023 to December 2025, Rs 52 Lakhs

62. NPCB "National Trachomatous Trichiasis only survey (TT only survey) in 200 districts across India, Professor Praveen Vashist, NPCB MoH&FW, 2 Years, 2021-23, Rs 5,23,15,425

63. 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, SSMI, 8 years, 2017-24, Rs 80,00,000/-

64. 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, Dr Vivek Gupta, Swami Sivananda Memorial, 7 Years, 2017-24, Rs 79,40,000

65. Potential Anti-angiogenic role of Azirines in the Ocular Neovascular condition, Dr T Velpandian, CSIR-CDRI, 2 years, 2024-26, Rs 25.90 Lakhs

66. Protocol Number: AFLI.22.001 Protocol Entitled: A Phase III, Randomized, Double blind, Parallel Group, Multicenter Study to Compare the Efficacy, Safety and Immunogenicity between Test Aflibercept and Eylea® in Patients with Neovascular (Wet) Age-Related Macular Degeneration (AMD), Dr Rajpal, Zydus, 1 Year, 2024-25, Rs 5 Lakhs

67. Protocol Title: CRTH258D2301/CONDOR Study: A 96-week, two-arm, randomized, single-masked, multi-centre, phase III study assessing the efficacy and safety of brolucizumab 6 mg compared to panretinal photocoagulation laser in patients with proliferative diabetic retinopathy, Dr Rajpal, Novartis, 3 Years, 2022-25, Rs 5 Lakhs

68. Quantitative Metabolomic Analysis of Endogenous Trace Amines (ligands of TAAR receptors) in the Age-related Neurodegenerative Diseases: In the search for Biomarker and Therapeutic target, Dr T Velpandian, ICMR, 3 years, 2023-26, Rs 31.66 Lakhs

69. Rapid Assessment of Avoidable Visual Impairment (RAAVI) survey activities in South 24 Parganas district West Bengal, Professor Praveen Vashist, Sundarban Social Development Centre, 4 months, 2024, Rs 14,00,000

70. Receptor Tyrosine Kinase in Ocular Malignancies: Novel Prognostic Markers and Therapeutic Targets, Dr Seema Sen, CSIR, 3 years, 2022-24, Rs 27 Lakhs

71. Registration of study-based project" Assessment of visual outcomes and Patient satisfaction following bilateral implantation of a monofocal IOL with enhanced intermediate function (Technis Eyhance/Eyhance Toric IOL in patients with posterior segment Pathologies", Professor JS Titiyal, Johnson & Johnson, August 2023-24, Rs 26,57600/-

72. Role of hypoxia mediated cell metabolism in pediatric ocular malignancy, PI-Seema Kashyap, Co-PI, Neiwete Lomi, ICMR, 3 years, 2020-23, Rs 35 Lakhs

73. Role of hypoxia mediated cell metabolism in pediatric ocular malignancy, Seema Kashyap, ICMR, 3 years, 2020-23, Rs 35 Lakhs

74. Safety and efficacy of the presbyopic IPCL for correction of Presbyopia with moderate Myopia and Hyperopia, Professor JS Titiyal, Care Group India Ltd, 2019, 2019-24, Rs 41,95,180/-

75. Safety profile and efficacy of Cyclisis PF, Preservative free Cyclosporine Ophthalmic Solution 0.05%, for the treatment of Dry Eye Disease, Professor Namrata Sharma, INTAS, 8 months, June 2023-February 2024, Rs 2.3 Lakhs

76. Safety profile and efficacy of Cyclisis PF, Preservative free Cyclosporine Ophthalmic Solution 0.05%, for the treatment of Dry Eye Disease, Professor Namrata Sharma, Co-PI-Dr Anu Malik, INTAS, 8 months, June 2023-February 2024, Rs 2.3 Lakhs

77. Species identification, antifungal susceptibility profile and virulence factors of Candida species isolates from ocular infections, Dr Nishat Hussain Ahmed, AIIMS, New Delhi, Institutional grant, 24 months, 2021-23, Rs 5 Lakhs

78. Structural and functional changes with Occlusion therapy in AnisometropicAmblyopes using FMRI And Diffusion Tensor Imaging, Rebika Jaya Ramasunder, Interdisciplinary collaborative intramural funded research project, 3 years, March 2021-2024, Rs 1,40,000/-

79. The Extent of Aquatic Exposure of Certain Endocrine Disruptors (High Volume Chemicals), Dr T Velpandian, ICMR, 3 years, 2021-24, Rs 46.50 Lakhs

Ongoing funded project over past 3 years

Year	List of Ongoing funded projects
2021-2022	79
2022-2023	68
2023-2024	79

Completed

1. 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 Pharma, 2 years, 2021-23, Rs 30 Lakhs

2. A Randomized controlled trial to evaluate the effect of low dose atropine eye drops for childhood myopia, Rohit Saxena, Entod Pharmaceuticals, 3 years, 2020-23, Rs 15 Lakhs

3. A Randomized, Active-Controlled, Double-Masked, Parallel-Group, Phase 3 Study to Compare Efficacy and Safety of CT-P42 in Comparison with Eylea in Patients with Diabetic Macular Edema, Dr Shorya Vardhan Azad, Bayer Inc, 2 years, 2021-23, Rs 30 Lakhs

4. A randomized, double blind, parallel group, active controlled, multicentric, non-inferiority, phase III study comparing the efficacy, safety and tolerability of Lifitegrast 5% eye drops in patients with dry eye disease, Professor Namrata Sharma, Microlabs, 6 months, December 2021 to June 2022

5. AIIMS intramural project: establishing the role of the 17/Treg cell axis in pathophysiology of Uveitis(A-875), Dr Rohan Chawla, AIIMS, 3years, 2021-23, Rs 6700000/-

6. An Operational Research on Developing Disability Inclusive Eye Health Program in India [Project Code No. N-1714 (RS)], Dr Suraj Senjam Singh (PI), Dr Radhika Tandon (Chairperson), Christoffel Blind Mission (CBM), 3 years, January 2021 to December 2023, Rs 37,61,475.97

7. Automated detection of ROP and Quantification of Plus Disease.- AIIMS-IIT Project (Intramural), Dr Shorya Vardhan Azad, AIIMS, 2 years, 10 Lakhs

8. 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 Steven Johnson syndrome & chemical burns (Project Code No. BT-1829), Dr Radhika Tandon, DBT, 5 years, 29 December 2017, 30 April 2023

9. Corneal Opacity and Blindness Survey Haryana 2021-22, Professor Praveen Vashist, Haryana State Blindness Control Society, 1 Year, 2023-23, Rs 10,50,420

10. Cost Effectiveness Analysis of Static Versus Mobile Vision Centres in Delhi", Professor Praveen Vashist, DHR, 1 year, 2022-23, Rs 14,00,344

11. Descemet's membrane and trabecular mesh work properties of Primary Congenital Glaucoma(PCG) with respect to Axenfeld Rieger Syndrome (ARS), Dr Shikha Gupta, AIIMS intramural, 2 years, April 2019 to March 2021, Rs 10 Lakhs

12. Development and validation of TransReCon technique for sterile pharmaceutical preparation, Dr T Velpandian, BIRAC (BIG GRANT), Venture Centre, 3 years, 2019-22, Rs 28.3 Lakhs

13. Differential role of pigmentation Markers with the Tumor-Associated Macrophages in Uveal Melanoma, Seema Kashyap, ICMR, 3 years, September 2019 to August 2022, Rs 35 Lakhs

14. Early Screening of Diabetic Retinopathy, Professor Praveen Vashist, WHO, 6 months, 2023-23, Rs 17,25,350

15. 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, Dr Nishat Hussain Ahmed, AIIMS, New Delhi. Institutional grant, 24 months, 2016-18, Rs 7.7 Lakhs

16. Evaluating ocular motion as a tool for characterizing visual field defects, Rohit Saxena, AIIMS IIT, 2 years, 2021-23, Rs 10 Lakhs
17. Evaluation of Coronavirus in tears and conjunctival secretions of patients with SARS COVID19, Dewang Angmo, AIIMS, Intramural, 2 years, April 2020 to 2022, Rs 10,00,000/-
18. Evaluation of effects of millimeter waves exposure on the ocular function using experimental animals, Dr T Velpandian, DRDO, 2 years, 2021-23, Rs 40.08 Lakhs
19. Evaluation of Incidence and Determinants of Recurrence of Amblyopia following Cessation of Amblyopia Therapy, Rohit Saxena, ICMR, 3 years, 2021-23, Rs 20 Lakhs
20. Gene expression profiling for grading metastatic potential in uveal melanoma, Neiwete Lomi, AIIMS Intramural, 2 years, 2021-23, Rs 10 Lakhs
21. High throughput technology to monitor environment antibiotic dispersion and their impact on AMR, Dr T Velpandian, DBT and the Bill & Melinda Gates Foundation, 2 years, 2020-23, Rs 41.3 Lakhs
22. Identification and Characterization of Molecular Targets in Orbital Tumors: Basis of innovative therapeutic strategies, Dr Seema Sen, UGC, 3 years, 2017-22, Rs 33 Lakhs
23. Identification of the underling differential expression and disease specific signature profile in patients with epidermal necrolysis, Co-PI-Professor Namrata Sharma, ICMR, 3 Years, July 2019-2022, Rs 48 Lakhs approx
24. MicroRNA as a novel biomarker for prediction of corneal graft rejection, Professor Namrata Sharma, CSIR, 3 Years, December 2019-2022, Rs 25 Lakhs
25. Multi Centric Study of Impact of exposure of Ultra Violet Radiation (UVR) & aerosol exposure on ocular health in India Phase-II (Project Code No. I-995), Dr Radhika Tandon, ICMR, 5 years, 1 March 2018 to 31 August 2023, Rs 90 Lakhs
26. Out of pocket payments for cataract surgery: adapting and pilot testing a survey tool, Vivek Gupta, LSHTM, 1 year, June 2022 to September 2022, Rs 2 Lakhs
27. Prevalence of Ocular hypertension/Glaucoma among first-and second-degree relatives of Juvenileonset POAGpatients, Dr Shikha Gupta, CSIR, 2 years, 2014-16, Rs 15 Lakhs
28. Protocol Title: A Randomized, Active-Controlled, Double-Masked, Parallel-Group, Phase 3 Study to Compare Efficacy and Safety of CT-P42 in Comparison with Eylea in Patients with Diabetic Macular Edema, Dr Rajpal, Syneos Health, 3 years, 2022-24, Rs 10 Lakhs
29. Role of Low dose heparin eye drops in chronic ocular cases of Steven Johnson Syndrome (SJS) and its correlation with immune pathway gene expression: A randomized controlled trial, Professor Namrata Sharma, Indian Council of Medical Research (ICMR), 3 Years 5 Months, September 2019 to February 2023, Rs 47 Lakhs
30. Species identification, antifungal susceptibility profile and biofilm formation of Rhodotorula species isolates from ocular infections, Dr Nishat Hussain Ahmed, AIIMS, New Delhi, Institutional grant, 12 months, 2019-20, Rs 5 Lakhs
31. Support to the piloting of the newly revised WHO Eye Care Situation Analysis Tool (ECSAT) India", Professor Praveen Vashist, WHO, 1 year, 2021-23, Rs 225570
32. To evaluate the effect of increased outdoor activity on the incidence and progression of myopia in school children, Rohit Saxena, DST, 3 years, 2020-23, Rs 70 Lakhs
33. To study variable gene expression of collagen and associated degradative enzymes present in human vitreous in patient with myopia worth is normal population AIIMS, Dr Shorya Vardhan Azad, AIIMS, 1 year, Rs 10 Lakhs
34. Transcriptome profiling in Trabecular meshwork of Juvenile onset Open angle glaucoma patients by RNA sequencing, Professor Viney Gupta, ICMR, 3 years, August 2019 to March 2023, Rs 1.3 Crores
35. Understanding the pharmacology of dipyridamole for its ophthalmic use, Dr T Velpandian, OD Ocular Discovery Ltd, Israel, 2 years, 2020-23, Rs 13.31 Lakhs

Completed funded projects over past 3 years

Year	List of Completed funded projects
2021–2022	22

2022–2023	11
2023-2024	36

Departmental projects (including thesis/dissertations)

Ongoing

1. 3D Printed Pre-corneal Drug Eluting Polymeric Insert with Applicator for Night Dosing in Keratomycosis
2. A metagenomic approach to evaluate the human ocular microbiome in patients with dry eye disease and limbal stem cell deficiency
3. Assessment of Eye Related Quality of life (ERQOL) in children with strabismus
4. Biomechanical and October changes in childhood myopia
5. Can nasal suction prior to supraglottic airway (SGA) device removal reduce the incidence of post-LMA removal airway events in children?-a randomized controlled trial
6. Clinical outcomes of Gamma Knife and Ruthenium Plaque Brachytherapy in the treatment of uveal melanoma
7. Clinical performance of Ambu® Aura40 TM laryngeal mask versus BlockBuster™ laryngeal mask airway for controlled ventilation in infants for ophthalmic procedures under general anesthesia: A randomized crossover study
8. Cognitive changes in children with glaucoma and their correlation with visual function and anaesthesia exposure
9. Community based assessment of disability among adult population of Delhi using WHO-ICF (International Classification of Functioning, Disability and Health)
10. Comparative evaluation of Phacoemulsification combined with Endoscopic Cyclophotocoagulation Vs Phacoemulsification alone in Primary angle closure glaucoma-A Randomized Controlled Trial
11. Comparing Efficacy Of 3600 vs 180 GATT In The Treatment Of Primary Congenital Glaucoma
12. Comparing Glaucoma severity in Monogenic versus Non monogenic Juvenile open angle glaucoma
13. Comparison between analgesic efficacy of Sacral Erector Spinae Block vs Caudal Block in pediatric anorectal surgeries-A Randomized controlled trial
14. Comparison of hands-on ORSIM simulator training Vs. high fidelity mannequin training in intubation proficiency and retention ability in novice anesthesiology residents-A randomized control trial
15. Comparison of opioid free anaesthesia protocols for paediatric strabismus surgery: A Randomized control trial
16. Comparison of Superior Brachial Trunk Block and Peri-capsular Nerve Group Block of Shoulder Joint in Arthroscopic Shoulder surgery: A Randomized Non-Inferiority Trial
17. Comparison of Tenon's patch graft and SMILE Lenticule in the management of small corneal perforations
18. Comparison of TUORenKingtaek and CMAC D-Blade video laryngoscopes in adults with uncomplicated airway: A Non-Inferiority Trial
19. Comparison of Weight Versus Weight for Age For Size Selection of Laryngeal Mask Airway in Malnourished Pediatric Patient-A Prospective Randomized Crossover Trial
20. Correction of telecanthus and epicanthal inversus by bare bone novel technique vs. conventional Y-V medial canthoplasty in BPES
21. Demographics, risk factors, clinical & microbiological characteristics and visual outcomes of bilateral simultaneous active keratitis
22. Development of a Detection Kit for the Instant Diagnosis of Acanthamoeba keratitis
23. DevelopmentofAIalgorithmfordiabeticretinopathy with Ministry of Health and WadhwaniAI. (Not funded)
24. Effect Of Optimum Positive End Expiratory Pressure (Peep) On Postoperative Lung Atelectasis In Children: A Randomised Controlled Trial
25. Effect of perioperative analgesia Nociception Index (ANI) guided opioid administration on postoperative pain score, opioid comsumption and endocrine stress response in paediatric patients undergoing cochlear implant surgery: A prospective randomized controlled trial

26. Efficacy of Calcium Gluconate in Prevention of Uterine Atony During Lower Segmental Cesarean Section Delivery: A Randomized Controlled Trial
27. Elucidating the therapeutic potential of a Unani formulation in glaucoma
28. Enhancing the success and safety of endotracheal intubation by developing an innovative robotic intubation system: A Pilot Project.
29. Estimating the burden of Corneal Blindness and predicting the need for keratoplasty with the help of Artificial Intelligence
30. Evaluating the Effect of Dorzolamide vs Netarsudil on OCTA vessel density in Preperimetric and Early Glaucoma-A Randomized Controlled Trial
31. Evaluating the efficacy and safety of topical difluprednate in patients with chronic central serous chorioretinopathy (CSCR)and comparison with oral eplerenone an open label randomized control trial
32. Evaluating the outcomes of 360 degree goniotomy in PCG
33. Evaluation of Biosynthetic Corneas in Corneal Ectasia
34. Evaluation of Clivus angle using retinal imaging
35. Evaluation of frontalis muscle flap advancement versus silicone sling surgery in congenital ptosis
36. Evaluation of gaber patch based amblyopia software treatment in cases of anisometric amblyopia
37. Evaluation of importance of pre-operative conjunctival swab in patients undergoing elective intraocular surgeries: A retrospective observational study
38. Evaluation of Intrastromal Lamellar Keratoplasty with Collagen Cross linking in Keratoconus
39. Evaluation of long-term outcomes of ocular Surface Changes in Glaucoma Patients on Preservative Vs Preservative-Free Antiglaucoma Medications
40. Evaluation of Modified Poly€-Caprolactone (pPCL) as a substitute for Human Amniotic Membrane (HAM) Graft in Unilateral Acute Chemical Injury: A Pilot Clinical Trial
41. Evaluation of muller's muscle conjunctival resection as compared to levator plication in cases of mild to moderate ptosis
42. Evaluation of predictive performance of sonographic airway assessment parameters to predict difficult airway in children of age group 1 to 10 years
43. Evaluation of predictive performance of sonographic airway assessment parameters and comparison of their efficacy with established parameters to predict difficult airway in 1 to 10 years old patients undergoing elective/emergency surgery
44. Evaluation of structural and functional retinal changes in cases of ametropic amblyopia
45. Evaluation of the involvement of selected environmental pollutants on neurological disorders
46. Evaluation of the role of cyclosporine A as an adjuvant in cases of fungal keratitis
47. Evaluation of Topical Timolol in the Treatment of Periocular Pyogenic Granuloma
48. Evaluation of visual outcomes of cataract surgery in patients with ARMD and diabetic retinopathy, preoperative predictors and patient satisfaction
49. Functional MRI and October angiography changes pre and post Occlusion therapy in anisometropic amblyopia
50. Hippo signalling pathway and its biological function in uveal melanoma
51. Identification of oxidative phosphorylation complex alterations in JOAG
52. Imaging in pediatric cataracts
53. Indocyanine green enhanced transpupillary thermotherapy for the treatment of circumscribed choroidal hemangioma.
54. Meibography in patients with trichiasis: Exploring the role of Machine learning in determining etiology
55. Microbiological Profile and Clinical Characteristics of Patients Presenting with Epidemic Conjunctivitis/ Keratoconjunctivitis-Experience of a Tertiary Care Eye Centre
56. Microbiological Profile of yeasts causing eye infections

57. Mitochondrial genome variants and maternal inheritance in pathogenesis of JOAG
58. Molecular mechanism of melanogenesis pathway in uveal melanoma
59. Molecular Mechanisms Involved in the Development of Insulin Resistance due to Environmental Exposure of Phthalates
60. Multimodal management of stage II and III extraocular retinoblastoma: An Interventional pilot study
61. Multiphasic Micellar Nano Particle (MNP) Cyclosporine in Mild to Moderate Limbal Stem Cell Deficiency
62. Mycotic Keratitis in North India: A Retrospective Observational Analysis of Seven Years from a Tertiary Care Ophthalmic Centre
63. Nanophthalmos with glaucoma: Treatment outcomes with different Surgeries
64. Ocular Disposition of Bio-therapeutics and the Role of Peptide Transporters in Blood Ocular Barriers
65. Ocular manifestations in patients with Mucopolysaccharidoses: Role of evaluation modalities
66. Optic disc morphology in congenital glaucoma
67. Outcomes of Corneal Transplantation in patients with Trachomatous Keratopathy
68. Oxygen Sensing Signalling in the Regulation and Progression of Retinoblastoma
69. Perilesional injections versus Topical interferon alpha 2b in ocular surface squamous neoplasia
70. Quantitative evaluation of macular and peripapillary retinal circulation based on OCTA after plaque brachytherapy with & without prophylactic intravitreal bevacizumab in uveal melanoma
71. Role of dual energy CT in acute pancreatitis
72. Role of medial rectus plication with hang back recession in extra-large angle exotropia
73. Role of Repeat Injection Ranibizumab in Management of Aggressive Retinopathy of Prematurity (AROP) in Preterm Neonates: Randomized Control Trial
74. Sensory and motor outcomes after surgery in intermittent divergent squint
75. Short axis vs oblique axis approach for ultrasound guided infraclavicular subclavian vein cannulation: A randomised clinical trial
76. Sonographic Assessment of Suprahyoid Airway Parameters in Pediatric Patients Planned for Elective Proseal Placement-A Pilot, Observational Study
77. Spectral Dual Energy CT in assessing response to neoadjuvant molecular targeted therapy (TKI) in locally advanced renal cell carcinoma
78. Super selective intra-arterial chemotherapy for retinoblastoma-A prospective comparative Study
79. The role of extraocular muscle bands in exo DRS
80. Therapeutic potential of plant based formulation in glaucoma
81. To study outcomes of primary intravitreal Ranibizumab in zone I Posterior vs Zone 1 Anterior Aggressive Retinopathy of Prematurity (AROP)
82. To Study the Anatomical, Functional and Neuro-Cognitive Outcomes After Sight Restoration in Infants and Toddlers with Congenital Bilateral Visual Axis Opacities - An Ambispective Study
83. Treatment outcomes of extraocular retinoblastoma following multimodal therapy - a prospective study
84. Ultra-widefield October Characteristics of Retinal Capillary Angioma
85. Use of fibrin glue versus sutures in the fixation of full-thickness skin graft in eyelid deformities

Ongoing Departmental Projects over past 3 years

Year	List of Ongoing Departmental Projects
2021–2022	131
2022–2023	107
2023-2024	85

Completed

1. A comparative double-arm randomized controlled study to assess the effect of EvolveTM Pure Eyelid wipes in subjects with meibomian gland dysfunction
2. A retrospective study on anesthetic concerns, management and outcomes of brachytherapy in retinoblastoma children-Chief Investigator
3. Acanthamoeba keratitis: Experience from a tertiary eye care centre in North India
4. AIIMSintramuralproject:establishingtheroleofthe17/Tregcellaxisinpathophysiology ofUveitis (A-875)
5. An ambispective study of profile and outcomes in Zone 3 Retinopathy of Prematurity
6. Anatomical and functional outcomes of drainage through posterior retinotomy versus PFCL assisted drainage through pre-existing break in vitrectomy for rhegmatogenous retinal detachment
7. Anatomical and Functional outcones of 25 Gauge MIVS in Iridofundal coloboma related Retinal Detachment
8. Assessment of accelerated corneal collagen cross-linking as an adjuvant therapy in moderate to severe fungal keratitis
9. Audits of the phenotype, causes and correlates of trichiasis: A WHO Trachoma Collaborative Study
10. Bacteriological profile of Central Line Associated Blood Stream Infections, with specific reference to biofilm formation and resistance pattern, and their correlation with response and outcome
11. Choroidal Vascular Patterns in Sturge Weber Syndrome
12. Clinical sequelae in COVID-19 recovered healthcare workers from Dr Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS, New Delhi
13. Clinico-pathological presentations of eyelid malignancies in COVID vs. preCOVID era
14. Comparative evaluation of aqueous based and oil based 0.05% cyclosporine eye drops in the treatment of moderate to severe dry eye disease
15. Comparison between the Medial and Lateral approaches of Ultrasound-guided Costoclavicular Brachial plexus block for upper limb surgeries-A Pilot Interventional randomised control trial-Co Guide
16. Comparison of analgesic efficacy of general anaesthesia and peribulbar block to conventional general anaesthesia in children with retinoblastoma undergoing enucleation surgery-a randomised double-blind parallel controlled trial
17. Comparison of awake nasotracheal intubation using flexible Fibre-optic bronchoscope versus D blade CMAC Video-laryngoscope in patients having anticipated difficult airway under topical local anaesthesia and dexmedetomidine infusion-Co Guide
18. Comparison of continuous pericapsular nerve group (cPENG) block versus continuous fascia iliaca block (cFIB) in patients undergoing hip fracture surgery-a randomized double blind study
19. Comparison of diaphragmatic activity between propofol and dexmedetomidine sedation in spontaneously breathing patients under regional anaesthesia: prospective, randomised, comparative study
20. Comparison of iCare ic200 and Perkin tonometry in paediatric glaucomas
21. Comparison of OCTA and fluorescein angiography in patient of diabetic retinopathy
22. Comparison of Pharmacokinetics and Sedative Effect of Sublingual and Intranasal Dexmedetomidine in Children:A Double Blind Randomised Controlled Study
23. Comparison of serum and vitreous biomarker in patients of Type-1 and Type-2 Diabetes Mellitus with Diabetic Retinopathy
24. Comparison of time for endotracheal intubation with flexible tip bougie versus standard bougie during videolaryngoscopy in simulated cervical spine immobilization in adult patients-A randomized control trial
25. Contrast enhanced ultrasound in retinoblastoma
26. Co-relating Selective Laser Trabeculoplasty Outcomes with Anterior Segment October features in patients with Juvenile onset Primary Open Angle Glaucoma (JOAG)
27. Corneal Biomechanics with CORVIS ST in normal and post keratoplasty corneas
28. Correlation of Antibiotic Resistance Patterns of Ocular Bacterial Isolates and Antibiotic Use in Patients Admitted to Hospital-a Step Towards Antimicrobial Stewardship

29. Effect of 365 breathing technique on Intraocular pressure and autonomic functions in glaucoma patients
30. Effect Of Intraabdominal Pressure Guided Positive End Expiratory Pressure On Driving Pressure In Paediatric Laparoscopic Surgery: A Randomized Controlled Trial
31. Effect of mindfulness meditation on IOP in patients with ocular hypertension
32. Effect of Topical Brinzolamide on Corneal Endothelium in Post Penetrating Keratoplasty Patients
33. Efficacy of Micropulse in Primary Angle Closure Glaucoma
34. Endogenous cortisol profile in patients with primary open angle glaucoma and primary angle closure glaucoma and correlation with psychological stress
35. Evaluating the severity of glaucoma in consanguinous marriage
36. Evaluation of active dichoptic therapy in cases of anisometropic amblyopia
37. Evaluation of collagen matrix implant in ocular surface Reconstruction for moderate to severe symblepharon:-a pilot Study
38. Evaluation Of Efficacy And Safety Of Topical Oxymetazoline 0.1 % In Treatment Of Acquired Ptosis
39. Evaluation of long term outcomes of Ahmed Glaucoma Valve (AGV) in Refractory Glaucomas
40. Evaluation of predictive performance of sonographic airway assessment parameters and comparison of their efficacy with established parameters to predict difficult airway in 1 to 10 years old patients undergoing elective/emergency surgery-Co Guide
41. Evaluation of visual cortex activity using fNIRS in primary glaucoma
42. Extraocular muscle transplant versus hang-back recession in extra-large angle exotropia
43. Hospital-based prevalence of meibomian gland dysfunction
44. ICG enhanced TTT vs TTT for treatment of thicker tumors in Retinoblastoma-A Randomised Control Trial
45. Imaging and functional outcomes post vitrectomy at differential Air infusion pressure
46. Incidence of Congenital Glaucoma - A multicentric Trial
47. Infective orbital diseases in the COVID era
48. Inferior rectus muscle Y splitting procedure as an alternative to Faden surgery
49. Leading Bacterial Pathogens Causing Infective Keratitis and their Antimicrobial Susceptibility in a Tertiary Care Eye Centre from North India
50. Macular imaging in Glaucoma suspects and Early glaucoma
51. Meibography in patients with trichiasis: Exploring the role of Machine learning in determining etiology
52. Molecular Characterization of Fungi from Mycotic Keratitis and Invasive Infections and Comparison with Conventional Methods like Direct Detection and Culture
53. Molecular characterization of malignant lacrimal gland tumors
54. Ocular biometry in pediatric age group less than 15 years using 35 MHz ultrasound biomicroscopy.
55. Ocular Surface Evaluation in Vernal Keratoconjunctivitis
56. Outcomes of Corneal Refractive Surgery in patients with Corneal Opacity
57. Prospective observational study of cases of aggressive posterior retinopathy of prematurity and zone 1 Retinopathy of Prematurity
58. Randomized controlled trial to compare time to endotracheal intubation by novice anaesthesiologists when performed by direct laryngoscopy without verbal video laryngoscope feedback to direct laryngoscopy with verbal video laryngoscope feedback
59. Robotic Intubation System for Precise and Safe Endotracheal Intubation-A preliminary report
60. Role of ASOCT in slipped medial rectus muscles
61. Role of Combined Periocular Topotecan and Systemic Chemotherapy in Advanced Intraocular Retinoblastoma.
62. Small Gauge vitrectomy in Endopthalmitis-Safety and Microbiological outcomes

63. Sonographic Assessment of Epidural Space Depth and Orientation in Paediatric Patients at Various Vertebral Levels: An Observational Cross-Sectional Study-Chief Guide
64. Sonographic Assessment of Suprahyoid Airway Parameters in Adult Patients Planned for Elective Proseal Placement-A Pilot, Observational Study-Chief Guide
65. Species identification and determination of virulence factors of Coagulase negative Staphylococci in ocular infections
66. Species Identification, Antifungal Susceptibility Profile and Virulence Factors of Candida Species Isolates from Ocular Infections
67. Spectrum of Bacterial keratitis in North India - Six Year Retrospective Study from a Tertiary Care Eye Centre
68. Structural and functional changes of macula overtime in ocular hypertension vs age matched controls
69. Systemic and October biomarkers in patients with Diabetic Macular Edema
70. The effect of Post-spinal hypotension on cerebral oxygenation using NIRS and neonatal outcomes in full term patients undergoing lower segment caesarean: A Prospective Observational Study
71. To correlate the metabolic activity of primary uveal melanoma on 18-fluorodeoxy-glucose positron emission tomography /computed tomography (18-FDG PET/CT) scan with the known clinical and pathological prognostic factors.
72. To evaluate the role of intralesional bleomycin in Periocular Capillary Hemangiomas unresponsive to oral propranolol
73. To study and compare the safety, efficacy, and outcome of 80 micron flap Vs 100 micron flap in femtosecond LASIK
74. Ultrasound assessment of airway for prediction of difficult laryngoscopy in obese patients-a prospective observational pilot study
75. Ultrasound assessment of airway for prediction of difficult laryngoscopy in obese patients - a prospective observational pilot study
76. Ultrasound guided pericapsular nerve group block for improving positioning before central neuraxial block in patients undergoing surgery for neck of femur and inter trochanteric fracture-a randomized controlled pilot study
77. Use of advanced genomics in Microbiology of culture negative infections
78. Use of Intravitreal Methotrexate as an adjunct in Retinal Detachment with Proliferative Vitreo-Retinopathy

Completed Departmental Projects over past 3 years

Year	List of Completed Departmental Projects
2021-2022	63
2022-2023	71
2023-2024	78

Collaborative projects

Ongoing

1. “ROSHINI: Pan India Initiative for Inclusive Comprehensive Eye Care Services-A multi centric approach”, funded by Christoffel Blindenmission (CBM)
2. A Comparative Evaluation of Double and Single Application of Povidone Iodine for De-Contamination of Donor Cornea, Ophthalmology
3. A Phase 1/2a Multi-Center, Dose-Escalation, Dose-Expansion Study to Evaluate the Safety and Efficacy of Eyecyte-RPE™ when administered as a Single-dose Subretinal Injection in Subjects with Geographic Atrophy (GA) Secondary to Dry Age-related Macular Degeneration (d-AMD), Eye stem Research Private Limited
4. A pilot study to access the effect of timing of Gefitinib administration on blood levels in non-small cell lung cancer patients (Dr Pooja Gupta), Pharmacology/AIIMS

5. A randomised comparison of lidocaine 2% gel and proparacaine 0.5% eyedrops in paediatric squint surgery, Department of Anesthesia, AIIMS, New Delhi
6. Assessment of accelerated corneal collagen Cross-linking as an adjuvant therapy in moderate to severe fungal keratitis, Ophthalmology
7. Cancer metabolism, H1299 cells, glucose & glutamate starvation (Daman Saluja), Delhi University
8. Cell-free DNA as a potential molecular marker for retinoblastoma diagnostic and therapeutic approach, Ocular Biochemistry
9. Clinical Efficacy of Topical Caspofungin and its Comparative Evaluation with Topical Natamycin Monotherapy in Fungal Keratitis, Ophthalmology
10. Clinico-pathological significance of tumor biomarkers in serum, aqueous humor and tumor tissue of intraocular retinoblastoma patients, IRG Collaborative project (Rs 20 Lakhs)
11. Collagen Cross-Linking in Microbial Keratitis, Ophthalmology
12. Comparison of efficacy of steroids and cyclosporine in preventing subepithelial infiltrates in adenoviral conjunctivitis, Ophthalmology
13. Correlation between corneal concentration and MIC of antifungals in patients undergoing therapeutic keratoplasty for fungal keratitis, Ophthalmology
14. Correlation of surgical complexity and outcome with preoperative geometric parameters in MR urethrography in pelvic fracture urethral distraction defects: A prospective cohort study, Urology
15. Dalfmapridine in acute unilateral demyelinating optic neuritis-A randomized doubleblind placebo controlled trial, Department of Neurology
16. Determination of plasma drug levels of antitubercular drugs in patients with extra pulmonary tuberculosis outcomes (Dr Anant Mohan), Medicine/AIIMS
17. Early bacterial activity and PK/PD study of Rifampicin, Faropenem and Cefdinir with clavulanate versus standard of care in newly diagnostic smear positive Rifampicin susceptible TB (Dr Urvashi Singh), Microbiology/AIIMS
18. Effect of IJV ligation during comprehensive neck dissection on intracranial pressure, Department of ENT, AIIMS, New Delhi
19. Estimation of Bisphenols in Urine of PCOS patients (Dr Neeta Singh), Gynaecology/AIIMS
20. Evaluate the effect of Dexamethasone vs prednisolone on Ocular Toxicity Induced By Systemic Cytarabine Arabinoside (ARA-C) in AML patients, Department of Hematology, AIIMS
21. Evaluation of cystinosis by estimating leukocyte cystine. (Dr Arvind Bagga), Pediatrics/AIIMS
22. Evaluation of microbiological screening of donor Corneas an d co-relation with clinical outcomes, Ophthalmology
23. Evaluation of ocular Surface Microbial flora in eyes with contact lens wear, Ophthalmology
24. Evaluation of the role of Cyclosporine-A as an adjuvant in cases of fungal keratitis, Ophthalmology
25. Exploring the role of hypoxia in modulating ceramide metabolism and insulin sensitivity in adipocytes (Dr Archana Singh), Biochemistry/AIIMS
26. FAPC as potential marker of invasive aspergillosis (Dr Sunita Meena), Lab. Medicine/AIIMS
27. Impact Of Pelvicalyceal System and Infundibular Anatomy in Predicting Stone Clearance And Complications After PCNL, Urology
28. Incidence of postoperative cognitive decline in elderly undergoing open surgeries under general anaesthesia using isoflurane or deflurane: A prospective observational pilot, Anaesthesia
29. Intestinal permeability in chronic pancreatitis by urine matrix (Dr Deepak Gunjan), Gastro/AIIMS
30. Lipids isolated from biological nanoparticles (Dr Jayanta Bhattacharya), IIT, Delhi
31. Micro RNAs as Novel Biomarkers for the prediction of corneal graft rejection, Ophthalmology
32. Millipore filter to prevent post-injection endophthalmitis: A Proof-of-Concept in-vitro study, Ophthalmology
33. Mitochondrial dysfunction and oxidation stress pathway based prognostic signatures for keratoconus, Ophthalmology
34. Molecular Profiling in Retinoblastoma Using Cell Free DNA From Aqueous Humor", Department of Anatomy

35. Multiplex PCR Assay for Undetectable and Under Reported Bacterial Ocular Infections, Ophthalmology
36. Nitisinone therapy for Tyrosinemia patients (Dr Neerja Gupta), Pediatrics/AIIMS
37. Penicillin detection in plasma of RHD patients (Dr Kamaldeep), Cardiology, RML Hospital
38. Pharmacokinetics of first line Antitubercular drugs in TB patients, A Comparative study in patients with and without contaminate diabetic mellitus (Dr Saurav), MAMC
39. Phase II clinical trial of Ralfinamide for pain relief in third molar extraction (Double blinded multi-centric trial), Department of Facio-maxillary Surgery, AIIMS
40. Preparation of Quinidine sulphate tablets/capsules/sachets (Dr Deepti), Cardiology/AIIMS
41. Preparation of sachets for pre-operative drink (Dr Bhavna), Anaesthesiology/AIIMS
42. Prospective evaluation of visual and functional outcomes in cases of Multiple Sclerosis and Optic Neuritis, Department of Neurology, AIIMS, New Delhi
43. Role of low dose heparin eye drops on acute and chronic ocular cases of Steven Johnson syndrome (SJS) and its correlation with immune pathway gene expression. A randomised controlled trial" (ICMR Sept 2019 onwards), Ophthalmology
44. Structural and functional changes with Occlusion therapy in AnisometropicAmblyopes using FMRI And Diffusion Tensor Imaging, NMR, AIIMS, New Delhi
45. Study of Ocular Microbial Flora in Contact Lens Wearers using Metagenomics, Ophthalmology
46. Sugar analysis in baby food-products (Dr Harsh Priya), Centre for Dental Education and Research/AIIMS
47. Tear Film Concentration of Oral Antibiotics in BacterialKeratitis Patients, Ophthalmology
48. Thalidomide as treatment of optochiasmatic arachdonitis in tubercular meningitis.A prospective randomized open blinded endpoint study, Department of Neurology
49. To assess the role of anti-VEGF as an adjunct in the management of post surgical endophthalmitis-a pilot study, Ophthalmology
50. To determine the concentration of Betel nut alkaloids and Catechins in current and past betel nut users and their association with pro-oncogenic cytokines and oral potentially malignant disorders (Dr Shalini Gupta), Centre for Dental Education and Research/AIIMS
51. To estimate the levels of N-Carboxymethyl lysine, arginine and Di-tyrosine in autistic children. (Dr Shefali Gulati), Pediatrics/AIIMS
52. To evaluate the risk factors for NAION in Indian population, Department of Medicine, AIIMS New Delhi
53. To study the effect of Vitamin C and Thiamine in patients with sepsis in Indian Population (Dr Arvind Kumar), Medicine/AIIMS
54. Transcriptome analysis to define Novel Pathways in Adenoid cystic Carcinoma and to correlate with clinical outcome, Intramural, collaborative (Rs 20 Lakhs)
55. Understanding the role of noncoding RNAs in osteogenesis (ICMR project Co-investigator in collaboration with IGIB), IGIB
56. Untargeted metabolomics in osteoporotimia model (Dr RK Srivastava), Biotechnology/AIIMS

Ongoing Collaborative projects over past 3 years

Year	List of Ongoing Collaborative projects
2021–2022	81
2022–2023	51
2023-2024	56

Completed

1. Amino acid estimation in breast cancer patients (Dr Pramod Gautam), Biochemistry

2. An exploratory study to identify candidate CSF biomarkers in Idiopathic Intracranial hypertension with or without vision loss, Department of Neurology
3. Analysis of anticancer activity of crude hydroalcoholic herbal extracts on prostate cancer cell line (Dr PK Chaturvedi), Reproductive biology/AIIMS
4. Analysis of SARS-CoV-2 in Corneal tissue of deceased asymptomatic COVID-19 donors
5. Antifungal susceptibility testing in fungal keratitis, Ophthalmology
6. Antiseptic efficacy and plasma chlorhexidine levels following 2 different methods….randomised trial (Dr Ramesh Agarwal), Pediatrics/AIIMS
7. Automated detection of ROP and Quantification of Plus Disease.-AIIMS-IIT Project (Intramural), IIT Delhi
8. Baseline and post neoadjuvant chemotherapy imaging of optic nerve in extraocular retinoblastoma. Can MRI Predict Prognosis? RPC
9. Biomarkers for bacteremia AMR and HAIs by NMR and LCMS/MS (Dr Hitendra Gautam), Microbiology/AIIMS
10. Citrulline estimation in Celiac Patients (Dr Govind Makharia), Gastro/AIIMS
11. Comparative Evaluation of 26 Gauze Needle versus Kimura's Spatula for Corneal Scraping in Infective Keratitis: a Randomised Controlled Trial, Ophthalmology
12. Comparative evaluation of different formulations namely sonicated gel form, unsonicated drop and sonicated drop of liposomal Amphotericin B for the Treatment of Fungal Keratitis, Ophthalmology
13. Comparison of serum and vitreous biomarkers in patient of type-I and type-II diabetic Mellitus with diabetic retinopathy (Dr Shaurya), Ophthalmology/AIIMS
14. Estimation of Tear Film Concentration of Oral Antibiotics in Bacterial Keratitis Patients
15. Evaluation of corneal biopsy as a primary diagnostic tool in patients with keratitis on multiple anti microbials, Ophthalmology
16. Evaluation of Corneal Concentration of Antifungal Drugs and Its Correlation with Minimum Inhibitory Concentration (MIC) Values in Cases Undergoing Therapeutic Penetrating Keratoplasty, Ophthalmology
17. Evaluation of Coronavirus in tears and conjunctival secretions of patients with SARS COVID19
18. Evaluation of donor characteristics and graft outcomes of cornea transplant from multi-organ donors and cadaveric donors under HRCP, Ophthalmology
19. Evaluation of Retinol-palmitate ophthalmic suspension in severe dry eye (Dr Rajesh Sinha), Ophthalmology/AIIMS
20. Evaluation of the levels of topical atropine in aqueous humor and vitreous humor-A pilot study (Dr Rohit Saxena), Ophthalmology/AIIMS
21. Infective orbital and periorbital diseases in the COVID-19 era, Ophthalmology
22. Long Term Change in Microbial Flora with Vectored Thermal Pulsation Treatment in Meibomian Gland Dysfunction - A Pilot Study, Ophthalmology
23. Multi Centric study of Impact of exposure of Ultra Violet Radiation (UVR) & aerosol exposure on ocular health in India, funded by ICMR
24. Negative predictive value of MRI for significant prostate cancer in Indian men: An ambispective study, Urology
25. Pharmacodynamic and pharmacokinetic interaction of the ayurvedic formulation (BGR-34) with glibenclamide in experimental rats (Dr Sudhir), Pharmacology/AIIMS
26. Pharmacokinetics & sedative effect of Dexmedetomodin sublingual & intranasal (Dr Reenu Sinha), Ophthalmology/AIIMS
27. Pharmacokinetics and Biodistribution studies of berberine and berberine loaded nanoparticles in animals (Dr Pooja Gupta), Pharmacology/AIIMS
28. Randomized control trial of single dose oral Ivermectin in patients with COVID19 infection (Dr Anant Mohan), Pulmonary Med/AIIMS
29. Risk factors for failure of caffeine therapy in preterm neonates. Plasma caffeine & albumin level (Dr Purna Chandra), Neonatology/AIIMS

30. Role of 18F FDG PET/CT in assessment of treatment response to neoadjuvant chemotherapy in primary extra-ocular retinoblastoma, Nuclear Medicine
31. Role of Corneal Biopsy in Keratitis Patients on Antimicrobial Agents
32. Serum Benzathine Penicillin G levels in Indian Children and adolescence with Rheumatic heart disease (Dr Dinesh Kumar), Pediatric Cardiology/RML
33. Study of Tear Film and Ocular Surface Changes After Long Term Use of Rose K Lenses in Patients with Keratoconus, Ophthalmology
34. To evaluate the role of intralesional bleomycin in periocular capillary hemangiomas unresponsive to oral propranolol, RPC
35. To study Nilotinib Drug interaction with fatty acid meal (Dr Ranjit Kumar Sahoo), IRCH/AIIMS
36. To study the effect of Vit-C and thiamine in patients with sepsis in Indian population, RCT. (Dr Arvind), Medicine/ AIIMS
37. Topical Posaconazole in fungal keratitis, Ophthalmology

Complete Collaborative projects over past 3 years

Year	List of Complete Collaborative projects
2021-2022	32
2022-2023	37
2023-2024	37

Research over past 3 years

Research projects	2020-2021	2021-2022	2022-2023	2023-2024
Ongoing	32,12,86,002	27,76,96,395	40,22,34,277	403062640
Completed	3,52,56,227	76,20,36,03	1,04,40,247	94432160

PUBLICATIONS: 270

Journals: 230 Abstract : 4

Chapter in Books: 32 Books and monographs: 4

Year	2021–2022	2022–2023	2023-2024
Journals	**544**	**396**	**230**
Abstract			**4**
Chapter in Books			**32**
Books and monographs			**4**

PATIENT CARE

(A) OUT PATIENT DEPARTMENT

		New Cases	Old Cases	Total
1.	**General OPD**	166384	185320	351704
2.	**Emergency**	10874	40294	51168
3*.	**Special OPD (Afternoon-OPD)**	40871	156736	197607
4	**Community Ophthalmology services**	44524	16292	60116
Total		**262653**	**398642**	**660595**

*	Details of Special OPD (Afternoon-OPD)			
a.	Cornea Clinic	4562	7495	12057
b.	Lens Clinic	629	2175	2804
c.	Uvea Clinic	1000	3896	4896
d.	Contact Lens Clinic	904	734	1638
e.	Glaucoma Clinic	3834	11253	15087
f.	Ophthalmoplasty Clinic	1893	1734	3627
g.	Retina Clinic & Vitreo Clinic	5483	8311	13794
h.	Neuro-Ophthalmology Clinic	1780	2605	4385
i.	ROP Clinic	1424	3548	4972
j.	Ocular Oncology Clinic	341	534	875
k.	Retinoblastoma Clinic	392	994	1386
l.	Low Visual Aid	2943	1881	4824
m.	Orthoptic Clinic & Squint Clinic	9288	7378	16666
n.	Lasik	6141	17149	23290
o.	IRD Clinic	257	33	290
p.	Refraction	0	87016	87016

(B) IPD (INPATIENT DEPARTMENT)		
1.	General Admissions	15440
2.	Casualty Admissions	2474
3.	Private Admissions	1133
4.	Short Admissions	18389
5.	Day Care Admissions	14780
	Total	**52216**
	Average Bed occupancy Ratio	81%
	Average length of stay	04 days
	Average No. of Indoor Admission per day	143 per day
(C) SURGERIES/PROCEDURES		
1.	Major Surgeries	19890
2.	Day Care Surgeries	12652
3.	Smile Surgeries	974
4.	Femto Lasik Surgeries	1014
5.	PRK Surgeries	216
6.	PTK Surgeries	23
7.	Lasik Surgeries	1885
8.	Minor Operations/Procedures	17420
	Grand Total of Major & Minor Surgeries	**54074***

	Average No. of Surgeries per day	148 per day
(D)	**MISCELLANEOUS**	
	Death	01

***It includes minor procedure also**

Ward 1A (36 Beds) under renovation.

Casualty Services

Total number of cases seen in Casualty (new + old)	51168
Total number of new registration	10874
Total number of patients admitted in casualty ward	2474
Minor procedures done in casualty operating room	561
Intravitreal injections done in casualty operating room	6237
Brachytherapy cases done in casualty operating room	13
Examination under anesthesia + procedure	1015

Investigation Laboratories

S No.	Investigations & Procedures	Total
1	Tonometry (NCT + AT + Tonopen + Perkins + iCARE)	52186
2	IOL Work-up	46729
3	Refraction & Prescription of spectacles	87016
4	AR (Auto Refraction)	75954
5	Visual Acuity Assessment	36993
6	Posterior Segment Ocular Coherence Tomography (PSOCT)	46162
7	USG A Scan- Axial Length	13290
8	USG B Scan	31432
9	UBM	52
10	Adaptive Optics	158
11	Flaremetery	237
12	Perimetery (GVF+HFA+MP)	16191
13	Electrophysiological Tests (VER + ERG + mfERG + EOG)	14931
14	Medical Board Investigations	2864
15	Fundus Auto-Fluorescence	3395
16	Advanced/Premium Contact Lens work-up (New + Old)	3858
17	Anterior Segment Photography	6084
18	Posterior Segment Photography	11314
19	ROP workup	4972
20	Topography (VKG + Cassini + Sirius + I-Trace)	8806
21	Post Segment Laser	7992

22	YAG LASER	3145
23	Contrast Sensitivity	4518
24	OCT Angiography	3411
25	Heidelberg Retinal Tomography (HRT)-III	768
26	Electrocardiography (ECG)	2879
27	Colour Vision Assessments	4400
28	FFA + ICG	3164
29	Specular Microscopy	42001
30	Anterior Segment Ocular Coherence Tomography (ASOCT)	30286
31	Pentacam and Corvis	29924
32	Autolensometry (POG)	8348
33	Pachymetry	28477
34	Ocular Surface Analyser (OSA)	1859
35	Orthoptics (Orthoptic & Squint Clinic - New & old cases)	16666
36	LIPI (View + Scan + Thermoflow)	1726
37	Revo 60 - Anterior & Posterior Tomography	225
38	Hematology Analyser+ Elaisn+ Multiplex	1151
39	AIIMS Employee Eye Health check up	49
40	Low Vision Services Investigations	13107
41	Refractive Surgery Lab Investigations	97, 197
GRAND TOTAL		**7, 63, 917**

Community Ophthalmology

Primary Eye care Services	
Primary Eye care Clinics	20
Attendees at PEC Counters' in Slums Cluster	60816
Refraction carried out in PEC Centres in slums Cluster	25984
Spectacles prescribed in Slums	23596
Patients referred to R.P. Centre	7535
Primary Eye Care Volunteer training events	
Volunteers Training Programme organized	43
Volunteers Trained	435
Eye Health Education Events- Community	
Eye Health Education Event conducted	1003
Participants in the Health Education events	28402
Eye Health Education Events- RPCentre	
Eye Health Education Event conducted	257

Participants in the Health Education events	5603
Reach-in-Programme for cataract surgery in Rural and remote areas	
Adult screening camps organized	10
People examined	1300
Patients referred at R.P. Centre	81
School Eye Screening Programme	
School covered under SES Programme	07
Numbers of Children screened	3801
Children prescribed spectacles	439
Diabetic Retinopathy Screening Camps	
Total number of DR screening camps organized	210
Diabetic patients screened in camps	2442
Total DR Patients identified	371
Total DR Patients referred to R.P.Centre	351
Total patients reported at R.P.Centre for further management	164
Patient Reported for treatment at Dr R.P. Centre under Community Ophthalmology	
Total Patient Reported under community ophthalmology:	4903
Total Patient Operated for cataract surgeries under community ophthalmology	2382
Follow-up camps organized	51
Patients examined in Follow-up camps	1576
Rehabilitation Services in Community Ophthalmology	
Patients are registered for rehabilitation services	3037
Patient's admission done for vocational training	20
Patients are benefited for ADL training	548
Patients are benefited for Mobility training	286
Children's successfully admission done in special school	27
Patients are made visual disability certificate in AIIMS and counselling for the benefits of visual disability certificate	834
Blind School Screening Camp	
Patients are screened in blind school (Special School) in Delhi/NCR 1283	
Patient's referred to AIIMS for visual disability certificate/Updating of certificate	554
Camps successfully done in Special Schools	19
Special School covered in Delhi/NCR	19

Ocular Radiology

Number of patients for X Rays	4998
Number of CTs	3122
The MRI and DSA are done by the main Radiology Dept	NA

Ocular Microbiology

S.No.	DIAGNOSTIC PROCEDURE	YEAR		
		2023-24	2022-23	2021-22
1.	BACTERIAL CULTURE & SENSITIVITY	15577	13440	7959
2.	FUNGAL CULTURE	6578	4960	6695
3.	SPECIMENS PROCESSED FOR CYTOLOGY	4110	3524	2234
4.	SPECIMENS PROCESSED FOR CHLAMYDIA Ag DETECTION USING DFA	508	28	14
5.	SPECIMENS PROCESSED FOR HSV Ag DETECTION USING DFA	07	01	02
6.	VIRAL PCR FOR HERPES SIMPLEX VIRUS, ADENO & COXSACKIE VIRUS (CONJUNCTIVITIS/ CORNEAL ULCER)	392	33	20
7.	SPECIMENS PROCESSED FOR MICROSPORIDIA	10	09	09
8.	SPECIMENS PROCESSED FOR MYCOBACTERIA	17	12	04
9.	CULTURE FOR ACANTHAMOEBA	10	13	16
10.	AUTOMATED (BACTEC) CULTURE FOR ENDOPHTHALMITIS	20	Nil	05
11.	BROAD RANGE PCR FOR ENDOPHTHALMITIS	08	Nil	05
TOTAL		**27237**	**22020**	**16963**

Ocular Pharmacology

Drugs fortified & compounded at the Ocular Pharmacy	
DRUGS	**Number of Vials (5 ml)**
Acetyl Cysteine (10, 20%, 2.5%, 5%)	**271**
2. Amphotericin B (0.25%, 0.15%, 0.1%)	**135**
3. Betaxolol (0.25%)	**498**
4. Capsofungine Acetate 0.5%	**08**
5. Cefazolin (5%)	**1974**
6. Conc. Tobramycin (1.3%)	**7034**
7. Mitomycin (0.02%, 0.04%)	**212**
8. Pilocarpine (0.125%- 1%)	**126**
9. Polymixin B (10k-30k Iu)	**312**
10. Povidoneiodine 5%, 2%	**05**
11. Vancomycin (5%)	**5765**
12. Timolol 0.25	**18**
13. Ceftazidine 5%	**608**
14. Voriconazole (1%)	**1874**

15. Gentamycin 1.3%	**109**
16. Proparacaine (0.5%, Preservative Free)	**0**
17. Heparin (1300 Iu/Ml)	**0**
18. Amikacin (1.3%, 2.5%, 1.4%)	**629**
19. Levofloxacin 0.5%	**25**
20. Linzolin 0.2%	**16**
21. Ceftriaxon 5%	**0**
22. Colistemethate 0.19mg/Ml	**0**
23. Clarithromycin 0.25%	**0**
24. Augmeutin 625mg – ¼Sachet	**0**
25. Acetazolamide 30mg, 10, 25, 40, 50, 60, 80mg	**480**
26. Piperacillin 10%	**357**
27. Interferon	**188**
28. Meropenem (10%, 20%)	**02**
28. Chlorhexidine 0.02%	**12**
29. Cefotaxime 5%	**04**
30. S. Flurancil 1%	**05**
31. Cefipime 5%	**07**
32. Phenylephrine 1%	**03**
Drugs Dispensed to Patients Directly (Free of Cost) and Also for Hospital Use	
Drugs	**Number of Vials**
1. Artificial Tears	**43850**
2. Ciprofloxacin (0.3%)	**15453**
3. Cyclosporine2%, 1%	**119**
4. Edta (1.1%)	**116**
5. Homatropine (2%)	**13816**
6. Hypertonicsaline (5%)	**5359**
7. Methyl Cellulose (2%)	**797**
8. Pilocarpine (2%)	**30**
9.Sodium Ascorbate (10%)	**453**
10. Sodium Citrate (10%)	**444**
11. Thimerosal Solution (0.005%)	**49 L**
12. Tropicamide (1%)	**33168**
13. Tropac+ Phenylephrine (0.5%+2.5% (Rop))	**10642**

14. Gancyclovair Vials 100 mg	**175**
15. Piloclonidine	**0**
16. Oloapatadin	**7040**
17. Glycerin 50%	**0**
18. Phmb	**89**
19. Methylcellulose 2%	**L**
20. Hypertonic Saline 20%	**250 ml**

Kit & Other items dispense (on demand)

DRUGS	Quantity	
Ethyl alcohol 20%	**1170 x 5 ml**	
Gold Chloride	**350**	**vials**
Hydrazine Hydrate	**350**	**vials**
4. Liposomalamphoterecin B (0.15%)	**-**	**vials**
5. Tpa (Injection, 1mg/Ml)	**-**	**ampoules**
6. Infliximab Inj 10mg	**-**	**vials**
7. Timololmaleateoint. 0.5% Ointment	**349**	**ointments**
8. Acyclovir 120 Mg	**-**	**sachets**
9. Valganciclovir Tablet	**163**	**sachets**
10. Sirolimus Powder	**-**	**sachets**
11. Livofloxocin 0.5%	**04**	**vials**
12. Voriconazole In Parts	**08**	**sachets**
13. Propanolol In Parts	**-**	**sachets**
14. Valgancyclovir	**-**	**sachets**
15. Hydrogen Peroxide 3%	**0**	
16. Sod. Hypochlorite 1%	**0**	
17. Imepenam 1%	**04**	**vials**
18. Ponkreaflozt ¼ Sachet	**0**	**sachets**
19. Hydrocortisone 5mg	**-**	**sachets**
20. Isoniazid	**0**	**sachets**
21. TAB. Trenaxamic 300mg	**25**	**sachets**
22. Tab. Cipro 500mg Into 200 Mg	**10**	**sachets**
23. Desmopressin 0.1mg 1/8Sachets	**08**	**sachets**
24. Tab. Acyclovir 400mg ¼ In Parts	**04**	**sachets**
25. Idebenone	**360**	**capsule**
26. Hydrocortosone	**-**	**sachets**
27. Propranolol	**-**	**sachets**

28. Sodium Benzoide	**58**	**sachets**
29. Haloparidol	**-**	**sachets**
30. Quinidine Sulphate 300 Mg Capsule	**500**	**capsule**
31. Posaconazole Suspension (1%)	**30**	**eye drops**
32. Igg	**129**	**eye drops**
33. Alfamino Power	**-**	**sachets**
34. Quinidine Sulphate 200MG. Capsule	**1200**	**capsule**
35. Absolute Alcohol 100%	**05**	**vials**
36. Urokinase 25000 IU/Ml	**-**	**vials**
37. Zinase-D ¼ in Parts	**8**	**sachets**
38. PCM 500mg ¾ in Parts	**8**	**sachets**
39. Posaconazole 1% (300 Mg/16.7m)	**-**	**vial**
40. TAB. DOXYCYCLINE ¼ Inparts	**04**	**sachets**
41. Quinidine Sulphate Capsule (400mg)	**900**	**capsules**
42. Quinidine Sulphate Sachets	**60**	**sachets**
43. L- Ornithin-L-Aspartate	**20**	**sachets**
44. Tolvapton	**18**	**sachets**
45. Oxandrolone Sachets	**140**	**sachets**
46. Empagliflozin	**115**	**sachets**
47. Fenofbrote	**70**	**sachets**
48. Carbinazole	**33**	**sachets**
49. Sugar Powder	**100**	**sachets**
50. Sodium Acide Phosphate	**8.**	**sachets**
Sterile Drugs Dispensed		
Botox	**343**	**ampoules**
Bevacizumab(Avastin)	**46343+**	**ampoules**
Biologicals Dispensed		
1. Autologous Serum	**82**	**vials**
2. Autologous PRP	**-**	**vials**
3. Platelet Rich Plasma	**2**	**vials**

National Service

ITEM	No. of vials (10 ml)
Corneal Storage Media (supplied to 103 Govt eye banks in 24 states in India)	**124**
Longer Corneal Storage Media	**2022**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor JS Titiyal was Guest to the 35th Annual Conference of North Zone Ophthalmological Society (NZOS) and 18th Haryana Ophthalmological Society, Karnal, Haryana, December 2023; Chief Guest to the 7th Annual Conference of Women Ophthalmologists Society of India (WOS), Varanasi, Uttar Pradesh, December 2023; Public Lecture and Discussion on Air Pollution and its effect on Health, November 2023, AIIMS, New Delhi; "Total Health" program DD-News, live phone in National program on "common eye problems and effect of pollution", Prashar Bharti, Mandi House, New Delhi, November 2023; Chief Guest to the Annual Conference of Madhya Pradesh Ophthalmological Society (MPOS), October 2023, Ujjain, MP, India; FM Rrainbow AIR live phone in Program "Radio Doctor", Eye donation and its impact in the society, All India Radio, New Delhi, September 2023; Chief Guest at Eye donation fortnight celebrations at SN Medical College Agra, Agra, Uttar Pradesh, August 2023; Chief Guest at Eye donation fortnight celebrations and first foundation day of eyebank GMC at GMC Haldwani, Nainital, Uttrakhand, August 2023; "Total Health" program DD - News, live phone in National program on "Eye infections: Acute Seasonal Conjunctivitis, " Prashar Bharti, Mandi House, New Delhi, August 2023; FM Rrainbow Lucknow live phone in Program "Good morning, Lucknow", Seasonal eye flu (Acute Conjunvtivitis), All India Radio, New Delhi, July 2023; FM Rainbow AIR live phone in Program "Radio Doctor", Seasonal eye flu (Acute Conjunctivitis), All India Radio, New Delhi, July 2023; Invitation as Guest in Y20 Consultations Programme at AllMS, Rishikesh knowledge partner with the Department of Youth Affairs, Govt. of India, May 2023, Rishikesh, Uttrakhand; FM Rainbow AIR live phone in Program "Radio Doctor", Protect your eyes in this summer, All India Radio, New Delhi, May 2023; Key note Lectures SMILE my choice for LVC and Presbyopic IPCL, Annual Conference of Maharashtra Ophthalmological Society (MOS), October 2023, Kolahpur, Maharashtra, India; Key note LectureEndothelial Keratoplasty: DMEK: How to unroll the scroll - Mid Term; Conference of Delhi Ophthalmological Society, September, 2023, New Delhi, India; International Keynote Speaker at the BRASCRS 2023 - Brazilian Congress of Cataract and Refractive Surgery, May 2023 in São Paulo, Brazil; Dr SS Grewal Oration, at the 35th Annual Conference of North Zone Ophthalmological Society (NZOS), Karnal, Haryana, December 2023; Dr AD Grover Memorial Oration, at the 34th Annual Conference of Chandigarh Ophthalmological Society, November 2023 at Chandigarh, India; TP Lahane Award by Maharashtra Ophthalmological Society (MOS), October 2023, Kolahpur, Maharashtra, India; Dr Amit Sah Oration by Gujarat Ophthalmological Society at 50th (Golden Jubilee), All Gujarat Ophthalmology Conference (AGOS), October 2023, Ahmedabad, Gujrat, India; P Siva Reddy Oration 2023 by Andhra pradesh Ophthalmological Society (APOS), October 2023, Vishakapatnm, Andhra Pradesh; Sandeep Mithal Oration 2021 by Meerut Ophthalmic Scoiety, April 2023, Meerut, UP; Dr MC Luthra Oration 2023, by Dristi Eye Institute under the agegis of IMA Dehradun and Uttrakhand State Ophthalmic Scoiety (USOS), April 2023, Dehradun, Uttrakhand; Member - Operation Theatre Committee (Main OT & Day Care) 17 September 2021 onwards; Member for planning of layout of RPC OPD in New Masjid Moth Campus under new Master Plan of AIIMS; Member - Souvenir Committee, Celebration of 55th Foundation Day of Dr R.P. Centre.

Professor Radhika Tandon was awarded AIOS RP Dhanda Award, 2024 (Joint Winner) by All India Ophthalmological Society (AIOS); Awarded Dr SN Mitter Oration Award by Delhi Ophthalmological Society (DOS) in 74th Annual DOS Conference 2024; Awarded Best Team Runner UP Award by Delhi Ophthalmological Society (DOS) in 74th Annual DOS Conference 2024; Awarded Teacher of Teachers Award on the occasion of Seventh National Assembly of FOTI-2024 at Dr RP Centre for Ophthalmic Sciences, AIIMS New Delhi; Awarded Certificate of Appreciation for her role as Organising Committee, FOTI-2024 (Seventh National Assembly of Forum of Ophthalmology Teachers of India & Pan India HOD Ophthalmology Group) by FOTI at RP Centre, AIIMS, New Delhi; Awarded Grand Prize Winner FIFA Film Festival of AIOC by All India Ophthalmological Society (AIOS)) at 2nd Mid-Term Conference - 2023 VISAKHAPATNAM; Awarded Best Video - Anterior Segment Award by All India Ophthalmological Society (AIOS)) at 2nd Mid-Term Conference - 2023 VISAKHAPATNAM; Awarded Best of IJO Certificate 2023 to Mukhija R, Vanathi M, Verma M, Raj N, Gupta N, Tandon R; Comparative evaluation of intraoperative aberrometry and Barrett's toric calculator in toric intraocular lens implantation. Indian J Ophthalmol. 2023; 71:1918-23 which was adjudged as one of the best publications in Indian Journal of Ophthalmology during the year 2023 by All India Ophthalmological Society (AIOS)) & Indian Journal of Ophthalmology (IJO); Awarded the Appreciation Certificate 2023 to Anitha V, Vanathi M, Raghavan A, Rajaraman R, Ravindran M, Tandon R. Pediatric keratoconus - Current perspectives and clinical challenges. Indian J Ophthalmol. 2021;69(2):214-225 which was adjudged as one of the best publications in Indian Journal of Ophthalmology IJO during the year 2023 by All India Ophthalmological Society (AIOS)) & Indian Journal of Ophthalmology (IJO); Appointed as a Member of the Advocacy Committee of the Cornea Society of India (Ref. email dated 13 February 2024); Technical Expert for the Ayushman Bharat Pradhan Mantri January Arogya Yojna (AB PM-JAY) to provide valuable inputs in the areas of expertise on Health Benefit Packages, Standard Treatment Guidelines, Medical audit and Quality of care etc. for the seamless implementation of the scheme, organized by National Health

Authority (NHA); As Member of the Inspection Committee for inspection for Registration of Command Hospital (NC), Udhampur, organized by DGHS, Ministry of Health & Family Welfare on 17 April 2023 through online/virtual mode; As Subject Expert for Selection Committee Meeting for Faculty Recruitment at AIIMS, Bibinagar organized by AIIMS Bibinagar on 30 April 2023 through online/virtual mode; As PMC Expert for Site Visit - NBM-BT/NBM0251 May 19 (Amrita Institute of Medical Sciences and Research Centre, Kochi) organized by Biotechnology Industry Research Assistance Council (BIRAC) on 3-4 May 2023 through online/virtual mode; As an Expert Member of the Standing Selection Committee Meeting for selection of Group A Faculty in AIIMS, Guwahati organized by AIIMS Guwahati held on 21 June 2023 through online/virtual mode; As a Subject Expert for Standing Selection Committee Meeting for the interview of Faculty posts under APS of NEIGRIHMS, Shillong in the Department of Ophthalmology organized by NEIGRIHMS, Shillong, held on 21 June 2023 at ICMR, Ansari Nagar, New Delhi; As an External Examiner for the Practical Annual Examination of MS (Ophthalmology) organized by University of Delhi held on 27-28 June 2023 at Delhi; As an Expert for a closed Group Meeting on the "Repair, Regeneration and treat: The path to Gene Therapy in India" organized by Narayana Netralaya Foundation held on 22-23 July 2023 at Bangalore; As Member of the Inspection Committee for inspection for Registration (New) of Hamdard Institute of Medical Sciences & Research, Guru Ravidas Marg, New Delhi, organized by Delhi Organ Transplant Cell on 24 July 2023 at New Delhi; As an External Expert for Faculty Recruitment Interview Sub-Phase III for AIIMS, Madurai organized by AIIMS Madurai held on 26 July 2023 through online/virtual mode; As Member of the Managing Committee for the 145th Meeting of the Managing Committee of Modern School, Vasant Vihar, New Delhi held on 22 August 2023 at Vasant Vihar, New Delhi; As a Subject Expert for Selection Committee for the promotion of faculties at King George's Medical University, UP, Lucknow in the Department of Ophthalmology organized by King George's Medical University, Lucknow held on 30 August 2023 through online/virtual mode; Appointed as an External Examiner for thesis evaluation of PG (MD/MS) Ophthalmology (Batch January 2021) of AIIMS, Rishikesh (Ref. No. AIIMS-RIS/EC/23/2523 dated 6 September 2023); Appointed as an External Examiner to evaluate the thesis/dissertation submitted by a candidate for MD (Ophthalmology) degree of PGIMER, Chandigarh (Ref. No. 13418-PG-2021/ES/dated 20 September 2023); As a Expert Member & Chairman of the Inspection Committee for inspection for Registration (Renewal) of Centre for Sight, Plot No. 9, Sector - 9, Dwarka, New Delhi for Cornel Transplant (Renewal) and Eye Bank (New) facilities under The Transplantation of Human Organs and Tissues Act, 1994, organized by Delhi Organ Transplant Cell on 22 September 2023 at New Delhi; As a Expert Member & Chairman of the Inspection Committee for inspection for Registration (Renewal) of Centre for Sight, F-14, Metro Gate No. 2, Main Vikas Marg, Preet Vihar, New Delhi, organized by Delhi Organ Transplant Cell on 3 October 2023 at New Delhi; As a Member of Meeting of the Committee for submission of project of "National Impact of AIIMS, New Delhi on 19 October 2023 at AIIMS, New Delhi (Ref. No.F. 1-2/Misc/2023-Acad.II dated 7 October 2023); Appointed as a Member of the Committee for submission of the concept of AIIMS, New Delhi achieves and Institutional Repository (IR) (Ref. No.F. 1-2/Misc/2023-Acad.II dated 9 October 2023); As a Expert Member & Chairman of the Inspection Committee for Inspection for Registration (New) of The Healing Touch, C-2/390, Janakpuri, New Delhi, organized by Delhi Organ Transplant Cell on 5 December 2023 at New Delhi; As Member of the Managing Committee for the 146th Meeting of the Managing Committee of Modern School, Vasant Vihar, New Delhi held on 20 December 2023 at Vasant Vihar, New Delhi; Appointed as a Member of the Dean's Research Committee (DRC) to facilitate and provide superior drive to research and encourage research activities at AIIMS (Ref. No. 1-2/DRC/2013/Res.Sec dated 31 January 2024); As a Expert Member & Chairman of the Inspection Committee for Inspection for Registration (New) of Sharp Sight Eye Hospitals, A6-A7, Swasthya Vihar, Delhi - 110092 organized by Delhi Organ Transplant Cell on 2 February 2024 at Delhi; Appointed as a Member of the Committee for Meeting on "List of Priority Medical Devices" organized by Indian Council of Medical Research (ICMR) on 13 February 2024 through Online; Invited as a Faculty to attend the Meeting for collaboration of Gene Therapy organized by Indian Institute of Technology (IIT) Kanpur on 17 February 2024 at Kanpur; As a Member to attend the Steering Committee Meeting of GARBH-INi programme organized by Translational Health Science and Technology Institute (THSTI), Faridabad on 27 February 2024 through Online; Appointed as a Member of Teaching Schedule Committee for the MBBS Phase II/III (Ref. No. F -8/2024-Acad.-II dated 12 February 2024); Nomination as Chairperson and appointed as Professor In-charge, House Allotment Advisory Committee (HAAC) at AIIMS, New Delhi (Ref. No.5-3/2024-Estt. (RCT) dated 29 February 2024); As a First Appellate Authority for Dr RP Centre to attend the One-day Online Workshop on 'Right to Information Act for Appellate Authorities' organized by Institute of Secretariat Training & Management (ISTM) Department of Personnel & Training, Ministry of Personnel Public Grievances & Pensions on 1 March 2024 through Online; As Member of the Managing Committee for the 147th Meeting of the Managing Committee of Modern School, Vasant Vihar, New Delhi held on 21 March 2024 at Vasant Vihar, New Delhi; As PMC Expert to attend the Next PMC meeting for Ophthalmology network organized by Biotechnology Industry Research Assistance Council (BIRAC) held on 27 March 2024 through Online.

Professor SK Khokhar was Chairperson of the session "Pearls in Refractive Surgery" in AIOC 2023 held on 11-14 May 2023 at Kochi, Kerala; Chaired the session "Refractive Surgery Status 2023" at ISCKRS MEET 2023; Delivered Keynote Lecture on "Cataract Surgery in Buphthalmic Eyes" in IPGS 2023; Chaired the session "Newer Trends in

Cataract Surgery" in DOSCON 2024; Chaired the session "Refractive Session 2 - Advances in Refractive Surgery" in DOSCON 2024; Chaired the session "Pediatric Ophthalmology" in DOSCON 2024.

Professor Rajpal received oration from ACOIN, Haryana Ophthalmological Society; IJO GOLD Award (Original Article), Regani H, Chandra, P, Kumawat, D, Chawla, R, Agarwal R, Vohra R. Role of additional posterior barrage laser in type 1 zone 2 retinopathy of prematurity: A randomized trial. Indian J Ophthalmol 2023. 71(11): p 3460-3464; Member of editorial board, IJO; Fellowship award by DOS; Chairman in Retina session in AIOS and DOS; Dr Parijat Chandra; Michael Trese Oration. Improving surgical outcomes in advanced ROP. AIOC 2023 Kochi [11-14 May 2023]; Best Poster Podium Presentation Award (Pediatric Ophthalmology) - Tripathi M, Rajpal, Chawla R, Chandra P. Comparison of low dose vs half dose Ranibizumab in Aggressive Retinopathy of Prematurity. AIOC24, Kolkata [14-17 March 2024]; IJO GOLD Award (Original Article). Regani H, Chandra, P, Kumawat, D, Chawla, R, Agarwal R, Vohra R. Role of additional posterior barrage laser in type 1 zone 2 retinopathy of prematurity: A randomized trial. Indian J Ophthalmol 2023. 71(11): p 3460-3464; Thesis Evaluator (MCh VR Surgery). PGIMER Chandigarh (February 2024); Member, Editorial Board. Indian Journal of Ophthalmology (2023 -); Member Technical Expert Group - National ROP Task Force for prevention of Blindness due to ROP. Under MOHFW, GOI; Chairperson. Pediatric Ophthalmology, Strabismus, Oculoplasty and oncology and Medical ethics Session. Eyecon 2023. Army Hospital (R&R), Delhi [4 September 2023]; Chairman - Session on Retinopathy of Prematurity. DOS24, Delhi [29-31 March 2024]; Chairman - Session on Retina - Antivegf. DOS24, Delhi [29-31 March 2024]; Judge - Interesting Cases - 8 Session. DOS24, Delhi [29-31 March 2024]; Speaker: Annual Conference of ACOIN Haryana, by ACOIN Haryana State Oration at Rohtak, Haryana; Appointed Associate Editor (Retina) of Indian Journal of Ophthalmology in 2023; IJO appreciation certificate as one of the top 25 cited papers of IJO for the year 2021; IJO Reviewer Commendation AWARD for the year 2023.

Professor Sanjay Sharma received first prize at the podium presentation for the exhibit on 'Epiphora: A Radiologist's perspective' at 6th South Asian Ophthalmology (SAO) Conference, 16 September 2023 at Maldives; President, Delhi-NCR Chapter of 'Indian Soc. of Vascular & Interventional Radiology' (ISVIR) 2-year term (2022-24); Examiner for MD at AIIMS Patna, KMC Manipal Academy of higher education, Mangaluru, and PGIMER Chandigarh; Organized as chairperson meeting of the Delhi-NCR chapter of ISVIR at Delhi, twice viz. 26 November 2022 to 1 April 2023; Organised as a Chairperson, the Annual Scientific Meeting of Delhi-NCR Chapter of ISVIR & Election of the office bearers on 20 August 2023; Member of TSEC at RPC, External expert for PGI Chandigarh; Consistently involved in 4-5 hours of 'Radiology conferences' for benefit of Oncology, Neuro-ophthalmology & Occuloplasty clinical services (not counted in formal teaching) at Dr RP Centre for last 14 years.

Professor Namrata Sharma was Inducted as the Section Editor, Editorial Board - Cornea & External Eye Diseases expert by the British Journal of Ophthalmology (BJO); Inducted as the Council member of the Asia Cornea Society (ACS) from India in the year 2024; Elected as a member of the Afro-Asian Council of Ophthalmology in the year 2024; the first Indian to be inducted as "Director at large" International member in the Cornea Society International of USA at the Cornea and Eye Banking Forum 2023 in San Francisco, USA for a period of 3 years; Featured in the 2023 Stanford List of Top 10 Highly Cited Ophthalmology Researchers in India conducted by the Stanford University; Certificate of Appreciation from Asia Pacific Academy of Ophthalmology (APAO) in recognition of the services to the academy (2024); APAO Senior Achievement Award by the Asia Pacific Academy of Ophthalmology (2023); Awarded the "Susurta award" by FOTI Forum of ophthalmic teachers in India. (2024); Awarded the "Dr FC Eggleston Annual Oration" 2023 at the Christian Medical College, Ludhiana; Awarded the "Dr Om Prakash Gold Medal" by the Intraocular Implant and refractive Surgery Society (IIRSI) 2023 at Delhi; "Best of IJO Certificate" for the year 2022 by the Indian Journal of Ophthalmology; "IJO Certificate of Merit" for the year 2022 by the Indian Journal of Ophthalmology; "Dunes Iron Lady of the Year Award", Best Team Winner (Judges Choice), Most Educative Winner (Judges Choice), Best Team Winner (Audience Choice) & Most Innovative Winner (Audience Choice) 2023 in the "Festival Du Film Dunes" 2023 by the Jaipur Ophthalmological Society at Jaipur, Rajasthan; Awarded "The Asian Eye Pallikaris Oration Award" for life time contribution for academics in Refractive Surgery by the Maharashtra Ophthalmological Society (2023) at Pune, Maharashtra; Honorary Chairperson, Scientific Committee, All India Ophthalmological Society (AIOS)); President, Cornea Society of India (CSI); Vice-President, Eye Bank Association of India (EBAI); Vice-President, National Society for the Prevention of Blindness (NSPB); General Secretary. Ophthalmic Research Association (ORA), RP Centre, AIIMS; Chairperson Scientific Committee of Indian Society of Cornea and Keratorefractive Surgeons, (ISCKRS); Chairperson, Academic & Research Committee at Dr Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS; Chairperson & In-charge OT, Operation Theatre Committee (Main OT & Day Care) at Dr Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS; Co-Chairperson of the Infection Surveillance & Monitoring Committee at Dr Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS; Co- Chairperson, Eye Banking & Eye Donation, Dr Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS; Executive Member of Cornea Society of India (CSI); Member of Women Ophthalmic Society (WOS) and Intraocular Implant and Refractive Society of India (IIRSI); Ex-General Secretary, All India Ophthalmological Society (AIOS)); Ex- Secretary of Delhi Ophthalmological Society(DOS); Ex-Secretary of Eye Bank Association of India (EBAI); Has been the principal investigator in many multicentric international,

FDA trials, and numerous randomized controlled clinical trials, which have changed the clinical practice patterns in the field of Cornea, Cataract & Refractive Surgery.

Professor Tanuj Dada received Special Recognition Award by World Glaucoma Association; Appointed to Editorial board American Journal of Ophthalmology and International Glaucoma Review; Appointed as Associate Editor Journal of Glaucoma; Board of Directors Asia Pacific Glaucoma Society; Board of Governors World Glaucoma Association.

Professor Neelam Pushker won 'Runner-up Award' for a video presented on - 'Surgical removal of external angular dermoid cyst - a scarless novel technique' in South Asian Academy of Ophthalmology Conference, held from 15 to 17 September 2023 in Ukulhas, Maldives; She conducted an 'Interactive Session' as Chief Instructor on 'Eyelid coloboma reconstruction' in World Society of Ophthalmic Plastic, Reconstructive & Aesthetic Society Conference held from 5 to 7 May 2023 in Dubai, UAE; She also conducted an 'Instruction Course' as Chief Instructor on 'Grafts in Oculoplasty - a Video Based all in one Course' in All India Ophthalmology conference held from 11 to 14 May 2023 in Kerala, Kochi.

Professor T Velpandian was Member, Ethics Committee (Basic Sciences), AIIMS (2016- till date); Member (Pharmacologist) Institute of Home Economics, Delhi University. (2019-till date); Member (Pharmacologist) South Asian University, New Delhi (2020-till date); Member (Pharmacologist) INMAS, DRDO, Delhi (2019-till date); Member, Animal ethics committee - South Asian university, New Delhi (2016- till date); Member - ICMR Task force on Innovations and Translational research - 2018-till date; Member, Bio-Hazard panel of FSSAI (GOI), FDA Bhawan, New Delhi 2017 - till date (second term); Expert Member in Project Monitoring committee - BIRAC 2019-till date; Chairman - Quality control committee- Main Hospital Store-AIIMS; Member - Dean Research Committee; Member - PRG Review Committee, ICMR; Member - Scientific Advisory Board, National Dope Testing Laboratory; Member - Committee for setting up optometry college at AIIMS; Member - Technical Advisory Committee, ICMR; Member - Project Screening Committee (PSC), ICMR; Expert - Faculty Interview Panel, Nepal.

Professor Praveen Vashist was Editor of the Textbook of Community Ophthalmology published by Taylor and Francis; Managing activities of WHO Collaborating Centre for Prevention of Blindness at RP Centre; Expert for Consultation WHO SEARO and IAPB Regional meeting Accelerating Actions on Eye Health to Achieve 2030 targets; Organized WHO-India program for training NCD teams for screening of Diabetic Retinopathy at primary and secondary level in three districts of Rajasthan; Technical expert for National Programme for Control of Blindness; Member secretary for a central task force committee at national level for assessing elimination of Trachoma cases from the country; Member for Digitization of IEC/Health Education material to finalize the messages and information contained in the IEC/Health Education materials; Resource person of training programme of Medical Officers in Delhi NPCBVI Programme; Examiner in the PGDPHM by National Institute of Health and Family Welfare (NIHFW); Member of the GOI_AIIMS project on Artificial Intelligent on "Diabetic Retinopathy"; Member of NPCB&VI committee for provide technical assistance in developing benchmarks for States/UTs wise verification cataract backlog free claims; Mentoring the Low Vision and primary eye care services at 2 Regional AIIMS and 2 RIOs under the project "ROSHINI; Developed primary eye care services through 20 vision centers in Delhi and NCR region with facilities of Refraction, Screening for cataract, Diabetic retinopathy screening, ASHA workers involvement; Developed linkages with 74 NGOs/Blind School in Delhi for community-based rehabilitation (CBR); Member of the Selection of candidates for admission for Ph.D. Program in RP Centre; Member of the ICMR screening committee for selection for the post of Scientist (Medical); National Advisor in the editorial board of UCMS Journal of Medical Sciences; Member of AIOS Vision 2030 Committee; Awarded Distinguished Ophthalmic Teacher of India award in the Seventh National Assembly of FOTI; Secretary of Vision 2020 Right to Sight - India,; Chairman Award Committee in Association of Community Ophthalmologist in India; Resource person in DOS Teaching Programme at Dr R.P. Centre, AIIMS, New Delhi; Invited by India International Centre, Delhi for a talk on Rehabilitation and schemes for blind and visually impaired; Invited as a keynote speaker on Eye Health and Ageing organized by HelpAge India; Invited by Us based NGO "Ek kadam Aur" as Chair and resource person for session on Prevention of Blindness; Nodal officer for annual report of RPCentre; Professor In charge, Recruitment cell, AIIMS New Delhi; Nominated as a Central Public Information Officer, Central Assistant Public Information Officer & First Appellate Authority for Recruitment cell AIIMS; Involved in Ministry of Health and Family Welfare on Prime Minister Recruitment Drive; Member of a committee for assessment of proposal for standing finance committee received from various departmental for creation of posts; Member of the cadre review committee for AIIMS New Delhi under Ministry of Health and family welfare.

Professor M Vanathi received KC Singhal Award 2024; Achievement award AIOS 2020-2024; Elected Editor Indian Journal of Ophthalmology 2023-2026.

Professor Rajesh Sinha participated in PK Jain Oration at Delhi Ophthalmological Society; PK Sinha Oration at Bihar Ophthalmological Society; Certificate of Appreciation by Seventh National Assembly of FOTI January 2024.

Professor Bhavna Chawla received Extraordinary Academic Excellence Award by the Forum of Ophthalmic Teachers of India; Dr PN Sinha Oration Award at BOSCON Diamond Jubilee by Bihar Ophthalmological Society; Treasurer, International Society of Ocular Oncology; Section Editor, Yanoff's Advances in Ophthalmology and Optometry; Chairperson, International Society of Ocular Oncology Conference, 21-23 August 2023, Mombasa, Kenya; Senior Instructor, American Academy of Ophthalmology Annual Meeting, November 3-6, San Francisco, USA; Chairperson, ISOO Virtual MEETING, 6 January 2024; Invited Speaker, APVRS 2023, Hong Kong, 8-10 December 2023; Invited Speaker, APAO 2024 Congress, Bali, Indonesia, 22-25 February 2024; Invited Faculty, Co-chairman and Judge, AIOC Conference, May 2023, Kochi; Invited Faculty, Chairperson and Speaker, 74th Annual DOS Conference, March 2024; Invited Faculty, Convener and Speaker, DOS mid-term conference, September 2023; Expert Panelist, Cancer Survivors Day Celebrations, AIIMS, New Delhi, June 2023; Invited Faculty, AIOS-ARC PG Refresher Course, AIIMS, New Delhi, March 2023; Speaker, 57th Annual Foundation Day Celebrations, RP Centre, AIIMS, New Delhi; External Examiner for Delhi University 3rd Examination at Maulana Azad Medical College, New Delhi, March 2024; Subject expert, Faculty Promotion Assessment Scheme, IGIMS Patna, December 2023.

Dr Noopur Gupta was Global expert from India for PBKC Study Group in the field of pediatric and ocular surface disease, to participate in an International Delphi Method Consensus Study on Pediatric Blepharokeratoconjunctivitis (BKC) with an aim to unify the definition, diagnostic criteria and therapeutic outcomes; Jury member and Judge for the Annual awards for member hospitals of India under Vision 2020: Right to Sight, India; Global expert and member of the Public Awareness Subcommittee on Dry Eye for TFOS Workshop, entitled "A Lifestyle Epidemic: Ocular Surface Disease." This Workshop is one of the most recent initiatives of TFOS, which was created to advance the research, literacy, and educational aspects of the scientific field of the tear film and ocular surface; Expert at the Leadership Exchange on Public Private Partnership for Clear Vision India in an effort to reduce the burden of visual impairment due to refractive error; Nominated as Ophthalmology Expert for Project Review Committee Meeting for the field of Ophthalmology for reviewing intermediate grants, ICMR fellowships and extramural projects under Clinical Studies and Trials Unit (CSTU), ICMR; Invited by WHO headquarters as an expert in the field to develop and finalize the survey protocol for assessing effective cataract surgical coverage (eCSC) and effective refractive error coverage (eREC) as indicators for universal eye health coverage and integrating hearing indicators globally; Invited for honorary membership of Epidemiology Foundation of India; Expert evaluator for The Wellcome Trust DBT India Alliance Fellowship; External Thesis Evaluator for MD Ophthalmology, December 2023 at AIIMS, Bhopal; Training of trainers for TT survey, India with experts from WHO headquarters, regional and India office along with tropical data team and global trachoma mapping project at ICEH, London, UK; As a national expert, for developing guidelines and providing expert inputs to Ayushman Bharat scheme and Niti Ayog packages under Department of Health Research, Govt of India; Faculty mentor of house of residents who won the RPC competitive quiz held during September 2023; Instrumental in developing recommendations for global elimination of trachoma and assessing outcomes of corneal transplantation in eliminating corneal blindness due to trachoma as WHO Global Trachoma Expert; 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 Ministry of Health and Family Welfare, Directorate General of Health Services, Government of India; Expert Reviewer Survey manual on WHO Sensory Functions Survey Manual in collaborationwith Vision and Eye Care Programme, World Health Organization, Geneva, April 2023; Expert for the National Monitoring Committee for monitoring and reporting of Trachoma cases in states for elimination of Trachoma from the country by the year 2020 by the Ministry of Health and Family Welfare, Directorate General of Health Services, Government of India; Consulting Advisor for Community Eye health Journal for the SEARO Region as a Board Member of South Asia Advisory Committee.

Dr Rohan Chawla was appointed Associate Editor (Retina) of Indian Journal of Ophthalmology in 2023; Best Poster Podium Presentation Award (Pediatric Ophthalmology) - Tripathi M, Rajpal, Chawla R, Chandra P. Comparison of low dose vs half dose Ranibizumab in Aggressive Retinopathy of Prematurity. AIOC24, Kolkata [14-17 March 2024]; IJO GOLD Award (Original Article- Regani H, Chandra, P, Kumawat, D, Chawla, R, Agarwal R, Vohra R. Role of additional posterior barrage laser in type 1 zone 2 retinopathy of prematurity: A randomized trial. Indian J Ophthalmol. 2023. 71(11): p 3460-3464.)

Dr Swati Phuljhele Alok was Internal Examiner for MD Ophthalmology exam May 2023; Asia Pacific Association of Ophthalmology Achievement Award 2024; Examiner for FAICO - Neuro-Ophthalmology Exam; External Examiner for MBBS, AIIMS, Bilaspur; External Examiner for MBBS, Delhi University; Joint Secretary Indian Neuro-Ophthalmology Society; Launched Indian Journal of Neuro-Ophthalmology as Managing Editor; Chairperson in various sessions in national conferences; Judge for free paper and poster presentation at various national conference; Co-convenor Free paper Neuro-ophthalmology, Annual conference of All India Ophthalmology Society May 2023; Thesis "Assessment of retinal sensitivity and structural integrity in optic neuritis" won the best abstract presentation at prestigious international "North American Neuro-Ophthalmology Conference. March 2023".

Dr Vinod Kumar received IJO appreciation certificate as one of the top 25 cited papers of IJO for the year 2021; IJO Reviewer Commendation AWARD for the year 2023.

Dr Rachna Meel was Member Editorial board IJO; Meel R, Kavya S, Pushker N, Vanathi M. Evaluation of collagen matrix implant in ocular surface reconstruction: a pilot study. 2nd AIOS Mid term conference, Vizag convention centre, 13-15 October. Vizag, Andhra Pradesh, India (BEST PAPER AWARD).

Professor Suraj Singh Senjam was awarded the "Outstanding Ophthal Teacher of India" by the President of FOTI 1 April 2023 at FOTI Rohtak 2023 Sixth Annual Assembly of Forum of Ophthalmic Teachers of India (FOTI) and PAN India Ophthalmology Group; Guest Academic Editor, Frontier in Public Health 2024, "visual Disabilities, Vision rehabilitation and Assistive Technology for vision loss"; Guest Academic Editor of PloS One 2024 to handle a manuscript The Australian Eye and Ear Health Survey (AEEHS); An invited special guest lecture to deliver "Assistive Technology: what's new for visual loss" in CME organized by dept. of Ophthalmology, JLN Medical College, Ajmer, Rajasthan, India, March 2024; Received Travel Grant from DST, Govt. of India, February 2024 for APAO Conference 2024, Bali Indonesia; Chaired a scientific Session at Asia Pacific Ophthalmic Congress March 2023, APAO Kuala Lumpur; Honored an award Professor SM Ali Endowment Indo Bangladesh Friendship International Awards 2024, at S. F. Mujib Eye Hospital Gopalganj Bangladesh; Served as Nodal Technical Officer of rATA (Rapid Assistive Technology Assessment) in India under ICMR, New Delhi 2023-25; Served as an Expert member for site visit and inspection of DBT-funded Assistive Technology Startup in India 2023 Printed by Dr Senjam Suraj Singh, Professor, Community Ophthalmology on 23 April 2024 at 07:14:02 Page 2/13; Served as a Technical Working Committee Member, WHO Global Network for measuring access to AT, 2023; Expert observer for Assistive Technology Priority List (APL) development in India under ICMR, New Delhi, 2023; Nominated by AIIMS New Delhi for Advanced training for Medical Devices Development and Social Implementation in JAPAN supported by JICA, 2023; Invited for a guest lecture at the National Conference of Indian Association of PMR, 2023 organized by RIMS Imphal; Invited to deliver a scientific lecture on Assistive technology for visual impairment at APAO 2023 Congress, Kuala Lumpur; An Expert member of the WHO Rapid Assistive Technology Assessment (rATA) study group in Geneva; Served as an Expert member of the National Strategic Action Plan for Assistive Technology, India to be developed by the WHO Country Office under the aegis of NITI Aayog India 2023; Invited for a lecture in Assistive Technology: the current perspective in India in a meeting in NLEAP organized by ICMR at AIIMS Guhawati March 2024; Invited ad expert panel in a discussion on "Accessibility and Assistive Devices" are crucial for Viksit Bharat, organized by ICMR new Delhi on 27 March 2024.

Dr Vivek Gupta was awarded for Hooper Prize and Gordon Johnson for "Best Project of the Year" 2022 award by London School for Hygiene and Tropical Medicine on M.Sc Public Health for Eye Care programme For individual faculty members.

Dr Neiwete Lomi was awarded the AIIMS Oncology Research Award in recognition of outstanding publication under the category: Basic Sciences titled "Prognostic impact of HERC2 protein and pink-eyed dilution protein in uveal melanoma"; Successfully participated on "Basic Course in Medical & Health Professions' Education" workshop held from 27-29 April 2023 CMET, AIIMS, New Delhi; Indian Journal of Ophthalmology (IJO) Ocular Oncology Section Editor; Participate in the consensus meeting on refractive errors and childhood blindness held on 6 January 2024 at RPC, AIIMS, New Delhi; Ophthalmology External Examiner for the 3rd Year MBBS (Part-I) Professional University Examination 30-31 January 2024 at NEIGRIHMS, Shillong, Meghalaya.

Dr Prafulla K Maharana received the prestigious Dr Ajit Babu Majji Award for young achievers from Odisha State Ophthalmic Society in November 2023.

Dr Dewang Angmo was awarded and inducted in APAO- Leadership Development Program (LDP) 23-24; APGS Young Investigator Award 2024; Reviewer for few Indexed International & National journals; Chief investigator for 1 Collaborative AIIMS-IRG Project and 2 Thesis Dissertations; Co - Investigator of 12 Thesis/Projects.

Dr Shikha Gutpa was Aln Candell Humanitarian Travel award (AGS, 2024); Trainee award to Dr Aayush Majumdar on unilateral congenital glaucoma (UKPGS, 2024); Kaur M, Nair S, Titiyal JS. Long-term assessment of PC-IOL optic adherence and Nd:YAG capsulotomy rate of surface modified IOL. 81st All India Ophthalmological Conference (AIOC 2023), All India Ophthalmological Society. May 2023, Cochin, Kerala (Best Paer in Cataract session); Titiyal JS, Kaur M, Nair S, Premium IOLs in Posterior Capsular Rent: Rescue Techniques. American Academy of Ophthalmology (AAO), San Fransisco (USA) November 2023; Titiyal JS, Kaur M, Nair S, DMEK: How the Scroll Rolls. American Academy of Ophthalmology (AAO), San Fransisco (USA) November 2023; Kaur M, Titiyal JS, Nair S. A Tale of Two Descemets: iOCT to the Rescue. American Academy of Ophthalmology (AAO), San Fransisco (USA) November 2023.

Dr Manpreet Kaur was nominated for Leadership Development Program from state of Delhi. All India Ophthalmological Society Annual Meeting 2024-25. 13-17 May 2024. Kolkata, India; Best Video (Judges Choice). Ophthalmic Premier League. 74th Delhi Ophthalmological Society Annual Meeting. 29-31 March 2024. New Delhi, India; Runner Up (Best Team). Ophthalmic Premier League. 74th Delhi Ophthalmological Society Annual Meeting. 29-31 March 2024. New Delhi, India; Best Poster. Long-term visual and anatomical outcomes of presbyopic phakic intraocular lens. All India Ophthalmological Society Annual Meeting. 13-17 March 2024. Kolkata, India; International Heroes Award. 81st All India Ophthalmological Society Annual Meeting. 10-14 May 2023. Kochi, Karnataka, India; Winning team. Science & Fun in Ophthalmology. Intraocular Implant & Refractive Society of India Annual Meeting. 7-8 October 2023. New Delhi, India; Best Physical Poster. 3-Dimensional Heads Up Display in Phacoemulsification- Learning Curve and Challenges [FP206]. 81st All India Ophthalmological Society Annual Meeting. 10-14 May 2023. Kochi, Karnataka, India; AIOS Sante Vision Award 2023. Long-Term Assessment Of PC-IOL Optic Adherence And Nd:Yag Capsulotomy Rate Of Surface Modified IOL [FP205]. 81st All India Ophthalmological Society Annual Meeting. 10-14 May 2023. Kochi, Karnataka, India. [Col. Rangachari Award Session]; Top Video- Anterior Segment. Titiyal JS, Nair S, Kaur M. Premium IOLs in Posterior Capsular Rent: Rescue Techniques. All India Ophthalmological Society Annual Meeting. 13-17 March 2024. Kolkata, India (Selected for CS Reshmi Session); Top Video (Co-author). Titiyal JS, Kaur M, Nair S. Intraoperative Optical Coherence Tomography Guided Management of Post-Lasik Epithelial Ingrowth [VT63]. 81st All India Ophthalmological Society Annual Meeting. 10-14 May 2023. Kochi, Karnataka, India. (Selected for CS Reshmi Session); External Examiner- AIOS FAICO Examination - Cornea- January 2024; Recipient of DST Travel Grant 2023.

Dr Amar Pujari presented Best poster at AAPOS annual meeting. New York. USA. 2023; Invited speaker by British Isles Pediatric Ophthalmology and Strabismus Association during their annual conference 2023. London, UK; International hero by AIOS 2024.

Dr Devesh Kumawat got admission as a fellow of the Royal College of Ophthalmologists, London (FRCOphth); International Heroes Award at AIOC 2024 held in March 2024.

Professor MS Bajaj was appointed Judge for AIIMS Research Day; Appointed Chairman MD Examinations at RP Centre, AIIMS; Chairperson Session on Oculoplasty and Oncology in Annual AIOS Kolkata; Chairperson Session on Oculoplasty and Oncology in Annual DOS; Chairperson Session on Oculoplasty and Oncology in Oculoplasty Workshop and R P Centre Scientific program for foundation day; She has been appointed as AIOS FAICO Examiner for Oculoplasty subspecialty, 2023-24.

Dr Rebika was Associate Editor, Frontiers of Ophthalmology-"Paediatric Ophthalmology & Strabismus" section;; Editorial Board, Indian Journal of Ophthalmology (IJO)-"Strabismus and Neuro-ophthalmology" section; Section Editor in Indian Neuro-ophthalmological Society (INOS) newsletter.

Dr Sahil Agrawal was Coordinator for MD Ophthalmology Exams May 2023; Link Officer I/c for BSc Optometry Courses, AIIMS, New Delhi; Member Secretary of Committee for College of Optometry; International Heroes Award at the 81st Annual Conference of ALL INDIA OPHTHALMOLOGICAL SOCIETY 2023; Awarded with Excellence in Teaching Trophy at the Annual Conference of FOTI 2024; Best Video (Oculoplasty) Award at the Annual Conference of Delhi Ophthalmological Society 2024; Member LOC for 7th National Assembly of Forum of Ophthalmic Teachers of India 2024 at RP Centre, AIIMS.

Visiting Scientists (lectures delivered) in the year 2023-24 (1 April 2023 to 31 March 2024)

Lectures delivered

1. International Guest Lecture on "**Implementing Effective Quality Projects in Ophthalmology**" by **Dr Erick Bouthan, Professor, Mayo Clinic, Rochester, USA**, 12 March 2024 (Tuesday)
2. Guest Lecture on "**Prevention of sexual harassment at workplace**" by Dr Poonam, Hospital Administration, 30 January 2024 (Tuesday)
3. International Guest Lecture on **"Contemporary challenges and efficient delivery of Health care services to the citizens- British and Indian experiences"** by Mrs Pardip Grewal, Senior Service Manager Ophthalmology, ENT and Oral Surgery, Hillingdon Hospital NHS, 18 December 2023 (Monday)
4. International Guest Lecture on "**Older dog, newer tricks: Innovative practices in my strabismus surgery care"** by **Dr Erick Bouthan, Professor, Mayo Clinic, Rochester, USA**, 8 August 2023 (Tuesday)

10.4 Jai Prakash Narayan Apex Trauma Center

Chief

Rajesh Malhotra (till 15 June 2023)
Kamran Farooque (w.e.f. 16 June 2023)

Additional Medical Superintendent

Sanjeev Lalwani

Professors

Anaesthesiology	Laboratory Medicine	Forensic Medicine
Babita Gupta	Arulselvi S	Sanjeev Lalwani
Chhavi Sawhney	Purva Mathur	Adarsh Kumar
Trauma Surgery	**Neurosurgery**	**Orthopaedics**
Sushma Sagar	Deepak Agrawal	Kamran Farooque
Subodh Kumar	Deepak K Gupta	Vijay Sharma
Amit Gupta	GD Satyarthee	Buddhadev Chowdhry
Biplab Mishra	Pankaj Kr Singh	Vivek Trikha
Radio diagnosis	**Neuroanaesthesia**	**C&I care**
Shivanand G	Ashish Bindra	Kapil Dev Soni
Atin Kumar	Gyanendra Pal Singh	Richa Aggarwal
	Niraj Kumar	
	Keshav Goyal	
	Navdeep Sokhal	
Paediatric surgery	**Emergency Medicine**	**Nephrology**
Shilpa Sharma	Sanjeev K Bhoi	Bagchi Soumita K
	Obstetrics & Gynaecology	
	Garima Kachawa	

Additional Professors

Emergency medicine	Trauma Surgery	Orthopaedics
Tej Prakash Sinha	Pratyusha Priyadarshini	Samarth Mittal
	Abhinav Kumar	
	Narendra Choudhary	
	Dinesh Kumar Bagaria	
	Urology	
	Siddharth Jain	

Associate Professors

Anaesthesiology	Trauma Surgery	Transfusion Medicine
Yudhyavir Singh	Junaid Alam	Rahul Chaurasia

Assistant Professors

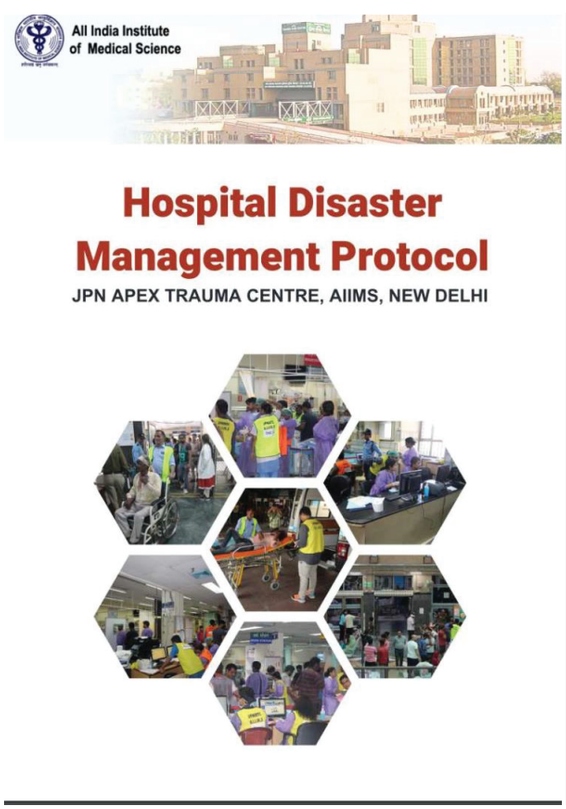
Forensic medicine	Psychiatry	Plastic Surgery
Swati Tyagi	Nishtha Chawla	Suvashis Dash

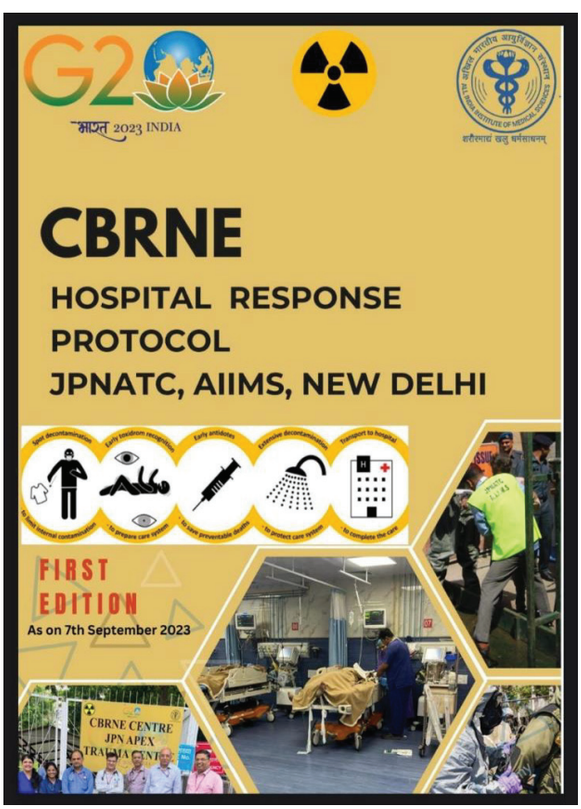
Hospital Administration	Orthopaedics	Anaesthesiology
Anant Gupta	Nishank Mehta	Abhishek Singh
Mohammad Kausar	Asjad Mahmood	Sharmishtha Pathak
	Arvind Kumar	Riniki Sarma
	Garika Siva Srivastava	Anjishnujit Bandyopadhyay
Emergency Medicine	**Lab Medicine**	**Neurosurgery**
Vineeth Chandran KP	Aparna Ningombam	Gour Surya Sri Krishna
Ritin Mohindra (till 8 May 2023)	(till 18 January 2024)	Kokkula Praneeth (till 23 September 2023)
	Tapasyapreeti Mukhopadhyay (till 17 January 2024)	Raghav Singla (till 2 January 2024)

HIGHLIGHTS

JPNATC continue to foster state-of-the-art trauma care in the country. There has been a significant rise in the number of complicated cases, with opening up of chest trauma clinic, PAC clinic, and nutrition clinic at the OPD premises this year. New waiting hall was inaugurated by the honorable Director, of AIIMS, New Delhi. Various other activities are highlighted below:

Development of Hospital Disaster Management Protocol and CBRNE Protocol: During this year, as a part of G20 preparations, JPNATC was designated as the center for managing CBRNE disasters (chemical, biological, radiological, nuclear and explosive). There were multiple training sessions and mock drills conducted in the trauma center to make the staff aware and prepared for managing CBRNE disasters. Also, an institutional protocol was formulated for managing such kinds of disasters. Also, there were many structural changes made and new facilities built up inside the ED and in the premises of ED for triaging, decontaminating and managing the patients involved in CBRNE disasters.







Training of CATS personnel to strengthen emergency preparedness during G20 Summit

Drowning Prevention National Framework Launch of India's FIRST-EVER Drowning Prevention Framework: Our WHO Collaborating Centre has been a key stakeholder, partnering with MoHFW& WHO, working on this pivotal strategic framework. The collaborative efforts not only reinforce our commitment to national drowning prevention but also extend globally. A few years back, under this same partnership, WHO CCET (World Health Organization Collaborating Centre for Emergency and Trauma Care), Department of Emergency Medicine, JPNATC AIIMS New Delhi contributed to the development of the WHO Drowning Prevention Framework for the South East Asia Region.







Visit of Jean Todt - UN secretary General's Special Envoy for road Safety



Meeting with District collector and CMO of Ayodhya







Champions of Change for Chhattisgarh Workshop: Strengthening Integrated Emergency and Injury Care System for the state of Chhattisgarh through Champions of Change. The transformative workshop, “Champions of Change for Chhattisgarh, “ spanning from 29 March to 2 April 2024, was successfully concluded by our WHO CCET (World Health Organization Collaborating Centre for Emergency and Trauma Care), **Department of Emergency Medicine, JPNATC AIIMS New Delhi aimed at fortifying the state’s emergency care system thereby augmenting the quality of healthcare services provided. In collaboration with WHO India, Government of Chhattisgarh & Health Systems Transformation Platform (HSTP**). From the tribal heartland of SUKMA to the bustling hub of DURG, a dedicated team comprising Chief Hospital Superintendents (Parichalak Saahab), Nodal Officers, Staff Nurses, and Hospital Managers (Aspatal Mejar) from 11 District Hospitals came together for a 5-day immersive workshop on “Specially designed Emergency & Injury care System building, “ held from 29 March to 2 April 2024. Through a combination of human-centric approaches such as (team building and motivation), soft-skill workshops, knowledge sessions, skill-based training, simulation activities, and focus group discussions, they were prepared to drive impactful change in emergency and trauma care throughout the state.





World Trauma Day was celebrated on 17 October 2023.

Participating in national team for INSARAG mission country certification





Visit of Dr Yutaro & Dr Hilde from Health system WHO India at JPNATC to see the best emergency care systems available at centre.



Institutionalizing swachhta and minimizing pendency special campaign 3.0 (3-31 October 2023)

Development Of BLS Centre and Road Safety Centres in Jaipur At The College Level facilitated the development of the FIRST EVER BLS Centre in Jaipur at the college level at Kanoria PG Mahila Mahavidyalaya. Till now, 4 BLS and road safety centers have been established at the college level under the joint efforts of our WHO Collaborating Centre, the Road Safety Cell (Transport Department, Jaipur) in Jaipur city. Last 6 months, our center developed more than 250 college teachers as trainers & trained more than 1500 college students from Jaipur City in BLS & other life-saving skills needed to handle health emergencies at the community level.



At the Jai Prakash Narain Apex Trauma Center, we wholeheartedly celebrate Poshan Maah every year, embracing this opportunity to raise awareness among our patients, society, and staff about the significance of healthy eating.

The month of celebration began with display of nutrition awareness posters on video screens and distribution of pamphlets throughout the trauma center. In alignment with **the 2023 International Year of Millet's initiative**, we served a nutritious millet-based lunch to all our admitted patients on a designated day, accompanied by informative sessions on the benefits of a millet-based diet.

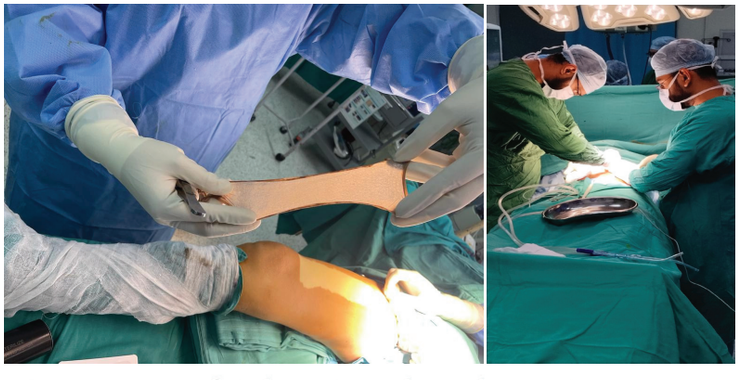
Later week, nutritious food bags containing fruits, protein biscuits, milk and curd-based food items were distributed to all the children admitted at JPNATC, AIIMS.







Total organs and tissues retrieved at JPNATC from April 2023 to March 2024: 74



She lives on: 78-year-old woman the oldest organ donor at Delhi AIIMS

Anuja.Jaiswal
@timesgroup.com

New Delhi: A 78-year-old woman became the oldest organ donor at Delhi AIIMS after her family members decided to donate her organs after she was declared brain dead. The woman had suffered serious injuries after falling from the stairs in her house in UP's Bulandshahr. This was the second cadaveric organ donation at AIIMS trauma centre within a span of 48 hours.

Maya Solanki's kidneys and liver have been allocated to two recipients: a 51-year-old woman at AIIMS and a 41-year-old man at ILBS Hospital, respectively. While her corneas have been banked at Dr RP Centre, her skin has been preserved in the skin bank.

In 2015, the family of a 75-year-old man from Aligarh donated his organs after he was declared brain dead due to intracerebral hemorrhage (ICH), a type of stroke caused by bleeding within the brain tissue.


Maya Solanki died after suffering serious injuries from a fall

Solanki's son, Rakesh Kumar, said his mother fell from the stairs at their home on December 19. She was taken to AIIMS trauma centre, but despite all efforts, she could not be saved. She was declared brain dead on December 21.

Talking to **TOI**, Kumar said, "My mother did charity work her entire life. She devoted herself to assisting those in need and often donated food and clothes to the less fortunate. When we got to know about "Aangdan Mahadan", we decided to donate her organs to the needy." This was the greatest tribute to her, he added.

Head of AIIMS trauma centre, Dr Kamran Farooque, said this was the 14th organ donation at a trauma centre this year. He said that people should come forward for organ donations. One can give a new lease of life to a critically ill person.

According to doctors, there is a myth that organs of the old can't be donated. The reality is that there's no defined age for donating organs and these can be successfully transplanted from donors in their 70s and 80s. The decision of using organs is entirely based on medical criteria, not age.

Brain death refers to the irreversible loss of brain functions, which must be certified by a team of experts in accordance with the law. Once a patient is declared brain dead, multiple organs and tissues can be harvested, including the heart, kidney, liver and pancreas, among others. However, the heart can be donated up to the age of 55-60 years only. On Wednesday, the family of a 53-year-old woman, Kanchan, from Faridabad, had decided to donate her organs after she was declared brain dead. The decision saved three lives.

Organs of 2 brain-dead patients to save 7 lives

Anuja.Jaiswal@timesgroup.com

New Delhi: Two brain-dead patients, including a 40-year-old woman, saved seven lives as their families opted for organ donation at AIIMS trauma centre. The multi-organ donations occurred within 48 hours.

After getting approval from both families, doctors retrieved one heart, four kidneys, two livers and four corneas. The corneas of both patients have been banked at Dr RP Centre, AIIMS. Additionally, the skin donated by the woman's family has been preserved in the recently-established skin bank at Burn & Plastic Centre, AIIMS.

All the organs were allocated through the National Organ and Tissue Transplant Organization (NOTTO). One liver and a kidney were allocated to AHRR Hospital, Delhi, one kidney to Safdarjung Hospital, while the heart, liver and two kidneys were transplanted to recipients at AIIMS.

According to doctors, 51-year-old Bacchu, from Bharatpur, Rajasthan, was admitted to Jai Prakash Narayan Apex Trauma Centre after he sustained injuries on a railway track in Palwal, Haryana on Jan 12.


GODSENDS: Maya and Bacchu

Despite best efforts, doctors could not save him and declared him brain dead on Jan 24.

Bacchu worked as a mason and is survived by his wife, a daughter (18) and a son (17).

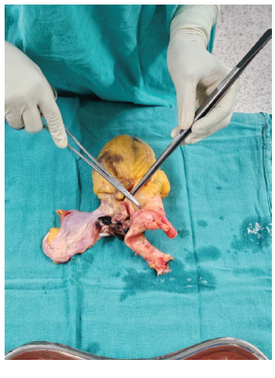
Another patient, Maya (40), who fell from the terrace of her house in Faridabad while working, was admitted to the trauma centre on Jan 23 and was declared brain dead on Jan 25. She was a religious lady and always ready to help others, said her family members.

Dr Aarti Vij, prof in-charge at Organ Retrieval Banking Organisation (ORBO), AIIMS, conveyed deep respect for the family's selfless decision, underscoring the "boundless potential for compassion within us all".

She said that the seamless coordination of counselling, brain death certification, and donor organ management was executed by the dedicated team of treating physicians, transplant coordinators & counsellors, neurosurgeons, anaesthetists, the transplant team, administrators, and forensic departments.

Fourteen organ donations took place at AIIMS trauma centre last year.

Brain death refers to the irreversible loss of brain functions, which must be certified by a team of experts as per the law. Once a patient is declared brain dead, multiple organs and tissues can be harvested, including the heart, kidneys, liver, and pancreas. However, the heart can be donated up to the age of 55-60 years only.



Every year, Jai Prakash Narayan trauma center's emergency experiences a huge surge of patients during the day of Holi festival. The preparations and conduct of mass casualty event management happen on a regular basis in the trauma center emergency department.

JPNATC received the National Accreditation Board for Hospitals & Healthcare Providers (Constituent Board of Quality Council of India).



National Accreditation Board
for Hospitals & Healthcare Providers
(Constituent Board of Quality Council of India)

CERTIFICATION

Jai Prakash Narayan Apex Trauma Center
J.P.N. Apex Trauma Center AIIMS
Ring Road, South Delhi
Delhi - 110029

has been assessed and found to comply with NABH Entry Level -Hospital requirements.
This certificate is valid for the Scope as specified in the annexure subject to continued compliance with the Entry Level requirements.

Valid from : October 04, 2023
Valid thru : October 03, 2025

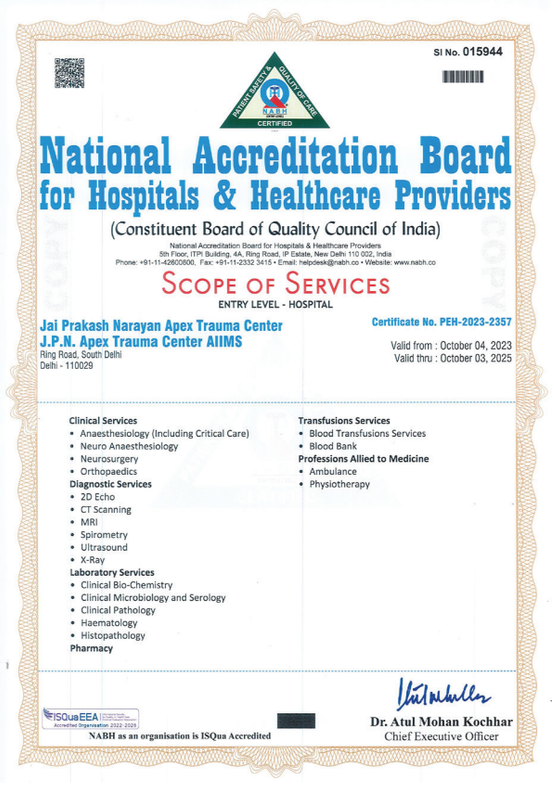
Certificate No.
PEH-2023-357

Dr. Atul Mohan Kochhar
Chief Executive Officer

National Accreditation Board for Hospitals & Healthcare Providers, 5th Floor, ITPI Building, 4A, Ring Road, IP Estate, New Delhi 110 002, India
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NABH as an organisation is ISQua Accredited



Sl No. 015944

National Accreditation Board
for Hospitals & Healthcare Providers
(Constituent Board of Quality Council of India)

National Accreditation Board for Hospitals & Healthcare Providers
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SCOPE OF SERVICES
ENTRY LEVEL - HOSPITAL

Jai Prakash Narayan Apex Trauma Center
J.P.N. Apex Trauma Center AIIMS
Ring Road, South Delhi
Delhi - 110029

Certificate No. PEH-2023-2357
Valid from : October 04, 2023
Valid thru : October 03, 2025

Clinical Services
- Anaesthesiology (Including Critical Care)
- Neuro Anaesthesiology
- Neurosurgery
- Orthopaedics

Diagnostic Services
- 2D Echo
- CT Scanning
- MRI
- Spirometry
- Ultrasound
- X-Ray

Laboratory Services
- Clinical Bio-Chemistry
- Clinical Microbiology and Serology
- Clinical Pathology
- Haematology
- Histopathology

Pharmacy

Transfusions Services
- Blood Transfusions Services
- Blood Bank

Professions Allied to Medicine
- Ambulance
- Physiotherapy

Dr. Atul Mohan Kochhar
Chief Executive Officer

NABH as an organisation is ISQua Accredited

EDUCATION

List of academic activities

- Training of Code Blue to the Residents, Nursing and paramedical staff
- AHA accredited BLS and ACLS training
- Basic life support training to undergraduates from various institutes across India
- Emergency life support training for CMOs/Doctors from Delhi for G20 summit
- Conducted multiple training sessions in trauma care for doctors from Border roads organization (BRO) by Anesthesiology team.
- Four (04) senior residents from various institutes joined as observer in neuroanaesthesiafor short term training of 1 month each
- Triage Protocol Workshop for doctors, nurses and paramedics by emergency medicine
- Basic ECG Workshop for Nurses by emergency medicine
- Tactical Combat Casualty Care Course for CRPF and BSF Jawans by emergency medicine
- Capacity Building for the Strengthening Emergency Care in Primary Health Care Setting for doctors, nurses and paramedics by emergency medicine
- System Strengthening workshops at state level by emergency medicine

CMEs/Workshops/Symposia/National and International Conferences

1. A two-day sensitization workshop on “HAI surveillance”, 16-17 January 2024, NCDC, Delhi
2. A pre-CME cum workshop “Healthcare-associated infections: Surveillance, Data Analysis and Quality Improvement based Prevention (CDC)”, 23 November 2023, MICROCON-2023 (46th Annual Conference of Indian Association of Medical Microbiologists), A.B. Vajpayee Scientific Convention Centre, KGMU, Lucknow

3. A two-day in-house workshop on "AMR Data Management and Evaluating Early Warning Signals of HAI Outbreaks using WHONET 2023", 31 October to 01 November 2023, Microbiology Lab at JPNATC, AIIMS, New Delhi
4. A team meeting was conducted virtually on the "HAI Surveillance Benchmarking Call" on 17 October 2023, Virtual
5. A workshop of the "National Training of Trainers (TOT) to Strengthen Infection Prevention and Control", 7-8 September 2023, Hotel Radisson, Udyog Vihar, Gurugram
6. A two-day workshop "NCDC Training on Surveillance of Healthcare-Associated Infections", 5 -6 of September 2023, Virtual
7. Acute Neuro Care Train the Trainer Workshop- 18-19 November 2023, JPNATC, AIIMS, New Delhi
8. AIIMS Pelvi-Acetabular Trauma Update, 15-17 March 2024, JPNATC, AIIMS
9. Basic Principles of Pelvi-Acetabular Fracture Fixation with Cadaveric Exercise on 3 November (Friday), 2023, JPNATC, AIIMS, New Delhi
10. Delhi Orthopedic Association (DOA) 3rd Quarterly Meet on 30 September 2023 at 4th floor, Surgical Disciplines Block, AIIMS, New Delhi
11. HAI Surveillance Workshop to provide training on HAI surveillance including BSI, UTI, VAP and SSI and Data Management, 30-31 May 2023, Virtual
12. IPCAF Sensitization Workshop training to provide training on the use of IPCAF tool, 29 May 2023 to 9 June 2023, Virtual
13. Midterm CME of Society for Emergency Radiology on the theme of Imaging in Trauma' at JPNATC on 17 March 2024. It was attended by 135 delegates
14. Neuromonitoring Workshop during 70th Annual Conference of ISA (ISACON 2023), 22 November 2023, JPNATC, AIIMS, New Delhi
15. Workshop on HAIS Web Application to provide hands-on training on HAIS web application, 24 July 2023, NCDC, Delhi
16. EM SONO – Emergency sonography held on 9-10 February 2024, JPNATC, AIIMS, New Delhi
17. 8th AIIMS Ultrasound-guided regional anesthesia (AURA) workshop conducted on 24-25 February 2024
18. EM SONO – Emergency sonography held on 18-19 March 2024, JPNATC, AIIMS, New Delhi
19. Pediatric radiology and suturing held on 23 March 2024, JPNATC, AIIMS, New Delhi
20. Champions of Change for Chhattisgarh, held from 29 March 2024 to 2 April 2024, JPNATC, AIIMS, New Delhi

Cadaveric courses conducted during April 2023-March 2024

1. International Head and Neck dissection course, ENT, Dr Rajiv, 1-5 April 2023
2. AIIMS Facial Plastics and Rhinoplasty ENT, Dr A Kairo, 21-23 April 2023
3. North Zone Orthopedic Association-Technological and surgical advances in orthopedics, Ortho, Dr Samarth, 12 May 2024
4. Robotic Surgery, Surgical Discipline, Dr V Seenu, 12 August 2023
5. Endoscopic Spine surgery & Craniovertebral junction surgery, NSx, Dr Duttaraj, 13 September 2023
6. Cadaveric workshop on pelvis and acetabular fracture (DOACON-2023), Ortho, Dr Samarth, 2 November 2023
7. Current Concept in Arthroplasty-23, Ortho, Dr Vijay D, 1 December 2023
8. 8th AIIMS Ultrasound -guided Regional Anesthesia Workshop(AURA 2024), Anesthesia, Dr Babita, 24-25 February 2024
9. AIIMS Pelvi-Acetabular Trauma Update, Ortho, Dr Vijay Sharma, 17 March 2024
10. 3rd Spine deformity course, Ortho, Dr Nishank, 21 March 2024

11. AIIMS Cadaveric Airway workshop, Anesthesia, Dr Parin Lalwani, 31 March 2024

Lectures delivered: 685

Abhinav Kumar: 15 | **Abhishek Singh: 6** | **Adarsh Kumar: 10**
Amit Gupta: 57 | **Anant Gupta: 12** | **Anjishnujit Bandyopadhyay: 7**
Arvind Kumar: 2 | **Ashish Bindra: 9** | **Asjad Mahmood: 2**
Atin Kumar: 26 | **Babita Gupta: 10** | **Biplab Mishra: 6**
Chhavi Sawhney: 3 | **Deepak Kumar Gupta: 33** | **Dinesh Kumar Bagaria: 9**
Garima Kachhawa: 7 | **Gour Surya Sri Krishna: 2** | **Gyaninder Pal Singh: 4**
Junaid Alam: 2 | **Kamran Farooque: 15** | **Kapil Dev Soni: 21**
Keshav Goyal: 9 | **Mohammad Kausar: 6** | **Narendra Choudhary: 16**
Navdeep Sokhal: 5 | **Niraj Kumar: 8** | **Nishank Mehta: 10**
Nishtha Chawla: 3 | **Pratyusha Priyadarshini: 5** | **Purva Mathur: 14**
Rahul Chaurasia: 5 | **Richa Aggarwal: 10** | **Riniki Sarma: 8**
S Arulselvi: 2 | **Samarth Mittal: 73** | **Sanjeev Kumar Bhoi: 34**
Sharmishtha Pathak: 9 | **Shivanand Gamanagatti: 15** | **Siddharth Jain: 4**
Siva Srivastava Garika: 3 | **Subodh Kumar: 10** | **Soumita Bagchi: 4**
Sushma Sagar: 17 | **Suvashis Dash: 14** | **Swati Tyagi: 1**
Tej Prakash Sinha: 41 | **Vijay Sharma: 31** | **Vineeth Chandran KP: 38**
Vivek Trikha: 20 | **Yudhyavir Singh: 12**

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
250	383	685

Oral papers/posters presented: 128

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
72	117	128

RESEARCH

Funded projects

Ongoing

1. Assessment of markers of Preeclampsia after delivery and correlation with future risk factors of cardiovascular disease in women, Dr Garima Kachhawa, ICMR, 3 Years, 1 December 2022, 30 November 2025, Rs 40,400,92
2. 3D print assisted reduction and internal fixation for calcaneal fractures, Dr Asjad Mahmood, AIIMS, 2 Years, 2024-26, Rs 5,00,000
3. A multi-centre, randomized, double-blind, placebo-controlled, parallel-group, phase III study to evaluate the efficacy and safety of LNP023 in primary IgA nephropathy patients, Soumita Bagchi, Novartis Ltd, 5 Years, 2021-26, Rs 5,88,000 per year (CRC salary) + Rs 2,00,000 per patient
4. A multicentre, randomized, double-blind, parallel-group, placebo-controlled study to evaluate the efficacy and safety of iptacopan (LNP023) in complement 3 glomerulopathy, Soumita Bagchi, Novartis Ltd, 2 Years, 2022-24, Rs 5,59,000 per year (CRC salary) + Rs 2,24,275 per patient

5. A Phase 2b/3, Multi-part, Randomized, Double-Blinded, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Atacicept in Subjects with IgA Nephropathy (IgAN), Soumita Bagchi, Medpace Clinical Research India Pvt. Ltd, 3 Years, 2024-27, Rs 5,31,363 per patient
6. A pilot parallel arm Randomized Control Trial evaluating the impact of Yoga intervention in treating post-traumatic limb fractures which develop Complex Regional Pain Syndrome (CRPS I) and assessment of their quality of life, Prof Vijay Sharma, ICMR, 3 Years, 2021-24, Rs 64,71,108
7. A pilot study to evaluate the functionality of Below Elbow Prosthesis (BIONICLI®) for essential Activities of Daily Living (ADL) in below elbow amputees following Trauma", Dr Sushma Sagar (PI), AIIMS-IIT collaborative Research under NCHAT project (ICMR), 1year, 2023-24, Rs 25,00,000
8. A Prospective Single Arm Post Market Clinical Follow-up study to evaluate the Safety and Performance of Radius system intended for Radius fracture fixation, Dr Samarth Mittal, Auxein Medical Pvt Ltd, 2 Years, 1 February 2024, 28 February 2026, Rs 5,50,000
9. A randomized control trial for evaluation of effects of leukoreduced blood transfusion on infection risk in severely injured trauma patients, Dr Rahul Chaurasia, AIIMS (Intramural), 5 Years, 2019-till date, Rs 10,00,000
10. A Study on development and piloting of Trauma ICU registry and comprehensive critical care for critically ill patients admitted to Trauma Intensive Care Unit of level-1 trauma center in India: A prospective observational Study, Dr Kapil Dev Soni, ICMR, 3 Years, 2022-25, Rs 33,15,100
11. Adaptive model to strengthen facility-based emergency care system for providing quality emergency care among red triage patients (Time-sensitive and other emergencies) at all levels of health care facilities, Dr Sanjeev Kumar Bhoi, ICMR, 3 Years, 2023-26, Rs 21,35,71,736
12. Analysis of Gut microbiome profile in acutely injured patients in predicting the clinical outcomes- A Prospective, cohort, and exploratory study, Dr Abhinav Kumar, Intra Mural Grant
13. Approaches and Decisions in Acute Pediatric TBI Trial, (ADAPT) USA, Dr Deepak Kumar Gupta, National Institute of Health, 10 Years, 2015-25, Rs 2,65,49,336
14. Biomechanical comparison of three different internal fixation methods in unstable femoral neck fractures: A Finite element analysis, Dr Samarth Mittal, AIIMS, 2 Years, 7 May 2022, 6 May 2024, Rs 4,80,000
15. Capacity Building and Strengthening of Hospital Infection Control to detect and prevent antimicrobial resistance in India, Dr Purva Mathur, CDC, 5 Years, 2021-26, Rs 12,60,00,000
16. Centre for advanced Research (CAR) in Hospital Acquired Infections-Prevention and Control, Dr Purva Mathur, ICMR, 5, 15 October 2020-25, Rs 7,53,35,152
17. Comparison of conventional reaming technique with reamer irrigator aspirator (RIA) for hemodynamic, cardiac changes and embolic load during fixation of shaft femur fracture using an intramedullary nail and estimation of osteogenic growth, Dr Samarth Mittal, ICMR, 3 Years, 29 September 2023, 28 September 2026, Rs 26,70,000
18. Developing intervention guide for psychological first-aid based on profile, needs, and experiences of patients presenting with self-harm in two tertiary centers: a mixed methods study, Nishtha Chawla, Intramural, 2 Years, 2023-25, Rs 6,20,000
19. Development and validation of robotic probe holder device for ultrasound-guided central venous canulation, Dr Niraj Kumar, DST, 3 Years, 2024, Rs 77,22,000
20. Development of an Artificial Intelligence- based app for remote delivery of speech therapy in cleft lip-palate patients (SWARA- "Speech-therapy With Artificial intelligence Remote Assistance- on-going work, Suvashis Dash, ICMR, 3 Years, 2023-26, Rs 79,00,000
21. Development of point of care Smartphone-based PT/INR Test to simplify, hasten identification of patients. coagulation status and its comparison with conventional coagulation method, Dr S Arulselvi, AIIMS- IIT Delhi, 2 Years, 2023-25, Rs 10,00,000
22. Digital Population Health Screening for Noncommunicable Diseases with remote devices system- A Pilot study, Suvashis Dash, NASSCOM, 1 Years, 2023-24, Rs 4,00,000
23. Dissecting the potential molecular signature by proteomics and metabolomics in predicting the clinico-radiological course of cerebral edema following traumatic brain injury, Dr Gour Surya Sri Krishna, ICMR, 3 Years, 2024-27, Rs 85,22,144 (AIIMS+IICT Hyderabad)

24. Effect of repeated verbal reminder of orientation on emergence agitation in adults undergoing dorso-lumbar spine surgeries under general anesthesia: A randomized controlled trial, Dr Anjishnujit Bandyopadhyay, AIIMS, 2 Years, 2024-26, Rs 2,37,000
25. Effect of sodium-hydrogen channel (NHE-1) inhibitor in hypoxic cardiac arrest-ICMR, Dr Tej Prakash Sinha, ICMR, 3 Years, 2024-27, Rs 62,38,200
26. Effectiveness of Institutional Physio therapeutic Intervention on Functional Movement, Strengthening and Flexibility Among School going Sports Children Aged 15-18 Years:- A Cluster randomised controlled trial, Dr Samarth Mittal, ICMR, 2 Years, 25 October 2023, 24 October 2025, Rs 55,80,000
27. Efficiency of CPAP machine - clinical testing, Dr Biplab Mishra, Amrit Meditech Pvt Ltd, 1 year, 2024, Rs 000/-
28. Efficiency of IR thermography machine Amrit flapsense, Dr Biplab Mishra, Amrit Meditech Pvt Ltd, 1 year, 2024, Rs 50,000
29. Enhancing the success and safety of endotracheal intubation by development of an innovative intubation system: A Pilot Project, Dr Babita Gupta, ICMR, 3 Years, 2021-24, Rs 55,00,000
30. Establishment of a fragility fracture Liaison Service at AIIMS: A multicentric study, Prof Vijay Sharma, ICMR, 3 Years, 2023-26, Rs 1,11,83,895
31. Evaluating the plasma biomarker level of Ang-2, RAGE and Clara cell protein (CC16) in chest trauma patients admitted in the ICU and its ability to predict the severity and outcome", Dr Yudhyavir Singh, AIIMS Research Section, 2 Years 2023-25, Rs 9,00,000
32. Evaluation of the water bath ultrasound technique (WBT) in the diagnosis of distal hand and foot injuries in the emergency department, Dr Tej Prakash Sinha, ICMR, 10 months, 2022-23, Rs 28,37,000
33. Impact of Ketamine versus Etomidate on Inflammatory Cytokines in Hemodynamically Unstable Patients Undergoing Laparotomy for Abdominal Trauma: A Randomized Controlled Trial, Dr Riniki Sarma, AIIMS Intramural grant, 2 Years, 2024-26, Rs 10,00,000
34. Impact of Psychosocial Intervention on Quality of Life and Stress Biomarkers in Patients with Traumatic Limb Amputation/s: A Randomized Controlled Trial, Dr Subodh Kumar (PI), ICMR, 3 Years, 2023-26, Rs 63,00,000
35. Impact of rTMS versus drug therapy on phantom limb pain in lower limb amputation patients: A Randomized control trial, Dr Sushma Sagar, ICMR, 3 Years, 2021-24, Rs 55,00,000
36. Impact of yoga intervention on functional assessment and, quality of life in pelvic injury patients at level I trauma centre- A Randomized Control Trial, Dr Dinesh Bagaria, DST, 4 Years, 2021-25, Rs 37,00,000
37. Implementation of AMSP in various tertiary care centers across India, Dr Richa Aggarwal, ICMR, 3 Years, 2022-25, Rs 81,50,000
38. Infrared pupillometry as a diagnostic tool in assessment of Non convulsive status epilepticus in severe TBI patients at level-1 trauma centre in India(ICMR adhoc project programme Project Id- 2021-13153/F1), Dr Keshav Goyal, ICMR (Extramural Grant), 3 Years, 2022-25, Rs 35,00,000
39. Integrating Emergency & Injury Care to strengthen Post Crash Response at Health & wellness centre in India, Dr Tej Prakash Sinha, WHO, 10 months, 2022-23, Rs 28,37,000
40. Low-cost virtual reality sensorimotor robotic intervention for management of phantom limb pain in below-elbow amputees following trauma, Dr Sushma Sagar (PI), AIIMS-UCL Collaborative Research, 1 Year, 2023-24, Rs 10,00,000
41. MC/BDS/23-009: A Prospective, Double-Blind, Multicentric, Randomized, Placebo-controlled Clinical Trial to Evaluate the Efficacy and Safety of Budesonide in Patients with Primary IgA Nephropathy (IgAN), Soumita Bagchi, Medclin Research Private Limited, 1 Year, 2024-25, Rs 1,98,400
42. Micronutrient deficiency in children with moderate to severe traumatic brain injury: Burden and association with outcome, Dr Ashish Bindra, Indian Council of Medical Research, 3 Years, 2023-25, Rs 58,23,000
43. Molecular detection of Rheumatogenic Clusters of Streptococcus Dysgalactiae subsp. Equisimilis (Group C, G) in India: Dr Purva Mathur, ICMR, 3 Years, 2024-27, 1 Year, 35,40,086 (1 year)- Rs 20,71,931

44. Multi-Analytes lateral flow immune assay for the detection of sepsis and multi-organ dysfunction syndrome in post-trauma patients, Dr Purva Mathur, ICMR, 3 Years, 2021-24, Rs 1,03,98,335 (1 year) Rs 49,17,656

45. Multicentric implantation research to strengthen facility-based emergency care system for providing quality emergency care among red triage patients (Time-sensitive and other emergencies) at all levels of health care facilities, Dr Tej Prakash Sinha, AIIMS, 2 Years, 2022-24, Rs 44,40,653

46. NGAL, IL-6, cystatin-c and KIM-1 as prognostic markers of acute kidney injury after isolated traumatic brain injury: A prospective observational cohort study, Dr Sharmishtha Pathak, AIIMS, 2 Years, 2024-26, Rs 10,00,000

47. Non convulsive status epilepticus (NCSE) in severe TBI patients at level-1 trauma centre in India (DHR-GIA Proposal) IEC-928-4 September 2020, Dr Keshav Goyal, ICMR, 3 Years, 2021-24, Rs 25,00,000

48. Post-market Clinical Follow-up study: A non-randomized, prospective to evaluate the Safety and Performance of Proximal Femoral Nail and Anti-rotation (PFNA) intended for femur-related fracture fixation, Dr Samarth Mittal, Auxein Medical Pvt Ltd, 2 Years, 1 March 2023, 28 February 2025, Rs 18,00,000

49. Profiling of inflammatory cytokines and metabolites for observation of serial changes in patients with blunt torso trauma- A prospective cohort and observational study, Dr Abhinav Kumar, Extra Mural Grant. (SERB)

50. Randomized, Open labelled, 3Phase IIa /I4Ib Clinical trials to study the safety and efficacy of intravenous estrogen therapy in reducing the incidence of sepsis/septic shock in Trauma Hemorrhagic Shock patients, Dr Sanjeev Kumar Bhoi, ICMR, 2 Years, 2024-26, Rs 67,17,708

51. Recurrent and Prolonged Urinary Tract Infections and its association with Gut Microbiome: A community-based study in a semi-rural setting of North India, Dr Purva Mathur, ICMR, 3 Years, 2024-27, Rs 1,49,86,334 (1 year)-54,11,356

52. Role of Surgical Rib Stabilization of fractured ribs in trauma patient with multiple rib fractures - A randomized pilot study, Dr Narendra Choudhary, Intramural Research Project (AIIMS, New Delhi), 2 Years, 2021-23, Rs 8,75,000

53. Role of topical oxygen therapy as an adjunct to negative pressure wound therapy in the management of traumatic wounds: a randomized controlled trial, Dr Pratyusha Priyadarshini, Intramural, 2 Years, 2023-25, Rs 5

54. Role of Yoga in Secondary Prevention of Hip Fractures in the Elderly, Prof Vijay Sharma, ICMR, 2.6 Years, 2022-24, Rs 12,40,000

55. Strengthening emergency and trauma care system in the state of Uttar Pradesh, Dr Sanjeev Kumar Bhoi, WHO, 6 months, 2022-23, Rs 54,09,000

56. Study of Vitamin D receptor (VDR) gene polymorphism and vitamin D deficiency in North Indian patients with Intervertebral disc (IVD) degeneration, Dr S Arulselvi, ICMR, 3 Years, 2024-27, Rs 63,00,000

57. Surgical Innovation Laboratory (SIL) for advancing Patient care, Education and Research, Dr Sushma Sagar (PI), ICMR- MDMS, 3 Years, 2022-25, r

58. To develop a Mobile health application for Delivery of Comprehensive Symptomatic Care for Post-Burn Patients, Suvashis Dash, AIIMS-INTRAMURAL, 2 Years, 2023-25, Rs 10,00,000

59. To study the effectiveness of Trauma Quality Improvement Programs (TQIP's) in improving Trauma Care outcomes at Tertiary Care Hospitals in India, Dr Amit Gupta, ICMR, 3 Years, 2023-26, Rs 6,80,00,000

60. To study the pattern of mesenchymal stromal stem and progenitor cells in peripheral blood of trauma hemorrhagic shock patients, Dr Sanjeev Kumar Bhoi, ICMR, 2 Years, 2021-23, Rs 46,00,000

61. To study the role of cell free-DNA among trauma hemorrhagic shock and its correlation with clinical outcomes and severity of injury, Dr Sanjeev Kumar Bhoi, ICMR, 2 Years, 2021-23, Rs 46,00,000

62. To study the role of iPSC (induced pluripotent stem cells) derived hematopoietic progenitor cells (HPC) for hematopoietic failure among trauma hemorrhagic shock using an animal model, Dr Sanjeev Kumar Bhoi, ICMR, 2 Years, 2021-24, Rs 69,00,000

63. Use of non-invasive cardiac out monitoring for optimization of hemodynamic parameters versus standard care in geriatric patients with hip fractures undergoing surgery under spinal anaesthesia. A Pilot study, Dr Abhishek Singh, AIIMS, New Delhi, 2 Years, 2023-25, Rs 5,00,000

Completed

1. A prospective, open-label, single-centre, single-arm, post-marketing study to evaluate the efficacy and safety of Dchiro inositol and myoinositol combination on ovarian function and metabolic factors in women with polycystic ovarian syndrome (PCOS), Dr Garima Kachhawa, Ambrosia Life Sciences Pvt Ltd, 3 Years 8 months, 17 November 2019, 16 August 2023, Rs 17,96,900
2. A randomized, treatment open-label, dose-blinded parallel-group, three-arm, proof-of-concept clinical trial to investigate the efficacy and safety of LNP023 compared with rituximab in the treatment of subjects with idiopathic membranous nephropathy, Soumita Bagchi, Novartis Ltd, 4 years, 2019-23, Rs 5,88,000 per year (CRC salary) + Rs 2,00,000 per patient
3. An adaptive seamless randomized, double-blind, placebo-controlled, dose-ranging study to investigate the efficacy and safety of LNP023 in primary IgA nephropathy patients, Soumita Bagchi, Novartis Ltd, 2 Years , 2019-21, Rs 1,98,000 per patient
4. Capacity Building and Strengthening of Hospital Infection Control to detect and prevent antimicrobial resistance in India Phase 1, Dr Purva Mathur, Centers for Disease Control and Prevention, 6 Years, 2015-21, Rs 3,59,66,27,128
5. Collaborative European Neurotrauma Effectiveness research in TBI Collaborative Indian Neurotrauma Effectiveness Research in TBI (CENTER TBI), Dr Deepak Kumar Gupta, Universitair Ziekenhuis Antwerpen (UZA), Belgium, 8 Years, 2015-23, 5000 USD (~4,22,000 INR) per year
6. Comparison of laparoscopic feeding gastrostomy versus Percutaneous endoscopic gastrostomy for long-term assisted central feed in trauma patients - A randomized pilot study, Narendra Choudhary, Intramural Research Project (AIIMS, New Delhi), 2 Years, 2019-21, Rs 4,75,000
7. Correlation Between Noradrenaline, Serotonin, GABA, and Glycine in Cerebrospinal fluid with labor pain undergoing cesarean section: A preliminary study, Dr Yudhyavir Singh, AIIMS Research Section, 2 Years, 2022-24, Rs 8,78,456
8. Development and validation of novel pressure measuring device for measuring the collapsing pressure of internal Jugular vein during an ultrasound examination, DR NIRAJ KUMAR, AIIMS + IIT Delhi, 2+1 Years, 2019-22, Rs 20,00,000
9. Epidemiology of SARS-CoV-2 antibodies in healthy blood donors and its implication in transfusion safety, Rahul Chaurasia, AIIMS, 1 Year, 2020-22, Rs 10,00,000
10. Expansion of antimicrobial stewardship (AMSP) and infection control program (ICP) of ICMR in secondary care hospitals, Dr Purva Mathur, ICMR (PFIZER), 2 Years, 14 August 2020, 13 August 2022, Rs 31,36,390
11. Infection Prevention and Control (IPC)-Capacity Building-Orientation Training for COVID-19 Preparedness and IPC for Healthcare Facilities, Dr Purva Mathur, Bill and Melinda Gates Foundation, 3 Years, 11 May 2020, 30 April 2023, Rs 2,56,37,106
12. Metabolomic Profiling and Serial Changes in Patients with Isolated Blunt Chest Trauma -A Prospective, cohort, feasible and exploratory study, Dr Abhinav Kumar, Intra Mural Grant
13. Predictive detection of osteoporotic fractures in Indian population based on Artificial Intelligence Implementation, Prof Vijay Sharma, DBT, 3 Years, 2020-23, Rs 86,53,660
14. Prevalence and significance of serum galactose deficient IgA1 in Indian patients with IgA nephropathy: a case-control study, Soumita Bagchi, Intramural grant, 1 year, 2017-18, Rs 5,00,000
15. Prevalence of multi-drug resistant organisms in the healthy gut flora of individuals residing in rural and urban community settings, Dr Purva Mathur, Research Grant (Intramural collaborative), 2 Years, 2020-23, Rs 9,50,000
16. Prospective monitoring of BK virus replication in the first year following renal transplantation in Indian patients, Soumita Bagchi, Intramural grant, 2 Years, 2014-16, Rs 6,20,000
17. Randomised Evaluation of Surgery with Craniectomy for patients undergoing Evacuation of Acute Subdural Haematoma (RESCUE-ASDH), Dr Deepak Kumar Gupta, Cambridge University, 3 Years, 2017-20, Consumables: 144 pounds (~15,500 INR) per randomized patient CRF completion costs: 213 (~22,000 INR) pounds per randomized patient
18. The association of HLA antigens with primary IgA nephropathy in Indian patients, Soumita Bagchi, Intramural grant, 2 Years, 2019-21, Rs 9,70,000

19. The quality evaluation of COVID-19 Rapid Antigen Test Kits T-240, Dr Purva Mathur, ICMR, 1 Years, 2021-22, Rs 3,00,000
20. To study the postmortem time gap for RNA detection of SARS COV-2 virus and other respiratory pathogenic bacterial co-infections in confirmed COVID-19 cases, Professor Sanjeev Lalwani, AIIMS Intramural research grant theme: research on SARS-Cov-2 and COVID-19, 2 Years, 2020-22, Rs 9,99,000

Departmental projects (including thesis/dissertations)

Ongoing

1. A multi-centric randomized open-label trial to assess efficacy of hydroxychloroquine (HCQ) in reducing proteinuria in moderately severe primary IgA Nephropathy (EQUALITY study)
2. A pilot study to assess the items for the anxiety-related events among blood donors and establish their face and content validity at a tertiary care academic institute in North India
3. A Prospective Cohort Study to assess functional and radiological outcomes in neck of femur fractures in young adults treated with Femoral Neck System'
4. A Prospective Double-Blinded Parallel 3-Arm Randomized Controlled Trial to Study the Clinical and Radiological Outcomes of Integrated Twin Compression Screw Nail, Single Blade Cement Augmented and Non-Augmented Cephalomedullary Nail in the Treatment of Intertrochanteric Femur Fractures
5. A prospective randomized study to determine the effect of perioperative stellate ganglion block on cerebral vasospasm in aneurysmal subarachnoid haemorrhage patients.
6. A prospective randomized study to determine the effects of perioperative stellate ganglion block on cerebral vasospasm in aneurysmal subarachnoid haemorrhage patients.
7. A Prospective study to assess the requirement of intensive care in geriatric proximal femur fractures.
8. A randomized control trial to compare the radiological and functional outcome of communited distal radius fractures 2R3C3.1 and 2R3C.2 treated with only volar plating versus combined volar and dorsal plating.
9. A randomized control trial to determine dose and timing of oral calcium carbonate tablets to prevent citrate reaction in plateletpheresis donors
10. A Randomized Control Trial to see the effect of post-operative Systemic Anticoagulation in Patients Undergoing Post Traumatic Medium Sized Vessel Repair.
11. A randomized controlled trial to compare the incidence of symptomatic and asymptomatic venous thromboembolic events following pelvic-acetabular surgery in patients receiving direct oral anticoagulants (DOAC) and patients receiving low molecular weight heparin (LMWH) as chemoprophylaxis.
12. Assessing the Health Care Package utilization in BPS under PMJAY and its barriers and facilitators
13. Assessment of blood transfusion practices in adult CTVS ICU patients in a tertiary care hospital, AIIMS, New Delhi
14. Assessment of Patient understanding of OPD Card and Discharge Summary: A need Assessment study to improve organizational Health Literacy.
15. Assessment of the blood donor's response to notification for transfusion-transmitted infections and their follow-up
16. Cabergoline as an adjunct to Ovulation Induction in infertile Women with Endometriosis: An Open-label Randomized Study.
17. Cardiovascular complications after traumatic spinal cord injury.
18. Challenges and learnings of NABH certification at JPNATC
19. Clinico-pathologic profile and outcome of C3 glomerulopathy: a retrospective study
20. Comparative analysis of virtual autopsy and traditional autopsy with multiple organ histopathology in sudden unexplained and unexpected deaths, evaluation of coagulation status in postpartum patients in a tertiary care hospital, Analysis of the Performance of Machine Learning Techniques for the Screening of patients with ?-thalassemia trait, Study of Endothelial marker Syndecan in the peripheral blood of severe Traumatic Brain Injury (TBI) patients and its correlation with TBI induced coagulopathy and immediate outcome, Altered

microRNA expression in peripheral blood and brain following severe traumatic brain injury, Identification of Transcriptomic lipidomic and mitochondrial challenges in metabolic Associated Fatty Liver Disease (MAFLD) and Hepatocellular Carcinoma, Molecular coordination of Adropin, Irisin, Preptin gene in metabolic syndrome and TYPE 2 DM patients.

21. Comparative evaluation of Kinesiotaping and Conventional management versus Conventional Management alone in detecting pain in patients with thoracic trauma: A Randomized Controlled Trial
22. Comparing the effect of fentanyl and midazolam with ketamine and propofol on the extended Glasgow outcome scale at three months post-trauma
23. Comparing the effect of Fentanyl and Midazolam with Ketofol for ICU sedation on the extended Glasgow outcome scale at three months in moderate to severe traumatic brain injury patients -A prospective randomized study.
24. Comparison between pressure support ventilation and spontaneous ventilation during emergence and extubation in reducing incidence of postoperative atelectasis in patients undergoing major abdominal surgeries
25. Comparison of left paratracheal pressure versus cricoid pressure on tracheal intubation conditions using CMAC video laryngoscope: a non-inferiority randomized controlled trial.
26. Comparison of pain status in patients undergoing Targeted Muscle reinnervation versus Conventional stump preparation following post traumatic above knee amputation: A Randomised control trial
27. Comparison of preoperative ultrasound guided pericapsular nerve group block and femoral nerve block for facilitating patient positioning prior central neuraxial blockade in patients undergoing hip fracture surgery - a randomized controlled pilot study
28. Comparison of Short Axis-Angle distance approach versus Long Axis in-plane approach of ultrasound guided radial artery cannulation: A Randomized Controlled Trial
29. Comparison of single versus triple aliquot injection for supraclavicular brachial plexus block in upper limb orthopaedic trauma surgeries: a randomised controlled trial
30. Comparison of the effect of ketofol and ketodex as procedural sedation and analgesia for Oocyte retrieval during in vitro fertilization procedures- a randomized controlled trial.
31. Comparison of three anaesthetic techniques on emergence and recovery profile in patients undergoing supratentorial craniotomy
32. Correlation between injury morphology on CT and urological outcomes in sub-axial cervical spine injury
33. Correlation of surgical complexity and outcome with preoperative geometric parameters in MRU in pelvic fracture urethral distraction defects: A prospective cohort study
34. Creation of Center of Excellence with ICMR Collaboration at BPS
35. Detection of saline-filled cuff by Ultrasonography for confirmation of correct endotracheal tube position in adult patients: A prospective observational study
36. Development and Validation of multiplex quantitative Real-time Polymerase Chain Reaction assay for culture-independent detection of microorganisms and their antimicrobial resistance gene causing Blood Stream Infection (PhD Scholar, Co-Guide)
37. Diagnostic accuracy of using cell-free fetal DNA isolated from mother's plasma for determination of fetal Rh D status during antenatal period as compared to determination of D status using serological tests in cord blood
38. Early Quantitative pupillometry as a predictor of long-term outcome in severe traumatic brain injury patients: A prospective observational study
39. Effect of decompressive craniectomy on jugular venous oximetry in patients with severe TBI
40. Effect of Ketofol versus fentanyl and midazolam for ICU sedation on brain injury biomarkers in moderate to severe traumatic brain injury patients - a prospective randomized controlled study
41. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial. IEC/NP-07/07 January 2013& RP-03/04 March 2013
42. Effect of repetitive transcranial magnetic stimulation (rTMS) in phantom limb pain

43. Effect of Sugammadex versus Neostigmine reversal on lung aeration score after operative fixation of cervical spine: A prospective, double-blinded, randomised control trial (SUN Trial).
44. Effect of systematic lidocaine and dexmedetomidine on perioperative analgesia and 3-month outcome in patients undergoing supratentorial craniotomy under inhalational anaesthesia: A randomised control trial.
45. Effects of varying concentrations on nitrous oxide on motor evoked potentials during spine surgeries: a randomized controlled study.
46. Efficacy of oral melatonin premedication in reducing preoperative anxiety in patients undergoing supratentorial craniotomy.
47. Evaluating the efficacy of various modalities of supportive treatment and immunosuppressive therapies in primary lgA nephropathy-a retrospective study"
48. Evaluation of Compliance with WHO Surgical Safety Checklist Parameters in Trauma Center, India
49. Evaluation of Discharge process and analyzing the delays of discharge at JPNATC
50. Evaluation of Patient Satisfaction with Inpatient Services Offered at the Trauma Care Facility.
51. Evaluation of the Hospital Discharge Protocol in an Acute Care Setting: Insights from Trauma Centre, North India
52. Evaluation of time taken for return of Radial and Ulnar Artery blood flow to basal values after radial artery decannulation using Duplex Doppler Ultrasound
53. Factors associated with peripheral blood stem cell yield in donors mobilized with granulocyte colony-stimulating factors: the impact of donor characteristics.
54. Goal-directed fluid therapy during endovascular therapeutic procedures following aneurysmal subarchanoid haemorrhage: A prospective randomized controlled study
55. Identification of Hepatitis B virus (HBV) genotypes among healthy blood donors with asymptomatic HBV infection
56. Impact of COVID on neurosurgical procedures in a tertiary care centre
57. Impact of pregnancy on renal survival and pregnancy outcomes in women with primary glomerular diseases: a retrospective study
58. Impact of Psychosocial Intervention on Quality of Life in Patients with Post-traumatic Limb amputation/s: A Randomized Controlled Trial
59. Incidence and risk factor for prolonged ICU stay after pituitary surgery: An observational study
60. Incidence, predictors and prognosis of myocardial injury in severely injured patients, without head injury, admitted to the trauma intensive care unit of a level 1 Trauma center: A prospective observational study
61. Neutrophil-lymphocyte ratio and Platelet to lymphocyte ratio as markers for predicting the outcome in trauma patients: A Prospective Observational study
62. Ongoing Assessment of pattern and profile of patients admitted with self-harm attempt at Apex Trauma Centre: a retrospective chart review
63. Optimising staffing levels of Operation Theatre Technical Staff using Workload Indicators of Staffing Norms
64. Peripheral inflammatory cytokines in generalized anxiety disorder: a case-controlled study
65. Pre-anaesthetic ultrasonographic assessment of the subclavian vein for predicting post-induction hypotension in neurosurgical patients.
66. Predictability of Preoperative Carotid Artery Corrected Flow Time and Respiratory Variations of Peak Blood Flow Velocity for Hypotension After Spinal Anaesthesia in Geriatric Patient Undergoing Hip Fracture Surgery
67. Prevalence of Augmented Renal Clearance in Pediatric Traumatic Brain Injury Patients
68. Prophylactic antibiotic use in abdominal trauma patients undergoing operative intervention- A Randomized Controlled Trial
69. Quadriceps depth measured by point of care ultrasound as a tool to discriminate between frail and non-frail patients with traumatic brain injury: A prospective observational study.

70. Red Cell Distribution Width (RCDW), Neutrophil to lymphocyte ratio (NLR) and Platelet to Lymphocyte ratio (PLR) as a prognostic marker in TBI patients. IEC-179/11 April 202RP -60/2020
71. Red Cell Distribution Width (RCDW), Neutrophil to lymphocyte ratio (NLR) and Platelet to Lymphocyte ratio (PLR) as a prognostic marker in aneurysmal Subarachnoid Hemorrhage (a-SAH) patients IEC-180/11 April 2020, RP-62/2020
72. Retrospective multi-centric study for evaluating the clinical course and outcome of IgA nephropathy with crescents in the Indian population
73. Retrospective study of chest trauma patients admitted to icu
74. Review the transfusion practices for the plasma and plasma components for our centre.
75. Role of point-of-care ultrasuound (POCUS) in assessing gastric residual volume in trauma and non-trauma patients scheduled for elective surgery - a prospective cohort study.
76. Sleep quality assessment in trauma patients requiring intensive care - a pilot study
77. Sleep quality assessment in trauma patients requiring intensive care - A prospective observational study
78. Sonographic assessment of suprahyoid airway parameters in adult patients planned for elective proseal placement: a pilot, observational study
79. Spinal alignment after fixation in trauma patients
80. Study of evolution of cerebral edema, neuroinflammation and blood brain barrier disruption in Pediatric Traumatic Brain Injuries
81. Study of variations in anatomy and pattern of skull base fractures un patients with post traumatic CSF leak
82. The effect of Cabergoline and dienogest on Pro Inflammatory markers in Endometriosis: A Pilot Study.
83. The effect of post spinal hypotension on cerebral oxygenation using NIRS and Neonatal outcomes in full term parturient undergoing lower segment caesarean section.
84. To Analyse predictors of activation of major hemorrhagic protocol.
85. To analyse predictors of activation of major hemorrhagic protocol in trauma
86. To compare frequency of monitoring with Haemoglobin and Haematocrit in patients with Blunt Abdominal Trauma undergoing Non-Operative Management: A Randomized Controlled Trial
87. To compare the effect of Isokinetic training with Conventional exercises in patients with above knee amputation following trauma in relation to Prothesis adaptability and Gait: A Randomized Controlled Trial
88. To Compare the outcome or Modified Shoelace Technique versus Negative Pressure Wound Therapy (NWT) assisted skin approximation of lower limb fasciotomy wounds in trauma patients - a Pilot Randomised Controlled Trial at a Level 1Trauma Centre"
89. To evaluate the correlation between non-invasive (NIRS) and ONSD) and invasive (ICP catheter) techniques of ICP measurements in adults with traumatic brain injury- A prospective observational study
90. To evaluate the impact of N-Acetylcysteine (NAC) use in the treatment of traumatic lower extremity vascular injury - A Pilot Randomized Controlled Trial
91. To study the Co-relation between Rhabdomyolysis and Liver Function Biomarkers in Musculoskeletal Trauma: A Prospective Observational Study
92. To study the effect of combination therapy (NPWT + Topical oxygen) versus Negative pressure wound therapy (NPWT) alone on large post traumatic wounds: A pilot Randomized Control Trial
93. To study the effect of initial irrigation and suction on outcome of patients with traumatic hemothorax: A Randomized Controlled Trial
94. To study the effect of small-bore size chest tube on pain in patients with thoracic trauma - A Randomized Controlled Trial
95. To study the risk factors and causes of extubation failure in head injury patients

Completed

1. A Randomized Control Trial to Compare the Impact of Low pressure-negative pleural suction with Underwater seal drainage alone in Patients of Thoracic trauma
2. A Randomized Controlled Trial to study the effect of immediate post-operative prosthesis (IPOP) vs Conventional prosthesis on Balance, QOL, & Psychological status in below-knee amputation patients following trauma
3. A study on Carbapenem and Colistin resistance in Urine Isolates in a Tertiary Care Centre
4. A Study to compare and correlate the Thoracic Trauma Severity Score (TTSS) with conventional trauma scores in Chest Trauma patients at a Level -1 Trauma Centre
5. A Study to compare and correlate the Thoracic Trauma Severity Score (TTSS) with conventional trauma scores in Chest Trauma patients at a Level -1 Trauma Centre
6. Analysis of patterns of neck trauma and its outcomes at a Level I Trauma Center- An ambispective observational study
7. Analysis of quality parameters prepared from whole blood stored overnight at ambient temperature
8. Anterior Minimal Invasive Plating using reverse PHILOS versus posterior open reduction and internal fixation (ORIF) with Extra-Articular Locking Compression Plate (EALCP) in the management of distal third humeral Diaphyseal/ Metaphyseal fractures - A randomized controlled trail
9. Characterization of Chronic Kidney Disease of Unknown Origin in Patients attending Nephrology OPD of AIIMS, New Delhi-A cross-sectional study
10. Comparative Medical record audit of COVID positive COVID suspects and non-COVID patients records in a tertiary care hospital, New Delhi, India
11. Comparative study for secondary trauma, burnout, compassion fatigue of healthcare workers of COVID positive COVID suspect and non-COVID patients in a tertiary care hospital, New Delhi, India
12. Comparative study on incidence of airway-related complications while using PVC tubes with a strategic cuff release maneuver versus armoured FMT in neurosurgical patients undergoing surgery in lateral position: A non-inferiority trial
13. Comparative study on incidence of airway-related complications while using polyvinyl chloride (PVC) tubes with a strategic cuff release manoeuvre versus armouredflexometallic endotracheal tubes in neurosurgical patients undergoing surgery in lateral position: A non-inferiority trial
14. Comparing different types of laryngoscopes for endotracheal intubation in various difficult airway scenarios simulated using a high-fidelity airway mannequin model - an observational study
15. Comparison between superior trunk block and modified supraclavicular brachial plexus block for analgesia in shoulder surgery - A pilot study
16. 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.
17. Comparison of single versus triple injection costoclavicular block in upper limb surgery: Randomised Controlled trial
18. Correlation of Clinical and Radiological Parameters in Outcomes of Morel-Lavallee Lesions at a Level-I Trauma Centre
19. Correlation of Clinical and Radiological Parameters in Outcomes of Morel-Lavallee Lesions at a Level-I Trauma Centre
20. Correlation of serum Immunoglobulin A/complement factor 3(IgA/C3) with the clinical and histologic severity in patients with IgA nephropathy
21. Critical appraisal of the KAP studies for blood donation in India
22. Development of postoperative laryngeal edema in patients undergoing craniotomy for elective intracranial tumour excision: a prospective, observational, preliminary study.
23. Effect of Neuroradiologic interventions on regional cerebral oxygenation in patients with anterior circulation aneurysms: An observational Study

24. Effect of topical ropivacaine on extubation response in patients undergoing supratentorial tumour surgeries: a prospective randomised double blinded placebo-controlled trial.
25. Efficacy of Levonorgestrel intrauterine system in reducing menstrual blood loss in women with hematological disorders
26. Estimation of Age by CT scan of pubic symphysis using Suchey Brooke's method in North Indian population- A digital autopsy based study
27. Evaluation of effect of ketofol and ketodex on duration of seizure activity, hemodynamic profile, recovery times and cortical activity (using fnirs) in patients undergoing electroconvulsive therapy for depression
28. Frailty as a predictor of adverse discharge outcomes in geriatric trauma patients undergoing surgery: A prospective Case Control Study
29. Gastro Intestinal Parasitic and Microsporidia Infections in Renal Transplant Patient at A Tertiary Care Centre
30. Health-related quality of life in adult patients with primary glomerular diseases in India, Study of the serum Complement C3 and C4 levels in patients undergoing intramedullary nailing for fracture shaft femur, Study of complement levels in COVID-19 patients and its impact on Coagulopathy and outcome
31. Hybrid method of teaching-learning is effective in improving communication- an experience of an interventional pre-post single-arm study through communication workshop for nurses. (under Publication)
32. Impact of early and empirical cryoprecipitate administration on the transfusion requirements in trauma patients with hemorrhagic shock
33. Median effective volume of 0.25% ropivacaine for suprainguinal fascia iliaca compartment block [FICB] for positioning of hip fracture patients prior of neuraxial blockade: A prospective dose estimation study
34. Notification and follow-up of blood donors reactive for transfusion-transmitted infections: A narrative review of the literature from India
35. Perioperative Inflammatory Cytokines Alteration and Neutrophil Extracellular Trap Formation with Various Anesthetic Techniques in Patients Undergoing Major Orthopedic Trauma Surgery
36. Practice patterns in IgA nephropathy: a questionnaire based survey
37. Prevalence of ionized hypocalcaemia in trauma patients and its role in predicting mortality at a Level I Trauma Center- A prospective observation study
38. Prevalence of ionized hypocalcemia in trauma patients and its role in predicting mortality at a Level I Trauma Center- A prospective observational study
39. Role of lung ultrasound in estimating extravascular lung water as an early predictor of sepsis in neurotrauma patients- an observational study.
40. Role of melatonin in ICU delirium in critically ill patients
41. Serum lactate, base deficit and glucose levels as prognostic markers of severe traumatic brain injury
42. The Study of Feasibility of Ultrasound Guided Catheterization of Right Brachiocephalic Vein in Adult Patients
43. To Evaluate the Role of Phage Transfer through Fecal Microbiota Transplantation in Causing Anti-Microbial Gene Depletion and Intestinal Decolonization from Multidrug-Resistant Organisms

Collaborative projects

Ongoing

1. "Impact of rTMS versus drug therapy on phantom limb pain in lower limb amputation patients: A Randomized control trial" (Lab Medicine), Trauma surgery, Psychology, Physiotherapy, Laboratory medicine
2. "Impact of yoga intervention on functional assessment and quality of life in pelvic injury patients at level-I trauma Center - A Randomized Control Trial.", Trauma surgery, Psychology, Laboratory medicine
3. "Role of Biomarkers in Predicting Evolution of Cerebral Edema following Traumatic Brain Injury", Neurosurgery, Laboratory Medicine
4. "To study the effect of Immediate Post Operative Prosthesis in relation to post-surgical outcome, balance and quality of life in Above Knee Amputation patients (post-traumatic): A Pilot Randomized Controlled Trial (Lab Medicine), Trauma surgery, Psychology, Physiotherapy, Laboratory medicine

5. , A Randomized control trial for evaluation of effects of leukoreduced blood transfusion on infection risk in severely injured trauma patients, Emergency medicine, Critical and intensive care Surgery (Trauma) Laboratory medicine
6. A prospective review of transfusion practices in paediatric trauma patients at level 1 trauma centre, Emergency medicine, Critical and intensive care Surgery (Trauma) Laboratory medicine
7. A Randomized control trial to study the impact of yoga intervention in lower limb amputees following trauma in relation to post-surgical outcome, behavior, and quality of life at level I trauma Centre, Trauma surgery, Psychology, Physiotherapy, Laboratory medicine
8. Aerosolized colistin in ventilator-associated pneumonia caused by carbapenem-resistant acinetobacter: a randomized controlled trial, Critical & intensive care Anaesthesia
9. An In-vivo model to assess the efficacy of a novel agarose/polydopamine cryogel in hemostasis, IIT, Kanpur
10. Assessing the Health Care Package utilization in BPS under PMJAY and its barriers and facilitators, Burn and Plastic Surgery
11. Capacity building and strengthening of Hospital Infection Control to detect and prevent antimicrobial resistance in India (CDC), Lab Medicine, CDC
12. Centre for Advanced Research (CAR) in Hospital Acquired Infections-Prevention and Control, Critical & Intensive Care Lab medicine
13. Clinical outcome of chest trauma patients with fractured ribs patients undergoing rib fixation, Trauma surgery Critical & Intensive Care
14. Comparison of Sugammadex vs neostigmine for reversal of rocuronium-induced neuromuscular blockade in adult patients undergoing elective neurosurgery, Neuroanaesthesia and Critical Care Anaesthesia
15. Correlation of lung and gut microbiome of critically ill patients: a prospective observational pilot study, Anaesthesiology, Pain Medicine & Critical Care Lab medicine
16. Creation of Center of Excellence with ICMR Collaboration at BPS, Burn and Plastic Surgery, ICMR
17. Defining the Fc receptor-based immune landscape in rheumatic heart diseases, Department of Cardiac Biochemistry Forensic Medicine & Toxicology
18. Development and method validation for Z-drugs and Tramadol analysis in biological matrices, National Forensic Science University, Delhi campus Forensic Medicine & Toxicology
19. Development and Validation of point-of-care Electro-Optic Sensing Platform for Estimation of Urine Albumin Creatinine Ratio (ACR) in Spot urine for diagnosis and monitoring of chronic kidney disease, AIIMS-IIT (D) Laboratory Medicine
20. Development of a metabolite-based point-of-care test for diagnosis of bacterial vaginosis in Indian women, Department of Dermatology and Venereology Lab medicine
21. Development of point of care Smartphone-based PT/INR Test to simplify, hasten identification of patients. coagulation status and its comparison with conventional coagulation method, AIIMS-IIT (Delhi) Lab Medicine
22. 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 Mannitoba, Winnipeg, Canada Neuroanaesthesiology
23. Effect of repetitive transcranial magnetic stimulation (rTMS) of dorsolateral prefrontal cortex (DLPFC) in patients with phantom limb pain, Physiology
24. Establishment of a fragility fracture Liaison Service at AIIMS: A multicentric study, Orthopaedics - AIIMS New Delhi Orthopaedics - AIIMS Rishikesh Orthopaedics – AIIMS, Jodhpur
25. Evaluation of a novel herbal antiseptic formulation-SEPIL for the treatment of chronic limb ulcers and pressure ulcers: A randomized, double blind, placebo-controlled trial, Orthopedics, IIT, Kanpur
26. Evaluation of adaptability of indigenously developed low-cost light weight polycentric polymeric knee joint (PPKJ) and its effect on quality of life & rehabilitation on post traumatic transfemoral amputees, Deptt of Surgical Disciplines IIT, Delhi
27. Evaluation of Medical certification of death at AIIMS and to prepare a training programme, Department of CCM

28. Evaluation of outcome of three-dimensional printing model and stimulation program for post traumatic nasal deformities correction, Dr Raj Manas Department of Plastic Reconstructive & Burns Surgery AIIMS, New Delhi
29. Evaluation of prevalence of cyanide poisoning in patients of flame burn injuries admitted at a tertiary health care facility, Department of Burns and Plastic Surgery Forensic Medicine & toxicology
30. Expansile duraplasty in patients with complete cervical spinal cord injury- A prospective randomized open blinded end point (PROBE) study, Neurosurgery, Neuroanaesthesiology and Critical Care
31. Gait Kinematics and neurogenic bladder in incomplete spinal cord injury patients following transcranial magnetic stimulation: a randomized controlled trial, Department of Physiology
32. HIP CARE: A cluster randomized controlled trial with embedded process evaluation to investigate the clinical and cost-effectiveness of multidisciplinary care in the management of patients with a fracture of the hip, University of Oxford, UK Orthopaedics
33. HIP fracture Accelerated surgical Treatment and Care track 2 (HIP ATTACK-2) Trial, Population Health Research Institute (PHRI), Canada Orthopaedics
34. Impact of Ketamine versus Etomidate on Inflammatory Cytokines in Hemodynamically Unstable Patients Undergoing Laparotomy for Abdominal Trauma: A Randomized Controlled Trial, Anaesthesia, Laboratory Medicine
35. Implementation of AMSP in various tertiary centers across India, Anesthesia Critical Care Lab medicine
36. Micronutrient deficiency in children with moderate to severe Traumatic Brain Injury: Burden and association with outcome, Neuroanaesthesia Laboratory medicine
37. Multi-analytes lateral flow immune assay for the detection of sepsis and multi-organ dysfunction syndrome in post-trauma patients, Laboratory Medicine, Trauma Surgery and Critical Care, Forensic Pathology and Molecular Medicine, Neuroanaesthesiology, JPNATC, AIIMS, New Delhi
38. NGAL, IL-6, cystatin-c and KIM-1 as prognostic markers of acute kidney injury after isolated traumatic brain injury: A prospective observational cohort study, Anaesthesia, Laboratory Medicine
39. Posterior cervical fixation versus long-term cervical collar for management of Hirayama Disease: Prospective randomized open blinded endpoint (PROBE), phase III study, Neurology, Neurosurgery, Neuroanaesthesiology, Neuroradiology AIIMS, New Delhi
40. Predictability of preoperative carotid artery corrected flow time and respiratory variations of peak blood flow velocity for hypotension after spinal anaesthesia in geriatric patient undergoing hip fracture surgery, Anaesthesia Orthopaedics
41. Prospective study on the effectiveness of chlorhexidine gluconate impregnated patch (BIOPATCH R) in reducing the incidence of central line associated blood stream infection (CLABSI), Department of Microbiology, JPNATC, AIIMS
42. Role of topical oxygen therapy as an adjunct to negative pressure wound therapy in the management of traumatic wounds: a randomized controlled trial, Dr Pratyusha Priyadarshini (AP-Surgery)
43. Study of association between saliva and blood biomarkers in cognitively impaired pediatric mild head injury patients, Neurosurgery, Laboratory Medicine
44. 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 Anesthesia
45. The evaluation of STR markers in various Global and Indian populations for exploring the correlation between genotype and geolocation, National Forensic Science University, Delhi campus Forensic Medicine & Toxicology
46. To evaluate combination of biochemical and biophysical marker in prediction of preeclampsia, Department of Physiology Lab medicine
47. To study genome-wide miRNA expression and its correlation with clinical outcomes in terms of survival or death among Trauma-Hemorrhagic shock patients, Emergency medicine Laboratory medicine

Completed

1. Analysis of quality parameters prepared from whole blood stored overnight at ambient temperature, Laboratory medicine

2. Assessment of the blood donor's response to notification for transfusion transmitted infections and their follow-up, Department of gastroenterology and human nutrition Department of laboratory medicine, JPNATC
3. Comparison of different video laryngoscopes for nasotracheal intubation in manikin with difficult airway by experienced anaesthesiologists: A randomised, self-controlled, crossover trial, Department of Oncoanaesthesia and Palliative Medicine, AIIMS New Delhi And Department of Neuroanaesthesiology and Critical Care, AIIMS, New Delhi
4. Efficacy of a novel bundle of care to reduce complication following percutaneous dilatational tracheostomy in critically ill patients: randomized controlled trial, Anaesthesia
5. Efficacy of a Novel Technique for Percutaneous Dilatational Tracheostomy in critically ill patients, Anaesthesia
6. Identification of Hepatitis B virus (HBV) genotypes among healthy blood donors with asymptomatic HBV infection, Department of Biotechnology
7. One year experience with massive haemorrhage protocol at an urban level-1 trauma center, Surgery, JPNATC Critical and intensive Care, JPNATC Emergency Medicine, JPNATC Laboratory Medicine, JPNATC
8. Peripheral inflammatory cytokines in generalized anxiety disorder: a case-controlled study, Department of Psychiatry
9. Predictive detection of Osteoporotic fractures in Indian population based on Artificial Intelligence Implementation, Laboratory medicine & Dr Vijay Sharma (Orthopaedics), Association of GRP78, Zinc, Iron and vitamin C levels in patients with COVID 19 and the occurrence of Mucor mycosis, ENT, Medicine, Lab Medicine, Post-mortem histopathological study of loss of myelin and oligodendrocyte pathology following severe post traumatic brain injury (TBI), Forensic medicine, Laboratory Medicine, Inflammatory Cytokine profiling and serial changes in Patients with Blunt Torso Trauma - A Prospective, observational study, Trauma Surgery, Laboratory Medicine
10. Proficiency evaluation of novice anaesthesiology residents in simulated awake fiberoptic guided oral intubation after a structured training program- a manikin-based study, Department of Anaesthesiology, Critical Care and Pain Medicine, AIIMS, New Delhi And Department of Neuroanaesthesiology and Critical Care, AIIMS, New Delhi
11. Retrospective assessment of road injuries and fatalities in Delhi referral trauma hospitals, post-mortem centres, and city-wide ambulance services, Transport Research and Injury Prevention Program (TRIPP), Indian Institute of Technology, Delhi
12. Role of T-helper cells and neutrophils in the outcome of patients with chest trauma, Laboratory Medicine & Trauma Surgery
13. Study Of The Serum Complement C3 And C4 Levels In Patients Undergoing Intramedullary Nailing For Fracture Shaft Femur, Laboratory Medicine JNATC, AIIMS
14. To compare the opioid-sparing effects of combination of dexamethasone, paracetamol and ketorolac (dexpak) vs paracetamol, ketorolac (pak) in patients undergoing total laparoscopic hysterectomy. A prospective double blind random undergoing total laparoscopic hysterectomy: a prospective double blind, Department of Anaesthesia, Critical and Pain Medicine, AIIMS, New Delhi
15. 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, Laboratory Medicine & Trauma Surgery

Research over past 3 years

Research projects	2021–2022	2022–2023	2023–2024
Total funded projects	28	49	60
Total funding	Rs 21.83 Crores	Rs 26.47 Crores	Rs 72.01 Crores

PUBLICATIONS: 272

Journal articles: 242 Abstracts: 9 Chapters in books: 21 Books: 0

Item	2021–2022	2022–2023	2023–2024
Total	183	309	272
Journal articles	171	265	242
Abstracts	3	10	9
Chapters in books	9	32	21
Books	0	2	0

JPNApex Trauma Centre

FINANCIAL HOSPITAL STATISTICS REPORT: YEAR-2023-24

Table No.01: Bed Complement

Type of bed	(Trauma centre)	Year-2023-24
Sanctioned beds	254	**254**
Functional beds	254 #	**254**

Category	No.of beds in Year-2023-24
General Beds	**172**
ICU Beds	**60**
Private ward Beds	**22**
Total Beds	**254**

Table No.02: Department wise Bed Distribution (Year-2023)

Department	No. of Beds in Year-2023-24
Ortho Beds	**60**
TSCC Beds	**44**
Neurosurgery Beds	**89 with ICU beds**
Private Beds	**22**
Others(disaster +EHS+MS pool generalICU)	**39**
Total Beds	**254#**

#In suppression of all previous bed distribution notifications, the latest bed distribution notification is issued from AMS office, vide circular no. 047/MS/JPNATC/23 dt. 10 August 2023. Therefore, Total functional beds at present in TC = 254. Excluded ED Triage beds.

Table No.02: Department wise Bed Distribution (Year-2023-24)

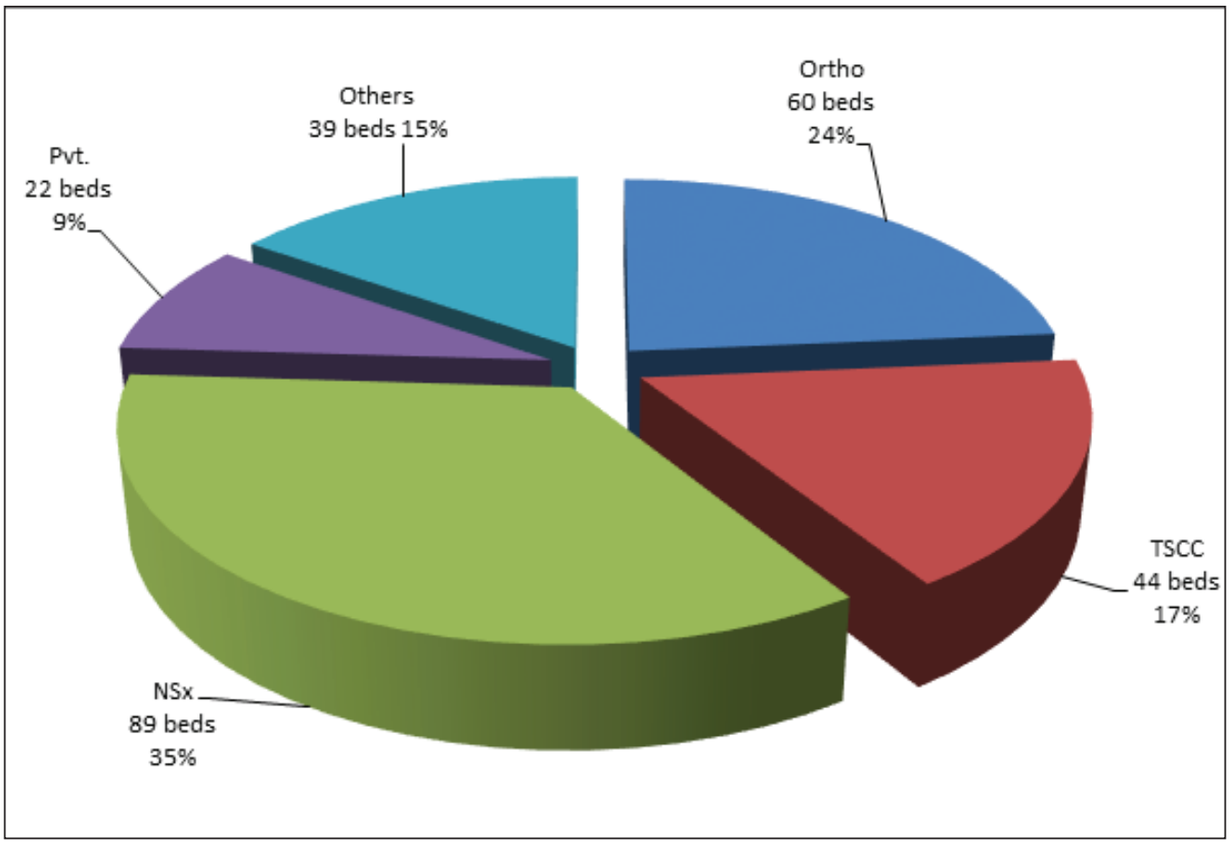


Table No:03 HOSPITAL PERFORMANCE INDICES: (Year-2023-24)

Parameters	Year-2023-24	Inference
Total Days of Care	**70563**	Indicates proper& improved utilization of hospital Resources.
Average length of stay	**9.43**	Indicates effective utilization of beds for regular Admissions.
Average Bed Occupancy Rate	**75.90 %**	Indicates Optimal bed occupancy.
Bed Turnover Rate	**2.46 Pt/Bed**	Indicates high productivity of hospital beds.
Net Death Rate	**5.90 %**	Indicates low mortality rate, despite the fact, quite large no. of Critically ill patients were admitted in the hospital.

JPN Apex Trauma Centre

TableNo: 04 Statistical Health Bulletin: Year-2023-24)

S. No.	Category	
		Year-2023-24
1.	**Total Patient Admitted**	**8025**
	Regular	**8005**
	Short	**20**
	a. Adult	**7268**
	b. Children and Newborn	**757**
	Regular	**757**
	Short	**00**
2.	**Patients discharged (including LAMA, absconded, discharge on request and deaths)**	**7484**
	a. Adults	**6806**
	b. Children and Newborn	**678**
	Total days of care	**70563**
	Average length of stay of regular patients(days)	**9.43**
	Daily average number of patients in ED (as per daily census)	**169.22**
	Total attendance in casualty/ED	**61938**
	a. Adults (ED)	**55684**
	b. Children and Newborn(ED)	**6241**
3.	c. Others (Adults)	**13**
	Average bed occupancy	**75.90**
	Total inpatient deaths(including newborns)	**596**
	Total no. of deaths Registered in TC	**977**
	a. Deaths under 48 hours	**164**
	b. Deaths over 48 hours	**432**
4.		
	Brought dead + December deaths	**381+110=491**
	Total Deaths registered including (BD+DD)	**977**
	c. Gross death rate (%)	**7.96 %**
5.	d. Net death rate (%)	**5.90 %**
	OPD attendance including special clinics	**50025**
	New cases	**23141**
6.	Old cases	**26884**

Table No: 05 -Department-wise admission in Trauma Centre:Year-2023-24

DEPARTMENT	Admission		Total days of care		AVERAGE LENGTH OF STAY OF REGULAR ADMISSIONS (in days)
	Regular	Short	Discharge	Days of Care	
Orthopedics	**2908**	**04**	**2915**	**23851**	**08.18**
TSCC(Surgery)	**2153**	**11**	**2076**	**20221**	**09.74**
Neurosurgery	**2518**	**04**	**2084**	**22870**	**10.97**
PRS	**0426**	**01**	**0409**	**03621**	**08.85**
	8005	**20**	**7484**	**70563**	**09.43**
Total	**8025**				

Table No: 06 Gender-wise Admission of patients at JPNATC: Year-2023-24

Category	Year-2023-24	Splty. wise	M	F	Mch	Fch	Total
Male	**5856**	**Ortho**	**2001**	**733**	**138**	**041**	**2913**
Female	**1398**	**T/S**	**1716**	**289**	**102**	**056**	**2163**
Male Child	**507**	**N/S**	**1805**	**343**	**234**	**140**	**2522**
Female Child	**264**	**PRS**	**0334**	**033**	**033**	**027**	**427**
Others	**00**	**-**	**0000**	**000**	**000**	**000**	**000**
Total	**8025**	**Total**	**5856**	**1398**	**507**	**264**	**8025**

Table No:07 State -wise distribution of Patients Admission in JPNATC: Year-2023-24

Month	DL	UP	HR	PB	RAJ	GUJ	AP	MP	MAH	UK
Year 2023-24	**4576**	**1656**	**976**	**9**	**101**	**02**	**04**	**82**	**06**	**00**
Month	**HP**	**BR**	**JHK**	**J&K**	**WB**	**ORISSA**	**TN**	**Other States**	**F.Cntry**	**Total**
Year 2023-24	**10**	**325**	**25**	**17**	**46**	**09**	**01**	**178**	**02**	**8025**

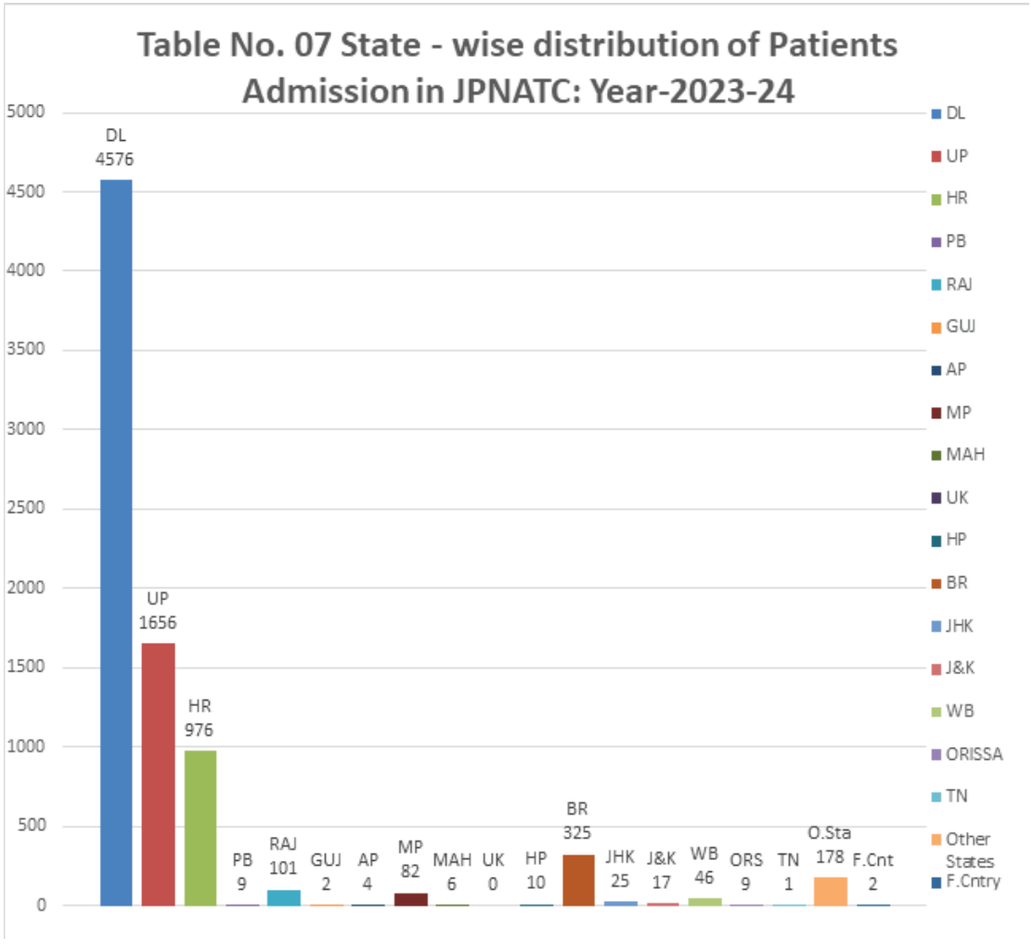


Table No.08 Department wise Discharge distribution at JPNATC:Year-2023-24

Department	Year-2023-24
Orthopedics	**2915**
TSCC/Surgery	**2076**
Neurosurgery	**2084**
PRS	**0409**
Total	**7484**

Table No. 09 Gender wise distribution of Discharges of Admitted patients at JPNATC:Year-2023-24

Category	Year-2023-24	Splty wise	M	F	M.Ch	F.Ch	Total
Male	**5486**	**Ortho**	**2015**	**728**	**130**	**042**	**2915**
Female	**1320**	**T/S**	**1650**	**271**	**101**	**054**	**2076**
Male Child	**448**	**N/S**	**1499**	**288**	**187**	**110**	**2084**
Female Child	**230**	**PRS**	**0322**	**033**	**030**	**024**	**0409**
Others	**00**	**00**	**0000**	**000**	**000**	**000**	**0000**
Total	**7484**	**Total**	**5486**	**1320**	**448**	**230**	**7484**

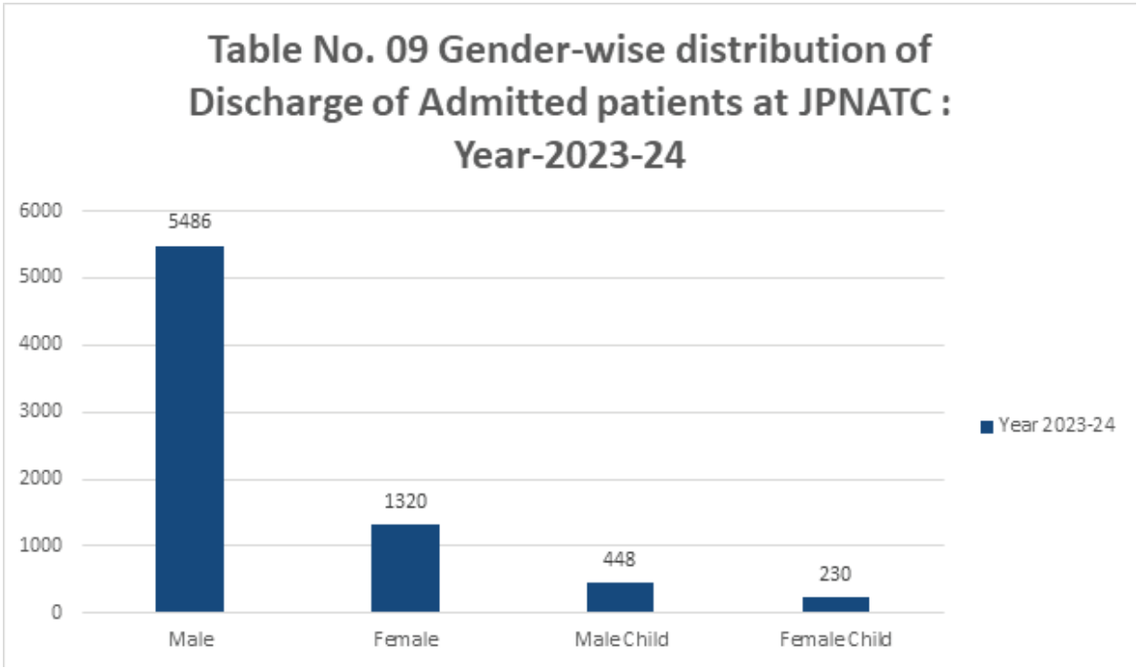


Table No. 10 Department wise Average length of StayALOS (Days):Year-2023-24

Department	Year-2023-24
Orthopedics	**08.18**
TS&CC/ (Surgery)	**09.74**
Neurosurgery	**10.97**
PRS	**08.85**
Total	**09.43**

Table No.11: Department wise Death Data at JPNATC: Year – 2023-24

Department	Discharges	Total Death	Deaths under 48 hrs.	Deaths Over 48 hrs.	Gross Deaths Rate in %	Net Deaths Rate in %
Orthopedics	**2915**	**13**	**00**	**013**	**0.46 %**	**-**
TSCC (Surgery)	**2076**	**126**	**19**	**107**	**6.07%**	**05.20%**
Neurosurgery	**2084**	**347**	**35**	**312**	**16.65%**	**15.23 %**
PRS	**0409**	**00**	**00**	**00**	**-**	**-**
ED Death	**53913**	**110**	**110**	**00**	**0.20%**	**-**
ED= BD+D. Death	**-**	**51=45BD 06 491=381BD` 110 ED**	**-**	**-**	**-**	**-**
Deaths Occurred at TC	**-**	**596=486WD 110 ED**	**146=54 WD 110 ED**	**432**	**-**	**-**
Total Deaths Registered at TC	**-**	**977= 381 BD 486 WD 110 ED**	**164**	**432**	**-**	**-**

Total	**7484**	**596**	**164**	**432**	**07.96 %**	**05.90 %**
		Total Registered Death : 977=M 784 + F 139+Mch 30+Fch 24				

Table No: 12 Total Death Registered: Year 2023-24

Month	M	F	M.ch.	F.ch.	Other	Total	Brought Dead	Total Death Occurred at TC	Daily Avg. Death Report.
Year-2023-24	**784**	**139**	**30**	**24**	**00**	**977**	**381**	**596**	**977/366=2.67**

Table No: 13 Hospital Vital Indicator:Year-2023-24

Month	Death under 48hrs	Death over 48hrs	Total Death Occurred at TC	GDR%	NDR%	BOR%	ALOS (Days)	BTOR /bed	Daily Avg. ED Patient Attendance	Daily Avg. FOPD Attendance
Year-2023-24	**164**	**432**	**596**	**7.96**	**5.90**	**75.90**	**9.43**	**2.45**	**61938/366=169.23**	**50025/296=169.0**

Table No. 14 Surgical Procedures done in Year-2023-24

(Operation Performed)

Department	Major	Minor	Total	Male	Female	M.ch.	F.ch	Total
Orthopedics	**3493**	**95**	**3588**	**2592**	**781**	**157**	**58**	**3588**
TSCC(Surgery)	**2323**	**41**	**2364**	**1983**	**210**	**121**	**50**	**2364**
Neurosurgery	**1614**	**26**	**1640**	**1200**	**204**	**162**	**74**	**1640**
PRS	**630**	**20**	**0650**	**0505**	**063**	**047**	**35**	**0650**
Total	**8060**	**182**	**8242**	**6280**	**1258**	**487**	**217**	**8242**

Table no. 15 Gender wise distributions of Operations performed: Year-2023-24

Category	Year-2023-24
Male	**6280**
Female	**1258**
Male Child	**0487**
Female Child	**0217**
Total	**8242**

Table No. 16 Minor OT DATA FOPD JPNATC (Year-2023-24)

Department	Deptt./Div. SL. No	Majors	Minor Case	M	F	M.Ch	F.Ch	Total
Neurosurgery	**03**	-	2691	2031	406	178	76	2691
Orthopedics	**01**	-	6116	4427	1209	377	103	6116
Fragility Fracture Liaison Service(Ortho)	**01A**	-	199	107	81	09	02	199
TSCC(Surgery)	**02**	-	3756	2955	498	230	**73**	3756
Oral & Maxi facial Surgery (TSCC)	**02B**	-	4095	3175	502	297	121	4095
Amputation Clinic(TSCC)	**02A**	-	475	393	50	17	15	475
Urology		**-**	228	189	35	04	00	228
Aanesthia PAC			**95**	66	**15**	**12**	**02**	**95**
Neuro-Aanesthia PAC			**134**	99	**19**	**10**	**06**	**134**
Psychiatry			**33**	26	**07**	**00**	**00**	**33**
PRS			**36**	32	**04**	**00**	**00**	**36**
Chest trauma			**5**	**04**	**00**	**00**	**01**	**5**
Total			**17863**	**13504**	**2826**	**1134**	**399**	**17863**

Table No: 17 Minor OT DATA EM Deptt.(Yellow+Green Triage) Year-2023-24

CASE TYPE Year-2023	Major Case	Minor Case	Total Case
SUTURE	-	13651	13651
DRESSING	-	10086	10086
GRAND TOTAL	-	23737	23737

Table No: 17A ED PLASTER OT/ROOM YEARLY DATA.

(Red +Yellow + Green Triage) Year-2023-24

TYPE OF PLASTER CAST	Plaster Cast/ Slab Applied	Plaster Cast/ Slab Removed	Total Case
UPPER LIMB	6611	227	6838
LOWER LIMB	5694	289	5983
CHEST BRACE	2300	028	2328
GRAND TOTAL	**14605**	**544**	**15149**

Table No. 18 Gender wise Distributions of Minor OT at FOPD Data (Year-2023-24)

Category	Year-2023-24
Male	**13504**
Female	**2826**
Male Child	**1134**
Female Child	**399**
Others	**00**
Total	**17863**

Table No. 19 Patients Attendance in FOPD Clinics: (Year-2023-24)

Department	Deptt./Div. SL.No	New Cases	Old Cases	Total Cases
Orthopedics	01	13844	16884	30728
TSCC (Surgery)	02	3212	2593	5805
Oral & Maxillofacial Surgery	02B	1733	1669	3402
Neurosurgery	03	3587	4680	8267
Urology	02C	084	227	311
Psychiatry	-	144	217	361
Pain & PAC	-	47	13	60
Amputation	-	169	337	506
Neuro PAC	-	188	113	301
FFLS	-	133	151	284
Total	**-**	**23141**	**26884**	**50025**
Daily Avg. patient attendance		**23141/296= 78.18**	**26884/296= 90.83**	**50025/296= 169.00**

Table No:19A Clinic/Unit & Gender wise FOPD Data :Year-2023-24

Sl.No.	Specialty	Unit	Male	Female	Mch	Fch	Total
01	**NEUROSURGERY**	**NEW**	2513	608	307	159	3587
		OLD	3477	734	328	141	4680
		TOTAL	**5990**	**1342**	**635**	**300**	**8267**
02	**ORAL & MFS (OMS)**	**NEW**	1306	242	112	73	1733
		OLD	1415	208	032	14	1669
		TOTAL	**2721**	**450**	**144**	**87**	**3402**
03	**ORTHO-A**	**NEW**	3791	1616	524	258	6189
		OLD	5378	1993	642	240	8253
		TOTAL	**9169**	**3609**	**1166**	**498**	**14442**
04	**ORTH-B**	**NEW**	4579	2290	520	266	7655

		OLD	5658	2239	511	223	8631
		TOTAL	**10237**	**4529**	**1031**	**489**	**16286**
05	**Psychiatry Clinic**	**NEW**	116	27	00	01	144
		OLD	177	40	**00**	**00**	217
		TOTAL	**293**	**67**	**00**	**01**	**361**
06	**TRAUMA SURGERY & CRITICAL CARE**	**NEW**	2441	477	189	105	3212
		OLD	2129	347	085	032	2593
		TOTAL	**4570**	**824**	**274**	**137**	**5805**
07	**UROLOGY**	**NEW**	074	07	02	01	84
		OLD	202	20	03	02	227
		TOTAL	**276**	**27**	**05**	**03**	**311**
8	**Pain and PAC**	**NEW**	27	17	01	02	47
		OLD	13	00	00	00	13
		TOTAL	**40**	**17**	**01**	**02**	**60**
9	**Amputation Clinic**	**NEW**	145	17	03	04	169
		OLD	293	23	07	14	337
		TOTAL	**438**	**40**	**10**	**18**	**506**
10	**Truma Ortho-'A' FFLS**	**NEW**	57	74	02	00	133
		OLD	39	112	00	00	151
		TOTAL	**96**	**186**	**02**	**00**	**284**
11.	**Neuro Anesthesia PAC Clini**	**NEW**	145	25	13	05	188
		OLD	89	18	02	04	113
		TOTAL	**234**	**43**	**15**	**09**	**301**
		G. TOTAL	**34064**	**11134**	**3283**	**1544**	**50025**

Table No. 20 Total No of Patients Attended in Emergency Department:(Year-2023-24)

Category	Year-2023-24
Total patients attendance in E.D.	**61938**
Daily Avg. patient ED attendance	**169.23**
Total no. of admission(IPD)	**8025**
Average admissions per day(IPD)	**21.93**
Average length of stay (days)	**9.43**
Total no. of follow up FOPD cases.	**50025**
Daily Avg. patient FOPD attendance	**50025/296 = 169.00**

Table No. 21 Gender wise distribution of E.D. patients: (Year-2023-24)

Category	Year-2023-24
Male	**40924**
Female	**14760**
Others	**13**
Male Child	**3979**
Female Child	**2262**
Others	**00**
Total	**61938**

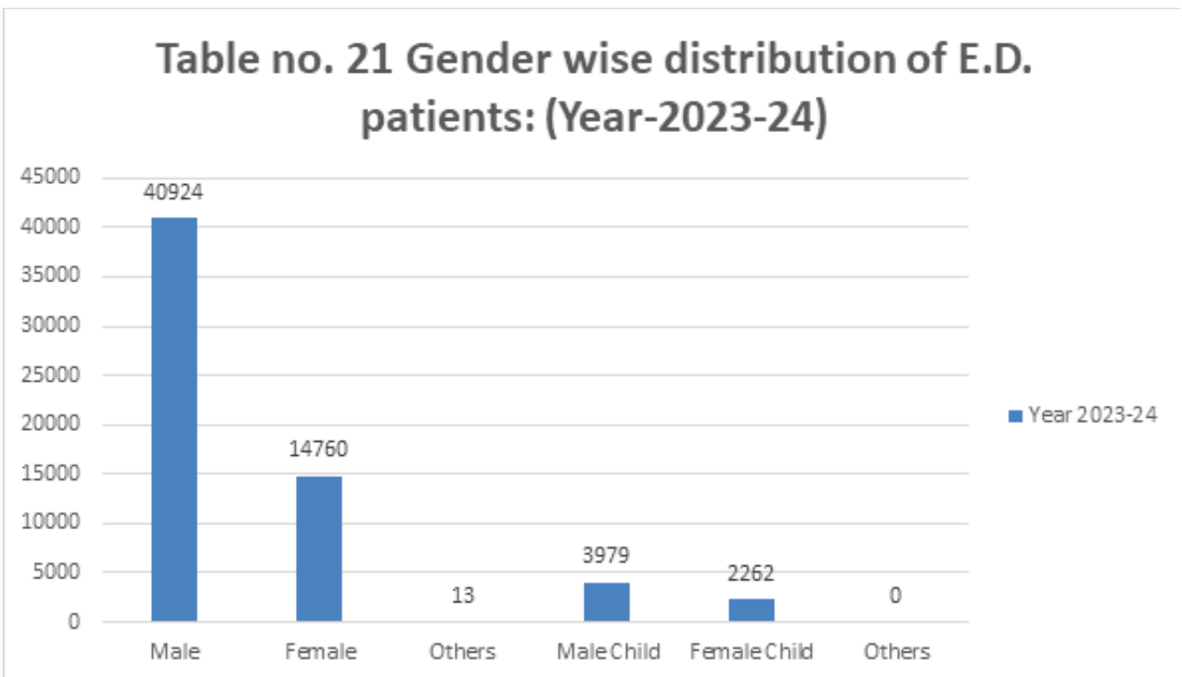


Table No. 22 Medicolegal cases distribution in E.D: Year-2023-24

Category	Year-2023-24
MLC	**36546 (59.00%)**
Non MLC	**25392 (41.00%)**
Total	**61938**

Table no. 23 EM Deptt.Triage-wise breakup of Patients:Year-2023-24

Category	Year-2023-24
Red	**6187 (9.99%)**

Yellow	**36789 (59.40%)**
Green	**17550 (28.33)**
Black	**143 (0.23%)**
Others(OPD, RD)	**1258 (2.03%)**
Organ Donation Bodies	**11 (0.02%)**
Total	**61938**

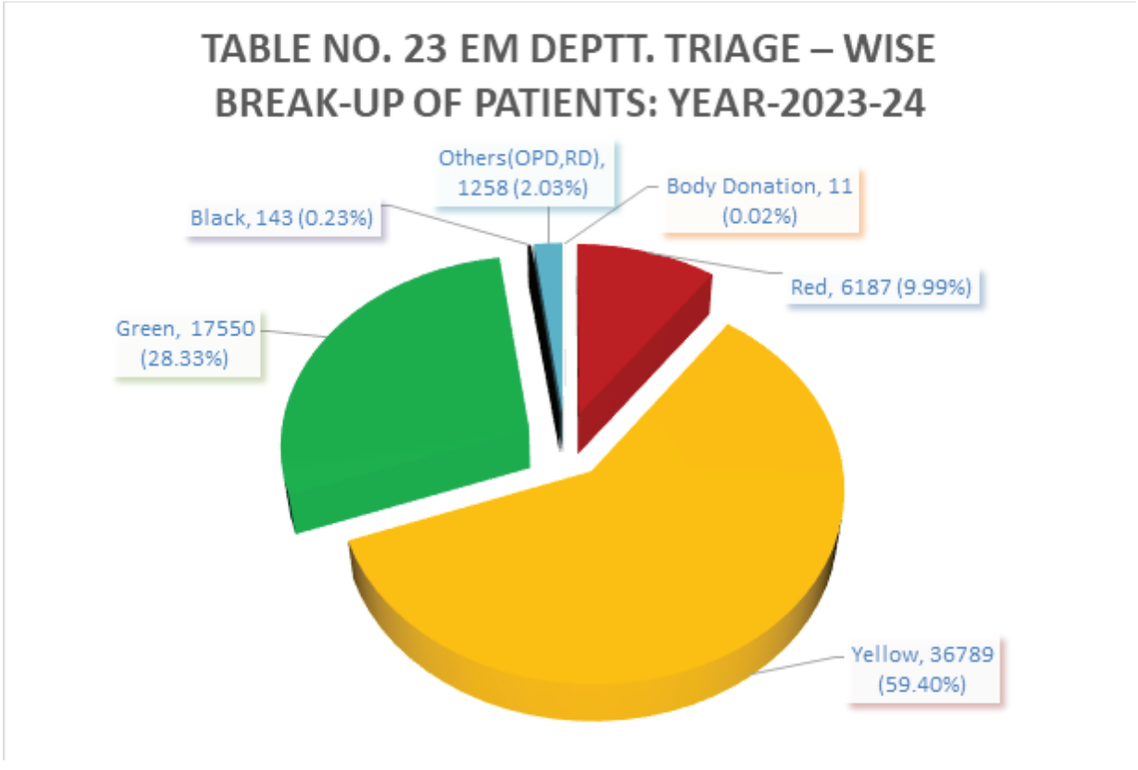


Table No: 24 State wise ED Patient Attendance Distribution JPNATC: Year 2023-24

State	**DL**	**UP**	**HR**	**PB**	**RAJ**	**GUJ**	**AP**	**MP**	**MAH**	**UK**
Data	**4576**	**1656**	**976**	**09**	**101**	**02**	**04**	**82**	**06**	**00**
State	**HP**	**BR**	**JHK**	**J&K**	**WB**	**ORISSA**	**TN**	**Other States**	**F.Ctry.**	**Total**
Data	**10**	**325**	**25**	**17**	**46**	**09**	**01**	**178**	**02**	**8025**

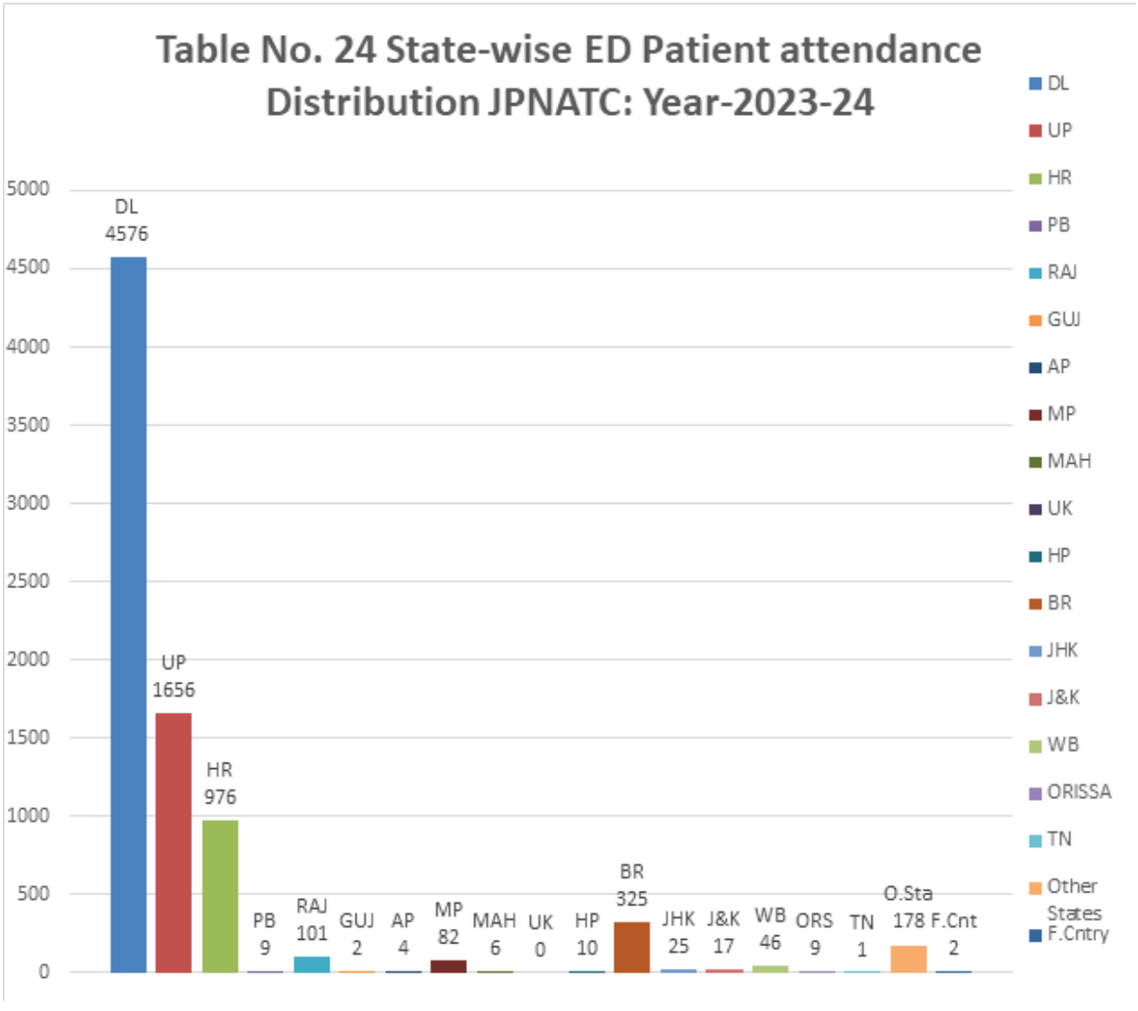


Table No.24 Anesthesia services provided: year 2023-24

Type of anaesthesia	2023-2024
General anaesthesia (GA)	2644
GA with regional anaesthesia	84
Spinal anaesthesia	1089
Combined spinal-epidural anaesthesia	1115
Regional anaesthesia	520
General anaesthesia with epidural	64
Monitored anaesthesia care (MAC)	20
MRI/DSA	195
Acute pain services	1221
Pain clinic	31
PAC clinic	122

Table No. 25 Critical care services provided: year 2023-24

	2023-2024
Admissions	833
Tracheostomy	26
Bronchoscopy	178
Dialysis	236

In addition to above, MRS performs below mentioned services also:

LIC case disposed of – 46, RTI applications – 36, Police request -1907 (discharge summary), Police request (X-ray) - 3311, Files retrieval for research purpose - 1870, Demographic patient record corrections (EWD) - 963, Online/offline (hardcopy) NDMC Birth/ Death information - 973 cases. Total court Summons attended - 1868, attended by Doctors with MRT only -1569, attended by MRT only -299, within Delhi -1569, outside Delhi - 299, Police opinion -1849, Files retrieval (OSR) - 510.

Total Number of Disability Evaluation Cases -72

NB:#In suppression of all previous bed distribution notifications, the latest bed distribution notification is issued from AMS office, vide circular no. 047/MS/JPNATC/23 dt. 10 August 2023. Therefore, Total functional beds at present in TC = 254.Excluding ED Triage beds.

(The above statistical data is based on data received/retrieved from EWD/ward/OT/FOPD. The above given Bar/Pia chart/graph is indicative only)

Samples processed in the Microbiology Laboratory, JPNA Trauma Center

1st April 2023 to 31st March 2024

S. No.	Description	Tests
	Microbiology	
1	**Total Microbiology Sample**	**21777**
2	**Positive sample**	**4394**
3	**Sensitivity**	**4394**
4	**Hospital Infection Control**	**5873**
5	**Rectal Sample**	**300**
6	**KOH/Fungal**	**292**
	Total	**37030**
	Serology	
1	**Procalcitonin**	**3399**
2	**Viral Marker (spot)**	**9389**
3	**Viral Marker (Sensitivity Vidas)**	**9389**
4	**Anti HBsAg**	**212**
	Total	**22389**

Lab Medicine

Total tests conducted in biochemistry (LFT, RFT, sugar, electrolytes, enzymes, lipid profile, ABG) = 9, 21, 803

Total tests conducted in haematology (hemogram, coagulation and clinical pathology) = 6, 89, 184 +87, 319+8, 548= 7, 85, 051

Total tests conducted in immunology (IL 6, ferritin, Troponin, PCT, vit D, PTH, TFT) = 6, 955

Total tests conducted in Histopathology (routine and Forensic) =9, 791

Total Tests Conduct in Laboratory medicine w.e.f 1st April 2023 to 31st March 2024= 17, 23, 600

BLOOD BANK

Total no. blood donors screened	15077
No. of voluntary blood donation camps	9
Total no. blood donors bled	12034
Number of replacement donors	11319
Number of voluntary blood donors	709
Total number of Packed RBC prepared	11988
Total number of Fresh Frozen Plasma Prepared	11266
Total number of Platelets prepared	10519
Total number of Cryo prepared	415
Total no. of donor grouping done	12035
Total no. of patient grouping done	15551
Total no. of grouping done	27586
Total issued PRBC 11740 FFP 7325 PRC 9233 + 14 SDP CRYO 363	

Neuroanaesthesia

Item	2021-2022	2022-2023	2023-2024
Special clinic consultations (PAC/Pain)	COVID period	1490	1500
Operation room procedures	403 (COVID)	1490	1500
Total inpatient admissions (NICU)	COVID period	1160	1200

Forensic Histopathology

- Number of Cases: 187
- Number of Samples Processed: 448

Collection of Sample for DNA

1. Collection and DNA Fingerprinting Analysis of biological samples from 81 deceased of Balasore, Bhubaneswar for the identification on comparison with their siblings/children
2. A paternity case forward by Family Court, Rohini, Delhi using DNA Fingerprinting,

Medico-Legal Work

Opinion on JPNATC MLC's: 984

Opinion on other hospitals MLC: 26

Opinion on Post-mortem Report: 39

Opinion on weapon Examination: 24

Total no. of Opinions: 989

Number of Post Mortem (April'2023- March'2024): 1177

Multi organ Donor cases at Division of Forensic Pathology and Molecular DNA Laboratory JPNATC, AIIMS

ORBO: Facilitated at Mortuary, Division of Forensic Pathology JPNATC, AIIMS, New Delhi

16 Organ donor cases

106 Corneal Donations

Two post mortem skin donations

List of investigations done in the Radiology department from 1st April 23 to 31st March 24

S. No.	Month		X-Ray	X-Ray		X-Ray	X-Ray				
		CT	MLC	N-MLC	Port	OPD-53	Ward-53	P-CT	MRI	USG	DSA
1	Apr-23	2357	2796	4375	2058	1404	132	94	151	3510	13
2	May-23	2717	2908	4856	2223	1724	125	52	172	3562	8
3	Jun-23	2567	2871	4829	2533	1558	156	21	164	3554	16
4	Jul-23	2629	2905	4515	2699	1704	117	0	165	3812	6
5	Aug-23	2612	2897	4461	2565	1628	106	0	193	3693	6
6	Sep-23	2525	2956	4653	2247	1345	121	0	151	3723	7
7	Oct-23	2954	3076	4998	2458	1535	123	0	123	4089	9
8	Nov-23	2601	2571	4215	2484	1666	137	0	156	3547	6
9	Dec-23	2493	2393	3802	2527	1400	92	0	155	2634	8
10	Jan-24	2472	1997	3635	2241	1551	118	0	155	2634	8
11	Feb-24	2407	2115	3711	2474	1372	141	0	158	2717	10
12	Mar-24	2734	2521	4678	2593	1326	130	0	198	3453	6
Total		**31068**	**32006**	**52728**	**29102**	**18213**	**1498**	**167**	**1941**	**40928**	**103**

Medical Social Welfare Unit, JPNATC (MSW unit)

MSW Unit at JPNATC is also looking for Poor Patient Welfare, Implementation of AB-PMJAY Scheme at JPNATC and creation of ABHA IDs for admitted patients in addition to routine patient welfare activities. I am hereby submitting the detailed Annual Report (2023-24) as under.

S. No.	Tasks	Numbers
1	Exemptions of BPL/Poor/Unknown/Unattended done	267

2	No. of BPL cards verified/Socio-economic assessment conducted	280
3	Rehabilitation of Unknown/Unattended patients	411
4	No. of patients helped through funds channelized under RAN/DAK/ CSR	7 patients; amounting Rs 10,44,100/-
5	Grief/Crisis Intervention Counseling including Sexual assault, child abuse etc.	10-12 (approx.)
6	No. of amputees counseled and guided for rehabilitation purposes	139
7	LP medicines for poor patients	433
8	Walking aids/appliances arranged for poor patients and brace	52
9	Medicines arranged for poor patients	76
10	Suction machines arranged for poor patients	16
11	Distribution of oxygen Concentrators	78
12	Arranged a total donation of Rs 8,94,100/- through 5 donors for the POOR PATIENT ACCOUNT JPNATC, AIIMS, NEW DELHI.	
13	Followed-up of return of Portable Ventilators (arranged through donation money) given to the 2 ventilator dependent patients for use at home	
14	Arranged patient care related services on the occasion of Holi for 24 hours with approximately 30 volunteers posted in 2 shifts in different patient care areas to cover the influx patients and their attendants.	
15	Arranged 1-week long G-20 patient care related services for attending to the foreign delegates and navigating them through the end to end process of treatment protocol.	
16	Distribution of 200 blankets to all the attendants of admitted patients donated by an NGO.	
17	Arranged skin allograft (artificial skin) for two poor patients from CHOITHRAM HOSPITAL AND RESEARCH CENTRE, INOREby arranging advanced payment to the hospital through accounts officer in coordination with treating faculty, senior resident, duty officer, Addl. MS etc.	
	AYUSHMAN BHARAT SCHEME (AYUSHMAN KENDRA)	**Numbers**
1	Total number of newly admitted patients screened for AB-PMJAY entitlement	8083
2	Total number of eligibility checks undertaken	1551
3	Total number of patients found eligible for AB-PMJAY Scheme	703 approx.
4	Total number of golden/PM-JAY cards applied for	197 approx.
5	Total number of pre-authorization requests initiated	772
6	Total number of AB-PMJAY beneficiaries treated at JPNATC	688
7	Got the audio-video spots of the AB-PMJAY run in the TVs of Trauma Centre.	
8	QR code self-eligibility check poster in all the cubicles of all wards and all the other patient care areas.	
9	100% screening of all the admitted patients for AB-PMJAY eligibility.	

	ABHA ID CREATION	Numbers
1	Total No. of patients admitted and attempted to create ABHA ID	5265
2	Total No. of ABHA ID created	1884
3	35% ABHA ID creation (Highest among all the departments creating the same at JPNATC)	

Patient care*(other items may be added/removed as per activity of department)*

Item	2021–2022	2022–2023	2023–2024
OPD consultations			
Special clinic consultations			
Patients provided rehabilitation services			
Total inpatient admissions			

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Abhinav Kumar was Faculty expert in the Cadaver Workshop in the TRAUMA 2023, 13th Annual Conference of ISTAC at AFMC, Pune in November 2023; External Expert for the selection/appointment of Senior Resident in Surgery at IGIMS, Patna, Bihar in May 2023; External Examiner for the MBBS 3rd Professor Part-II Practical examination for surgery at VMMC & SJH held in the month of February 2024; Biosafety Officer (DBT representative) in the IBSC of Atal Incubation Centre- Jawaharlal Nehru University Foundation for Innovation (AICJNUFI-1081), New Delhi; Member of Sub-committee (Medical disposables & consumables) of National List of Essential Medicines (NLEM) of ICMR, New Delhi; Chairperson: Special Scenarios in Trauma 1. TRAUMA 2023, the 13th Annual Conference of ISTAC at AFMC, Pune in November 2023; Chairperson: Special Scenarios in Trauma 1; TRAUMA 2023, the 13th Annual Conference of ISTAC at AFMC, Pune in November 2023; Faculty expert in the simulation-based Training the Trainers workshop for Primer in Trauma; MCC at IIIT New Delhi September 2023; Faculty expert in the IHSCON-NZ 2023 annual conference of India Hernia Society at AIIMS, ND.

Dr Abhishek Singh was Conducted Trauma care training sessions for doctors from Border Road Organization.

Dr Gour Surya Sri Krishna was Examiner for NSI instructional course(online) held on 17 November 2023; Completed Fellowship Programme on Neuroendoscopy Surgery (Brain & Spine) organized by Department of Neurosurgery, N.S.C.B. Govt Medical College, Jabalpur, MP held from 13 March 2024 to 17 March 2024; Moderated a session on Degenerative cervical spine in NSSA 2023 on 15 September 2023.

Professor Adarsh Kuma Delivered First MTMC Oration on 'Quality Assurance in Forensic Medicine' during Eastern Forensic Medicine Innovative Conference i.e. EFMICON-2023 at Manipal Tata Medical College, Jamshedpur, Jharkhand on 14-15 April 2023; Speaker on Role of Various Branches of Science in Criminal investigation during Refresher Course on Interdisciplinary Sciences organized by Guru Ghasidas University, Bilaspur, Chattisgarh as part of faculty development program by UGC on 14 July 2023; Delivered I Bhooshan Rao Oration on "In the realm of Justice, An unseen player - A Forensic Virtuoso" during FORENSIC MEDICON-2024 at AIIMS Nagpur on 18 January 2024; Delivered First Justice Jagdish Sharan Misra Oration on "Medicolegal Aspects of Recordkeeping - An update" during IABSCON-2024 at AIIMS Patna on 24 February 2024; Forensic Excellence Award by Galgotia's University on 22 April 2023; Elected Secretary General of Indo-Pacific Association of Law, Medicine & Science (INPALMS). Elected Vice President of Indian Academy of Forensic Medicine. Nominated Management Committee member of Asia Pacific Association of Medicolegal Agencies (APMLA); Included as International Scientific Committee Member for 26th Conference of International Academy of Legal Medicine to be organized at Athens, Greece on 21-23 May 2024; Board of Studies Member-External Expert in Forensic Sciences at The West Bengal University of Juridical Sciences, Kolkata, Board of Studies Member-External Expert in Forensic Medicine & Forensic Sciences at Manipal University, Manipal, Board of studies Member in Forensic Sciences at Government Institute of Forensic Sciences, Nagpur. Research Advisory Committee member of National Forensic Science University, Ahmedabad, and New Delhi campuses, Board of Studies Member-External Expert in Forensic Medicine at Aligarh Muslim University, Aligarh, Board of Studies Member-External Expert in Forensic Sciences at Maharshi Dayanand University, Rohtak. Honorary Medicolegal Expert to National Human Rights Commission, India.

Amit Gupta was Chairman, Asian Collaboration for Trauma (ACT), November 2022 – To date; National Coordinator for webinars for the Fellowship of National Board of Examinations (FNB) in Trauma and Acute Care Surgery. National Board of Examination in Medical Sciences, MoH&FW, Govt. of India. January 2021- To date; Education Committee Chair of the Asian Collaboration on Trauma. December 2020-Till Date; Member: Experts Group NIHFW, for the Course on Hospital Preparedness for Health Emergencies for Senior Hospital Administrators. 2018 – To date; Member: Experts Group NIHFW, for the Training on Hospital Preparedness for Health Emergencies for District Health Officers, 2018 – To date; Member, Medical Board for Medical/Psychological Examination at AIIMS for Antarctic Expedition Team. 2016 till date; Subject Expert of Trauma and Emergency for the Standing Selection Committee for faculty Interviews on 20 June 2023, AIIMS, Guwahati; Subject Expert for Development of Course Curriculum for the 6-year MCh Course in Trauma Surgery & Critical Care on 22 June 2023, AIIMS, Patna; Subject Expert of Trauma and Emergency for the Standing Selection Committee for faculty Interviews on 3 August 2023, AIIMS Gorakhpur; Subject Expert of Trauma and Emergency for the Standing Selection Committee for faculty Interviews/APS on 18 September 2023, AIIMS Rishikesh; Subject Expert of Trauma and Emergency for the Standing Selection Committee for faculty Interviews/APS on 15 October 2023, AIIMS Vijaypur, Jammu; Convener, Panel on formulation of requisite standards on provisions for two-wheeler road ambulance; Automotive Industry Standards Committee (AISC) Secretariat.

Dr Anant Gupta was DMA Distinguished Service Award; Member Secretary and Project Officer of Infectious Disease and Critical Care Block, ; Member of SPC of JPNATC; Member of SPC of Main Hospital; Guest Lecture for IIM Jammu; Guest lecture for Management Programme in Coal India; Completed the NABH assessor course; Member of Space allocation committee at JPNATC. Space for newly joined faculty; Involved in Modular OT project and OT integration tender. The work will add 5 more OT at JPNATC; Involved in Hybrid OT project (47 Crores) Currently in tendering stage; Involved in planning of Takeover CAPFIMS Medical College by AIIMS New Delhi. The MoU has been signed with MHA. Equipment Procurement MoU signed with HITES; Planning and Designing of CBRN Facility at JPNATC. Site and Feasibility report creation. Planning and Designing of the building. Creation of SFC agenda; Planning and Designing of OPD at JPNATC to augment the OPD Chambers; Planning of and Designing of Solid Organ Transplant Centre; Coordinator of NABH entry level. Application filed for entry-level NABH. More than 10 manuals and various processes created; Received the certification of JPNATC and Burn and Plastic Block; Nodal person at JPNATC for Containment of Vector Bourne Diseases; Member in Implementation of Good Samaritan Scheme; Member of Quick Response team; Involve in enquiry committees; Member of Medical Record Committee at JPNATC; Member of the Department Academic Committee; Officer Incharge Outsourcing Cell; Streamlining of Processes; Operationalization of Skin bank at BPS; Operationalization of 8th Floor OT complex at BPS; Member of TSEC of BPS.

Dr Anjishnujit Bandyopadhyay was Invited as a faculty to attend a workshop of working group of experts on trauma & Burn Care/Medical Laboratory Sciences by Interim Commission for Allied & Healthcare Professionals on 22-24 November 2023; Invited as a specialist advisor to the National Disaster Response Force (NDRF) INSARAG accreditation exercise from 29 October to 2 November 2023; Received The Dr JD Shanmughanathan Best Publication in Anesthesiology in the year 2023 at Ganga Anaesthesia Refresher Course (GARC) 2024 on 20 January 2024; Conducted trauma care training sessions for doctors from Border Roads Organisation.

Professor Ashish Bindra was Organized National Nutrition Month and World Food Day celebration held on 8 November 2023 at JPNA Trauma Center. Organized best-out-of-waste competitions, and made millet-based recipes; Member of cultural committee, 2023; Judging a classical dance in PULSE 2023; 48th Convocation organiser member-21 August 2023 at Jawaharlal Auditorium, AIIMS, New Delhi; Journal club-4, as a coordinator, Title: Recent literature on airway in cervical spine, 1 September 2023, virtual meeting; Member Scientific committee, Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care 2023; Organising Committee 8th Annual AIIMS Neuroanaesthesia and Neurocritical Care Update and 3rd Neurocritical Society of India Conference 2023; Pain and Peripheral Nerve- Blocks and Procedures" Live Operative workshop 14-15 September 2023 Venue: Ramalingaswami Board Room, AIIMS, New Delhi, Chairpersons: Prof KVL Narasinga Rao, Prof Ashish Bindra, Dr Ramesh Doddamani; Member education committee Society for Neuroscience in Anesthesiology and Critical Care (SNACC); Vice-chair Indian Society of Neuroanesthesiology and Critical Care, e-education platform; Received grant as Chief Investigator: Micronutrient deficiency in children with moderate to severe traumatic brain injury: Burden and association with outcome, Funding agency: Indian Council of Medical Research, Funds assigned: 58,23000 INR.

Professor Babita Gupta was Nominated as an Expert for drafting syllabus/curriculum for FNB 'Trauma Anaesthesia and Critical Care' by the National Board of Examination; Nominated as an Expert in the Ethics Committee, National Medical Commission; External examiner for thesis evaluation at Guru Gobind Singh Indraprastha University, Postgraduate Institute of Medical Education and Research and Baba Faridkot University ; Invited as Chairperson in Trauma session in "WAD" held from 14-16 October 2023; Invited as Chairperson for a session on "Trauma" held on 4 October 2023

at the STACC conference in Chandigarh; Judge for e-poster presentation held on 4 October 2023 in STACC conference in Chandigarh; Nominated as an expert for inspection and approval of "FNB Trauma Anaesthesia and Critical Care" Course; Nominated as President of 'Association of Anaesthesiology & Critical care for trauma'; Organising Secretary of "AIIMS Ultrasound Guided Regional Anaesthesia" held in February 2024; Invited as an expert by the Government of India for VVIP ambulance ; Chief Convenor of Emergency Life Support Program for School teachers held on 1st May 2023 and 17 October 2023 which trained around 150 teachers.

Professor Biplab Mishra was Chairperson for General Surgery session, Annual day and Surgery CME; Member, Cadaver research; Subject expert for APS interview, KGMU Lucknow; Subject expert for SSC committee, AIIMS Mangalagiri; External examiner, AIIMS Rishikesh; Founder member, SPAS; Reviewer for articles, Chinese Journal of Traumatology; Reviewer for articles, Indian Journal of Surgery.

Dr Dinesh Bagaria; Moderator of Trauma Surgery Awareness session in "Insight" UG Conference, 28 April 2023; Instructor for NMO -AIIMS emergency life skill training for teachers, 5 May 2023; Faculty in ATLS Instructor Course at Max Hospital, New Delhi, 13-14 May 2023; Moderator at IHSCON 2023, BHU Varanasi, 25-26 August 2023; Moderator in "Minimal Invasive Surgery" session Annual Day & CME in Surgery, AIIMS New Delhi, 4 September 2023; Faculty in "Primer on Trauma" program at IIIT Delhi, 22 September 2023; Organized observation of World Trauma Day at JPNATC, 17 October 2023; Moderator in NBE Webinar on "Intercostal Tube Drainage - Indications, Care & Complications" on 21 October 2023; Moderator at International conference STACC 2023, PGIMER, Chandigarh, 2-5 November 2023; Moderator in "Intraoperative hemostasis: Pharmacological control" session in IHSCON North Zone 2023 at AIIMS, New Delhi, 6-7 November 2023; Faculty Supervisor in AIIMS, New Delhi Common Recruitment Examination 18-20 December 2023; Moderator in AIIMS PELVI -ACETABULAR TRAUMA UPDATE, 15-17 March 2024; External Examiner in MBBS Final Prof Exam at UPUMS Saifai, 18-21 March 2024; Faculty in Trauma Quality Improvement (TQI) workshop, at AIIMS New Delhi, 28-30 March 2024; Reviewer for the Journal of Clinical Orthopedics and Trauma; Reviewer for Journal of Indian Journal of Surgery.

Dr Garima Kacchhawa won First prize (Torrent Young Scholars Award TYSA Award) Efficacy of Levonorgestrel Intrauterine system in reducing menstrual blood loss in women with haematological disorders at AIIMS, New Delhi held on 16 December 2023 (Dr Jai Shree). Shree J, Kachhawa G, Singh A, Dhawan R, Bhatla N. Efficacy of Levonorgestrel Intrauterine system in reducing menstrual blood loss in women with haematological disorders organized by 66th All India Congress of Obstetrics and Gynecology held at Hyderabad from 6-10 January 2024; Member of Selection of Faculty (Contract) in the Department of Obstetrics & Gynae. At LHMC, New Delhi; Observer for MBBS Supplementary Examination – 2023 organized by AIIMS Bhubaneswar Odisha; Member of Committee Referral Policy among the hospitals of Delhi NCR, DGHS, Delhi; Designated nominated Central Public Information Officer since 1 September 2023 to date; Member, Store Purchase Committee (SPC), Hospital Store, AIIMS, New Delhi; Chairman of committed to Increasing uptime and ensuring optimal utilization of bio-medical equipment through the Internet of things at MCH Block; Chairman of Medical Board for examination of cases under legal purview.

Dr Gyaninder Pal Singh

"Appreciation Award" by Disaster Management Cell, DGHS, Govt. of NCTD for G20 Summit training program in July-August 2023; "Appreciation Award" by Director AIIMS, New Delhi for the contribution to skill training at SET facility on 18 October 2023; Treasurer Indian Society of Neuroanaesthesiology and Critical Care (ISNACC); Thesis evaluation: ; MD and DM Thesis – PGIMER, Chandigarh; DM Thesis - NIMHANS, Bengaluru; DM and PhD Thesis – JIPMER, Pondicherry; MD Thesis- Guru Govind Singh Indraprastha University, Dwarka, Delhi; MD Thesis – PGIMS, Rohtak.

Dr Junaid Alam; Intramural project work on Immediate Post Operative Prosthesis (IPOP) vs Conventional Prosthesis got accepted for oral presentation at 82nd Annual Meeting of AAST and Clinical Congress of Acute Care Surgery, 20-23 September 2023, Anaheim, California, USA; Faculty in Cadevaricworshop on trauma at Trauma and ACS on 23 November 2023 at AFMC, Pune; Chaired session on "Blunt trauma abdomen without solid organ injury…Hollow viscous injuries? 5Ws of intervention" on 24 November 2023 at AFMC, Pune.; Given lecture on "Preventive Measures for Road Safety, "on 26 August 2023 organized by NGO; Given lecture on road safety and preventative measures at Jamia Hamdard on 28 March 2024; Chair session on TEP, TAPP, eTEP, IPOIM, TARM, TAR, IPOM, and TAPE session on 6 November 2023 on IHSCON- NZ 2023 AT AIIMS, New Delhi.

Professor Kamran Farooque; Invited as Chairperson for ASSI free paper session on 1 May at 'Spine Week 2023' Conference at Melbourne, Australia. ; Invited as Guest of Honour for the Inaugural Ceremony of Pre-Conference Cadaveric Workshop of NSSA Spine- 2023 on 13 September 2023, 8:00 am at New Seminar Room, JPNATC, AIIMS, New Delhi.; Invited as Chairperson for Session on 'Cervical Trauma' on 12 November 2023 at BSSCON-2023- Annual Conference of Bangladesh Spine Society at Dhaka, Bangladesh. ; Invited as Chairperson for Spine Session- The Emerging

Surgeons on 16 December 2023 at IOACON LUCKNOW 2023 at Lucknow. ; Invited as Chairperson for Arthroscopy Session on 3 March 2024 at UAIOACON 2024 at AIIMS, Rishikesh; Invited as distinguished Speaker in Session on Key imperatives for Road Safety on 16 January 2024 at Hotel Le Meridien, New Delhi Organized by Confederation of Indian Industry; Invited as distinguished Speaker in Session on Guardians of the Road: Empowering Community for Safety on 21 February 2024 at Bhim Hall, Dr Ambedkar International Centre, New Delhi organized by Yuva Road Safety Summit 2024; Scientific Co-Chair for organization of 'NZOACON 2023 Conference' at The Lalit, New Delhi from 12 to 14 May 2023; Invited as External Expert for Fellowship exit examination in Spine Surgery on 15 September 2023 at AIIMS, Jodhpur; Invited as External Examiner for Mch. Spine Surgery exam on 5 December 2023 at AIIMS, Rishikesh; Nominated as 'Internal Examiner' for M.S. Orthopedics postgraduate exit examination on 18 December 2023, at AIIMS, New Delhi; Invited as Subject Expert for Selection of Senior Resident (SR) in the Specialty of Orthopaedics on 26 December 2023 at AIIMS, Vijaypur, Jammu; Invited as External Expert for Standing Selection Committee Meeting for Faculty recruitment on 23 February 2024 at AIIMS, Rishikesh; Inauguration of OPD patient Waiting Area at JPNATC, AIIMS, New Delhi; Supervision & Progress of New Modular OT Complex on first floor at JPNATC, AIIMS, New Delhi; Patron for multiple conferences at JPNATC, AIIMS, New Delhi; Approval for Renovation of Ground Floor OT complex at JPNATC, AIIMS, New Delhi; Providing Leadership and vision for progress and growth of JPNATC, AIIMS, New Delhi.

Professor Kapil Dev Soni Organized multiple educational and capacity-building workshops in Critical Care for in-house doctors and nurses, including workshops on Mechanical Ventilation, Infection Control, Nutrition for Critically Ill Trauma Patients, Research Fundamentals, and Analytical Skills.; Acknowledged and honoured by AIIMS, New Delhi, for invaluable contributions to the organ donation program on "Indian Organ Donation Day"; Appointed as a member of an expert group under the Ministry of Health and Family Welfare (MOHFW) to formulate the scope of practice and prescribing rights of Nurse Practitioners in Critical Care; Appointed as a member of the Editorial Board for Critical Care Communication 2024 under the Indian Society of Critical Care Medicine; Continuously serving as faculty for the Fellowship of Critical Care Ultrasound in the Indian Society of Critical Care Medicine (ISCCM); Involved in writing the ICU standard operating procedures for CBRN emergencies at JPN ATC, AIIMS (ND)"; Served as an external expert for thesis assessments at AIIMS Jodhpur; Participated as faculty in Clinical Grand Rounds titled "Fighting Fall and Frost" in collaboration with Plastic Surgery; Member of the Review Board for journals such as Chest, Medicine® Indian Journal of Critical Care Medicine, PLOS One, Injury, BMJ Indian Journal of Anesthesia, Indian Journal of Medical Research, Journal of Global Infectious Disease, Journal of Emergency, Trauma.

Professor Keshav Goyal Thesis evaluator for DM candidates (PGIMER, NIMHANS) and MD Candidates (Army Hospital Research and Referral, Safdarjung Hospital, PGIMER, University of Delhi South Campus, Delhi); Appointed as External Examiner of Madhya Pradesh Medical Science University, Jabalpur (MP) for MD anesthesiology; Course director cum National Coordinator of 1stAcute Neuro Care (ANC) Train the trainer (TOT) program affiliated with National Society (ISNACC) and NCSI in November 2023 at JPNATC, AIIMS, NEW DELHI; Part of organizing committee and conducted physical ANC at various cities across India (Haryana (Gurugram), Kerala (Kottayam), Maharashtra (Wardha, Latur) for capacity building; Reviewer of clinical neurology and Neurosurgery and International Journal of Respiratory and Pulmonary Medicine; Emergency Neurological Life Support (ENLS)- Train the trainer Course Instructor Recertification.; Reviewer of clinical neurology and Neurosurgery and International Journal of Respiratory and Pulmonary Medicine; Elected Executive council member of national societies ISNACC and Treasurer for NCSI; Awarded Honorary fellowship of Global Association of Physicians of Indian Origin (GAPIO); Elected treasurer of the Neurocritical Care Society of India (NCSI); Executive member of organizing committee of 1st ANC TOT Course November 2023 at JPNATC; Executive member of organizing committee of ANC courses at various cities across India (Haryana (Gurugram), Kerala (Kottayam), Maharashtra (Wardha, Latur) for capacity building.

Dr Mohammad Kausar Member of the Expert Advisory Committee for the project "Capacity Building of Doctors and Hospital Engineers in Structural and Non-Structural Mitigation Measures for Hospital Safety and Disaster Resilience"-funded by the Disaster Management Cell, Ministry of Health and Family Welfare, Government of India.

Dr Narender Choudhary received Certificate of appreciation for contribution towards skill & simulation-based training at SET Facility, AIIMS, New Delhi; Received recognition certificate from Disaster Management Cell, GNTCD for imparting knowledge as resource person to train medical officers.; Received consolation prize in essay writing competition for officers on occasion of "Hindi Month" organised by AIIMS, New Delhi; Participated as instructor faculty at BLS & ACLS provider course of AHA from 21-23 February 2023, organized by ITC, AIIMS New Delhi; Received Certificate of appreciation for participating in the poster competition held on occasion of 'Chandrayan Mahotsav' at AIIMS, New Delhi.

Professor Navdeep Sokhal; Course Convenor -Successfully organized "AIIMS Critical Care Course" as Course Convenor on 30-31 January 2024. In this course, interns and surgical residents were trained in various lifesaving skills like basic and advanced cardiac life support, airway management, vascular access and cricothyrotomy on mannequins and were

taught basic concept of critical care management.; Chaired 2 sessions in AIIMS pain practice and regional anaesthesia (APPRA) workshop in January 2024 and in the 6th National & 1st International conference of Indian Society of Pain Clinicians (ISPCCON) in December 2023; Workshop faculty to provide hands-on training in Train the Trainers program in Acute Neuro Care in Nov-2023 and in 1st AIIMS Onco-Anesthesiology Update and Annual Conference of the Society of Onco-Anaesthesia and Perioperative Care SOAPCCON 2023; Won consolation prize at animation in PowerPoint competition in December 2023.

Professor Niraj Kumar; Instructor (Faculty) of – ACCC, ANC, ORBO and ATLS courses; As a faculty of ORBO team, facilitate knowledge, and awareness amongst the hospital staff and am also actively involved in procedures related to organ transplantation; Besides teaching our PG & DM residents, I am also actively involved in teaching paramedical staff and OT technicians to upgrade their knowledge and skills; I have prepared multiple choice questions for AIIMS entrance examinations and conducted exam duty as faculty in charge; Constantly involved in making low-cost innovative solutions for OT and ICU-related procedures (Developed a device and applied for the patent process); I was the coordinator of the hemodynamic monitoring workshop at the 4th Annual Conference of the Neurocritical Care Society of India (NCSI 2023); I am actively involved in conducting projects. (Both funded and non-funded). Recently, I have got extramural funding from DST; I was invited as a Judge at the Oral-Paper/Poster Session at the Criticare 2024 Conference.

Dr Nishank Mehta; Received the SRS-GOP Educational Scholarship, awarded by the Scoliosis Research Society (SRS), 2023; Received the NuVasive/SICOT Foundation Scholarships – Best Poster Award at the 43rd SICOT Orthopaedic World Congress, Cairo, Egypt (2023); Received the Delhi Orthopaedic Association Best Publication ('Under 40 years' category) 2023; Received the Delhi Orthopaedic Association Travelling Fellowship, 2023; Joined as Associate Editor of the Trauma section in JCOT (Journal of Clinical Orthopaedics and Trauma) which is the official journal of Delhi Orthopaedic Society and is a PubMed Indexed journal; Guest Editor for the special issue on 'Musculoskeletal Infections' of the North American Spine Society Journal (NASS-J), the official open-access journal of the North American Spine Society (NASS); Completed the AO Spine National Fellowship at Indian Spinal Injuries Centre, New Delhi; Participated as faculty at the 1st National Emergency Life Support 'Training of Trainers' Course at Naharlagun, Arunachal Pradesh.

Dr Nishtha Chawla; Received Dr VD Meel poster award for paper titled, "Factors associated with retention and abstinence in treatment for heroin dependence on abstinence-based treatment: A prospective observational study" at 48th Annual conference of Indian Psychiatric Society – North Zone (ACIPSNZ) held at Srinagar J&K), in October 2023 as presenting author; Dr Buckshey award for paper titled, "Understanding Depression Pathways: Resilience as a Moderator and Early Maladaptive Schemas as Mediators of Adverse Childhood Experiences" at 48th Annual Conference of Indian Psychiatric Society – North Zone (ACIPSNZ) at Srinagar (J&K), in October 2023 (co-author); Young Psychiatrists Award at 75th Annual National Conference of Indian Psychiatric Society (ANCIPS) held at Kochi, Kerala, in January 2024; Poona Psychiatrists Association (PPA) – II award for paper published in the Indian Journal of Medical Research, titled "Cingulum bundle integrity in schizophrenia with auditory verbal hallucinations: A diffusion tensor imaging tractographic study" at 75th Annual National Conference of Indian Psychiatric Society (ANCIPS) held at Kochi, Kerala, in January 2024; The Bombay Psychiatric Society Silver Jubilee Year Award at 75th Annual National Conference of Indian Psychiatric Society (ANCIPS) held in January 2024 at Kochi, Kerala (co-author); Nominated and selected for Capacity Strengthening Program for Disease Burden Estimation in Global Burden of Diseases; Appointed faculty in charge of physiotherapy unit at JPNATC; Appointed as faculty in charge of organ donation committee at JPNATC; Coordinator for an awareness program on POSH Act for staff and doctors at JPNATC.

Dr Pratyusha Priyadarshini; Workshop Convenor for Workshop on "Hands-on workshop for vessel, nerve and tendon repair" on 17 November 2023 at WET LAB SET FACILITY (AIIMS); Took lecture of Trauma Nurse Co-ordinators (TNC) team of various medical colleges of Delhi on topic "Geriatric Trauma" on 7 April 2022; Delivered a talk on "Management of peripheral vascular injury", in TRAUMA 2022 & Asian Trauma Congress, 17-20 November 2022 at Convention Centre, JNU, New Delhi; Poster selected for oral presentation, "A Study of Abbreviated Discharge Protocol in Patients with Blunt Liver and/or Splenic injury", selected for paper presentation in AAST, USA as co-author March 2023.

Professor Purva Mathur; First Prize: Clinical Sciences. Mathur P, Malpiedi P, Walia K, Srikantiah P, Gupta S, Lohiya A, … et al. Health-care-associated bloodstream and urinary tract infections in a network of hospitals in India: a multicentre, hospital-based, prospective surveillance study. Lancet Global Health. 2022 Sep;10(9):e1317-e1325. doi: 10.1016/S2214-109X(22)00274-1. 3rd Annual Research Day, 30 January 2024, JLN Auditorium, AIIMS, New Delhi; First Prize (Poster-SDG Category) Award: Parveen Rasna, Thakur Kumar Arpan, Puraswani Mamta, Sharma Divya, Samanta Projoyita, Singh Vandana, Srivastava Kumar Ashish, Ningombam Aparna, Soni Dev Kapil, Aggarwal Richa, Kumar Subodh, Sagar Sushma, Farooque Kamran, Mathur Purva. Achieving the Sustainable Development Goals (SDG) through Partnership - Collaborative Surveillance Initiative for Healthcare-Associated Infections (HAIs) and Antimicrobial Resistance (AMR) in network of Indian Hospitals. 3rd Annual Research Day, 30 January 2024, JLN Auditorium, AIIMS, New Delhi.;

Second Prize (Poster-SDG Category) Award: Puraswani Mamta, Ashita, Kumari Neha, Singh Vandana, Gunjiyal Jacinta, Ningombam Aparna, Sharma Divya, Aggrawal Richa, Farooque Kamran, Das Bhabhatosh, Mathur Purva. Tackling antimicrobial resistance through collaborative research focusing on one health: Role of environment in transmission dynamics. 3rd Annual Research Day, 30 January 2024, JLN Auditorium, AIIMS, New Delhi.; People Choice Poster/ Critics' (SDG Category) Award: Puraswani Mamta, Ashita, Kumari Neha, Singh Vandana, Gunjiyal Jacinta, Ningombam Aparna, Sharma Divya, Aggrawal Richa, Farooque Kamran, Das Bhabhatosh, Mathur Purva. Tackling antimicrobial resistance through collaborative research focusing on one health: Role of environment in transmission dynamics. 3rd Annual Research Day, 30 January 2024, JLN Auditorium, AIIMS, New Delhi; First Prize (Poster-Senior Resident Category) Award: Verma Sharin, Madaan Nirupam, Mathur Purva, Ningombam Aparna, Malhotra Rajesh, Prasad Ganga. Utility of nano-impregnated surface coating to achieve continuous active disinfection in intensive care unit of a tertiary-level trauma centre. 3rd Annual Research Day, 30 January 2024, JLN Auditorium, AIIMS, New Delhi; Certificate of Appreciation (Poster-Senior Resident Category) Award: Kirti Madhavi, Verma Sharin, Ahmed Nizam M, TluanpuiiVanlal, Ningombam Aparna, Soni Dev Kapil, Aggrawal Richa, Kumar Subodh, Sagar Sushma, Farooque Kamran, Mathur Purva. Spectrum of antibiotic susceptibility in ESKAPE pathogens-A two years review. 3rd Annual Research Day, 30 January 2024, JLN Auditorium, AIIMS, New Delhi; Conducted the Sensitization workshop on HAI surveillance and its data flow (National Programme on AMR Containment) on 16-17 January 2024 at NCDC, Delhi.

Dr Rahul Chaurasia included as a member of the Technical Resource Group for Emergency Rooms – subgroup Road Traffic Injuries; Dr Rahul Chaurasia: Invited as member of the Department of Health Research (DHR)/Indian Council of Medical Research (ICMR) and National Medical Commission (NMC) for identification of MD/MS thesis topics; Dr Rahul Chaurasia: Invited to a live TV programme for "Blood Donation" by DD News.

Professor Richa Aggarwal invited as chairperson for the 1st Annual International Conference of the Society of Trauma Anaesthesia and Critical Care held from 2 to 5 November 2023; Invited as judge for the award paper session in 1st Annual International Conference of Society of Trauma Anaesthesia and Critical Care held from 2 to 5 November 2023; Invited as judge for the award paper session in 13th Annual Conference "TRAUMA 2023" of the Indian Society for Trauma & Acute Care (ISTAC).

Professor Riniki Sarma was Awarded 1st Prize in the Scientific Paper Presentation category of SOAPCCON 2023 (25-27 August 2023).

Professor S Arulselvi was a Member of NMC PG expert committee to Medical Council of India in the selection of colleges for starting or upgrading PG medical courses in India; Chairman of technical specification committee for laboratory consumables/items; Member of Hospital purchase committee in various common stationaries, linen, and computer peripherals through Gem in JPNATC, AIIMS; Hospital Transfusion committee meeting in JPNATC; Taken part in ICAHP- Interim commission for allied and healthcare professionals. To discuss and finalize "National commission for allied and healthcare professionals act 2021"; Been an expert in the selection of faculty in Laboratory Medicine in RIMS, Ranchi (11 January 2023); Been an expert committee member in revision of curriculum for immunohematology and Transfusion Medicine under NMC, Academic cell. ; Taken part in ICAHP- Interim commission for allied and healthcare professionals. To discuss and finalize "National Commission for Allied and Healthcare Professionals Act, 2021".

Dr Samarth Mittal; Gold medal award for best paper presentation during DOACON 2023 held at Kaushambi, Ghaziabad on 3-5 November 2023; Selected as a member of the Standard Treatment Workflow (STW) committee for orthopaedics in ICMR for drawing STWs of common orthopaedic conditions for national use; Selected as an assessor for the National Board of Examinations (NBE); Organised 5th Annual Congress of the APOA YSF India Chapter as the organising secretary held at JPNATC, AIIMS on 22-23 April 2023; Organised 4th Global Regenerative Medicine Summit & workshop on stem cell & PRP as the organising secretary held at JPNATC, AIIMS on 29–30 April 2023; Selected as an editorial board member of the Journal of Orthopaedics which is a peer–reviewed, PubMed-indexed journal and one of the 3 PubMed indexed orthopaedic journals from India.; Continued as Section Editor for IJO (Indian Journal of Orthopaedics) which is the official journal of the Indian Orthopaedic Association and is a PubMed Indexed journal; Elected as Executive committee member of DOA; Continued as Treasurer of APOA (Asia Pacific Orthopaedic Association) YSF India Chapter; Continued as Associate Editor of JCOT (Journal of Clinical Orthopaedics and Trauma) which is the official journal of the Delhi Orthopaedic Society and is a PubMed Indexed journal; Elected as joint secretary of North Zone Orthopaedic Association (NZOA); Elected as IOA State Representative from Delhi; Continued as AOSpine elected delegate member from India; Elected Joint secretary of SDOS (South Delhi Orthopaedic Society); Completed fellowship in Spine Surgery from Schulthess Klinik, Zurich, Switzerland from 15-26 May 2023; Completed AO Junior Faculty Education programme held at Chiang Mai, Thailand from 17-19 July 2023.

Professor Sanjeev Kumar Bhoi Focused his area of work on emergency and trauma care system building in India and South East Asia. Assessing the status of facility-based emergency and injury care systems in secondary and tertiary care in India and providing technical advice to the NITI Aayog in building emergency care system; Presently his major focus area is the use of point-of-care ultrasound for emergency & trauma conducting training programs on using point-of-care ultrasound in Medical education by training undergraduate students to learn anatomy and physiology; Involved in training postgraduate students to use point-of-care ultrasound in acute/emergency care including its use in disaster scenarios; As a mentor he is pursuing a chief guide for a point-of-care ultrasound-related thesis and another thesis as a co-guide; Serving as Educational Sub-committee co-chair of global emergency medicine research network "Emergency Medicine Education & Research by Global Experts (EMERGE)" with a vision to transform lives globally through emergency care research; Serving as an officer of the WHO-collaborating centre for Emergency and Trauma in the region and have been working collaboratively with various states of India and member countries of SEARO for emergency medicine in building systems of integrated emergency and trauma care in India and SEAR region; Done high-quality research work and has ongoing projects funded by ICMR, New Delhi and other projects in collaboration with WHO-SEARO; Quality emergency care for addressing patient safety concerns has been his domain of work for a decade and he continues to focus on this issue. Key area of his research is Trauma hemorrhagic shock especially translational, for last 8 years and he has published many research papers on the same.

Dr Sharmishtha Pathak; Became certified ATLS Instructor.

Dr Siva Srivastava Garika; Organizing committee member of the 5th APOA Young Surgeons Forum India Chapter, 22-23 April 2023 organised by the Department of Orthopaedics, JPNATC, New Delhi; Organizing committee member of the North Zone Orthopaedic Association -NZOACON 2023, 12-14 May 2023 organised by the Department of Orthopaedics, AIIMS, New Delhi; Invited as Table Faculty in AO Trauma Course- Basic Principles of Fracture Management, 14-16 July 2023, New Delhi; Invited as a specialist Orthopaedic advisor to the National Disaster Response Force (NDRF) INSARAG accreditation exercise, Government of India: 29 October to 2 November 2023; Conducted Trauma care training sessions for doctors from the Border Roads Organisation, Government of India at JPNATC, New Delhi.; Organizing committee member of the 5th AIIMS-ACSST Cadaveric Pelvic Acetabulum Course, 15-17 March 2024 organised by the Department of Orthopaedics, JPNATC, New Delhi.

Professor Soumita Bagchi; Associate editor Seminars in Dialysis; Subject editor (glomerular diseases) Nephrology Carlton; Alumni Mentor for research projects for MSc (Public Health) for London School of Hygiene and Tropical Medicine; Alumni participant in pilot project for decolonising the curriculum (DtC), and equity, diversity and inclusion (EDI) in research projects for MSc (Public Health) for London School of Hygiene and Tropical Medicine; Member, Subject Expert Committee (SEC) of CDSCO, New Drugs Division; Member, The Transplantation Society (TTS) international CMV consensus group for the 4th International CMV and solid organ transplant consensus guidelines.

Professor Subodh Kumar; Awarded Fellowship of National Academy of Medical Sciences (FAMS) during 63rd Annual Conference of National Academy of Medical Sciences NAMS-Convocation (NAMSCON 2023) on 7 October 2023 at Ramaiah Medical College, Bengaluru.; Chairman of Technical Specification & Evaluation Committee (TSEC) at JPNATC, AIIMS, New Delhi; Member of Trauma Quality Improvement Program (TQIP) at JPNATC, AIIMS, New Delhi; Managing Editor of the Indian Journal of Surgery, a peer-reviewed official Journal of the Association of Surgeons of India; Organizing Chairman – IHSCON-NZ 2023 held on 6-7 November 2023 at AIIMS, New Delhi; Invited as Chairperson in TRAUMA 2023, 13th Annual Conference of Indian Society for Trauma & Acute Care (ISTAC®) held on 24 November 2023 at AFMC, Pune; Panelist for the 18th TUGSS India Online Symposium on "Trauma Management-Basic to Recent Updates" held on 12 May 2023; Expert Member for Standing Selection Committee meeting for Faculty selection at AIIMS, Guwahati held on 19 June 2023 at AIIMS, Guwahati; External Expert for the Faculty selection committee held on 29 August 2023 at Lady Harding Medical College, New Delhi; External Expert for the Selection Committee of the Department of Endocrine Surgery on 29 August 2023 at King George's Medical University, Lucknow; External Expert for Selection of Senior Resident (SR) in the specialty of General Surgery on 4 October 2023 at AIIMS, Jammu; Nominated as an Expert Member for the "Expert Training Module" by the Ethics and Medical Registration Board (EMRB), National Medical Commission on 30 October 2023 at NMC Headquarter, Sector 8, Dwarka, Delhi; Nominated as an Expert Member for the "Good Practice Booklet" by the Ethics and Medical Registration Board (EMRB), National Medical Commission, New Delhi; Moderator- Clinical Case Discussion in "Surgery PG Update 2024" at Lady Harding Medical College, New Delhi on 4 February 2024; Examiners for Thesis of MS (Surgery) for PGIMER, Chandigarh, for King George's Medical University, Lucknow, for Baba Farid University of Health Sciences Punjab; Examiner for Thesis of MCh (Trauma Surgery & Critical Care) for All India Institute of Medical Sciences, Rishikesh and for MCh Thesis of (Endocrine Surgery) King George's Medical University, Lucknow.

Professor Sushma Sagar; Invited as an Expert for Physical hearing of the appeal by Deputy Secretary (EMRB), National Medical Commission on 24 April 2023 at NMC, Delhi; Invited as an Expert Member for the 8th TAC Meeting for

ICMR-DHR-CoE at IITs on 17-18 May 2023 at ICMR Hqrs, Ansari Nagar, New Delhi; Invited as an Expert Member for Standing Selection Committee meeting for selection of Group A Faculty on 19 June 2023 at AIIMS, Guwahati.; Invited as a Subject Expert for the selection and promotion of faculties in the Department of Trauma Surgery on 09 September 2023 at KGMU, UP, Lucknow (Virtual Mode); Invited as an Expert Member for 9th TAC meeting for ICMR-DHR-CoE program under ICMR-MDMS on 18-19 October 2023 at ICMR Hqrs, Ansari Nagar, New Delhi; Invited as an Expert for meeting of the group of experts to study, analyse& document of cases decided by Ethics & Medical Registration Board (EMRB), National Medical Commission for research and publication on 30 October 2023 at NMC, New Delhi; Invited as an Expert Member Interview schedule of Faculty recruitment on 31 October 2023, AIIMS, Madurai (Virtual Mode); Invited as an Expert for meeting of the group of experts to review the progress in finalization of case assignments in the "Good Practice Booklet-Volume 2" by EMRB, National Medical Commission on 1 December 2023 at NMC New Delhi (Virtual Mode); Invited as a Subject Expert for Regular faculty Interviews, Department of Trauma & Emergency on 05 December 2023 at AIIMS, Nagpur (Virtual Mode); Invited as an External Expert for selection of faculty in the Department of General Surgery and Trauma Emergency (Surgery) on 23 February 2024 at AIIMS, Rishikesh (Virtual Mode).

Dr Suvashis Dash was PGCMDM-Post Graduate Certificate in Medical Management of CBRNE Disasters (2023) University: Indira Gandhi Open University, New Delhi; Advanced Certificate for AI In Digital Health and Imaging (2023-24) from, the Indian Institute of Science, India; Fellow of the Association of Surgeons of India (FAIS); ISPRES Social Media Committee- core member.

Dr Swati Tyagi; Awarded the Certificate of Merit in the 'Workshop on Innovation, Knowledge & Awareness in Virtual Autopsy' conducted at AIIMS New Delhi on 23 February 2024; Awarded the Certificate of Appreciation in the 'Workshop on Innovation, Knowledge & Awareness in Virtual Autopsy' conducted at AIIMS New Delhi on 23 February 2024; Faculty member in the preparation of Standard Operating Procedure for Centre for Advanced Research and Excellence in Virtual Autopsy validated by ICMR HQs and Expert panel; Training lecture at the ICRC Sensitization Workshop on Management of Dead Bodies in Disaster Situations held on 9 October 2023 at AIIMS New Delhi; Training of Medical Officers from DGHS Haryana on 'Introduction to Virtual Autopsy, basic orientation to the functioning of Virtual Autopsy centre and requirements for establishing a Virtual Autopsy centre' held on 1 December 2023; Training of Forensic Pathologists from Maldives as a skill development programme of ICRC from 4 December 2023 to 9 December 2023; Training lecture on 'Virtual autopsy in cases of RTA' in the 'Workshop on Innovation, Knowledge & Awareness in Virtual Autopsy' conducted at AIIMS New Delhi on 23 February 2024; Training Certificate for completion of Program titled as "Gender Based Violence and Medical Forensic Examination" held in association with U S Embassy and International Association of Forensic Nurses on 27 March 2024; Member and Member secretary of the Medical Board in various referred cases from CBI, Courts, NIA, MS etc like; CBI, Delhi/Death investigation case of deceased Ananya Dixit; NIA, Jammu cases for expert opinion and examinations of exhibits "Medicines and syringes"; Member of the team for framing the Standard Operating Procedure in Virtual Autopsy; Member of the Procurement team for multiple items required in mortuary JPNATC; Member of the team deputed for 100% physical verification of the assests and stores in physiotherapy department and TC- 6A ward at JPNATC; Attending Honourable court in Delhi, Punjab and Uttar Pradesh as a medicolegal expert; Organizing coordinator for following workshop; Forensic Anthropology Basics and Virtual Autopsy along with ICRC held on 12-13 June 2023 at AIIMS New Delhi; Workshop on management of dead bodies in disaster situations, and role of Virtual autopsy on 9 October 2023; Workshop on Innovation, Knowledge and Awareness in Virtual Autopsy AIIMS, New Delhi held on 23 February 2024.

Dr Tej Prakash Sinha; Focused his work on Emergency and trauma care system building; Involved in assessing the status of facility-based emergency and injury care systems in secondary and tertiary care in India and providing technical advice to the NITI Aayog in building an emergency care system; Involved in training postgraduate students to use point-of-care ultrasound in acute/emergency care including its use in disaster scenarios. As a mentor, he is also pursuing a chief guide for a point-of-care ultrasound-related thesis and another thesis as a co-guide; Serving as Educational Sub-committee Co-Chair of global emergency medicine research network "Emergency Medicine Education & Research by Global Experts (EMERGE)" with a vision to transform lives globally through emergency care research; Serving as an officer of the WHO-collaborating centre for Emergency and Trauma in the region and have been working collaboratively with various states of India and member countries of SEARO for Emergency medicine in building systems of integrated emergency and trauma care in India and SEAR region; Involved in the preparation of trauma centre for CBRNE emergencies; Handles the administrative management of the emergency department at the trauma centre.

Professor Vijay Sharma; Founder & President Society of Pelvi-Acetabular Surgeons (SPAS); Founder Pelvi-Acetabular Fellowship (JPNATC, AIIMS); GUINNESS WORLD RECORD: The most authors in a single peer-reviewed academic paper is 15, 025 and was achieved by COVID Surg Collaborative and Global Surg Collaborative (both

UK) in Birmingham, UK, as verified on 24 March 2021; Awarded Prestigious Fellowship: From Royal College of Physicians and Surgeons of Glasgow dated 26 November 2021; Academic Exchange Program for 3D Printed Prosthesis development. Hiroshima University Hospital, Japan 24-30 September 2022; National Accreditation Board for hospitals & healthcare providers. Programme on Implementation of NABH 5th Edition Standards for Hospitals 10-12 November 2022; MS Orthopaedics thesis University of Delhi South campus. (6), MS-Orthopaedics thesis AIIMS Rishikesh, MS-Orthopaedics thesis PT BD Sharma University of Health Science, Rohtak (4), MS-Orthopaedics thesis AIIMS Jodhpur (3), MS-Orthopaedics thesis Post-Graduate Institute of Medical Education & Research, Chandigarh; External Examiner: Practical-PG (MD/MS) Orthopaedics (batch- July 2020), Dated: 19-20 May 2023, AIIMS Jodhpur, 2023; MS (Orthopaedics, 2023), AIIMS Jodhpur, Dated 10 June 2023; MS (Orthopedics Annual Practical Examination), PGIMS Rohtak, 14-15 June 2023; Orthopedics MD/MS Practical Examination, (Session May/June 2023), SGRD Institute Medical Science & Research, Sri Amritsar on 24 June 2023; Practical/Oral-MS-Orthopaedics (Supple), Dr Pradeep Kamboj and Dr Raj Singh PT BD Sharma University of Health Science, Rohtak, 18 October 2023; Internal Examiner: M Ch (Trauma Surgery) Dated: 15-16 May 2023, JPNATC, AIIMS; Pelvic-Acetabulum Followship, JPNATC, AIIMS, 18 May 2023; Standing Selection Committee meeting of AIIMS, Jodhpur (Orthopedics and Trauma & Emergency Orthopedics) on 25 July 2023; Theory paper setter: For PG (MD/MS), Orthopedics (Batch July 2020), AIIMS, Rishikesh; For Medical and Surgical Management of Sports Injuries/Conditions for MPT 2nd Year Examination February 2023; For PG (MD/MS), Orthopedics examination, session May/June 2023, Shri Guru Ram Das University of Health Science, Sri Amritsar-5 May 2023; For MPT 2nd year Exam. Controller of Examinations Pt BD Sharma University of Sciences, Rohtak March 2024; Thesis chief guide: Chief Guide: A randomized controlled trial to compare the incidence of symptomatic and asymptomatic venous thromboembolic events following pelvi- acetabular surgery in patients receiving Direct Oral Anti Coagulants (DOAC) and patient receiving Low Molecular Weight Heparin (LMWH) as chemoprophylaxis. Dr Tanish Bansal Junior Resident, Department of Orthopedics, All India Institute of Medical Sciences, New Delhi (Ongoing).

Dr Vineeth Chandran KP had Major focus this year was teaching and training medical staff including doctors, nurses and paramedical staff in basic and advanced emergency management. He was also involved in teaching undergraduate and postgraduate; Actively involved in departmental activities including seminars, panel discussions, simulations, case discussions and bedside teaching; Involved in conducting practical exams for the postgraduate residents in the department; Involved in conducting the DNB emergency medicine practical exam in this institute. There are also regular sessions in the trauma centre conducted by the emergency department for BSF soldiers, CRPF, and CRPF pharmacists on basic emergency care; Invited faculty to the National Emergency Board Review of India Course (NEMBRIC) in February 2024 held in New Delhi. As a part of G20 preparations, JPN trauma centre was the designated centre for CBRNE disasters (chemical, biological, radiological, nuclear, explosives); Was part of the team preparing the JPN trauma centre to manage CBRNE disasters. This includes attending training workshops and conducting mock drills at ministry level, policy-making, drafting institutional protocols, conducting training sessions and workshops for the staff in the institution, and making structural changes in the trauma centre; In charge of post exposure prophylaxis management of staffs in JPN trauma centre and is part of Code blue committee at the trauma centre; Invited faculty for conducting webinar sessions for DNB emergency medicine residents across India and was involved in preparing question paper for EMT students at AIIMS, Nagpur. ; Incharge of resident and faculty roster of emergency medicine department at the trauma centre.

Professor Vivek Trikha; Academic Cell Incharge of the Indian Orthopaedic Association, the national orthopaedic body of India; Member Editorial Board of Indian Journal of Orthopaedics National Journal of Indian Orthopaedic Association (PubMed Indexed journal); Associate Editor of Journal of Clinical Orthopaedics & Trauma (PubMed Indexed journal); Education Committee Member of SICOT World Association of Orthopaedic Surgeons from 2023 onwards.

Dr Yudhyavir Singh; Instructor for the FCCS Obstetric Course (SCCM, USA) in India; Instructor for the FCCS Surgical Course (SCCM, USA) in India; Instructor for the FCCS Basic Course (SCCM, USA) in India; Co-organized 8th AIIMS Ultrasound Guided Regional Anaesthesia; Taken Public lecture on CPR under "Preventive Measures for Road Safety" initiative by January Utthan Samiti; Become founding members of "Association of Anaesthesia and Critical Care for Trauma".

VISITING SCIENTIST

Neurosurgery

University of Messina, Siciliy, Italy

Division of Trauma Surgery and Critical Care

S. No.	Name	Posting Period	Activity	Country
1	Vrishketan Sethi	28 June 2023	Trauma Surgery Observership	General Surgery Resident at University of Pittsburgh Medical Centre in Pittsburgh, Pennsylvania.
2	Dr Parvez MohiUd Din Dar	3-14 August 2023	Trauma Surgery Observership	AIIMS, Jammu
3	Dr Abhinav Mani	17-31 August 2023	Trauma Surgery Observership	AIIMS, Jammu
4	Ms. Verena SussanaBenetele	25 September to 22 October 2023	Trauma Surgery Observership	Germany
5	Ajai Malhotra	3 October 2023	Guest faculty	Acute Care Surgeon Division Chief, Trauma/Critical Care Professor University of Vermont, USA
6	Krishnan Raghvendran	26 January 2024	Guest faculty	Professor Acute care surgery, trauma and care of the critically ill University of Michigan USA

Division of Forensic Pathology & Molecular DNA Laboratory

Dr Anupuma Raina (Sr. Scientist)

A. MEDIOCLEGAL CASE PERTAINING TO DNA FINGERPRINTING

1. Visit Balasore, Bhubaneswar to collect the biological samples from 81 deceased and perform DNA Fingerprinting analysis for the identification on comparison with their siblings/children
2. A paternity case forward by Family Court, Rohini, Delhi using DNA Fingerprinting,

B. Guest Lectures (6)

1. Delivered Guest Lecture organised by Judicial Academy, Delhi
2. Delivered several lectures organized by CDTI, Ghaziabad, UP
3. Delivered several lectures organized by CBI, Ghaziabad, UP

C. Conferences Attended

1. Invited Speaker - at ICFMT conference, scheduled for 25 -26 November 2023
2. Participated in a Workshop Organised by the Department of Forensic Medicine at Bhopal, scheduled on 8 -9 September 2023

D. NABL

1. Participated in Training regarding NABL accreditation
2. Preparing documents for the NABL procedure of Forensic DNA Fingerprinting Lab

E. Paper Published

1. Meenakshi Sharma, Arulselvi Subramaniam, Vaishali Suri, Purva Mathur, Shyam Prakash, Nabarun Chakraborty, Deepak Agrawal, Ravendra Mohan Pandey, Anupuma Raina, Rajesh Malhotra, Sanjeev Lalwani

   "Myelin degradation, axonal changes and expression trajectories of glial cells stimulated by rapid head insult in humans to estimate approximate time elapsed since trauma" Egyptian Journal of Forensic Sciences, 2023, 13:22 https://doi.org/10.1186/s41935-023-00341-6 2023

F. Books

1. Crime Scene Reconstruction (Real case Studies), Revised Edition By Dr TD Dogra, Dr Anupuma Raina

G. On Going funded Project

S. No.	Title of the project	Name of Principal Investigator	Funded by (Name of funding agency)	Duration (years)	Start year	End year	Total funds sanctioned (Rs)
1.	Reliability of seminal sample after BMT in forensic situations	Dr Anupuma Raina	Intramural-approved for funding by AIIMS, New Delhi	3-4	2020	-	Approx 3.2 Lacs

Completed Funded Project

S. No.	Title of the project	Name of Principal Investigator	Funded by (Name of funding agency)	Duration (years)	Start year	End year	Total funds sanctioned (Rs)
1	Evaluation of novel Forensic exhibits and STR informativity of Y-STR markers in chimerism situations	Dr Anupuma Raina	Intramural-approved for funding by AIIMS, New Delhi	5	2016	2021	Approx 3.5 Lacs

10.6 National Drug Dependence Treatment Centre

Professor and Chief
Rakesh Lal

Additional Medical Superintendent
Prabhoo Dayal

Professors

Anju Dhawan
Atul Ambekar
Ravindra Venkat Rao
Sonali Jhanjee
Yatan Pal Singh Balhara
Prabhu Dayal

Professors (Clinical Psychology)

Rachna Bhargava
Gauri Shanker Kaloiya

Professor (Biostatistics)
Ashwani Kumar Mishra

Additional Professors (Psychiatry)

Alok Agrawal
Biswadip Chatterjee
Siddharth Sarkar
Piyali Mandal
Roshan Mohanpant Bhad

Additional Professor (Clinical Chemistry)
Rizwana Quraishi

Associate Professor (Psychiatry)
Shalini Singh

HIGHLIGHTS







During the year 2023-24, NDDTC attended to 349042 patients comprising 7429 new patients and 341613 follow-up cases in general OPD and its 5 speciality clinics at the main centre and the three community clinics and Mobile Methadone Clinic. NDDTC provided inpatient care to 1380 patients. At the main AIIMS campus, 342 new cases and 361 referrals from inpatients from various departments were attended in the 'Consultation Liaison Addiction Psychiatry' service. The NDDTC laboratory conducted 2, 87, 983 tests during the year in its toxicology, haematology, biochemistry and HIV screening labs.

NDDTC coordinates the activity of 27 "Drug Treatment Clinics (DTCs)" under the Drug De Addiction Programme (DDAP) of the Ministry of Health & Family Welfare at the national level. A total of 185414 patients took treatment from these clinics during this period. Under the *Addiction Treatment Facility (ATF)'scheme supported* by (MoSJE) since 2020. NDDTC has approved 103 addiction Treatment Facilities across the country and 66 of them have been inaugurated by the ministry. A total of 47198 patients obtained treatment from these ATFs.

Faculty from NDDTC represented India in key international meetings including the Indo–USA bilateral Counter Narcotics Working Group (CNWG) meeting(July 2023), Washington DC, USA, Guideline Development Group (GDG) member for developing the WHO Clinical Treatment Guideline for Tobacco Cessation in September 2023 in Geneva, Switzerland and the 67th session of Commission on Narcotic Drugs (CND), including the High-Level Segment in Vienna, Austria in March 2024. A total of 114 research articles in peer-reviewed national and international journals of repute, 2 books have been edited and 9 chapters in various books have been published in this period. NDDTC also won the ***third prize*** in the AIIMS Annual Day Poster Exhibition, 23 Sept 2023.

Education and Training

NDDTC trains postgraduate students(MD Psychiatry), MBBS, MSc psychiatric nursing and BSc Nursing students in substance use disorders. NDDTC runs a super speciality course, Doctorate of Medicine (DM) course in Addiction Psychiatry and PhD in Addiction Psychiatry. Clinical and academic training is rigorous and ***weekly*** journal clubs,

seminars and case conferences are part of the academic schedule. During this period the following training activities were carried out:

1. Under the *Addiction Treatment Facility (ATF)'scheme supported* by (MoSJE) since 2020, NDDTC has conducted a total of 25 training workshops where in292 medical professionals, 277 counsellors, 344 nurses and 191 support staff were trained in the treatment of substance use disorders.
2. Short training of 1-2 days for BSc and MSc nursing students from RAK College of Nursing, New Delhi, Holy Family College of nursing and College of Nursing, Army Hospital (R &R) on substance use disorder management were carried out
3. Online Automated Training in substance use disorders is carried out on the NDDTC Web portal: https://naat.co.in.

Category of students/ residents	2021-22 (NDDTC & Department of Psychiatry)	2022-23(NDDTC & Department of Psychiatry)	2023-24 (NDDTC & Department of Psychiatry)	NDDTC*
			Till 2023 September	October 2023-March 2024
MD Psychiatry	40	40	40	-
DM Addiction Psychiatry	13	12	13	12
PhD Addiction Psychiatry	1	1	4	4

* Since 26 September 2023, NDDTC and the Department of Psychiatry are separate administrative units.

List of CME/ Conference /symposium/National and International conferences organized by the department

1. Annual Day Symposium: "Bridging the gap with clap: consultation liaison addiction psychiatry" on 11 April 2023 in Ghaziabad
2. Organized National Conference on Substance Use in Youth: Management, Laws and Policy research on 9 December 2023

Lectures delivered at CMEs, National and International Conferences (all lectures, invited talks, plenary lectures, and guest lectures, *except* named Orations are to be listed here)

Lectures Delivered: 209

Rakesh Lal: 2
Atul Ambekar: 20
Ashwani K Mishra: 21
Prabhoo Dayal: 3
Rizwana Quraishi: 3
Roshan Bhad: 8
Rizwana Quraishi

Anju Dhawan: 4
Yatan Pal Singh Balhara: 46
Rachna Bhargava: 7
Biswadip Chatterjee: 15
Siddharth Sarkar: 10
Shalini Singh: 32

Sonali Jhanjee: 7
Ravindra Venkat Rao: 6
Gauri Shanker Kaloyia: 16
Alok Agrawal:
Piyali Mandal: 9

Lectures delivered over past 3 years

2021-22	2022-23	2023-24
191	168	209

Oral papers/posters presented: 23

Oral/poster presentations over past 3 years

2021-22 (current)	2022-23	2023-24
12	12	23

RESEARCH

Funded Projects

Ongoing

1. "Evaluation of Neurocognitive, Personality, Emotional, and Psychosocial Biomarkers as Candidate Endophenotypes for Opioid Use Disorder &Their Relationship with Polymorphism in Opioid & Dopamine Receptor Genes: Implications for Prevention & Treatment", Prabhoo Dayal, ICMR, 3 Years, 2021-24, Rs 36.62 Lakhs
2. A cross-sectional assessment of risk factors and seroprevalence of Hepatitis C virus infection in individuals receiving agonist treatment for injecting drug use at a community clinic in Delhi, Shalini Singh, AIIMS Intramural research grant, 2 years, 2022-24, Rs 4 Lakhs
3. A study to examine psycho-social & behavioural domains among school-going adolescents during COVID-19 pandemics: Mixed study design, Rachna Bhargava, ICMR, 3 Years, 2022-25, Rs 1.35 Crores
4. A time series approach to evaluating the role of co-occurring depression and anxiety as determinants of outcomes, disability and quality of life among patients with opioid dependence, Siddharth Sarkar, ICMR, 3 years, 2023-26, Rs 17 Lakhs (first year)
5. An evaluation of mu-opioid receptor gene polymorphism (A118G) and long-term naltrexone treatment response in North Indian alcohol-dependent patients, Rizwana Quraishi, ICMR, 3+1 Years, September 19-23, Rs 26 Lakhs
6. An explorative study of knowledge, perceived attitude and risk of addiction potential among different stakeholders concerning recreational cannabis use among youth in India, Roshan Bhad, AIIMS Intramural research grant, 3 Years, 2021-23, Rs 8 Lakhs
7. An exploratory case-control study to assess the risk and protective factors for completed suicide among persons with psychoactive substances use, Yatan Pal Singh Balhara, AIIMS New DELHI, 2 Years, 2023-25, Rs 7.20 Lakhs
8. Assessment of rates and causes of mortality among people with opioid dependence, Ravindra Rao, Indian Council of Medical Research, 3 Years, July 2021 - June 2024, Rs 56.98 Lakhs
9. Development & Pilot Testing of a Biomarker Feedback and Cognitive-Social Health Information-Processing (C-SHIP) Model Based Novel Multi-component Intervention for Smokeless Tobacco Cessation during Pregnancy, Prabhoo Dayal, ICMR, 3 Years, 2023-26, Rs 39.60 Lakhs
10. Development and evaluation of artificial intelligence-based methods models for prediction of self-harm and suicide attempts among the patients of opioid dependence and depression, Dr Ashwani Kumar Mishra (Co-PI), ICMR, 2 years, 2023-25, Rs 49.74 Lakhs
11. Development and validation of an Indian Instrument to assess the severity of Nomophobia, Yatan Pal Singh Balhara, ICMR, 3 Years, 2021-24, Rs 30 Lakhs
12. Development of a comprehensive online intervention to promote safe and healthy use of internet among adolescents and youth, Yatan Pal Singh Balhara, Australian Alumni Grant Scheme- India, (AAGS), 2 Years, 2022-24, Rs 4.41 Lakhs
13. Development of a tool for identification, diagnosis and early intervention for mental disorders among persons with addictive disorders, Yatan Pal Singh Balhara, ICMR, 3 Years, 2023-26, Rs 15.67 Lakhs
14. Effect of circadian rhythm and urinary melatonin levels in the carcinogenesis of endometrial cancer, Rizwana Quraishi, ICMR, 0.5 Years, July 23, Rs 50 Lakhs
15. Hepatitis C testing using dried blood spots among people who inject drugs, with implications for diagnosis and treatment monitoring: A multi-site, cross-sectional study, Rizwana Quraishi, ICMR, 3 Years, February 24, Rs 42 Lakhs
16. HIV, Hepatitis B and C testing in individuals receiving agonist treatment for injecting drug use at a community clinic in Delhi: a cross-sectional assessment of risk factors and seroprevalence, Shalini Singh, AIIMS Early Career Intramural Research Project for the Year 2021-2022, 18 months, 2022-23, Rs 4.4 Lakhs

17. ICMRs Multistate Implementation Research Study on Integration of Screening and Management of Mental and Substance Use Disorders with other Non-Communicable Diseases (ICMR-MINDS), Yatan Pal Singh Balhara, ICMR, 3 Years, 2024-27, Rs 2.30 Crores
18. Identifying Predictors of Suicidal Risk in Individuals with Alcohol Use Disorder Using a Combined Biomarker and Clinical Risk Assessment Approach, Prabhoo Dayal, DHR, 3 Years, 2023-26, Rs 50.60 Lakhs
19. Infrared signature of surgical wound: thermographic profiles and early stage test-accuracy study to predict the surgical site infection in paediatric surgical patients, Ashwani Kumar Mishra (Co-PI), ICMR, 2 years, 2023-25, Rs 84.40 Lakhs
20. Medical and psychiatric comorbidities among patients with alcohol dependence: A multi-centre study from India, Siddharth Sarkar, Indian Psychiatric Society, 1 Year, 2023-24, Rs 3 Lakhs
21. Real-world effectiveness of add-on yoga of patients with opioid dependence stabilized on treatment, Siddharth Sarkar, DST, 3 Years, 2022-25, Rs 36 Lakhs
22. Role of genetic polymorphism in determining risk and severity of opioid dependence: A case-control study, Biswadip Chatterjee, AIIMS intramural funding, 2 Years, 2019-21 (extended up to 2024), Rs 10 Lakhs
23. Role of significant others involvement in retention and outcome on naltrexone among opioid-dependent individuals: An open-label comparative study, Piyali Mandal, Indian Council of Medical Research, 3 Years, 2023-26, Rs 40 Lakhs
24. Role of specific single-nucleotide gene polymorphisms (SNPs) with treatment adherence and outcome with naltrexone among patients with opioid dependence: A naturalistic follow-up study, Biswadip Chatterjee, ICMR, 3 Years, 2021-24, Rs 50 Lakhs approx.

Completed

1. A pilot study of assessment of behavioral markers for treatment-seeking substance use disorders through digital phenotyping: A cross-sectional comparative study from Delhi-NCR, India, Roshan Bhad, Mannki Healthcare Pvt Ltd, 1 year, 2022-23, Rs 3 Lakhs
2. 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, 2018-22, Rs 30.80 Lakhs
3. 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, 2 Years, 2021-2023, Rs 32.60 Lakhs
4. Development and Validation of an Indian Instrument for assessment of severity of substance abuse, Siddharth Sarkar, ICMR, 3 years, 2020-2023, Rs 42 Lakhs
5. Facilitators and barriers in the uptake of HIV-related services among spouses of male Injecting Drug Users, Ravindra Rao, Delhi State AIDS Control Society, 5 months, December 2022 - May 2023, Rs 2.23 Lakhs
6. Peripheral Blood Inflammatory Cytokines and Markers of Neuroinflammation in Alcohol Dependence and Their Association with Behavioural Markers and Alcohol Dependence Treatment Outcome, Prabhoo Dayal, AIIMS (Intramural), 1 Year, 2019-20, Rs 4.63 Lakhs
7. Role of significant others involvement in retention and outcome on naltrexone among opioid-dependent individuals: An open-label comparative study, Piyali Mandal, AIIMS Intramural research grant 2021, 2+1 Years, 2021-24, Rs 4.5 Lakhs
8. Screening and intervention in school students of elementary classes for substance use in Delhi, Rachna Bhargava, Smagra Shiksha, Directorate Of Education, 2½ Years, 2019-2022, Rs 20 Lakhs

Departmental Projects (including thesis/dissertations)

Ongoing

1. A cross-sectional study of the demographic, psychosocial and clinical predictors of nomophobia
2. A hospital-based case-control study to assess and compare the dimensions of motivation in those with alcohol use disorder based on their treatment-seeking patterns
3. A Pilot Study on dropouts in adolescent outpatients with Substance Use Disorder

4. A quantitative exploratory study of socio-occupational functioning, protracted withdrawals and supervision of patients with opioid dependence taking naltrexone treatment
5. Assessment of sexual functioning and sex hormone levels in opioid-dependent males maintained on opioid agonist treatment: A prospective, community-based study
6. Clinical parameters among adults having opioid dependence syndrome with and without ADHD: A Comparative Study
7. Comparison of Different Methods for Estimation of Alcohol Consumption:A Cross-sectional Community based Study
8. Development of Cognitive Behavioral Based psychological intervention model for adolescents in conflict with law
9. Development of Psychological Intervention Module among adolescents with Dissociative Disorder
10. Effectiveness of Nicotine Replacement Therapy (NRT) and Bupropion for Smoking Cessation amongst opioid-dependent subjects on agonist maintenance treatment: A Randomized Open-Label, Parallel-Group Trial
11. Efficacy of Baclofen for cannabis use disorder in patients on Opioid Agonist treatment with Buprenorphine: a double-blind placebo-controlled trial
12. Examining Cannabis consumption patterns amongst college students from academic institutions in Delhi & NCR: A Mixed Method Study
13. Health promoting lifestyle and behaviors among patients seeking treatment for opioid use disorders
14. Issues and challenges faced by family members in supervision of disulfiram used in treatment of alcohol dependence
15. Neuro-biofeedback as a trans-diagnostic treatment approach among adolescents with internalizing disorders
16. Patient preferences for long-term treatment for opioid use disorders
17. Psychosocial correlates of caregiving experience among caregivers of patients with schizophrenia
18. QualityofLifeandAssociatedfactorsamongrecipientsofBuprenorphine-NaloxoneMaintenanceTreatment
19. The Efficacy of a Telephonic Brief Negotiated Interview (BNI) on re-entry of dropouts from Opioid Agonist Treatment: An open-label randomized controlled trial

Completed

1. A comparative study of Injecting and non-injecting male opioid-dependent patients
2. A cross-sectional observational study of patterns and correlations of self-harm in patients with opioid use disorder
3. A randomized controlled trial of family intervention for patients with opioid dependence
4. A study of the assessment of training needs in addiction medicine: A global online survey
5. Assessment of clinical and HPA axis hormones in response to stress challenge in buprenorphine-maintained patients: An exploratory study.
6. Association Between Screen time & Mental, Behavioural and Social Aspects Among School Going Adolescents
7. Association of Tobacco Smoking with Psychiatric Co-morbidities among Patients with Chronic Obstructive Pulmonary Disease
8. Expenditure and Procurement Practices of Heroin among People with Opioid Dependence in Delhi: An Exploratory Study
9. Experience of Patients on Methadone Maintenance Treatment Receiving Take-Home Methadone Doses During COVID-19 Pandemic In India: A Mixed-Method Study
10. Neuropsychological functioning in patients with alcohol dependence: A case-control study
11. Outcomes in Treatment with Tramadol for Opioid Use Disorder over 12 weeks: A Prospective Observational Study
12. Positive aspects of caregiving among patients with opioid use disorder
13. Profiles of risk and resilience: A cross-sectional study to delineate demographic, psycho-social and clinical predictors of Nomophobia among Indian college students

Collaborative Projects

Ongoing

1. A Cross-Sectional Study to Screen for Psycho-sexual Health Disorders and Measure Neurochemical Correlates in Gynaecology Cancer Survivors, Obstetrics and Gynaecology
2. A pilot study to assess the items for the anxiety-related events among blood donors and establish their face and content validity at a tertiary care academic institute in North India, Transfusion Medicine
3. Cognitive changes in children undergoing multiple exposures to anaesthesia for pediatric glaucoma and its association with visual fields and perimetry, Department of Ophthalmology
4. Enhancing Mental Health and Substance Use Literacy among College Going Students in National Capital Territory of Delhi- An Intervention Study, Centre for Community Medicine
5. Evaluation of the bleeding problems, their severity and the psycho-social impact of being a carrier of Hemophilia, Department of Haematology
6. Exploring neuroimaging and metabolomic markers associated with opioid-dependent subjects on buprenorphine maintenance treatment, Department of NMR
7. Exploring neuroimaging and metabolomic markers associated with opioid-dependent subjects on buprenorphine maintenance treatment, Department of NMR
8. Financial toxicity experienced by Indian patients with haematological malignancies and their caregivers, Haematology
9. Functional outcome of patients undergoing thoracic surgery for pulmonary and pleural diseases: a prospective cohort study, Pediatric Surgery
10. Mental Health promotion for college and school-going young people through lay health counsellors and mid-level health care providers model in Nuh, Mewat, Haryana- feasibility, acceptability, and pilot effectiveness study, Department of Centre for Community Medicine
11. Mental Health promotion for college and school-going young people through lay health counsellors and mid-level health care providers model in Nuh, Mewat, Haryana- feasibility, acceptability, and pilot effectiveness study, Department of Centre for Community Medicine
12. Microstates and cortical sources as a QEEG tool to quantify and classify normal, meditative, stressed and psychiatric brain states, Department of Physiology
13. Outcome of ASO in TGA intact ventricular septum with regressed LV in the age group 2-6 months using two-stage VS integrated ECMO-A prospective observational study, CTVS
14. Profiling Injecting Drug Marks in Indian Injection Drug Users, Dermatology

Completed

1. Clinical severity and distress in periocular and ocular malignancy patients during COVID pandemic, Ophthalmology
2. Development and validation of an assessment tool for traumatic maxillofacial and dental re-injury associated fear and anxiety in 10-16 years boxers in Delhi NCR region, Dental
3. HRV and autonomic parameters for supplementing clinical assessment of opioid withdrawal, Physiology
4. Psychosocial factors among patients undergoing orbital exenteration, Ophthalmology

Research over past 3 years

Research projects	2021-22	2022-23	2023-24 (Current)
Total funded projects	34	18	26
Total amount of funding	Rs 1,081,270,000	Rs 175,298,000	Rs 1,03,062,000

PUBLICATIONS

Total Publications: 75; Journal Articles: 65; Abstracts: 3; Chapters in Book: 6; Book/Monograph: 1

Publications over past 3 years

Total number of publication	2021-22	Current (2022-23)	Current (2023-24)
Journal articles	107	111	65
Abstracts	3	5	3
Chapters in book	9	6	6
Book/Monograph	None	5	1

PATIENT CARE

1. OUT-PATIENT SERVICES

Statement showing the data of Hospital Statistics for the financial year 2023-2024 i.e.(1 April 2023 to 31 March 2024)

General OPD	New cases	Old cases	Total
NDDTC	6578	102900	109478
Trilok puri (community clinic)	217	43833	44050
Sunder nagri (community clinic)	406	168839	169245
Kotla mubarakpur(community clinic)	228	26041	26269
Total cases	7429	341613	349042

***NDDTC runs 5 speciality clinics including Dual Diagnosis clinic**, Adolescent clinic. Tobacco cessation clinic, Women clinic and Family Empowerment Clinic

2. OTHER PATIENT CARE STATISTICS

Speciality clinic			
	New	Old	Total
Adolescent clinic	29	193	222
Dual diagnosis	98	354	452
Tobacco cessation	34	298	332
Women clinic	45	205	250
Family empowerment clinic	10	20	30
Total cases	**206**	**1070**	**1276**

Yearly other figures

Total no. of admissions	1380
Total no. of operation theatre/operation cases	NA
Total no. of death	01
Average no of admission per working day	05
Average no. of OPD attendance per working day NDDTC (new patients)	22
Average no. of OPD attendance per working day NDDTC (old patients	348

Average no. of OPD attendance per working day Trilokpuri Community Clinic (new patients)	0.73
Average no. of OPD attendance per working day Trilokpuri Community Clinic (old patients)	148
Average no. of OPD attendance per working day Sundernagri Community Clinic (new patients)	1.11
Average no. of OPD attendance per working day Sundernagri Community Clinic (old patients)	463
Average no. of OPD attendance per working day Kotla Mubarakpur Community Clinic (new patients)	0.77
Average no. of OPD attendance per working day Kotla Mubarakpur Community Clinic (old patients)	88
Bed occupancy in a year	82%
Average length of stay	11 days

CL Addiction Psychiatry services: 342 New Cases and 1168 follow ups in CLAP OPD; 361 referrals from inpatients during 2023-24

NDDTC LABORATORY(2023-24)

Investigations	Number of tests
Haematological	83083
Biochemical	122749
Drug Screening*	81496
HIV screening	655

*Total drug screening done for opioids (morphine, codeine, buprenorphine, dextropropoxyphene, pentazocine, tramadol), pheniramine, naltrexone, benzodiazepines, cotinine, cannabis and inhalants)

Patient Care Statistics in the current (2023-24) and previous two years (2022-23, 2021-22)

Item	2021-22	2022-23	2023-24(current)
OPD Consultation	250687	312793	**349042**
Special clinic consultations	1095	1602	**1276**
Patients provided rehabilitation services	NIL	548	**-**
Total in-patient admissions	407	1165	**1380**
Community clinic consultation (3 clinics)	184, 377	209, 845	**239, 564**
Total hematology tests	35379	82059	**83083**
Total biochemistry tests	48685	110233	**122749**
Total HIV screening	171	584	**655**
Total drug screening done for opioids (morphine, codeine, buprenorphine, dextropropoxyphene, pentazocine, tramadol), pheniramine, naltrexone, benzodiazepines, cotinine, cannabis and inhalants)	17754	42386	**81496**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Anju Dhawan was Advisor, Yoga and Meditation – Specialty Section Indian Psychiatric Society; **Member Executive Committee of APSI (Addiction Psychiatry Society of India);** Member expert group MSJE in the preparation of the National level comprehensive guideline and Standard Operative Procedure (SOP) for providing preventive, treatment, and rehabilitative services in the prison settings for the identified substance users/dependents**; Member National Level Working Group for Substance Use Prevention & Treatment in Prison Settings; Member of the Standing Expert Committee on Addictive Drugs constituted by the Drug De-Addiction Programme, Ministry of Health and Family Welfare, GOI; Member of the Expert Group for preparation of Standard Treatment Guidelines for all New Psychoactive Substances (NPS) constituted by the Drug De-Addiction Programme, Ministry of Health and Family Welfare, GOI; Member Ethics Committee (Thesis) AIIMS.**

Professor Sonali Jhanjee was invited to be a Guideline Development Group(GDG) member for developing WHO clinical treatment guidelines for tobacco cessation and attended the Guideline development meeting for finalization of guidelines from 4 to 6 September 2023 in Geneva, Switzerland; Invited to be a part of the core committee for drafting "Operational Guideline for Establishment of Tobacco Cessation Centre in the Medical Colleges of the country" **by MOH & FW**; Invited to Meeting as an Expert/Members of the sub-group on ENDS regarding updation of evidence/research for prohibition of Electronic Cigarettes (Production, Manufacture. Import, Export, Transport, Sale, Distribution, Storage and Advertisement) Act, 2019 by MOH & FW; Was Chairperson for the conduct of DM Addiction Psychiatry exam in December 2023 in NDDTC, AIIMS; Was invited as a chairperson for the session titled: Evidence on Sequence of Combination Treatment on 9 October 2023 at Jawaharlal Nehru Auditorium, AIIMS for the AIIMS - IPS Psychotherapy Specialty Section CME on Combined Psychotherapy and Pharmacotherapy to be held on 8 -9 October 2023 at AIIMS, New Delhi; Was invited as a chairperson for the session titled Salient Aspect of Substance Use Disorder Among the Elderly in India on 15 September 2023in the International Conference on Mental Health from 14 to 16 September 2023 held at PGIMER, Chandigarh; Was invited to Peer review manuscript for NMJI (National Medical Journal of India).

Professor Atul Ambekar participated as a member of delegation of the Government of India (representative Ministry of Health and Family Welfare) at the 67th session of the Commission on Narcotic Drugs (CND), including the High-Level Segment. Delivered two statements on behalf of MoH&FW, Government of India (March 2024), Vienna, Austria; Participated as representative of the MOH&FW, Government of India in the Indo–USA bilateral Counter Narcotics Working Group (CNWG) meeting (July 2023), Washington DC, USA.; Nominated as Member of expert committee for preparation of Standard Treatment Guidelines for New psychoactive Substances (NPS) – Ministry of Health and Family Welfare, Government of India (2024); Nominated as convenor, of Standing Expert Committee for National strategy and action plan to minimize drug overdose – Ministry of Health and Family Welfare, Government of India (2024); Nominated as Advisor, Addictive Disorder Specialty Section, Indian Psychiatric Society (2024); Nominated as member of, the selection committee for faculty/staff at the Department of Psychiatry at AIIMS, Deoghar and AIIMS, Bhubaneswar.

Professor Rachna Bhargava was Associate-cum-Specialty Editor in the Journal of the Indian Association of Social Psychiatry; Secretary General, Indian Association of Child & Adolescent Mental Health; Member of District Inspection Committee for Foster Care Homes; Mental Health Expert in Y-20 India Summit 2023 Brainstorming Workshop on Health, Wellbeing & Sports, 29 March 2023 at Delhi.

Professor YPS Balhara was awarded AIIMS Excellence Research Award in recognition of outstanding publication under the category of Clinical Sciences; Co-chairperson, Working group 3.2- Engaging people with substance use and substance use disorders of the Coalition To Address Synthetic Drug Threats constituted by Bureau of International Narcotics and Law Enforcement Affairs, U.S. Department of State.; Co-ordinator, South Asia region for the Educational Programs and Regional Support group of the International Consortium for Drug Demand Reduction (ICUDDR); Member, CPDD Mentoring Task Force; Member, CPDD Travel Awards Committee; Member, WHO Expert Group on Addictive Behaviour; Member, Expert group for formulation of cyber safety guidelines for schools by the National Commission for Protection of Child Rights (NCPCR); Secretary, World Association of Dual Disorders (WADD), 2021-2025; Global Master trainer, UNODC on Drug Demand Reduction; Global Master trainer, The Colombo Plan on Drug Demand Reduction.; Global Master trainer, ISSUP on Drug Demand Reduction; 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.

Dr Biswadip Chatterjee chaired the panel discussion session titled 'Management of Medico-legal cases and impact of substance use among youth' at the National Conference on Substance Use in Youth: Management, Laws and Policy Research on 9 December 2023; Chairing the symposium on "Changing trends in sexuality and sexual exploration" at the 17th Biennial Conference of the Indian Association for Child & Adolescent Mental Health on 17 November 2023, NIMHANS, Bangalore; Nodal faculty involved in preparing the posters for NDDTC at the AIIMS Annual Day. The poster won 3rd prize in the competition.

Dr Piyali Mandal was invited as an expert working group meeting of the 2023 UNODC Expert working group on opiate trafficking along the southern route" held on 10-11 May 2023 in Delhi; Invited as a panellist in a National Consultation on "Expanding delivery of and access to evidence-based sexualized substance use services among Men who have Sex with Men (MSM) and Transgender persons" on 10 November 2023 in Delhi by India HIV/AIDS Alliance (Alliance India) with support from the Elton John AIDS Foundation.

Dr Shalini Singh was an expert in the working group meeting of the 2023 UNODC Expert working group op opiate trafficking along the southern route" held on 10-11 May 2023 in Delhi; Member, Capacity Strengthening Program for Disease Burden Estimation, Institute for Health Metrics and Evaluation, University of Washington.

10.7 Neurosciences Center

Department of Neurology

Professor & Head

Manjari Tripathi

Professors

Achal Kumar Srivastava
Mamta Bhushan Singh
Rohit Bhatia
Deepti Vibha

Additional Professors

Vishnu VY
Awadh Kishor Pandit
Roopa Rajan
Rajesh Kumar Singh

Associate Professors

Anu Gupta
Animesh Das
Elavarasi A
Divya MR

Assistant Professors

Ayush Agarwal
Divyani Garg (NCI, Jhajjar)
Jasmine Parihar (NCI, Jhajjar)

CENTER HIGHLIGHTS

In the year 2023-24, the Neurosciences Center continued to scale new heights in patient care, research, education and training. A state-of-art 128 slice dual energy CT scanner installed replacing the 10-year-old 6-slice CT scanner. In addition, 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. New state-of-art Neuro-Angiography suite facility: First of its kind in India. This latest facility will make diagnostic and therapeutic neurointerventional procedures safe, fast and enhance efficacy.

The department of Neurology generated 267 publications, presented 108 posters/oral presentations at various national and international platforms, and is running scientific projects worth 72 crores. Across the country and the globe, the department has formed collaborations with prestigious academic institutes. The department served 100,000+ outpatients, 5,500+ inpatients, and conducted 11,000+ laboratory procedures.

The department of Neurosurgery performed 4933 neurosurgical procedures. In addition, they conducted 26th Annual Micro-neurosurgery Workshop which aims to impart neurosurgical skills to young neurosurgeons from India and abroad. In this workshop, neurosurgery stalwarts including Professor Rokuya Tanikawa from Teishinkai hospital, Sapporo, Japan and Professor Sanjay Behari from SCTIMST, Trivandrum shared their experiences and knowledge with the delegates. Anesthetic management for 3303 neurosurgical procedures were performed in neurosurgical OT and 3 in Gamma-knife suite. Anesthetic management for 492 neuroradiological procedures (320 in Angiography lab and 172 in MRI suite) was performed. Intensive care management of 2917 ICU patients performed. A total of 4942 patients (3274 new and 1668 old) were seen in Pre-Anesthesia Check-up (PAC) clinic OPD at NSC. A total of 710 patients (154 new and 556 old) were seen in pain clinic OPD, NSC and > 400 nerve blocks were given in the pain clinic**.**

The unit of Neuropathology has been able to maintain high standard academics and state of art clinical services. The unit is engaged in routine diagnostic services (total of **2454** cases). New facilities have been added for the molecular diagnosis and cytogenetic work-up in routine work up in neurooncology, which include *in-situ* hybridization, capillary electrophoresis, real-time PCR etc. The diagnostic immunohistochemical panel has been expanded and a total of **22,134**

slides have been stained and studied during this period. The unit is regularly integrating molecular makers of clinical significance in the histopathological reports of Neurooncology and myopathology.

The division of Neuropsychology made collaborative efforts which led to 56 publications, including 7 Abstracts published in journals (only in 2023-24), 18 presentations, and participation in numerous conferences.

HIGHLIGHTS

In the year 2023-24, the Department of Neurology reached new heights in patient care, research, and training. The department generated 267 publications, presented 108 posters/oral presentations at various national and international platforms, and is running scientific projects worth 72 crores. Across the country and the globe, the department has formed collaborations with prestigious academic institutes.

The faculty and residents won many accolades for the institute and served distinguished roles at national and international forums, committees and editorial boards. Professor Manjari Tripathi was recently admitted as a fellow of the National Academy of Medical Sciences. Professor Achal Kumar Srivastava was awarded the fellowship of the American Neurological Association and delivered the Dr KS Neogi Oration. Dr Vishnu VY received the Ashok Panagariya Young Neuroscientist Award from the Indian Academy of Neurology and Dr Roopa Rajan received the Best Original Article Award for publications in Annals of Movement Disorders by the Movement Disorder Society of India. Dr Divya MR received the MDS AOS Visiting trainee grant award and won a silver medal at MDS-AOS School for young neurologists. Dr Ayush Agarwal received an award for his platform presentation at the Indian National Stroke Conference. The Indian College of Physicians has awarded Dr Jasmine Parihar with fellowship status.

Neurology residents were recognized with prestigious awards, such as the Angela Vincent award for Best Young Neurologist Investigator at the World Congress of Neurology and the AINA-Indian Trainee Award. Patients with various neurological ailments received state-of-the-art services. The department served 100, 000+ outpatients, 5,500+ inpatients, and conducted 11,000+ laboratory procedures. Leading the way in patient care, academics, research, and training, the neurology department sets the standard for the country and the world.

Lectures delivered: 70

Achal Kumar Srivastava: 15	**Rohit Bhatia: 2**	**Mamta Bhushan Singh: 1**
Deepti Vibha: 11	**Vishnu VY: 5**	**Roopa Rajan: 15**
Awadh Kishor Pandit: 2	**Rajesh Kumar Singh: 1**	**Anu Gupta: 2**
Elavarasi A: 8	**Divya MR: 3**	**Ayush Agarwal: 5**

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
41	74	76

Oral papers/posters presented: 108

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
19	70	108

RESEARCH

Funded projects

Ongoing

1. A case-control study to investigate gut microbiota dysbiosis in drug-refractory epilepsy patients using whole-metagenomic shotgun sequencing", Dr Manjari Tripathi, ICMR/DHR, 3 years, 2021-24, Rs 59,01,627

2. Long Range, Cis-Acting Functional Variations in Regulatory Elements of Frataxin: New Therapeutic Targets in Friedreich's Ataxia, Dr Achal Kumar Srivastava, ICMR, New Delhi, 3 years, 2021-24, Rs 89 Lakhs
3. A population Based Prospective Cohort Study in Unravel the Causes of Stroke and cognitive Decline: A cross-cultural perspective, Dr Achal Kumar Srivastava, DBT, 5 years, 2017-24, Rs 32 Crores
4. A large-scale comprehensive clinical and genomics approach for rare mutations and novel gene discovery in hereditary ataxias in India-(CHANGER), Dr Achal Kumar Srivastava, ICMR, New Delhi, 3 years, 2021-24, Rs 1.49 Crores
5. "Integrated molecular modelling and in vivo approach to discover potent phytochemicals for improving cognitive decline in Alzheimer's disease", Dr Achal Kumar Srivastava, ICMR, New Delhi, 3 years, 2023-26, Rs 47 Lakhs
6. Post-acute COVID-19 Neurological Sequelae: Deciphering Molecular Signatures by Integrating Data Sources of COVID-19 and neurodegenerative diseases and Their Validation, Dr Achal Kumar Srivastava, ICMR, New Delhi, 3 years, 2023-26, Rs 47 Lakhs
7. Randomized Trial of Biosimilar TNK Versus TPA during Endovascular Therapy for Acute Ischemic Stroke Due to Large Vessel Occlusions: RE-OPEN, Dr Rohit Bhatia, ICMR, New Delhi, 3 years, 2022-25, Rs 28,40,687 (FY-1)
8. Long term Single versus Dual Antiplatelet Therapy in Patients with Intracranial Atherosclerotic Disease: A Randomized Trial: STENOSIS, Dr Rohit Bhatia, ICMR, New Delhi, 3 years, 2022-25, Rs 11,93,873 (FY-1)
9. INTRINSIC: Indian Trial of Tranexamic Acid in Spontaneous Intracerebral Hemorrhage, Dr Rohit Bhatia, ICMR, New Delhi, 3 years, 2022-26, Rs 1,85,400 (FY-1)
10. Medical Application based Post Stroke Strategy for survivors and their caregivers: A Randomized Controlled Trial (MOBILITY), Dr Rohit Bhatia, ICMR, New Delhi, 3 years, 2022-25, Rs 3,60,500 (FY-1)
11. Indian Multiple Sclerosis and Allied demyelinating disorders registry and research Network, Dr Rohit Bhatia, ICMR, New Delhi, 3 years, 2021-24, Rs 1, 65, 87, 346 (FY-1)
12. Implementation of an evaluation and treatment package for uniform stroke care and outcomes in the medical colleges in India, Dr Rohit Bhatia, DHR, 3 years, 2021-24, Rs 2, 15, 11, 607 (FY-1)
13. National Hospital Based Stroke Registry ICMR, Dr Rohit Bhatia, ICMR, New Delhi, 7 years, 2020-27, Rs 8,35,660
14. SENSE Study: A Prospective, Two-Stage, Non-randomized, Multi-center Within Patient Comparison Study to Evaluate the SENSE Device's Ability to Monitor Intracranial Hemorrhage, Dr Rohit Bhatia, SENSE Diagnostics, 2 years, 2022-24, Rs 6,65,280 (FY-1)
15. Cognitive decline in patients with MS. A cross sectional and longitudinal study, Dr Rohit Bhatia, DST, 3 years, 2021-24, Rs 18,65,616 (FY-1)
16. RESET-MS: Randomized trial of yoga in patients with multiple sclerosis, Dr Rohit Bhatia, DST, 3 years, 2024-27, Rs 38,03,784
17. Can capacity building at primary care level improve access to epilepsy care in Chhattisgarh? An Implementation Research, Dr Mamta Bhushan Singh, ICMR, New Delhi, 3 years, 2022-25, Rs 99,10,600
18. Scaling-up The COmpetency of Primary Care Workers to Manage Epilepsy by Task-Sharing (STOP-Epilepsy), Dr Mamta Bhushan Singh (Co-PI), DBT-Wellcome Trust, 5 years, 2021-26, Rs 2,11,86,913
19. 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, Dr Deepti Vibha, DHR, 3+1 years, 2020-24, Rs 42 Lakhs
20. MicroRNA (miRNA) profiling as potential biomarkers for stroke diagnosis and differentiation using a deep next-generation sequencing (NGS) approach, Dr Deepti Vibha, ICMR, New Delhi, 3 years, 2022-25, Rs 20 Lakhs
21. Music therapy for rehabilitation in post-stroke non-fluent aphasia: the Indian adaptation, Dr Deepti Vibha, ICMR, New Delhi, 3 years, 2023-26, Rs 60 Lakhs
22. Posterior cervical fixation versus long-term cervical collar for management of Hirayama Disease: Prospective randomized open blinded endpoint (PROBE), phase III study, Dr Deepti Vibha, AIIMS Delhi Interdisciplinary intramural research grant, 2 years, 2023-25, Rs 20 Lakhs
23. Smartphone use restriction as treatment of primary headache: a randomized controlled clinical trial, Dr Deepti Vibha, CSIR, 3 years, 2023-26, Rs 30 Lakhs
24. Smartphone-based Telestroke Vs 'Stroke Physician' led Acute Stroke Management (SMART INDIA): A cluster randomized trial, Dr Vishnu VY / Professor Padma Srivastava, DHR-ICMR, 4 years, 2020-24, Rs 2.7 Crores

25. International Centre for Genomic Medicine in Neuromuscular Diseases (ICGNMD), Dr Vishnu VY/Professor Padma Srivastava, MRC, UK, 4 years, 2020-24, Rs 40 Lakhs

26. Strategic Multimodal Intervention in at-risk Elderly Indians for Prevention of Dementia (SMRUTHI INDIA): A cohort multiple randomized controlled trial (cmRCT), Dr Vishnu VY/Professor Padma Srivastava, ICMR, 3 years, 2023-26, Rs 5 Crores

27. Centre for Advanced Research and Excellence in Disability & Assistive Technology (CARE-DAT), Dr Vishnu VY/ Professor Padma Srivastava, ICMR, 5 years, 2021-26, Rs 5 Crores

28. Exploring genetic variants in Moyamoya disease (MMD) and Intracranial major artery occlusion (ICASO) in India, Dr Vishnu VY / Professor Padma Srivastava, ICMR, 3 years, 2022-25, Rs 80 Lakhs

29. Utility of Intravenous autologous bone marrow derived stem cells infusion in chronic stroke: A paracrine signaling and h-NMR spectroscopy study, Dr Vishnu VY/Professor Padma Srivastava, ICMR, 3 years, 2022-24, Rs 55 Lakhs

30. Prevention of post-stroke seizures with Levetiracetam in Intracranial Cerebral Venous Sinus Thrombosis (PROLEVIS-CVT): A Randomized Placebo-Controlled Trial, Dr Vishnu VY, DHR-ICMR, 3 years, 2022-25, Rs 80 Lakhs

31. Identification of pathobiological and disease activity markers in Primary CNS Vasculitis, Dr Vishnu VY, ICMR, 3 years, 2021-24, Rs 50 Lakhs

32. Identification of the Genetic architecture of FSHD in India, Dr Vishnu VY, ICMR, 3 years, 2023-25, Rs 80 Lakhs

33. Identification of genetic vasculopathies among a cohort of Primary CNS Vasculitis using whole-exome sequencing, Dr Vishnu VY, AIIMS Delhi Intramural Research Grant, 2 years, 2022-24, Rs 10 Lakhs

34. Spiral Dx: Tremor diagnosis and quantification using artificial intelligence, Dr Roopa Rajan, DBT, 3 years, 2021-24, Rs 1,06,49,600

35. Genetic Architecture of Parkinson's Disease in India (GAP-India), Dr Roopa Rajan, Michael J Fox Foundation, 4 years, 2019-24, Rs 75,00,000

36. Molecular signatures of Parkinson's Disease in vivo: a deep brain stimulation approach, Dr Roopa Rajan, DBT/ Wellcome Trust Clinical/ Public Health Intermediate Fellowship, 5 years, 2023-28, Rs 3,44,03,360

37. Repetitive Transcranial magnetic stimulation to the inferior parietal lobule in task specific focal hand Dystonia: a crossover, sham control blinded outcome assessment study, Roopa Rajan, ICMR, 3 years, 2023-26, Rs 41,49,268

38. Wearable electronics for swallowgraphy in stroke patients Collaborative project between AIIMS-IIT Delhi, Awadh Kishor Pandit, AIIMS Delhi Intramural Research Grant, 2 years, 2023-25, Rs 20 Lakhs

39. Cost-effective analysis of evidence based interventions underlying Acute Ischemic Stroke: A Retrospective Study of Patients in a Tertiary Care Hospital, Delhi, India, Dr Awadh Kishor Pandit, DHR, 1.5 years, 2021-23, Rs 6,51,240

40. Bridging therapy with intravenous Alteplase in imaging eligible Acute Ischemic Stroke patients with onset between 4.5 to 9 hours-A Randomized Controlled, Pilot Study, Dr Awadh Kishor Pandit, AIIMS Delhi Intramural Research Grant, 02, 2020, 2022 (Extended), 8 Lakh

41. Efficacy and Safety of Injection Tenecteplase in 4.5 To 24 hours imaging Eligible Window patients with Acute Ischemic Stroke, Dr Awadh Kishor Pandit, DST SERB, 3 years, 2022-25, Rs 32,14,400

42. Fever, Hyperglycemia, Swallowing and Hypertension Management in Acute Stroke: A Cluster Randomized: Trial (Indian Quality Improvement in Stroke Care Study (FeSSH) Phase-II, Dr Awadh Kishor Pandit (PI of nodal Center)/ Dr Kameshwar Prasad (PI), ICMR, New Delhi, 3 years, 2022-25, Rs 6,90,660

43. Comparison of simultaneous plasma exchange (PLEX) and Intravenous methylprednisolone (IVMPS) versus IVMPS with add on PLEX in the treatment of acute severe myelitis of Neuromyelitis optica spectrum disorders (NMOSD): A prospective randomized open label blinded endpoint (PROBE) study, Dr Rajesh Kumar Singh, ICMR, New Delhi, 3 years, 2023-26, Rs 34,84,439

44. Thalidomide as treatment of optochiasmatic arachnoiditis in Tuberculous meningitis: A prospective randomized open blinded endpoint (PROBE) study, Dr Rajesh Kumar Singh, ICMR, New Delhi, 3 years, 2022-25, Rs 24,59,466

45. CSF inflammatory markers in the diagnosis of autoimmune encephalitis, Dr Rajesh Kumar Singh, AIIMS Delhi Intramural Research Grant, 2 years, 2021-23, Rs 9,25,000

46. Clinical and radiologic profile, risk associations, caregiver burden and clinical outcomes in early and late onset dementia, Dr Anu Gupta, AIIMS Delhi Intramural Research Grant, 2 years, 2021-23 (Extended), Rs 8,15,000

47. To study the association of key pathophysiologic blood based biomarkers with the phenotype, metabolome and gut microbiome in patients with Alzheimer's disease (AD): A pilot study, Dr Anu Gupta, Intramural, 2 years, 2023-25, Rs 10,00,000

48. Efficacy of Bacopa monnieri Linn. on cognitive functions and alterations in blood metabolites in patients with amnestic mild cognitive impairment and early Alzheimer Disease: A double blind, randomized placebo-controlled trial, Dr Anu Gupta, ICMR, New Delhi, 3 years, 2023-26, Rs 70,00,000

49. Efficacy and safety of Onabotulinum toxin A (Botox) injections in the upper esophageal sphincter for the treatment of Pharyngo-esophageal Dysphagia due to cricopharyngeal dysfunction-A Randomized double blinded placebo Controlled Trial, Dr Elavarasi A, ICMR, New Delhi, 3 years, 2023-26, Rs 35,86,995

50. Efficacy and safety of Cyclophosphamide in treatment of refractory proliferative arachnoiditis in Central nervous system Tuberculosis-A Randomized placebo-controlled Trial, Dr Elavarasi A, AIIMS Delhi, Intramural Research Grant, 2 years, 2022-24, Rs 6,72,000

51. Evaluation of rapid eye movement (REM) behavioral disorder in sporadic adult-onset ataxia (SAOA)-A prospective observational study"-, Dr Animesh Das, ICMR, New Delhi, 3 years, 2021-24, Rs 26 Lakhs

52. HLA associated genetic predisposition for hypersensitivity to antiepileptic drugs in North Indians: A case control study, Dr Animesh Das, AIIMS Delhi, Intramural Research grant, 2, 2021, 2024 (Extended), 10 Lakhs

53. Evaluation Of Effects of Repetitive Trans Cranial Magnetic Stimulation at Supplementary Motor Area in Parkinson's Disease Patients with Freezing of Gait-A Randomized Sham Controlled Study, Dr Divya MR, ICMR, New Delhi, 3 years, 2021-24, Rs 24 Lakhs

54. Clinical And Genetic Profile of Patients with Huntington's Disease and Other Hereditary Choreas, Dr Divya MR, AIIMS Delhi, Intramural Research Grant, 2, 2021, 2023 (Extended), 8 Lakhs

55. The Role of Educational Intervention on Improving Diagnosis And Treatment Of Central Nervous System Tuberculosis-A Cluster Randomized Trial (RED-TB Trial), Dr Divya MR, World Federation of Neurology, 2 years, 2022-24, Rs 18.5 Lakhs

56. Pan-India multicentric study on NeuroCYSTicercosis (NCC): Unravelling its metabolOMICs and proteOMICs architecture to enable its diagnosis and understand epilepsy (CYST-OMICS), Dr Divya MR (Site PI & Co PI), ICMR Task Force of Omics in Health & Disease, 3 years, 2024-27, Rs 22,16,900 (for AIIMS, Delhi)

57. Significance of serum and CSF MOG antibodies in patients with primary demyelinating disease, Dr Ayush Agarwal, AIIMS Delhi, Intramural Research Grant, 2 years, 2023-25, Rs 10,00,000

58. Rituximab in Guillain Barre syndrome (RuGBY) trial: a single center, double blind, randomized phase 3 trial, Dr Ayush Agarwal, DST-SERB, 2 years, 2023-25, Rs 30,00,000

59. Clinico-genetic and radiological profile of adolescent and adult-onset leukodystrophies, Dr Divyani Garg, AIIMS Delhi, Intramural Research Grant, 2 years, 2024-26, Rs 10,00,000

Completed

1. Clinical Outcome Measures in Friedreich's Ataxia-FACOMS, Dr Achal Kumar Srivastava, FARA, USA, 1 year, 2022-23, Rs 79,00,000

2. Autonomic Disturbance among the patients with Multiple System Atrophy: Does it affect tranquility and turmoil of sleep architecture and blood pressure, Dr Achal Kumar Srivastava, DHR, 2 years, 2021-23, Rs 25,00,000

3. Effectiveness of Home-Based Self-Monitoring of Blood Pressure in a Primary Care set-up of India: An Open Label Randomized Controlled Trial (EASE-BP Trial), Dr Rohit Bhatia, WHO-SEARO, 9 months, March 2023, December 2023, Rs 12,58,660

4. Pathobiology of Multiple sclerosis: phenotypic, biomarker and genetic signatures, Dr Rohit Bhatia, ICMR, New Delhi, 5 years, 2018-23, Rs 1,39,00,000

5. Unravelling the genetic landscape of Indian dystonia: a chromosomal microarray approach, Dr Roopa Rajan, AIIMS Intramural Research grant, 2 years, 2021-23, Rs 10,00,000

6. To evaluate the prevalence and incidence of cognitive deficits, in relation to glycemic control and other metabolic risk factors, in elderly patients with type 2 diabetes mellitus who are at high risk of dementia, in comparison to age and sex matched control, Dr Anu Gupta, ICMR, New Delhi, 3 years 6months, 2019-23 (extended), Rs 46,00,000

7. Dalfampridine for improving visual function in acute optic neuritis (DON)-A randomized, placebo-controlled phase 2/3 trial, Dr Animesh Das, DHR, 2 years, 2022-24, Rs 29,70,000

Departmental projects (including thesis/dissertations)

Ongoing

1. Accuracy of Clinical diagnosis of Functional Dissociative Seizures - A prospective observational study
2. A randomized controlled trial comparing the efficacy of NIBS (low frequency inhibitory rTMS) in addition to standard of care versus standard of care alone in post-stroke aphasia
3. An Exploratory Study to Evaluate Optical Coherence Tomography Angiography in Cases of Ischemic Stroke due to Extracranial Internal Carotid Artery Atherosclerotic Disease and Pre and Post Carotid Artery Re-Vascularization (Carotid Artery Stenting and Carotid End-Arterectomy) - A Prospective Cohort Study
4. Are patients with Epilepsy optimally employed? A Cross Sectional Study
5. Clinicodemographic characteristics and outcome of patients with myasthenic crisis and impending myasthenic crisis-An ambispective study
6. Clinical and Demographic Features of Patient on Treatment for MDR/ XDR TB with ATT induced Peripheral Neuropathy: A Prospective Observational Study
7. Clinical, Laboratory and Imaging features, Treatment trends and long-term outcomes in patients with Parenchymal and Extra parenchymal Neurocysticercosis-A registry-based study
8. Clinico-Radiologic profile and Outcomes of patients with Normal Pressure Hydrocephalus
9. Clinical Utility of Intravascular Ultrasound (IVUS) in carotid artery interventions-a systematic review and meta-analysis
10. Clinical profile and response to steroids in brachial plexopathy: A prospective cohort study
11. Comparing outcomes of epilepsy patient follow-up care with and without a checklist-A randomized controlled trial
12. Correlation of changes in October parameters, Optic nerve sheath diameter and MCA waveform with a visual field in IIH: A Prospective cohort study
13. Efficacy and safety of radiofrequency pallidotomy in management of dystonia-an RCT
14. Efficacy and Safety of sunlight therapy in stroke patients: A Randomized Controlled Trial
15. Efficacy of propranolol and primidone in action tremors in patients with Spinocerebellar Ataxia 12: A single centre, double blind, placebo controlled double cross over trial
16. Efficacy of smartphone based digital application to track migraine, offer pill reminders for medication adherence and community blog for migraineurs in improving headache related parameters as compared to paper pen diary in patients with migraine-a randomized controlled cross over trial.
17. Evaluation of multimodality evoked potentials and electroretinogram in Wilson's disease
18. Etiological study of Hypertrophic pachymeningitis in adults
19. Genetics of dystonia in India: a next generation sequencing approach
20. Institutional registry of patients with hypertrophic pachymeningitis
21. Mission Thrombectomy 2020 (MT 2020 App) study
22. Multimodal electrophysiological evaluation of tremor: a machine learning approach
23. Pallidotomy for generalised dystonia-a retrospective/prospective study
24. Prevalence of EBV DNA and anti EBV antibodies in patients of MS, NMOSD and MOG-AD
25. Prophylactic Levetiracetam for the prevention of post stroke seizures (PROLEVIS): A randomized, double blind, placebo-controlled trial
26. Spectrum and clinical profile of Movement Disorders in Autoimmune Encephalitis?
27. Study of clinical profile, imaging, and prognostic factors of patients with Hirayama disease-prospective study

28. Symptomatic Non-Stenotic Carotid Disease (SYNC) In ESUS (Embolic Source of Undetermined Source) Patients - A Prospective Observational Study
29. Talking about epilepsy: A mixed method study to explore Doctor-patient communication in Epilepsy care, paving the way for co-produced interventions
30. The Stigma Spectrum: Burden, Factors associated, Treatment implications, and Cross-Comparisons among Indian Persons with Epilepsy
31. The spectrum and outcome of Rapidly Progressive Dementias: A prospective cohort study
32. Timing of anticoagulation and outcomes in patients with Rheumatic Heart Disease and stroke.
33. To evaluate radiological involvement of Thymus in patients of CNS demyelinating disorders: Case control study.
34. To study the genetic modifier of variability in age at onset in SCA2 and SCA12
35. To study the molecular correlation and clinical variability in Friedreich's Ataxia through RNA expression analysis
36. Transcranial Doppler (TCD) in Tubercular cerebral vasculopathy: a prospective observational study
37. Quantitative susceptibility mapping to predict deep brain stimulation outcomes in Parkinson's disease

Completed

1. Assessment of sleep study with its correlation with aft in apparently idiopathic sporadic ataxia
2. Characterization of gait and tremor in SCA 12
3. Clinical and radiological spectrum of Anti Myelin oligodendrocyte glycoprotein (MOG) antibody related neurological disorders - An ambispective observational study
4. Clinicophenotypic subtyping of SCA 12
5. Cognitive impairment, it's risk and associations and event related P300 potential in patients with migraine: A prospective case control study
6. Designing a checklist for outpatient follow-up care of epilepsy patients - an instrument development and mixed methods study
7. Designing a Palliative Care Program for Selected Epilepsy Patients and Their Caregivers-A Mixed Methods Study
8. Diagnostic accuracy of imaging findings in tubercular meningitis and spinal tubercular arachnoiditis and correlation with outcomes in patients with tubercular meningitis, spinal tubercular arachnoiditis - An ambispective cohort study
9. Epidemiological, Clinical and Radiological Spectrum of Connective Tissue Disease Related Neurological Disorders-An Ambispective Observational Study
10. Early Neurological Deterioration after Acute Ischemic Stroke and Long-Term Functional Outcome: A Prospective Cohort Study
11. Exploring the utility of quantitative susceptibility mapping in magnetic resonance imaging of brain in Wilson's disease: a prospective cohort study
12. Non ataxic manifestations of spinocerebellar ataxia type 12
13. Pathobiology of Multiple sclerosis: phenotypic, biomarker and genetic signatures
14. Rituximab in CNS Demyelinating disorders
15. Social Cognition in Parkinson's Disease
16. Therapeutic Plasma Exchange in Central Nervous System Demyelinating Disorders-An Ambispective Study.
17. To characterize autonomic involvement and its correlation with electrophysiological parameters in various subtypes of Guillain barre syndrome"
18. Understanding Pathobiology of Multiple Sclerosis-Biomarkers and genetic Signatures
19. Utilization of in-hospital resources for stroke care in patients of acute ischemic stroke (AIS): a prospective cohort study

Collaborative projects

Ongoing

1. A case-control study to develop "Exosomes based Molecular Signature" of Parkinson Disease, Department of Biophysics, AIIMS New Delhi
2. A cross-sectional study to assess caregiver burden, anxiety, depression, and coping strategies among caregivers of neurodegenerative disorder patients attending neurology OPD at CNC AIIMS, New Delhi, College of Nursing, AIIMS, New Delhi
3. A phase III randomized double blind, efficacy and safety study comparing SCAR442168 to placebo in participants with non-relapsing secondary progressive Multiple Sclerosis (HERCULES), Multiple centers across the globe
4. A phase III randomized double blind, efficacy and safety study comparing SCAR442168 to placebo in participants with primary progressive Multiple Sclerosis (PERSEUS), Multiple centers across the globe
5. A longitudinal study to assess cortico-spinal excitability and plasticity in ALS patients using TMS metrics, Department of Physiology, AIIMS, New Delhi
6. A multicenter, international, randomized, placebo controlled, double-blind, parallel group and event driven Phase 3 study of the oral FXIa inhibitor asundexian (BAY 2433334) for the prevention of ischemic stroke in male and female participants aged 18 years and older after an acute non-cardioembolic ischemic stroke or high-risk TIA, Multiple centers across the globe
7. A Study to assess the effectiveness of family and patient education using a video-based teaching on knowledge and pre procedural anxiety of family members & patients undergoing EEG at AIIMS, New Delhi, Collage of Nursing, AIIMS, New Delhi
8. A study to assess the effectiveness of exercise (30 min walk) on Health-Related Quality of Life (HRQoL) among Myasthenia Gravis patients attending Neuro OPD at AIIMS, New Delhi, College of Nursing, AIIMS, New Delhi
9. Developing a combinatorial biomarker based on encephalic and metabolome profiles to differentiate functional dissociative seizures from epilepsy, Department of Physiology, AIIMS, New Delhi
10. Development of an imaging-based algorithm for classification of subtypes of Neurodegeneration with Brain Iron Accumulation (NBIA), Department of Neuroimaging & Interventional Neuroradiology, AIIMS, New Delhi
11. Implementation of a Physician-Based Stroke Unit in a Remote Hospital of North-East India-Tezpur Model, Christian Medical College, Ludhiana
12. Evaluation of Current Management Practice in Patients with CNS TB Using Clinical Indicators, Department of Medicine, AIIMS, New Delhi
13. Exploratory analysis of the association between pyrethroid exposure and Parkinson's disease: A Cross-sectional Study, Department of Pharmacology, AIIMS, New Delhi
14. Exploring cognition and numeracy skills in financial decision making in neurodegenerative disorders using MR techniques, and the effect of Transcranial Direct Stimulation (IDCS) on improvement of cognitive functions, Department of NMR
15. Exploring the potential of exosomal miRNA as novel biomarker targets of Parkinson's disease, Department of Biophysics, AIIMS, New Delhi
16. Fever, Hyperglycemia, Swallowing and Hypertension Management in Acute Stroke: A Cluster Randomized Trial (FeSSH) Phase-II (Indian Quality Improvement in Stroke Care Study), RIMS, Ranchi
17. Mechanistic understanding of Parkinson's disease and developing an early screening method, Department of Biophysics, AIIMS, New Delhi
18. Neuropsychiatric manifestations and metabolic characteristics in brain in patients with treatment naïve celiac disease compared with controls and effect of gluten free diet on them: A prospective follow up study, Department of Gastroenterology and Human Nutrition Unit, AIIMS, New Delhi
19. Ocular surface microbiome profiling in Neurodegenerative disorders, Dr R.P. Centre for Ophthalmic Sciences, AIIMS, New Delhi
20. Pan-India multicentric study on NeuroCYSTicercosis: Unravelling its metabolOMICs and proteOMICs architecture to enable its diagnosis and understand epilepsy (CYST-OMICS), IIT Mandi, IHBT Palampur, DMCH Ludhiana, ICGEB Delhi and other multiple centres across India

21. Prospective diagnostic study of Blood Glucose Estimation and Atrial Fibrillation via wearable device in Acute Stroke patients, Department of Computer Science and Engineering, IIT, Delhi
22. SmartWear-AI Enabled wearable system for monitoring and intervention of gait disorders in Parkinsonism, IIT, Gandhinagar
23. To Investigate the Combined Neuromodulatory Effects of Intermittent Theta Burst Stimulation and Probiotics on Gut-Brain Axis in Parkinson's Disease-A Randomized Controlled Trial, Department of Physiology, AIIMS, New Delhi
24. Wearable electronics for swallowgraphy in stroke patients, IIT, Delhi

Completed

1. Cultural considerations in daily levodopa equivalent dosage: A study of global population, Multiple centers across the globe
2. Investigating the role of nicotinic neuromodulation in levodopa induced dyskinesias-a multimodal study. Clinical and genetics characterization, NBRC/IIT Mumbai
3. Machine Learning model for early diagnosis of stroke in resource-limited settings: Pilot study, Department of Computer Science and Engineering, IIT Delhi
4. Secondary Prevention by Structured Semi-Interactive Stroke Prevention Package in India (SPRINT INDIA), Christian Medical College, Ludhiana

Research over past 3 years

Research projects	2021–2022	2022–2023	2023-2024
Total funded projects	36	49	59
Total funding	Rs 79,56,16,918	Rs 67,12,45,382.2	Rs 72,36,17,221

PUBLICATIONS

Total Publications: 246; Journal articles: 143 Abstracts: 98 Chapters in Books: 5

Publications over past 3 years

Item	2021–2022	2022–2023	2023-2024
Total	**154**	**244**	**246**
Journal articles	115	193	143
Abstracts	30	30	98
Chapters in books	8	22	5
Books	1	1	0

PATIENT CARE

The Department of Neurology is committed to delivering state-of-the-art care to patients suffering from different neurological conditions. The outpatient department has provided consultations to over 100, 000 patients, including over 9,000 specialty clinic consultations. Including regular and short admissions, our total inpatient admissions exceed 5,500 last year.

Special clinics

- Ataxia Clinic
- Botulinum Toxin Clinic
- Deep Brain Stimulation Clinic
- Headache clinic

- Intractable epilepsy clinic
- Movement disorders clinic
- Neuro-immunology clinic
- Neuro-infections clinic
- Neuromuscular Disease Clinic
- Sleep Disorder Clinic
- Stroke clinic.

Special lab facility

- Electrophysiology laboratory equipped for performing nerve conduction studies, evoked potentials, electromyography, electroencephalography, video-electroencephalography, sleep study, and tremor analysis for diagnostic indications and transcranial magnetic stimulation (research indications).
- Neuro-Sonology–Transcranial Doppler (TCD) for diagnostic indications
- Neurobiology laboratory (under department of Neurology) with facilities for special like in-house autoimmune encephalitis testing and other autoimmune panels.
- Botulinum Toxin Injection services
- Diagnostic Digital Subtraction Angiography (DSA) in Neurovascular cases with Neurosurgery department.

Patient care

Item	2021-2022	2022-2023	2023-2024
OPD consultations	65,378	89,558	**1, 01, 585**
Total inpatient (regular) admissions	2,331	3,207	**2942**
Day care (short) admissions			**2671**
Lab procedures	8,847	9,519	**11472***

*EEG-4171; LTVEEG-366, STVEEG-53, Evoked Potentials-578, NCS/EMG-6151, Sleep study-153

Community services/camps

- Department conducted public awareness lectures and panel discussion on Parkinson's disease, multiple sclerosis, stroke, sleep disorders, and epilepsy.
- Prof Mamta Bhushan Singh offered epilepsy outreach services in Chhattisgarh, Madhya Pradesh, and Bihar.
- Prof Achal Srivastava, Dr Vishnu VY and Dr Ayush Agarwal provided neurology services at medical camp, SNM hospital, Ladakh.

1. Public Awareness Program on Parkinson's Disease, 15 April 2023, AIIMS Delhi
2. Public Lecture on Multiple Sclerosis – All you want to Know, 30 May 2023, AIIMS Delhi
3. Public Awareness Program on Stroke, 23 November 2023, AIIMS Delhi
4. Public Lecture and Panel Discussion on Epilepsy, 30 January 2024, AIIMS Delhi
5. Public Lecture and Panel Discussion on Sleep Disorder, 6 March 2034, AIIMS Delhi

AWARDS, HONOURS, AND SIGNIFICANT EVENTS

Professor Manjari Tripathi was induced as Fellow of National Academy of Medical Sciences.

Professor Achal Kumar Srivastava participated in Dr KS Neogi Oration during IMA CGP Update-2023 at Prayagraj on 7 May 2023; Conferred Fellowship of American Neurological Association (FANA) May 2023.

Professor Rohit Bhatia Evaluated PhD thesis for Manipal Academy of Medical Sciences; Evaluated PhD thesis of PGIMER, Chandigarh ; Visited IISc Bangalore as a core member team with Director AIIMS, for discussion and collaborative research; Member Institute ethics committee, AIIMS, New Delhi; Member Project review committee ICMR, New Delhi; Chairperson, autoimmune subsection of Indian Academy Neurology.

Professor Deepti Vibha was Core faculty of the fellowship programmes: Stroke, Research Methodology and Evidence Based Medicine; External examiner for various DM (Neurology) examinations; Expert panelist for "Clinical-Connect Day: Renewing the Old & Forging New Collaborations" organized for One Week One Lab Event at CSIR-IGIB, Mathura Road campus [19 September 2023]; Member of the institute Annual Report Committee, and Selection Committee of Senior Residents; Resource faculty of various Research Methodology Workshops in the Institute; Resource faculty for training and certification for brain death and organ donation programmes within the institute.

Dr Vishnu VY received Ashok Panagariya Young Neuroscientist Award, from Indian Academy of Neurology-2023.

Dr Roopa Rajan was elected Executive Committee member of the Movement Disorder Society of India 2024-2027; Received Best Original Article Award for publications in Annals of Movement Disorders, awarded by the Movement Disorder Society of India; Awarded the DBT/Wellcome Trust India Alliance Clinical Public Health Intermediate Career Fellowship 2023-2028; Served as Co-chair of the International Parkinson's Disease and Movement Disorder Society Study Group on Management of Movement Disorders-Integrated Care.

Dr Rajesh Kumar Singh served as Assistant editor of the Journal Neurology India.

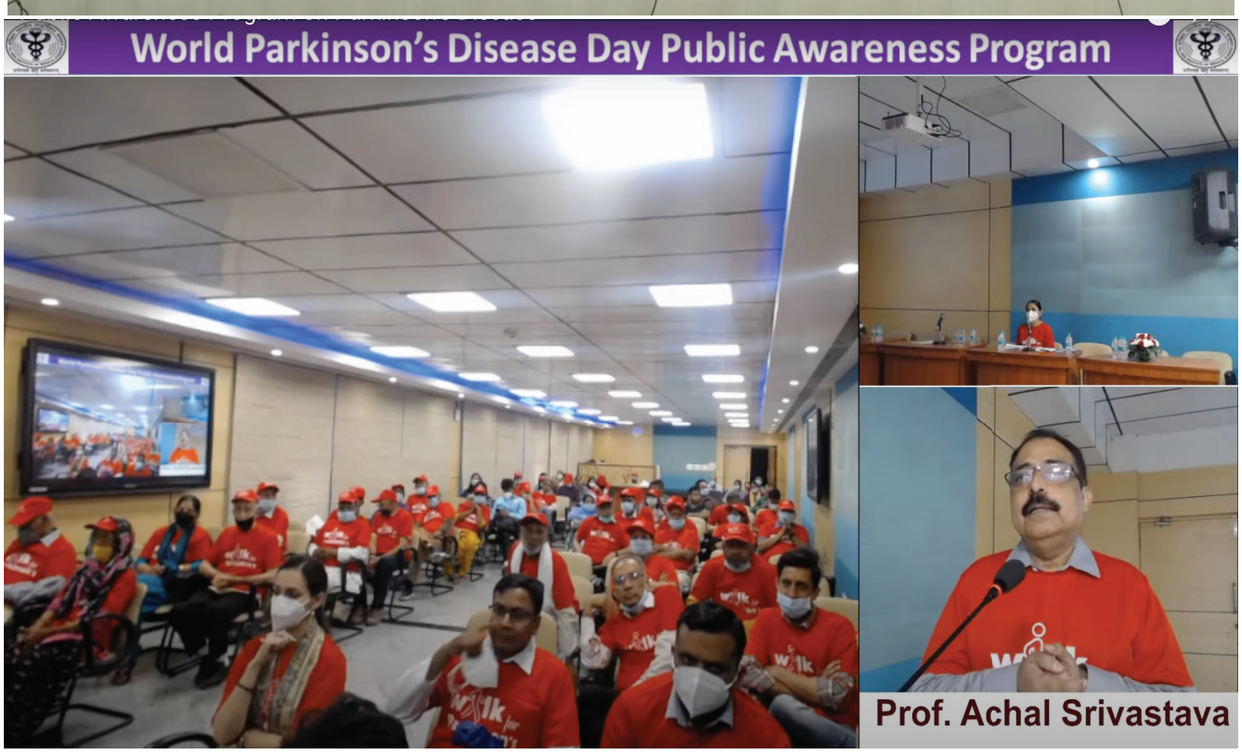
Dr Anu Gupta's thesis candidate (Dr Jerry A George) was awarded the Angela Vincent Award for Best Young Neurologist Investigator at the 26th World Congress of Neurology (WCN 2023), for his research work (thesis) on subacute sclerosing panencephalitis.; Chaired a session on epilepsy in the 26th annual conference of Delhi neurological society, DNACON 2024 on 3 February 2024.

Dr Elavarasi A was Member, MDS Electronic Clinical Outcome Assessments (eCOA) Committee; Member of the MDS Neurosurgery Special Interest Group for the 2023-2025 term; Peer Educator, MDS Peer Review Leadership Committee 2024-25 term; Completed GCSRT 2024, Harvard Medical School with Commendation; Clinical Observership at National Hospital for Neurology and Neurosurgery, London, United Kingdom for 4 weeks; Member, National AEFI Committee, Ministry of Health and Family Welfare, Government of India; Member, Ethics and Medical Registration Board, National Medical Commission, Government of India; Evaluation of DM Thesis, NIMHANS, Bengaluru.

Dr Divya MR was awarded MDS-AOS Visiting Trainee Grant 2024; Award the Membership (MAMS) of National Academy of Medical Sciences (NAMS), 2023; Inducted as Associate Fellow of NAMS (2023); Received Silver medal in Video Round of MDS-AOS, School for Young Neurologists (2023); Steering Committee member of MDS Ataxia Study Group (2024-); Assistant Editor of Annals of Movement Disorder (2021-), and Editorial Member BMC Neurology (2023-); Member of MDS Infection related Movement Disorder Study group, Rare movement Disorders study group and Ataxia Study Group; Certified in Neuropalliative Basic - A certification course offered by International Neuropalliative Care Society (2023-2024); Certified to administer Scale for the Assessment and Rating of Ataxia (SARA).

Dr Ayush Agarwal was World Stroke Organization-Future Leader's Programme Awardee for 2022-24; Chairperson, Young Neurologists Forum, Indian Academy of Neurology, October 2022-October 23; Assistant Editor, Annals of India Academy of Neurology (2022-); Travel grant award for the International Congress of Parkinson's Disease and Movement Disorders-Copenhagen, Denmark 2023; India Representative, Young Neurologist Academy: Asia and Oceanian Association of Neurology (AOAN) (2023-2025); Certificate for Commendation in recognition of outstanding publication in Clinical Sciences at the 3rd AIIMS Research Day: January 2024; 2nd prize for platform presentation at INSC 2024 at Kolkata: March 2024.


सार्वजनिक व्याख्यान:
मल्टीपल स्केलेरोसिसः जो भी आप जानना चाहते हैं
अखिल भारतीय आयुर्विज्ञान संस्थान, नई दिल्ली
Public Lecture:
Multiple Sclerosis: All you want to know
All India Institute of Medical Sciences, New Delhi
आज़ादी का अमृत महोत्सव
DR. A. ELAVARASI
DR. AYUSH AGARWAL


World Parkinson's Disease Day Public Awareness Program
Prof. Achal Srivastava


Public Lecture & Panel Discussion
Public Lecture & Panel Discussion


Public Lecture & Panel Discussion
दौरे के लिए प्राथमिक उपचार First aid for seizure
Video credits: Dr Pinky, Dr Sana, Dr Farsana and Risha

Department of Neurosurgery
Emeritus Professors

Prakash Narain Tandon Ajit K Banerji

Professor and Head

Shashank Sharad Kale

Professors

P Sarat Chandra Ashish Suri Rajinder Kumar
Deepak Agrawal (JPNATC) Deepak Gupta (JPNATC) Gurudutt Satyarthee (JPNATC)

Additional Professors

Pankaj Kumar Singh (JPNATC) Vivek Tandon Sachin Borkar
Shashwat Mishra Amandeep Kumar Rajeev Sharma
Shweta Kedia Hitesh Gurjar Ramesh Doddamani
Dattaraj Sawarkar Kanwaljeet Garg Manoj Phalak

Associate Professors

Amol Raheja Satish Verma Rajesh Meena
Santanu Kumar Bora Surya Krishna Gour

HIGHLIGHTS

The Department of Neurosurgery has continued to excel in patient care, research & training during the year 2023-2024. In last one year, department of Neurosurgery performed 4933 neurosurgical procedures. At the Gamma-knife centre, 984 cases of GKRS were performed. Our department successfully conducted 26th Annual Micro-neurosurgery Workshop from 7-10 February 2024 which is a unique workshop that aims to impart neurosurgical skills to young neurosurgeons from India and abroad. In this workshop, neurosurgery stalwarts including Professor Rokuya Tanikawa from Teishinkai hospital, Sapporo, Japan and Professor Sanjay Behari from SCTIMST, Trivandrum shared their experiences and knowledge with the delegates. This year's Microneurosurgery workshop was a great success with very good participation & was much appreciated for its scientific content. Our department also organised Annual meeting of Neurospinal Surgeon's Association of India from 15-17 September 2023 and Live operative workshop & symposium on pain and peripheral nerve blocks & procedures in September 2023, all of which were great success in terms of scientific content and delegate participation. Not lagging behind in research, our department has published 151 research articles in both national & international high impact journals. Our department has contributed 15 book chapters in various books during this period.

EDUCATION

Innovative training programs - Department was instrumental in organizing following training programs:

Neurosurgery Simulation-based Short Term Skills Training Program: Neurosurgery Skills Training Facility (NSTF) and Neurosurgery Education and Training School (NETS) Convener: Prof Ashish Suri

- **Simulation-based neurosurgery skills training sessions:** 732
- **Simulation-based short term neurosurgery skills training** = 12
  - 4 weeks short term training = 6
  - 2 weeks short term training = 6
- **NETS Weekend Workshops (no of residents)** = number of workshops = 4; number of trainees = 102
- **E-learning in neurosurgery skills training (1 April 2023 to 31 March 2024)**

- Surgical videos = 64, 721 views; new subscribers = 687
- Website views = 3039 views
- Discussion forum Total Likes = 9876

CMEs/Workshops/Symposia/National and International Conferences

1. 26th AIIMS annual Microneurosurgery worlshop: February 2024
2. Annual meeting of Neurospinal Surgeon's Association of India: September 2023
3. Live operative workshop & symposium on pain and peripheral nerve blocks & procedures: September 2023

Lectures delivered: 125

SS Kale: 8	**Ashish Suri: 31**	**Rajinder Kumar: 6**
Pankaj Kumar Singh: 2	**Sachin Borkar: 13**	**Amandeep Kumar: 2**
Hitesh Kumar Gurjar: 4	**Shashwat Mishra: 2**	
Kanwaljeet Garg: 13	**Rajeev Sharma: 1**	**Shweta Kedia: 15**
Dattaraj Sawarkar: 8	**Ramesh Sharanappa Doddamani: 6**	
Amol Raheja: 6	**Satish Verma: 1**	
Rajesh Meena: 2	**Santanu Kumar Bora: 5**	

SS Kale

1. Measurement, Neuro Bharat Conclave, 10 March 2023, Varanasi, Uttar Pradesh
2. How to make an effective lecture, The NSI Train the Trainer Programme, 14 April 2023, Chennai, Tamil Nadu
3. Cervical Kyphosis, WFNS Foundation Course, 29-30 April 2023, Agra, Uttar Pradesh
4. How to make an effective lecture, Tips & Trainers NSI, 5 August 2023, Mumbai, Maharashtra
5. C1-C2 anatomy, Skull Basecon 2023, 27-29 October 2023, Lucknow, Uttar Pradesh
6. Cervical Kyphosis, SNMC Neurosurgery Update 2023, 18-19 November 2023, Jodhpur, Rajasthan
7. Trouble with the curve, NSICON 2023, 13-17 December 2023, Bhubaneshwar, Odisha
8. Management, WFNS Foundation Education Course, 14-15 October Chennai, Tamil Nadu

Ashish Suri

1. Skull Base Approaches for Craniopharyngioma, Interim Meeting of the Skull Base Surgery Society of India, 22-23 April 2023, Kochi, Kerala
2. Surgical Approaches for Basilar Apex Aneurysm, Interim Meeting of the Skull Base Surgery Society of India, 22-23 April 2023, Kochi, Kerala
3. Cerebellopontine Angle Tumors-Approaches and Outcome, 14th Annual Conference of the Indian Society of Neuro-Oncology (ISNOCON-2023), 28-30 April 2023, Kolkata, West Bengal
4. Surgical Approach & Outcome in Challenging Base of Skull Tumor, 14th Annual Conference of the Indian Society of Neuro-Oncology (ISNOCON-2023), 28-30 April 2023, Kolkata, West Bengal
5. Extended Endoscopic Endonasal Approaches to the Skull Base, Cadaveric Workshop on Endoscopic Skull Base and Microscopic Anterolateral Skull Base, 12-13 August 2023, AIIMS, Raipur
6. Step-by-Step-Endoscopic Endonasal Approach-identify key endoscopic anatomy, elevation of nasoseptal flap, transsphenoidal approaches to skull base, Cadaveric Workshop on Endoscopic Skull Base and Microscopic Anterolateral Skull Base, 12-13 August 2023, AIIMS, Raipur
7. Anterolateral Approach to the Skull Base, Cadaveric Workshop on Endoscopic skull base and Microscopic Anterolateral skull base, 12-13 August 2023, AIIMS, Raipur
8. Step-by-Step-Anterior Petrosal Approaches and Rhomboid Fossa Anatomy, Cadaveric Workshop on Endoscopic skull base and Microscopic Anterolateral skull base, 12-13 August 2023, AIIMS, Raipur

9. Petroclival Meningiomas-Surgical Strategies and Molecular Alterations, International Meningioma Society Congress-2023, 1-3 September 2023, Jaipur, Rajasthan
10. Discussant: Aggressive/ Recurrent Meningioma, International Meningioma Society Congress-2023, 1-3 September 2023, Jaipur, Rajasthan
11. Discussant: Spheno-Orbital and Cavernous Sinus Meningiomas, International Meningioma Society Congress-2023, 1-3 September 2023, Jaipur, Rajasthan
12. Step-by-Step-Exposure of Cavernous Sinus and Basilar Top, Cadaveric Workshop-23rd Annual Conference of Cerebro-vascular Society (India), 21-23 September 2023, GB Pant Hospital, New Delhi
13. Moya-Moya Disease Lessons learnt over last 25 years, 23rd Annual Conference of Cerebro-vascular Society (India), 21-23 September 2023, GB Pant Hospital, New Delhi
14. Carotid Endarterectomy, 23rd Annual Conference of Cerebro-vascular Society (India), 21-23 September 2023, GB Pant Hospital, New Delhi
15. Central Skull Base and Cavernous Sinus: Surgical Challenges, Technical Considerations and Surgical Nuances for Brain Tumor Oncology, 7 October 2023, New Delhi
16. Endoscopic Endonasal Approaches to Pituitary Adenoma-3D, Live Surgery Workshop-24th Annual Conference of the Skull Base Surgery Society of India, 27-29 October 2023, SGPGIMS Lucknow, Uttar Pradesh
17. Endoscopic Skull Base Surgery, 24th Annual Conference of the Skull Base Surgery Society of India, 27-29 October 2023, SGPGIMS, Lucknow, Uttar Pradesh
18. Skull Base Approaches to Complex Aneurysms, 24th Annual Conference of the Skull Base Surgery Society of India, 27-29 October 2023, SGPGIMS, Lucknow, Uttar Pradesh
19. Discussant: The Formidable Adversary-Surgery around Petrous Apex, 24th Annual Conference of the Skull Base Surgery Society of India, 27-29 October 2023, SGPGIMS, Lucknow, Uttar Pradesh
20. Factors Predicting Remission and Recurrence after Surgical Treatment of ACTH Secreting Pituitary Adenomas-Cushing's Disease, 28th Annual Meeting of the Society of Neuro-Oncology, 15-19 November 2023, Vancouver, Canada
21. Clinico-Radiological Parameters, Molecular and Chromosomal Alterations Affecting Surgical Outcome of Petroclival Meningioma, 28th Annual Meeting of the Society of Neuro-Oncology, 15-19 November 2023, Vancouver, Canada
22. Surgical Management of Pituitary Adenomas-Micro, Macro, Invasive & Giant, Grand Rounds, University of British Columbia, Vancouver, BC, Canada, 20-22 November 2023, Vancouver, BC, Canada
23. Step-by-Step-ACP, Cavernous Sinus, Petrous Apex, Cadaveric Workshop-71st Annual Conference of the Neurological Society of India (NSICON-2023), 13-16 December 2023, Bhubaneshwar, Odisha
24. Bypass in Posterior Circulation Aneurysms, 71st Annual Conference of the Neurological Society of India (NSICON-2023), 13-16 December 2023, Bhubaneshwar, Odisha
25. Endoscopic Endonasal Approach for Sellar Suprasellar Lesions, Neurological Surgeons Society of India (NSSI) Webinar Series-6, 23 December 2023, Virtual
26. Step-by-Step-Endoscopic Endonasal Skull Base Surgery Approach - Identify key endoscopic anatomy, Transsphenoidal and Extended Approach, Cadaveric Workshop-12th Annual Conference of the Neurological Surgeons Society of India (NSSICON-2023), 23-24 February 2024, AIIMS, Raipur
27. Revascularization in Moya Moya Disease, 12th Annual Conference of the Neurological Surgeons Society of India (NSSICON-2023), 23-24 February 2024, AIIMS, Raipur
28. Micro-Vascular Anastomosis: STA-MCA, STA-PCA, OA-PICA, EC-IC, CEA, 26th AIIMS Annual Microneurosurgery Workshop, 7-10 February 2024, AIIMS, New Delhi
29. Endonasal Endoscopic or Transcranial Microscopic Approach for Sellar Suprasellar Lesions, 26th AIIMS Annual Microneurosurgery Workshop, 7-10 February 2024, AIIMS, New Delhi
30. Endoscopy in Large and Giant Pituitary Adenomas-What have we gained, The Annual Conference of the Neuro-endoscopy Society of India (NESICON-2024), 29-31 March 2024, Mumbai, Maharashtra
31. Step-by-Step-Endoscopic Endonasal Skull Base Approaches, Cadaveric Demonstration-The Annual Conference of the Neuro-endoscopy Society of India (NESICON-2024), 29-31 March 2024, Mumbai, Maharashtra

Rajinder Kumar

1. Update in Gamma knife, UTSW Texas USA new advances in GK, 3-8 December 2023, Texas USA
2. Expanded endoscopic approach to skull base-modifications, IFNE advanced endoscopy updates Naples Italy, 12-16 February 2024, Naples Italy
3. endoscopic Approach to the Skull Base, Cadaveric Workshop on Endoscopic skull base and Microscopic aims microneurosurgery, 7-10 February 2024, New Delhi
4. Basics of Deep Brain Stimulation, COIN Nepal 2024, 22-25 February 2024, Kathamandu Nepal
5. C1,2 fixation techniques, SNMC Jodhpur Rajasthan Neuro update 2023, 18-19 November 2023, Medical college jodhpur
6. Deep brain stimulation, Basics to recent advances, Brain spine conference Maldives 2023, 23-26 October 2023, Maldives.

Pankaj Kumar Singh

1. C1 anterior arch screw reconstruction following C2 vertebral body tumour resection: A Novel Technique, NESON 2023, 9 September 2023, Hotel Himalaya, KATHMANDU
2. C1 anterior arch screw reconstruction following C2 vertebral body tumour resection: A Novel Technique, COINS-IV, 23 February 2024, Soaltee westend resort, KATHMANDU

Sachin Borkar

1. Radiation safety in Spine Surgery, Annual meeting of Neurological Society of India-Young Neurosurgeon's Forum(NSI-YNF), 14-15 June 2023, N Convention, Hyderabad, India
2. Cervical lateral mass screw fixation, Annual meeting of NSI, 13-17 December 2023, SCB Cuttack, Bhubaneshwar
3. Facial nv. preservation following vestibular schawannoma: Is total resection counter-productive?, Annual meeting of NSI, 13-17 December 2023, Bhubaneshwar
4. CVJ anatomy : Mumbai, Annual Meeting of ASSI, 18-20 January 2024, Mumbai
5. Cervical spine trauma session., Annual Meeting of ASSI, 18-20 January 2024, Mumbai.
6. Neuraxial anomalies with Scoliosis.., AIIMS International Deformity Course, 21-23 March 2024, AIIMS, Delhi
7. Conducted Deformity and tethered cord syndrome Symposium, Annual meeting of Indian Society of Pediatric Neurosurgery, 29 February to 2 March 2024, Shillong
8. Spine Endoscopy Plenary session, Annual meeting of Neuroendoscopy Society of India (NESICON-2024), 28-30 March 2024, Mumbai
9. Cervical alignment following laminoplasty, Spine week-2023, 2-5 May 2023, Melbourne Convention Center, Melbourne
10. CVJ TB, Spine week-2023, 2-5 May 2023, Melbourne Convention Center, Melbourne
11. BTF guidelines, Annual meeting of Neurotrauma Society of India, 3-5 August 2023, Jaipur
12. Cervical laminoplasty: Whats new? WFNS World Congress, 3-8 December2023, Cape Town, SA
13. Strategies for spine fixation in low resource settings, WFNS World Congress, 3-8 December 2023, CTICC, Cape Town, SA

Amandeep Kumar

1. Endoscopic third ventriculostomy, AIIMS annual Microneurosurgery workshop, 8 February 2024, New Delhi
2. Surgical management of Pituitary macroadenomas, AIIMS annual Microneurosurgery workshop, 9 February 2024, New Delhi

Hitesh Kumar Gurjar

1. Managing deformity after IDEM excision, WFNS FOUNDATION COURSE 2023, 29-30 April 2023, AGRA
2. Venous complications in convexity meningioma surgery-beware 'the Bermuda triangle' of veins, Annual meet of international meningioma society 2023, 30 August 2023, Jaipur
3. Rare skull base tumor in a pediatric patient, SKULLBASECON 2023, 27-29 October 2023, Lucknow
4. Medullary hemangioblastoma-safe surgical excision, DELHI NEUROLOGICAL ASSOCIATION MEETING, 2 MARCH 2024, New Delhi

Shashwat Mishra

1. Simplifying ACOM aneurysm clipping-A geometric thumb rule, NEUROVASCON 2023, 22 September 2023, New Delhi
2. Low grade gliomas: surgery is the best option, DNACON 2024, 3 February 2024, New Delhi

Kanwaljeet Garg

1. MIS-Interesting cases, Minimally Invasive Spine Surgery (MISS) webinar by NSI, 8 April 2023, Virtual
2. Role of Gamma Knife Radiosurgery in cerebral AVMs, WFNS Foundation Education Course at Hotel Jaypee Palace & Convention Center, Agra on, 29-30 April 2023, Agra, UP
3. DBS in Traumatic Brain Injuries, 31st annual conference of Neuro-trauma society of India, 4-6 August 2023, Jaipur, Rajasthan
4. Target Selection and Trajectory Planning for Stereotactic Surgery for Movement Disorders, CME of Indian Society of Stereotactic and Functional Neurosurgery, 11-12 August 2023, Jodhpur, Rajasthan
5. Moderator for Invited talks, NSSA Spine 2023, 15 September 2023, New Delhi
6. Fractures in ankylosing spondylosis cases: How to manage?, NSSA Spine 2023, 16 September 2023, New Delhi
7. DBS-Target planning and surgical procedure, Annual meeting of the Neuromodulation Society 2023, 13-15 October 2023, AIIMS, New Delhi
8. Spinal instability in spinal tumors, 71st Annual Conference of the Neurological Society of India (NSICON-2023), 13-16 December 2023, Bhubaneshwar, Odisha
9. Clinical Evaluation of Adult Brachial Plexus Injuries, Peripheral Nerve Society Biennial conference, 12-14 January 2024, AIIMS, Raipur
10. Movement Disorders-Management of Advanced Parkinson's Disease, 26th Annual Conference of the Delhi Neurological Association and the 22nd Annual Conference of Delhi Neuro Nurses, 3-4 February 2024, New Delhi
11. DTI and functional MRI and surgical planning with magic leap, 26th AIIMS Annual Microneurosurgery Workshop, 7-10 February 2024, New Delhi
12. Principles of Gamma Knife surgery, 26th AIIMS Annual Microneurosurgery Workshop, 7-10 February 2024, New Delhi
13. Lesioning surgeries in Movement Disorders (including MRgFUS), 8th MDSICON 2024, 22-25 February 2024, Ahmedabad, India

Rajeev Sharma

1. Management of Back Pain, SAMPRAVARTANAM 2024 National Workshop on management of Spinal Disorders-AIIA, 28 February 2024, New Delhi

Shweta Kedia

1. Diagnosis and certification of Brain stem death Criteria, ORBO, 25 July 2023, AIIMS, Delhi
2. Pediatric head injury1, Neurotrauma 2023, 4-6 August 2023, Jaipur
3. Gamma knife in Meningiomas, International Meningioma Society 2023, 1-3 September 2023, Jaipur

4. Brain tumor program in Asia, South Asian Neurosurgical congress, 6-9 September 2023, Kathmandu
5. Detethering before deformity surgery: What can go wrong and how to avoid complications?, NSSA Spine 2023, 15-17 September 2023, Delhi
6. Central AVM, Neurovascon, 21-23 September 2023, Delhi
7. Adverse radiation changes in AVM post radiosurgery, 1st Apollo Radiosurgery Conclave, 27-29 October 2023, Chennai
8. Women in Neurosurgery, NSICON, 14-17 December 2023, Bhubaneshwar
9. Diagnosis and certification of Brain stem death Criteria, ORBO, 22 January 2024, AIIMS, New Delhi
10. Craniosynostosis: the spectrum, DNACON 2024, 3-4TH February 2024, Delhi
11. Navigation and and cranial biopsy: 26th Microneurosurgery workshop, AIIMS Delhi, 7-10 February 2024, AIIMS, New Delhi
12. Diagnosis and Certification of Brain stem death Criteria, ORBO, 12 February 2024, AIIMS, New Delhi
13. Basic working of and Iconic transformation of Gamma Knife radiosurgery-, NSSICON 2024, 23-25 February 2024, Raipur
14. Pediatric brain tumors: Challenges, NSSICON 2024, 23-25 February 2024, Raipur
15. Surgical techniques: Graft repair, ICRAN 2024, 1-3 March 2024, Jaipur

Dattaraj Sawarkar

1. Aneurysmal bleed after EVD placement, Neurosurgery Complication course, 8 April 2023, Wash u, St Louis, USA
2. Tips and tricks in Endoscopic skull base surgery, Endoscopy skull base workshop 2023, 21 July 2023, AIG Hospital, Hyderabad
3. Complication avoidance in anterior odontoid screw placement, NSSA Spine meeting 2023, 15 September 2023, Vivanta Taj, Delhi
4. Anterior odontoid Screw fixation-Tips and tricks, Jodhpur Neurosurgery Update, 19 November 2023, SNMC, Jodhpur
5. Posterior transarticular Screw placement for odontoid fractures and mobile AAD, Jodhpur Neurosurgery Update, 19 November 2023, SNMC, Jodhpur
6. Tips and tricks in endoscopic pituitary surgery, NSICON 2023, 15 December 2023, Bhubaneswar, Bhubaneswar
7. Drezotomy for Brachalgia-AIIMS Experience, ISPNSCON 2024, 12 January 2024, AIIMS Raipur, Raipur
8. AIIMS experience in Skull base and CV Junction surgery, J-MOVA training, 21 March 2024, Toyama University, Toyama, Japan

Ramesh Sharanappa Doddamani

1. Dorsal Root Entry Zone Lesioning for Brachial Neuralgia, KNACON 2023, 28-30 April 2023, Shivamogga, Karnataka
2. Robotic Guided Lesioning for PVNH, ECON 2023 (Epilepsy Conference), 21-23 July 2023, Jaipur, Rajasthan
3. Robotic Guided Epilepsy Surgery, ISSFN-CME 2023 (Indian Society for Stereotactic and Functional Neurosurgery), 11-12 August 2023, AIIMS, Jodhpur, Rajasthan
4. Surgery for Mesial Temporal Sclerosis, NSICON 2023, 13-17 October 2023, Bhubaneshwar, Orissa
5. Robotic Guided Radiofrequency Ablative Disconnection of Hypothalamic Hamartomas, AESC 2023 (Asian Epilepsy Surgery Congress), 10-11 November 2023, Ho Chi Minh City, Vietnam
6. Robotic Guided Radiofrequency Ablation of Hypothalamic Hamartomas, South Asian Neurosurgical Conference 2023, 7-9 September 2023, Kathmandu, Nepal

Amol Raheja

1. Sylvian fissure dissection-Tips and Tricks, NEUROVASCON 2023, 22 September 2023, New Delhi
2. Transcranial surgery for suprasellar lesions: Operative nuances and relevance of anterior clinoidectomy, SKULLBASECON 2023, 28 October 2023, Lucknow

3. Moderated free paper session, SKULLBASECON 2023, 28 October 2023, Lucknow
4. Shoulder reanimation strategies for partial and pan brachial plexus injuries, ISPNSCON 2024, 13 January 2024, Raipur
6. Lifting the Smoke in moyamoya disease: Contemporary concepts, DNACON 2024, 4 February 2024, New Delhi

Satish Verma

1. Vertebral hemangioma: How I do it, 26th Annual Conference of Neuro-Spinal Surgeon's Association of India (NSSA), 15-17 September 2023, Delhi, India

Rajesh Meena

1. DREZotomy for pain and spasticity: How can Neurosurgeon help in rehabilitation, NSSA 2023, 15-17 September 2023, New Delhi
2. Somsak Procedure in Brachial Plexus Injury, ISPNS 2024, 12-14 January 2024, Raipur, Chhattisgarh

Santanu Kumar Bora

1. Shoulder balance in scoliosis surgery, 7th AO spine scoliosis week, 18-24 April 2023, Kochi, India
2. Epidemiology, Investigation, Treatment and Outcome of Pediatric Cushing's Disease: A Case-series, 28th Congress of the European Society of Pediatric Neurosurgery, 7-10 May 2023, Rome Italy
3. Papillary tumor of the pineal region in pediatric patients: A rare entity, 28th congress of the European Society of Pediatric Neurosurgery, 7-10 May 2023, Rome Italy
5. Epidemiology, Investigation, Treatment and Outcome of Pediatric Cushing's Disease: A Case-series, 34th Annual Conference of the Indian Society for Pediatric Neurosurgery, 29 February to 2 March 2024, Shillong, India

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
64	181	125

Oral papers/posters presented: 12

Kanwaljeet Garg

1. Sharma R, Role of pregabalin in neuropathic pain (paper), ISPNS Pain workshop, 14 September 2023, New Delhi
2. Sharma R, Rajinder Kumar, Ashish Suri, Pituitary tumors-surgical strategies (paper), AMU NEURO UPDATE, 2023, 21 October 2023, Aligarh
3. Sharma R, Rathke's cyst (poster), WFNS Cape town, 4-8 December 2023, Cape town
4. Sharma R, Management of carpel tunnel syndrome (paper), ISPNSCON 2024, 14 January 2024, Attended online
5. Sharma R, Surgical excision of Giant Pituitary adenoma (Video), NESICON, Mumbai, 29 March 2024, Mumbai
6. Sharma R, Dattaraj Sawarkar, Rajinder Kumar, Ashish Suri, Strategies in the management of Giant Pituitary adenomas (paper), NESICON, Mumbai, 30 March 2024, Mumbai
7. Doddamani RS, Robotic Guided RF ablation of Periventricular Nodular Heterotopia, 1st International Epilepsy surgery Society Conference, 19 January 2024-21 January 2024, Dubai, UAE
8. Doddamani RS, DREZotomy in Post Brachial Plexus Avulsion Neuralgia, WFNS 2023, December 2023, Cape Town, South Africa
9. Raheja A, Sreenivasan S, Suri A, Singh M, Mishra S, et al., STA MCA bypass for symptomatic moyamoya disease-Lessons learnt from 89 revascularizations, AANS 2024, 23 April 2023, Los Angeles
10. Meena R., Doddamani RS, Chandra PS, Ventriculoperitoneal Shunt in Slit-like Ventricles-Role of Minimal Invasive Neurosurgical techniques, 11th Istanbul Yasargil Micro-neurosurgery Course, 22-24 August 2023, Istanbul, Turkey

11. Bora SK, Suri A, Epidemiology, Investigation, Treatment and Outcome of Pediatric Cushing's Disease: A Case-series, 28th congress of the European Society of Pediatric Neurosurgery, 9 May 2023, Rome Events-Trevi Fountain, Roma, Lazio, Rome, Italy
12. Bora SK, Kumar A, Papillary tumor of the pineal region in pediatric patients: A rare entity, 28th congress of the European Society of Pediatric Neurosurgery, 9 May 2023, Rome Events-Trevi Fountain, Roma, Lazio, Rome, Italy
13. Bora SK, Suri A, Epidemiology, Investigation, Treatment and Outcome of Pediatric Cushing's Disease: A Case-series, 34th Annual Conference of the Indian Society for Pediatric Neurosurgery, 2 February 2024, Shillong, India

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
12	17	13

RESEARCH

Funded projects

Ongoing

1. DBT COE-Collaborative Neuro-Engineering Platform for Excellence in Innovation and Translational Research in Neurosurgery Simulation, Professor Ashish Suri, Department of Biotechnology-DBT, 6 years, 2018-24, Phase 2 = 2029, Rs 8,18,94,900 (AIIMS+IITD)
2. Material Characterization of Brain Tissue and Development of Tissue-Device Interaction based Neurosurgical Computational Tools, Professor Ashish Suri, Department of Health Research-DHR, 4.5, 2020-25, Rs 8,38,46,999 (AIIMS+IITD)
3. ICMR COE-Centre of Excellence for Neurosurgery Medical Devices, Professor Ashish Suri, Indian Council of Medical Research-ICMR, 3+2, 2023-28, Rs 9,95,77,361 (AIIMS+IITD)
5. "Development of Bio Resorbable Cranial Implants for Neurosurgical Cranioplasty Procedure across Institutes of National Importance", Dr Deepak Agrawal, 2year, 2023-25, Rs 5000000
6. Development and validation of prognostic models for patients with traumatic brain injury: A comparison of the modern machine learning methods, Dr Deepak Agrawal, 3 year, 2022-25, Rs 45 Lakhs
7. "Development of risk management and health monitoring system on ventilated neurotrauma patients using the concept of digital twins and probabilistic modelling.", Dr Deepak Agrawal, 3 years, 2024-27, Rs 2 Crores
8. Brain Tumor registry with AI based management across different AIIMS hospitals across India, Dr Deepak Agrawal, 5 years, 2023-28, Rs 1.2 Crores,
9. A study to assess the utility of an automated transcription of prescription and discharge summary into local languages for all patients admitted in seven AIIMS, India, Dr Deepak Agrawal, 3 years, 2024-27, Rs 15 Lakhs
10. To study the effect of a locally administered multifunctional cocktail on postoperative pain and blood loss in elective lumbar spinal surgeries: A prospective double blinded randomized control trial, Dr Sachin Borkar, ICMR, 3 years, 2023-26, Rs 40,50,060
11. Designing and testing intra-operatively an inexpensive, small, efficient and portable, table /microscope objective mounted device for visualizing and recording indocyanine green fluorescence during surgeries under the operative microscope, Shashwat Mishra, AIIMS-IIT Delhi interdisciplinary research, 2 years, 2019-24, Rs 10 Lakhs
12. Posterior cervical fixation versus long-term cervical collar for management of Hirayama Disease: Prospective randomized open blinded endpoint (PROBE), phase III study, Dr Kanwaljeet Garg and Dr Deepti Vibha, Interdisciplinary Collaborative Intramural Research Project (AIIMS Research Section), 2 years, 2023-25, Rs 20,00,000 (Neurosurgery + Neurology)
13. Expansile duraplasty in patients with complete cervical spinal cord injury-A Prospective Randomized Open Blinded End-point (PROBE) Study, Dr Kanwaljeet Garg, Indian Council of Medical Research-ICMR, 3 years, 2024-26, Rs 43,63,160
14. 3D volumetric analysis to define the extent of resection of giant pituitary adenomas, Rajeev Sharma, AIIMS, New Delhi, 2 Years, 2021-23, Rs 6 Lakhs INR over 2 years

15. Creation of Gold standard Medical imaging datasets of dural based lesions treated with primary Gamma knife radiosurgery or Microsurgery for developing Artificial Intelligence tools, Dr Shweta Kedia, Indian Council of Medical Research, 3 years, January 2024, January 2027, Rs 76,09,998/-
16. Single Cell-Type RNA Sequencing to delineate astrocyte and Neuron specific alterations in Patients with Focal Cortical Dysplasia and temporal lobe epilepsy, Ramesh S Doddamani, AIIMS, Delhi, 2 years, 2023-25, Rs 5 Lakhs
17. Microsurgical comparison of operative exposure of IAC though middle fossa and retrosigmoid hearing preservation skull base approaches-a laboratory investigation, Amol Raheja, AIIMS Intramural grant, Extension granted, 2018-23, Rs 5,00,000/-
18. Recurrent glioblastoma; a diagnostic challenge : A multidisciplinary approach for differentiating tumor recurrence and treatment related changes, Dr Santanu Kumar Bora, AIIMS, New Delhi, 2 years, 2022-24, Rs 10,00,000

Completed

1. Histopathological and Immunohistochemistry Analysis Of Posterior Atlanto Occipital Membrane In Patients With Congenital/Developmental Craniovertebral junction(CVJ) Anomalies, Dr Sachin Borkar, ASSI, 1 year, 2022-23, Rs 150000
2. 3D volumetric analysis to define the extent of resection of giant pituitary adenomas, Rajeev Sharma, AIIMS, New Delhi, 2 years, 2021-23, 6 Lakhs INR over 2 years

Departmental projects (including thesis/dissertations)

Ongoing

1. Study of evolution of cerebral edema, neuroinflammation and blood brain barrier disruption in Pediatric Traumatic Brain Injuries
2. Study of variations in anatomy and pattern of skull base fractures un patients with post traumatic CSF leak
3. Correlation between injury morphology on CT and urological outcomes in sub axial cervical spine injury
4. Spinal alignment after fixation in trauma patients
5. Impact of COVID on neurosurgical procedures in a tertiary care centre
6. Factors predicting Non-Remission and Recurrence after Surgical Treatment of Functional Pituitary Adenomas
7. Assessment of changes in brain stem volume after GK for cp angle lesions
8. Pattern of fluid electrolyte imbalance and temporal course of response to desmopressin, in post op craniopharyngioma surgery.
9. Gamma-Knife for giant intracranial (>20cc) lesions
10. Role of Gamma Knife in Craniopharyngiomas
11. Role of Bevacizumabin NF2 for tumor control
12. Development of a Machine Learning algorithm for prediction of severity and need for surgery in Cervical Spondylotic Myelopathy.AIIMS-IIT Delhi Research Collaboration
13. Comparative ambispective study of Transcranial versus Trans-sphenoidal approaches for Tuberculum sella meningiomas
14. The effect of Microvascular Decompression on the microstructure of Trigeminal Nerve as determined by Diffusion Tensor Imaging in patients with classic Trigeminal Neuralgia: a prospective study
15. Role of third ventricular volume a s predictor of hydrocephalus in patients with aneurysmal subarachnoid hemorrhage.
16. A comparison of subgaleal versus subperiosteal dissection techniques for raising scalp flap in Fronto-temporal & Pterional craniotomies in terms of post-operative scalp/facial edema and operative site pain: A prospective study.
17. Outcome of staged surgeries in Neurosurgical setup
18. Study of variations in anatomy and pattern of skull base fractures in patients with posttraumatic CSF leak
19. Spinal alignment after fixation in trauma patient
20. Outcome of staged surgeries in Neurosurgical setup

21. Clinical and radio-pathological correlation in pituitary adenomas in modern era of transcription factors Immunohistochemistry.
22. Spinal alignment after fixation in trauma patients
23. Impact of COVID on neurosurgical procedures in a tertiary care centre
24. Outcome of radiosurgery for intracanalicular vestibular schwannoma : developing a prediction model using AI
25. Epigenetic profiling of gliomas in pediatric, adolescent and young adults
26. MRI Characterization of pediatric brain tumors with histopathological correlation
27. "Role of Intraoperative Topical Antibiotic Injection Around The Ventricular End And The Peritoneal End Of Ventriculoperitoneal Shunt In Reduction Of Shunt Infection: A Randomised Controlled Trial"
28. To determine the association of MRI findings in patients with cervical spondylotic myelopathy and Hirayama's disease with outcome at three months
29. Comparison of accuracy of various MRI sequences in target planning for Subthalamic nucleus deep brain stimulation
30. Decompressive Craniectomy with and without Duraplasty in Traumatic Brain Injury: A Randomized Controlled trial
31. Impact of frailty on in-hospital and long term outcomes after decompressive craniectomy for traumatic brain injury in the elderly
32. Comparison of endonasal transsphenoidal approach versus transcranial approach for excision of tuberculum sellae meningioma
33. Gamma Knife Subthalamotomy for Idiopathic Parkinson's Disease-A Pilot Study
34. Development and validation of prognostic models for patients with traumatic brain injury: A comparison of the modern machine learning methods
35. Non-invasive CGM (continuous glucose monitoring) using HRV (heart rate variability) with Al and Machine Learning
36. Decentralized 3D Printing solutions for Osteo Templates for accurate pedicle screw insertion using patients CT scan data for Spinal Surgeries
37. Multi-institutional trial to study the relation between cisternal pressure and parenchymal pressure and its effect on the clinical condition in patients undergoing basal cistern ostomy for head injured patients
38. Cadaveric study comparing operative exposure to basilar apex region comparing trans-sylvian versus pretemporal transcavernous approach: Morphometric analysis
39. Decompressive Craniectomy v/s Cisternostomy in Severe Traumatic Brain Injury: A Single Centre Randomised Control Study

Completed

1. Functional and Neuropsychological Outcome in Moya Moya Disease
2. Role of GK in treatment of trigeminal neuralgia
3. Craniovertebral junction - repeat surgery and outcome
4. AAD, transarticular screw, is it safe?
5. AAD, c1, 2 Magerl fixation technique. Is it superior to other procedures.
6. "Therapeutic Application of Bone Marrow Derived Stem Cell in Complete Spinal Cord Injury".
7. Study of Traumatic brain injury induced secondary gastrointestinal changes
8. Pituitary dysfunction following stereotactic radiosurgery for secretory pituitary adenomas
9. Primary Gamma-Knife with concurrent Temozolomide for GBM
10. Evaluation Of Biomarkers (Procalcitonin, IL-6, D-Dimer, TLC, CRP) To Predict Cerebral Vasospasm And Delayed Ischemic Neurological Deficits After Aneurysmal Subarachnoid Hemorrhage
11. Long term outcome of severe head injury patients
12. "Spinal arachnoid cyst-A Clinico-radiological study"

13. An ambispective analysis of outcome of patients with atlanto axial instability undergoing posterior fixation with C1 lateral mass and C2 pedicle screws
14. Prospective study to evaluate the role of bevacizumab in treatment of vestibular schwannoma in patients with neurofibromatosis type 2
15. Long term effects of draining vein Shielding during gamma-knife radiosurgery in intracranial arteriovenous Malformations
16. A retrospective analysis of atlantoaxial fusion with C1-C2 transarticular screws
17. Evaluation of biomarkers (procalcitonin, IL-6, D-dimer, TLC, CRP) to predict cerebral vasospasm and delayed ischemic neurological deficits after aneurysmal subarachnoid hemorrhage
18. A study to assess the impact of Nurse-led intervention of patient care practices and caregivers of patients with traumatic brain injury at AIIMS, Delhi
19. Remission and Recurrence after surgical treatment for functional pituitary adenomas

Collaborative projects

Ongoing

1. DBT COE-Collaborative Neuro-Engineering Platform for Excellence in Innovation and Translational Research in Neurosurgery Simulation, AIIMS: Neurosurgery, Anatomy, Forensic Medicine, Neuroradiology, Neuropathology IIT-D: Computer Science Engineering, Bio-Medical Engineering
2. Material Characterization of Brain Tissue and Development of Tissue-Device Interaction based Neurosurgical Computational Tools, AIIMS: Neurosurgery, Anatomy, Forensic Medicine, Neuroradiology, Neuropathology, NMR IIT-D: Applied Mechanics
3. ICMR COE Centre of Excellence for Neurosurgery Medical Devices, AIIMS: Neurosurgery, Anatomy, Physiology, Neurology, Neuroradiology, Neuropathology. IIT-D: Mechanical Engineering, Computer Science Engineering, Bio-Medical Engineering
4. Outcome assessment of Early Integration of Palliative Care in management of patients of primary brain tumors, Onco-anaesthesia and Palliative care, IRCH
5. Fluoride levels in cervical OPLL, Anatomy
6. Enhancement of the performance of micro-scissor through process modification, IIT Delhi, Department of Material Sciences
7. “Establish robust and economical blood-based panel of diagnostic biomarkers for early diagnosis, detection of tumor progression and its recurrence in gliomas”. (Project code: I-1279), Neuropathology
8. Methylation array-based profiling of gliomas in Adolescents and Young Adults (AYA) to improve sub-classification and prognosis prediction. (Project code: I-1410), Neuropathology
9. Infra-red pupillometry as a diagnostic tool in assessment of non-convulsive status epilepticus in severe TBI, Neuroanaesthesia
10. Study of association between saliva and blood biomarkers in cognitively impaired pediatric mild head injury patients, Laboratory Medicine, JPNATC
11. Non-Convulsive status epilepticus in severe TBI patients at level-1 trauma center in India, Neuroanaesthesia
12. RELA fusion in Supratentorial Ependymomas, Neuropathology
13. Assessment of hypoxia inducible factor-1 alpha pathway activation and its correlation with tumor immune microenvironment and markers of tumor invasiveness in myxopapillary ependymomas, Neuropathology
14. Material characterization of brain tissue and development of tissue device interaction based neurosurgical simulation tools, IIT, Delhi
15. Collaborative neuro-engineering platform for excellence in innovation and translational research, IIT, Delhi
16. Multiple degrees of freedom of robotic manipulator for minimally invasive neurosurgery, IIT, Delhi

Collaborative projects

Completed

1. National Bioscience Award for Career Development, AIIMS: Neurosurgery, Anatomy, Neuroradiology, Neuropathology IIT-D: Computer Science Engineering
2. TATA Innovation Fellowship Award, AIIMS: Neurosurgery, Anatomy, Neuroradiology IIT-D: Computer Science Engineering, Bio-Medical Engineering
3. Support to Indian Institutes to Conduct Training Programme in the area of Operational Research Neurosurgery Skills Training, AIIMS: Neurosurgery, Anatomy, Forensic Medicine
4. Multiple Degrees of Freedom Robotic Manipulator for Minimally Invasive Neurosurgery, AIIMS: Neurosurgery IIT-D: Mechanical Engineering
5. Computational Modelling of Cerebral Blood Flow in Moya Moya Disease, AIIMS: Neurosurgery, Neuroradiology, UCL, London, UK: Healthcare Engineering

PUBLICATIONS

Department of Neurosurgery: 127 **Journal: 125** **Chapters in Book: 2**

PATIENT CARE

Department of Neurosurgery has two units with general neurosurgical ward under each unit (35X2 beds). There are two ICUs with 26 beds. There are now 7 elective operation theatres and two 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. We have advanced imaging modalities (O-arm) and navigational devices (like Stealth Station and ROSA). Department of Neurosurgery runs an outpatient Spine clinic which deals with all diseases related to spine including degenerative, deformity, tumors, etc. It is held on Saturdays from 9 am to 12 pm. We have also started DBS clinic in collaboration with Deptt. of Neurology for providing comprehensive care of patients who have undergone DBS, which will be held on all Saturdays from 9 am-12 pm.

Following number of patients were treated by us during the year 2023-2024:

S. No.	Treatment facility	Number
1.	Outpatient department	
	a) Total New Cases	18913
	b) Total Old cases	33020
	c) Total cases	51933
2.	Gamma knife procedures performed	984
3.	Number of surgeries at CNC	3304
5.	Number of surgeries at JPNATC	1629
6.	Total number of surgeries	4933

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor SS Kale was Treasurer Neurological Society of India from 2023 to 2024.

Professor P Sarat Chandra received Career 360 excellence award; Elected member of National Science Academy, India; Life time achievement award - Asian Oceanic Commission for Epilepsy-ILAE; Positions in Scientific societies - President, Indian Epilepsy Society; President, Cerebrovascular Society of India; President, Neuroendoscopic society of India; Chair, Epilepsy Surgery, AOEC, ILAE; Member representative for developing countries, International League Against Epilepsy (ILAE); Executive board member, International Society of Minimally Invasive Neurosurgery; Founding member, International Epilepsy Surgery Society; Secretary General, Asian Epilepsy Surgery Society; Orations - Dave-

Newton Oration-Oration given during the foundation day celebrations of KGMU, Lucknow; Presidential oration-at the annual congress of Cerebrovascular Society of India.

Professor Ashish Suri was elected as Fellow of the Indian Academy of Sciences-2024-FASc; President: Skull Base Surgery Society of India; President: Neuro-endoscopy Society-India; President Elect: Cerebro Vascular Society of India; Elected Member of World Academy of Neurological Surgeons-WANS; Elected Member of Yasargil Micro-neurosurgery Academy-YMA; Awarded "Galien Award-2024" for "NEURO-MENTOR" in Best Academic Sector.; Awarded AIIMS Excellence Research Award under Basic Science category for Outstanding Publication Paper entitled "Effect of Segmentation Threshold on Computed Tomography based Reconstruction of Skull Bones with Reference Optical Three-dimensional Scanning".; Selection as Adjunct Professor, School of Information Technology, Indian Institute of Technology-Delhi for 10th consecutive year.

Professor Deepak Agrawal was recipient of BIG grant from DST for Rs 50 Lakhs in 2023; Editor-in-Chief of Indian Journal of Neurotrauma (IJNT); Elected as Secretary, Indian Society of peripheral Nerve Surgery.

Dr Sachin A Borkar was elected as EC member for Association of Spine Surgeons of India for the term 2023-25.; Successfully conducted the Annual meeting of Neuro Spinal Surgeons Association of India as organising secretary. The meeting was well attended and well appreciated.; As one of the nodal officers for Infection Control in NSC, was actively involved in formulating guidelines and ensuring compliance for Infection control activities in NSC; Ensured training and teaching of HCW towards Infection prevention activities; Was involved in many physical/virtual educational activities in the form of invited talks, webinars, panel discussion during the course of the year; Served as a core member in conducting various CME and conferences under the Deptt of Neurosurgery like AIIMS Microneurosugery Workshop, AIIMS Spine Workshop and AIIMS Neurotrauma Workshop, etc; In-charge of departmental infection control, website maintenance, telemedicine.; As a part of NSC infection control committee, formulated guidelines to streamline activities.

Dr Rajeev Sharma was Treasurer, Indian Society of Peripheral Nerve Surgery; Organizing Secretary, "Pain & Peripheral Nerve: Blocks and Procedures ISPNS Live Operative Workshop and Symposium", 14-15 September 2023.; Section editor, Cerebrovascular surgery section, Neurology India.; Co-opted member, COVID, ASSI.; I took active interest in various conferences organized by our Department.

Dr Dattaraj Sawarkar organized cadaveric workshop during Annual NSSA national spine meeting, 13 September 2023, AIIMS, New Delhi; Co-Organizing secretory ISPNS live operative workshop on Pain & Peripheral Nerve: Blocks and Procedures, 14-15 September 2023; As an Editor-in-chief, published issue of Journal of peripheral nerve surgery (JPNS) in 2023 which is the official journal of ISPNS society.

Dr Amol Raheja in September 2023-Co-authored original work in the field of neurosurgical training entitled "The impact of mixed reality on visualization in neurosurgical training: A novel pilot study using HoloLens"; and was awarded 2nd prize for best paper category (NextGen Award 2023) at 12th International Neurosurgery update 2023 (Educational initiative of WFNS foundation); June 2023-Co-authored original work in the field of neurosurgical training entitled "The impact of mixed reality on visualization in neurosurgical training: A novel pilot study using HoloLens"; and was awarded 1st prize for best platform presentation at Resident forum NSI-YNFCON 2023, N-Convention centre, Hyderabad, Telangana, India; April 2023-Awarded travelling grant under Foreign Partial financial assistance scheme by CSIR for presenting original work in the field of cerebrovascular neurosurgery entitled "STA-MCA bypass for symptomatic moyamoya disease-Lessons learnt from 89 revascularizations" at AANS 2023 conference, Los Angeles, USA; I have been inducted as Section Editor for Endoscopic Neurosurgery for Neurology India journal; I have also been elected as Executive member of Faculty association of AIIMS (FAIMS) for the term 2024-26.

Dr Ramesh S Doddamani was inducted as a Board Member for Asian Epilepsy Surgery Congress (AESC); Invited as a Speaker for the AESC congress at Ho Chi Minh City (Vietnam); Received the ILAE Travel grant for attending 1st International Epilepsy Surgery Society (IESS 2023) meeting at Dubai; Selected for San Servolo epilepsy summer course from India along with grant from International League Against Epilepsy Grant (ILAE) for July 2024 to be held at (Venice, Italy); Section Editor for World Neurosurgery (Official journal World federation of Neurosurgery): Sections: Epilepsy, Pain & CSF pathways and Hydrocephalus.

Dr Satish Verma joined Leksell Gamma Knife (LGK) Icon Introductory Course, Na Homolce Hospital, Prague, Czech Republic, October 2-6, 2023. Course Directors - Roman Liscak, MD, PhD, Joseph Novotny Jr, PhD; 2nd Deep Brain Stimulation (DBS) and Pain Interventions Course (Under the auspices of WSSFN-World Society of Stereotactic and Functional Neurosurgery), Marmara University, Istanbul, Turkey, 27-28 May 2023; Scoliosis week (AO Spine), Amrita Institute of Medical Sciences, Kochi, Kerala, 18-24 April 2023.

Dr Santanu Bora received Fellowship in fully endoscopic spine surgery, Dehradun India, April 2023; Fellowship in spine scoliosis surgery AO spine fellowship course, Kochi, India, April 2023; Presented papers in Annual Conference of European Society of Pediatric Neurosurgery, Rome, Italy, May 2023; Fellowship in skullbase and advanced endoscopic neurosurgery, Osaka metropolitan hospital, Osaka, Japan, November to December 2023; Fellowship in fully endoscopic Transforaminal spine surgery, Pune, India January 2024; Presented paper in Indian Society of Paediatric Neurosurgery, Shillong, India, March 2024; Participated in Early Career Research Methodology Workshop held on the 8 and 9 of August 2023 at the Dr Ramalingaswami Boardroom, AIIMS, New Delhi; Participated in Grant Writing Workshop which was held from 28-29 August 2023, organized by the Clinical Research Unit (CRU), Research Section, AIIMS, New Delhi.

Department of Neuro-anesthesia

Head of the Department
Mihir Prakash Pandia

Professors
Rajendra Singh Chouhan
Girija Prasad Rath
Hemanshu Prabhakar

Additional Professors
Charu Mahajan
Indu Kapoor
Surya Kumar Dube

Associate Professor
Suman Sokhal

Assistant Professor
Hirok Roy

HIGHLIGHTS

Anesthetic management for **3303** neurosurgical procedures were performed in neurosurgical OT and **3** in Gamma-knife suite. Anesthetic management for **492** neuroradiological procedures (**320** in Angiography lab and **172** in MRI suite) was performed. Intensive care management of **2917** ICU patients performed. A total of **4942** patients (**3274** new and **1668** old) were seen in Pre-Anesthesia Check-up (PAC) clinic OPD at NSC. A total of **710** patients (**154** new and **556** old) were seen in pain clinic OPD, NSC and >**400** nerve blocks were given in the pain clinic.

Faculty members are working on **2** funded research projects. **Twelve** research projects were completed in the department and **19** research projects continuing. Faculty members are working on **2** collaborative projects. Faculty members delivered **72** lectures in various national and international conferences. The department published **31** papers in various national and international journals and **4** chapter in books. Faculty members in the department got awards and recognition in various nationals and international platforms.

Lectures delivered: 60

MP Pandia: 2	**GP Rath: 5**	**Hemanshu Prabhakar: 20**
Charu Mahajan: 7	**Indu Kapoor: 15**	
Surya K Dube: 9	**Suman Sokhal: 1**	**Hirok Roy: 1**

Lectures delivered over past 3 years

2021–2022	2022–2023	2023–2024
47	32	60

Oral papers/posters presented: 15

Oral/poster presentations over past 3 years

2021–2022	2022–2023	2023–2024
6	6	15

RESEARCH

Funded projects

Ongoing

1. Effect of Ketofol versus Fentanyl and Midazolam for ICU Sedation on Brain Injury Biomarkers in Moderate to Severe Traumatic Brain Injury Patients-A Prospective Randomized Controlled Study, Dr Suman Sokhal, AIIMS, 2 years, 2024-26, Rs 10,00,000/-

Completed

1. Study of muscle enzyme elevation in neurosurgery and its relevance in post-operative acute kidney injury: A Pilot Study, Dr Surya Kumar Dube, AIIMS, New Delhi (Intramural Grant), 4 years, 2018-23, Rs 3.2 Lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. Airway Changes in Patients Undergoing Lumbar Spine Surgery in the Prone position: A Prospective Observational Study
2. Comparative study on incidence of airway related complications while using polyvinyl chloride (PVC) tubes with a strategic cuff release manoeuvre versus armoured flexometallic endotracheal tubes in neurosurgical patients undergoing surgery in lateral position: A non-inferiority trial
3. Comparing the Effect of Fentanyl and Midazolam with Ketofol for ICU Sedation on the Extended Glasgow Outcome Scale at Three Months in Moderate to Severe Traumatic Brain Injury Patients-A Prospective Randomized Study
4. Comparison of 0.9% normal saline, Sterofundin and PlasmaLyte A with respect to metabolic parameters and brain relaxation in patients undergoing supratentorial craniotomy: a randomised controlled trial.
5. Comparison of Sugammadex versus Neostigmine for reversal of Rocuronium induced neuromuscular blockade in adult patients undergoing Elective Neurosurgery
6. Dynamic needle tip positioning versus short axis technique for ultrasound guided internal jugular venous cannulation in adult surgical patients: A randomized controlled trial
7. Early quantitative pupillometry index as a predictor of long term outcome in severe traumatic brain injury patients: a prospective observational study
8. Effect of bilateral scalp block on intraoperative opioid consumption and postoperative pain in children undergoing supratentorial craniotomy
9. Effect of Intraoperative Goal-Directed Fluid Therapy on Extra Vascular Lung Water after Lateral Position Craniotomy. A Prospective Randomized Double blinded Study
10. Effect of systemic lidocaine and dexmedetomidine on perioperative analgesia and 3-month outcome in patients undergoing supratentorial craniotomy under inhalational anaesthesia: a randomised controlled trial
11. Effects of varying concentrations of Nitrous Oxide on motor evoked potentials using IONM during spine surgeries: A double blinded Randomised Controlled Study
12. General anaesthesia versus Conscious sedation for endovascular Therapy in patients with acute ischemic Stroke due to Tandem Occlusion: a prospective observational study
13. General anaesthesia versus Conscious sedation for endovascular Therapy in patients with acute ischemic Stroke due to Tandem Occlusion: a prospective observational study
14. Impact of intraoperative jugular venous oximetry based management on outcome in patients undergoing excision of intracranial meningiomas: a preliminary study

15. Intraoperative complications during surgical correction of craniosynostosis in syndromic and non-syndromic children: a prospective, observational, comparative, preliminary study
16. Near infrared spectroscopy as a predictor of evaluation towards brain death following severe brain damage
17. Opioid free anaesthesia for craniotomy in supratentorial tumors: A randomized controlled open labelled study
18. Opioid sparing Anesthesia Technique for supratentorial craniotomy in geriatric patients [OPIATE]: a randomized open labeled study
19. Point-of-Care ultrasound to identify Frailty and predict outcomes in patients with traumatic brain injury: A prospective observational study

Completed

1. A National Survey on Coma Epidemiology, Evaluation, and Therapy in India: Revisiting the Curing Coma Campaign Come Together Survey
2. A Nationwide Survey on the Practice of End-of-life Care Issues in Critical Care Units in India
3. Comparison of enhanced recovery after surgery [ERAS] protocol vs conventional care in patients undergoing elective craniotomy for intracranial aneurysms: a randomized controlled controlled trial
4. Development of postoperative laryngeal edema as assessed by cuff leak test in patients undergoing craniotomy for elective intracranial tumor excision: A prospective, observational, preliminary study
5. Development of postoperative laryngeal edema as assessed by cuff leak test in patients undergoing craniotomy for elective intracranial tumour excision: a prospective, observational, preliminary study
6. Effect of patient positioning for neurosurgical procedures on post-intubation laryngeal edema assessed by cuff leak test and laryngeal ultrasonography
7. Effect of topical ropivacaine on extubation response in patients undergoing supratentorial tumour surgeries: a prospective randomised double blinded placebo controlled trial
8. Goal directed fluid therapy during endovascular therapeutic procedures following aneurysmal subarachnoid haemorrhage: A prospective randomized study
9. Incidence & risk factors for prolonged ICU stay after pituitary surgery: A Prospective Study
10. Influence of Periprocedural Anesthetic Management of Endovascular Thrombectomy for Anterior Circulation Acute Ischemic Stroke on Neurological Outcome
11. Role of preoperative Anesthesia Counseling in the neurosurgical patients: a randomized controlled open label study
12. Surgical Position Associated Intra-abdominal Pressure (IAP) changes in Neurosurgery: The SPAIN study

Collaborative projects

Ongoing

1. Curing coma campaign acute coma pragmatic prospective observational (compose) study, Baylor St. Luke's Medical Center and College of Medicine, USA

Completed

1. Comparison of enhanced recovery after surgery [ERAS] protocol vs conventional care in patients undergoing elective craniotomy for intracranial aneurysms: a randomized controlled controlled trial, Neurosurgery

Research over past 3 years

Research projects	2021-2022	2022-2023	2023-2024
Total funded projects	1	-	2
Total funding	Rs 2.95 Lakhs	-	Rs 13.2 Lakhs

PUBLICATIONS

Total Publications: 25; Journal articles: 24 Chapters in Books: 1

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total	**71**	**42**	**25**
Journal articles	51	32	24
Abstracts	1	2	0
Chapters in books	19	7	1
Books	0	1	0

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Mihir Prakash Pandia performed awake craniotomy in a 5 years 6 months old female child which is a record and was news in many national newspaper and News TV channels.; Interview was published in the personality column of Sunday edition of Odia newspaper "SAMBADA" on 28 January 2024; Appointed as the HOD of the department of Neuroanaesthesiology and Critical Care, AIIMS; Chaired the NCSI Presidential oration: TBI Evolution of monitoring and management from a neurointensivist perspective delivered by Dr Chiara Robba which was held online on 16 March 2024; Continuing as committee member of the constitution committee of Neurocritical Care Society of India.

Professor RS Chouhan attended two National conferences and co-chaired scientific sessions in these: 4th Annual Conference of Neurocritical Care Society of India (NCSI) 2023 and 4th Annual Neurocritical Care Update (ANCU) 2023 held at Gurugram, Haryana, India from 29 September 2023 to 2 October 2023; 6th Annual Conference of Society of Neurocritical Care (SNCC) held at Agra, Uttar Pradesh, India from 14 to 15 October 2023.

Professor Girija Prasad Rath was appointed as the Registrar of the Institute (AIIMS, New Delhi); Elected as the Vice President for Education and Scientific Affairs of the Society for Neuroscience in Anesthesiology and Critical Care (SNACC, USA) and has been contributing as the Program Chair for its Annual Meeting (SNACC 2024). Continues to contribute as the Secretary of the Indian Society of Neuroanaesthesiology and Critical Care (ISNACC). Continues to contribute as the Chair of the Global Outreach Committee and member of the Scientific, Membership, Communication, and Strategic Affairs committees of the SNACC; Delivered an invited lecture for the 18th World Congress of Anaesthesiologists in Singapore; conducted TCD workshop SNACC Annual Meeting 2023; at Alexandria, USA. Continue contributing as the EXCO member (India) for the Asian Society of Neuroanaesthesia and Critical Care (ASNACC); Continue to hold the post of Executive Editor for the Journal of Neuroanaesthesiology and Critical Care (JNACC); Editorial Board Member of the Indian Journal of Anaesthesia (IJA), Neurology India, The Indian Anesthetists' Forum, and Section Editor (Neuroanaesthesia) for the Journal of Anaesthesiology and Clinical Pharmacology (JOACP).; Continue to serve as the International Advisory Board Member of Anesthesia Essays & Researches (AER) and Anesthesiology & Pain Medicine (AAPM), and reviewer of reputed international journals such as Minerva Anestesiologica, Journal of Neurosurgical Anesthesiology, Neurocritical Care, and Journal of Clinical Anesthesia.

Professor Hemanshu Prabhakar received Diploma in Transplant Procurement Management (TPM) Training Course held in Delhi by Donation and Transplantation Institute (DTI) Spain in collaboration with AIIMS New Delhi.; Conducting two International Surveys in Neurocritically ill patients involving Low middle income countries (LMICs); Serving as President of Society of Neurocritical Care (SNCC).

Dr Charu Mahajan received best poster award at Annual SNCC conference 2023, held at Agra.; Received Honorary Fellowship in Neurocritical care by Society of Neurocritical Care [SNCC]; Received Presidential Citation Award by Society of Neurocritical care [SNCC]; Received Diploma in Transplant Procurement Management (TPM) Training Course held in Delhi by Donation and Transplantation Institute (DTI) Spain in collaboration with AIIMS New Delhi.; Felicitated for the contribution in organ donation program by ORBO, AIIMS On the occasion of "Indian Organ Donation Day on Donor Felicitation Program"

Dr Indu Kapoor received Honorary Fellowship in Neurocritical care by Society of Neurocritical care [SNCC]; Received Presidential Citation Award by Society of Neurocritical Care [SNCC]; Received Diploma in Transplant Procurement Management (TPM) Training Course held in Delhi by Donation and Transplantation Institute (DTI) Spain in collaboration with AIIMS New Delhi.; Felicitated for the contribution in organ donation program by ORBO, AIIMS On the occasion of "Indian Organ Donation Day on Donor Felicitation Program"; Conducting two International Surveys in Neurocritically ill patients involving Low middle income countries (LMICs).

Dr Surya Kumar Dube received Felicitation by Hon'ble Director AIIMS, New Delhi for Contribution towards ORBO coordinated Organ donation related activities; Felicitation by SET Facility, AIIMS for academic contributions to SET facility programs; Felicitation by Director General of Heath Service, Delhi, NCT for contribution towards man power training in advanced cardiac life support (ACLS) as a part of G20 summit preparedness; Conducted workshop on Neuromonitoring (As course director) at 70th Annual Conference of the Indian Society of Anaesthesiologists, (ISACON 2023); Conducted CME on Brain Death Diagnosis and Organ donation (As course director) at 25th Annual Conference of the Indian Society of Neuroanaesthesiology and Critical Care (ISNACC 2024); Moderated a session on Paroxysmal Sympathetic Hyperactivity and thromboelastography (TEG) at 4th Annual Conference of NCSI and ANCU (NCSI 2023); Moderated a session on Pain Management strategies at National Conference of OT Technologists (NCOTT), AIIMS New Delhi; Member of SNACC (USA) education committee and Patient Safety Group; Instructor ACLS, ATLS, BLS, ACCC, FCCC, ANC; Reviewer for Indian Journal of Anaesthesia, Journal of Neuroanaesthesiology and Critical care, Clinics (Sao Paulo), Neurology India, Neurocritical care.

Dr Suman Sokhal was invited as a chairperson in 1st International Conference of Indian Society of Pain Clinicians (ISPCCON 2023) at Lucknow, Uttar Pradesh from 15 to 17 December 2023; Invited as a chairperson at ISNACC 2024 at Pune, Maharashtra in February 2024.

Department of Neuroimaging & Interventional Neuroradiology

Professor & Head
SB Gaikwad

Professors
Ajay Garg
S Leve Joseph Devarajan

Chief Technical Officer
Ramesh Kaushal

Private Secretary
Shashi Gupta

HIGHLIGHTS

- A state-of-the-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% & 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 & OPD rooms of NSC with upgrade of the PACS server & installation of viewing stations in wards, ICUs & 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 & network all studies on-line. Auto-requisitioning enabled from NSC wards on-line for CTs, MRIs, US & 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.

- New state-of-the-art Neuro-Angiography suite facility: First of its kind in India. This latest facility will make diagnostic and therapeutic neurointerventional procedures safe, fast and enhance efficacy. Radiation doses to the operator and patients have been minimized in addition to the other enhanced features.

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered: 29

SB Gaikwad: 16 **Ajay Garg: 7** **Leve Joseph: 6**

SB Gaikwad

Oral papers/posters presented: 5

RESEARCH

Departmental projects (including thesis/dissertations)

1. Utility of magnetic resonance imaging in the evaluation of myopathies and correlation with genetic studies
2. The Role of Amide Proton Transfer (APT) Imaging and its Comparison with DSC MR Perfusion Technique in the Differentiation of Treatment-related Changes from Tumor Recurrence in High-grade Gliomas
3. Is ASPECTS relevant in contemporary acute stroke practice? A Delphi Consensus Study by the India-Australia Stroke Collaboration
4. Pediatric neurovascular interventions at AIIMS: A retrospective analysis
5. Comparative assessment of PET and ASL-MRI Perfusion techniques along with usefulness of Novel MRI markers for early detection of primary dementia
6. Advanced Neuroimaging techniques in drug resistant focal epilepsy

Completed

1. Radiogenomics in Glioblastoma

Collaborative projects

Ongoing

Shailesh B Gaikwad

1. Co. PI-LASI DAD project-partnered by the University of Southern California with approval of NIH, USA, In collaboration with Geriatric Medicine, AIIMS, New Delhi-Multicentric
2. Co PI-Intra-arterial chemotherapy in retinoblastoma, In collaboration with department of Ophthalmology, RPC

Ajay Garg

1. International Centre for Genomic Medicine in Neuromuscular Diseases (ICGNMD), Neurology
2. A Population-Based Prospective Cohort Study to Unravel the Causes of Stroke and Cognitive Decline: A cross-cultural perspective, Neurology
3. Centre for Excellence (COE) for Difficult to Treat Epilepsy, Neurology
4. Prevalence of Symptomatic and asymptomatic coronary artery disease in patients with stroke and transient ischemic attack, Neurology
5. Aspirin or clopidogrel in patients with TB Meningitis, Neurology
6. Pathobiology of Multiple sclerosis: phenotypic, biomarker and genetic signatures, Neurology
7. Clinical and genetic factors for aspirin resistance in Indian patients with ischemic stroke, Neurology
8. Citicoline in Acute Ischemic Stroke undergoing revascularisation therapy-Investigator-initiated academic trial-, Neurology

9. A randomised double blind study of prophylactic levetiracetam for the prevention of post-stroke seizures (PROLEVIS), Neurology
10. Identification of pathobiological and disease activity markers in Primary CNS Vasculitis, Neurology
11. Prevention of post-stroke seizures with Levetiracetam in Intracranial Cerebral Venous Sinus Thrombosis (PROLEVIS-CVT): A Randomized Placebo-Controlled Trial, Neurology
12. AIIMS Primary CNS Vasculitis Registry, Neurology
13. Efficacy and Safety of Injection Tenecteplase in 4.5 to 24 hours imaging Eligible Window patients with Acute Ischemic Stroke, Neurology
14. Bridging therapy with intravenous Alteplase in imaging eligible Acute Ischemic Stroke patients with onset between 4.5 to 9 hours - A Randomized Controlled, Pilot Study, Neurology
15. Identification of pathobiological and disease activity markers in Primary CNS Vasculitis, Neurology
16. Identification of genetic vasculopathies among a cohort of Primary CNS Vasculitis using whole-exome sequencing, Neurology

Leve Joseph

1. Symptomatic non stenotic carotid disease in embolic stroke of undetermined source-prospective observational study, Neurology
2. A study of sleep architecture, brain morphometry and cognition in older adults, Physiology

PUBLICATIONS: 70

Journal: 61 Abstract: 9

PATIENT CARE

The department works 24x7, 365 days for patient care work & regularly attends to emergencies like subarachnoid haemorrhage, stroke, acute encephalopathy, myelopathy, traumatic or iatrogenic cerebro-vascular injuries etc. All requests for CT scan from outpatients & in-patients are done the same day & 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 & spinal vascular studies for patients attending the Neurosciences Centre and also other departments like ENT & 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, and Orthopaedics amongst 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 & images are uploaded to the PACS network. Portable Ultrasound is done whenever required for sick & immobile patients in the wards & ICUs of the Neurosciences Centre. All consultants & 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 & residents can easily see their patient's images in chronological sequence & in comparison mode on the large projection screen. Even old images & scanned private images can be viewed efficiently instantaneously which helps quick decision making.

Neuroimaging & Interventional procedures performed during the year 2023-2024

CT Scans	**27895**	
Digital Subtraction Angiography		
	Therapeutic Neuro-Interventional procedures: (Cerebra Aneurysms, Cerebral & Spinal AVM embolizations, Carotid revascularization etc.)	**543**
	Diagnostic DSA	**719**

Ultrasound Examinations / Doppler studies		**3558**
MRI	GAMMA KNIFE 7561	
	NMR 5432	
X Rays		**7622**
Portable x-rays		**7348**
OLD FILM SCANNER		**18297**
Data Migration		**4726**

Total for the year 83701

Cases discussed & reviewed in Neuroradiology conferences for patient care decision making

	No. of cases	Weekly Frequency	Total
Epilepsy Case Conference	10@	2	20/week
Neurosurgery conferences	40@	4	160/ week
Neurology conferences	25@	6	150/ week
Neuropathology conference	4@	biweekly	8/ week
		Total	338/ week

Total = Rs 17, 576 cases per year

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shailesh B Gaikwad was elected President of Indian Society of Neuroradiology-2024-2025; Elected President of Society of Therapeutic Neuroradiology-2023-2026; Board member of World Federation of Ischemic Stroke Team (WIST); Senior member of World Federation of Therapeutic & Interventional Neuroradiology (WFITN); Invited to deliver "Roentgen Gold Medal Oration"-2023-Recent WHO classification of brain tumours during the 9th Annual state conference of Indian Radiology & Imaging Association, Telangana chapter, 14-15 October 2023, Hyderabad, Telangana state; Chaired "Dr Prashant Shetty Oration", to felicitate the speaker with the medal and citation during the 25th Annual Conference of Indian Society of Neuroradiology, 8-10 March 2024, Hyderabad, Telangana; Chief guest on "International Women's day", 8 March 2024, held during the "25th Annual Conference of Indian Society of Neuroradiology" and had the honour of felicitating 10 top ranking female radiologists of Hyderabad. Moderated monthly webinar meetings under the aegis of Indian Society of Neuroradiology for teaching members latest in the domain as follows: 13 May 2023, Imaging in altered CSF flow state, Dr Deepak Patkar, MD, DMRD, DMRE, FICR, President of IRIA 2020; Director Medical Services, Head-Department of Imaging Nanavati Superspeciality Hosp. Mumbai; 13 May 2020, Masqueraders & Masterpieces in neuroimaging case based review, Dr Ram Mohan Vadapalli, MG, PhD, Senior Consultant Radiologist, Vijaya Diagnostics, Hyd, Professor of Radiology & Imaging, Pratima Institute of Medical Science Editorial Board: Journal of GLOBAL Radiology, USA; 6 July 2023, CT Perfusion in acute stroke interpretation & pitfalls, Dr Girish Bhatla, MBBS, FRCR, DABR, Asso. Professor Mayo Clinic, Rochester, USA; 6 July 2023, Intracranial vessel wall imaging: Aneurysm to Vasculitis, Dr Girish Bhatla; 12 August 2023, Intracanial stenting : Tips & tricks, Dr Sukalyan Purkayastha, Head, Interventional Neuroradiology & Endovascular Therapy Institute of Neuroscience, Kolkata; 12 August 2023, Interesting INR cases presentation, Dr Himanshu Agarwal, Sr. Consultant Interventional Neurology, Neurosciences, Max Superspeciality Hospital, New Delhi; 7 September 2023, Acute ICA occlusions with patent intracranial circulation : when to intervene, Dr Neha Choudhary, MD, DM, DNB, Consultant Interventional Neuroradiologist, First Neuro Hospital, Mangalore; 7 September 2023, Think Vascular, Dr Hima Pedhnekar, Prof, Department of NIIR, NIMHANS, Bangalore; 5 October 2023, Initiation of anticoagulation after stroke, Dr Senta Frol, Neurology Consultant, Clinic of Vascular Neurology, University Clinical Center ljubljana, PhD, Slovenia; 2 November 2023, Imaging of midbrain/hindbrain Malformation, Dr Atik Biswas, Senior Consultant, UK; 7 December 2023, Pediatric neuroradiology-interesting case files, Dr Atin Kumar, Professor of Radiology, AIIMS, New Delhi; 7 December 2023, Imaging approach to Myelopathy, Dr Vinil Shah, Section Chief, Department of Neurology, UCSF, California, USA; 4 January 2024, Spinal DAVF management by EVOH : Case based Review, Dr Nihar Vijay Kathrani, MD, DM Neuroimaging & IR Assistant Professor, Department of Radiodiagnosis, AIIMS, Raipur; 4 January 2024, Neuroradiology case files, Dr Vivek Lanka, Consultant Neuroimaging & Neurointervention, AIG Hospitals, Hyderabad; 1 February 2024, Imaging of visual and Oculomotor pathways, Dr

Vivek Gupta, Mayo Clinic, Florida, USA; 14 March 2024, Pediatric brain tumors, Dr Arpita Sahu, Associate. Professor, Department of Radiology, Tata Memorial Hospital, Mumbai

VISITING SCIENTIST

Vivek Gupta, Associate Professor, Mayo, Mayo Clinic, Florida USA

Department of Neuropathology
Professors

MC Sharma Vaishali Suri

Neuropathology Laboratory

HIGHLIGHTS

In the year 2023-2024 unit of Neuropathology has been able to maintain high standard academics and state-of-the-art clinical services. The unit is engaged in routine diagnostic services (total of **2454** cases), teaching of undergraduate, postgraduate, DM, Mch and PhD students; as well as high quality research in various subspecialities of Neuropathology.
Steps taken to improve patient care services and research in past year

- New facilities have been added for the molecular diagnosis and cytogenetic work-up in routine work up in neurooncology, which include *in-situ* hybridization, capillary electrophoresis, real-time PCR etc. The diagnostic immunohistochemical panel has been expanded and a total of **22,134** slides have been stained and studied during this period. The unit is regularly integrating molecular makers of clinical significance in the histopathological reports of Neurooncology and myopathology. The Neuropathology faculties have received funding for **6** extramural and **1** intramural projects. A total of **26 papers** have been published in peer reviewed national and international journals. Research work was presented at various national and international platforms in which our students won 5 prizes.

Action Plan for coming year:

To provide a combination of highest quality of diagnostic Neuropathology services, teaching, advanced translational research and develop skilled manpower in the super-specialty.

CMEs/Workshops/Symposia/National and International Conferences

- A five days Neuro-oncology workshop was organized in Neuropathology Lab, AIIMS, New Delhi from 7 March to 11 March 2022 which was duly attended by Dr Yookarin Khongloh, (NEIGRIHMS), Supriya (J.R.F, NEIGRIHMS) and Dr Shabnam Ahmed (GNRC) under the aegis of DBT project
- CME in Neuropathology and Workshop on Fluorescence in Situ Hybridization (FISH) was organized by Dr Vaishali Suri at NEIGHRIMS Shillong, Meghalaya, from 16 November 2022 to 19 November 2022 under the aegis of DBT project and NPSI
- Dr Vaishali Suri organized a FISH Assay workshop at National Institute of Neurosciences and Hospital Dhaka Bangladesh held on 10-11 February 2024
- Dr MC Sharma and Dr Vaishali Suri conducted the FISH and Sanger Sequencing workshop at the 71st Annual Conference of IAPM & lAP-ID on 8 December 2023 at AIIMS, New Delhi

Lectures delivered: 22

MC Sharma: 10 **Vaishali Suri: 12**

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
19	16	**22**

List of oral papers/posters presented: 14

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
12	8	14

RESEARCH

Funded projects

Ongoing

1. Establish robust and economical blood-based panel of diagnostic biomarkers for early diagnosis, detection of tumor progression and its recurrence in gliomas, Professor V Suri, ICMR, 3 years, 2021-24, Rs 1 Crore
2. Methylation array-based profiling of gliomas in Adolescents and Young Adults (AYA) to improve sub-classification and prognosis prediction, Porf. V Suri, ICMR, 3 Years, 2022-25, Rs 80 Lakhs
3. MGMT expression profiling and its correlation with response to TMZ in high grade gliomas in pediatric and AYA population, Prof V Suri, AIIMS Intramural, 2 Years, 2023-25, Rs 5 Lacs
4. To analyse the molecular profile of paediatric gliomas and establish robust and economical methods for molecular sub grouping and risk stratification, Professor V. Suri, DBT, 3 years, 2021-24, Rs 80 Lakhs
5. Unraveling RNA landscape in posterior fossa ependymal tumors using integrative transcriptome analyses, Prof M C Sharma, ICMR, 3 Years, 2023-26, Rs 80 Lakhs

Completed

1. Clinicopathological and serological assessment of adult-onset idiopathic inflammatory myopathies (IIM) aimed at improved characterization of sporadic inclusion body myositis, Prof M C Sharma, ICMR, 3 years, 2020-23, Rs 50 Lakhs
2. Evaluation of potential diagnostic value of circRNA in meningiomas for risk stratification and its role in therapeutic intervention, Professor V. Suri, ICMR, 3 years, 2020-23, Rs 78 Lakhs
3. Identification of non-coding RNA panel as novel biomarker for stratification of meningiomas and evaluation of its prognostic therapeutic significance, Professor V. Suri, Multi-Institutional Faculty Interdisciplinary Research Project with IIT Delhi, 3 years, 2018-20, Rs 10 Lakhs
4. Integrative transcriptome analyses of different histological and molecular subgroups of meningiomas to identify prognostic signature and therapeutics, Professor V. Suri, ICMR, 3 years, 2019-22, Rs 62 Lakhs
5. Interrogation of human leukocyte antigen genetic variants in clinically, serologically and histologically defined subgroups of idiopathic inflammatory myopathies (IIMs), Prof M C Sharma, Intramural (AIIMS), 3years, 2021-23, Rs 20 Lakhs
6. Molecular signature of protumorigenic inflammation in the context of the WHO 2016 classification of glioma, Professor V Suri, AIIMS inter departmental collaborative project, 3 years, 2018-20, Rs 20 Lakhs
7. Sequencing Target genes aimed at Neuromuscular disorders in India, Professor MC Sharma, ICMR, 3 Years, 2019-22, Rs 50 Lakhs
8. Targeted genomic-epigenomic analysis to develop a noval approach for routine molecular subgrouping and identification of actionable targets in meningioma, Professor V. Suri, DST, 3 years, 2018-21, Rs 42 Lakhs approx (Rs 41,23,098)
9. Tumor Immune landscape: PDL1 expression and evaluation of tumor immune interplay by investigating the immune cell infiltration in supratentorial ependymoma and its correlation with survival outcomes, Prof M C Sharma, ICMR, 3 years, 2020-23, Rs 35 Lakhs

Departmental projects (including thesis/dissertations)

1. Genetic and epigenetic profiling of AYA population
2. Global Outreach study of Methylation based classification
3. Immunoblot for dysferlin and calpain
4. Immunofluorescence for dysferlinopathy
5. Line immuno assay for myositis specific and myositis associated autoantibody detection
6. MGMT expression profiling and its correlation
7. MGMT promoter assessment by qualitative and quantitative assay
8. Mismatch deficiencies in pediatric and AYA high grade gliomas
9. Molecular profile of IDH wildtype and mutant gliomas

10. Molecular profiling of ependymoma
11. To analyze of HIP-1, vimentin and H3k27me3 as a surrogate for 1p-19q co deletion in oligodendrogliomas
12. Transcriptomic profiling by Nanostring
13. Transforming CNS Tumor

Completed

1. Asses molecular profile of meningiomas
2. Assess molecular and immune profile of eGBsb & GBs
3. Assess molecular and immune profile of PXA
4. Evaluation of miRNA profiling of meningiomas
5. Evaluation of potential diagnostic value of circRNA in meningiomas
6. IDH mutation assessment by Sanger sequencing and ddPCR
7. To analyze immune microenvironment of different grades of gliomas

Collaborative projects

1. Creation of gold standard Medical imaging datasets of dural based lesions treated with primary gamma knife radiosurgery or Microsurgery for developing artificial intelligence tools, Department of Neurosurgery (2023-2026)
2. Histopathological Immunohistochemistry analysis of Posterior AtlantoOcciptal Membrane in Patients with Congential/ Development Craniovertebral anomalies, Department of Neurosurgery (2022-2024)
3. MGMT expression profiling and its correlation with response to TMZ in high grade gliomas in pediatric and AYA population, Department of Radiology (2023-2025)

Research over past 3 years

2021-2022	2022-2023	2023-2024
Rs 3.17 Crores	Rs 4.25 Crores	Rs 3.45 Crores

PUBLICATIONS

Total Publications: 15

Journal articles: 15; Abstracts: Chapters in books: Books:

Items	2021-2022	2022-2023	2023-2024
Total			**15**
Journal articles			**15**
Abstracts		2	**0**
Chapters in books		7	**0**
Books		1	**0**

PATIENT CARE

NEUROPATHOLOGY LAB

Year	2021-2022 COVID	2022-2023	2023-2024
Total No. of specimens	2167	2427	2454
Intraoperative frozen section diagnosis	330	424	477
Immunohistochemistry	13, 444	14, 158	14830
Fluorescence in-situ hybridization	836	1271	1014
Muscle biopsies (frozen)	236	240	219
Muscle Enzyme histochemistry	553	910	632
Muscle Immunohistochemistry	2354	1765	2057
Muscle immunofluorescence	50	128	57
Immunoblot	65	75	130
Electron microscopy	197	243	
Sanger sequencing qPCR/ RTPCR	431	339	196/68
Total Units (Each item in column is taken as one unit)	**20, 663**	**21, 980**	**22, 134**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Iman Dandapath presented a poster and won the first prize entitled "Novel mutations in diffuse midline glomas using cost effective strategies" at DNACON 2024 held on 3-4 February 2024.

Dr Bandana Jassal presented a poster and won the second prize entitled "Role of autophagic cargo receptor, SQSTM1 in aetiology of Idiopathic inflammatory Myopathies (IIMs)" at DNACON 2024 held on 3-4 February 2024.

Professor Vaishali Suri won Oncology Research Award 2022 for paper entitled "DNA methylation profiling of meingiomas highlights clinically distinct molecular subgroups" at the Annual Research Day held at AIIMS New Delhi on 30 January 2024.
Dr Iman Dandapath got a Commendation certificate award entitled "Comprehensive analysis of Kiaa 1549 Braf fusion detection in pilocytic astrocytoma" at the Annual Research Day held at AIIMS New Delhi on 30 January 2024.

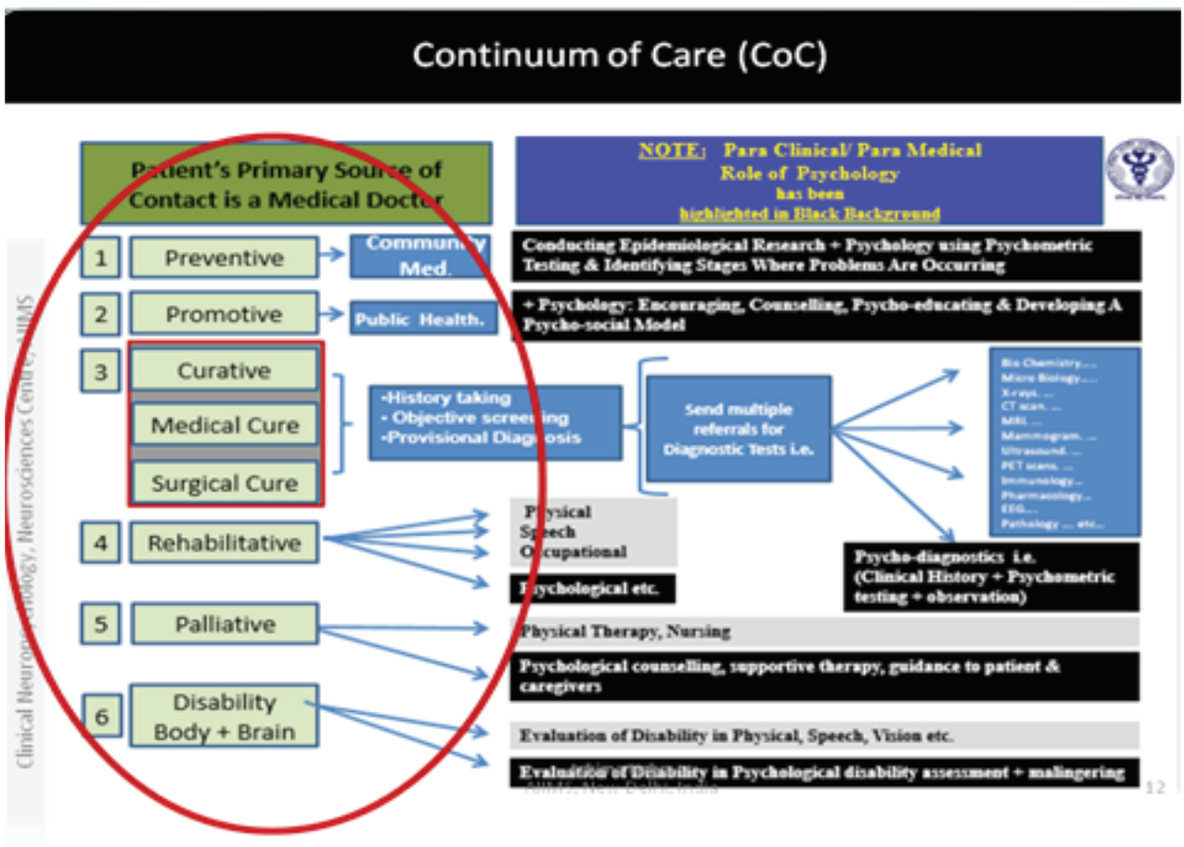
Dr Swati Singh got first prize for poster entitled "Correlation of extent of MGMT Promoter Methylation with Temozolomide response and overall survival in Glioblastoma IDH-wildtype Patient" at 14th Annual Conference of Indian Society of Neuro-Oncology (ISNOCON) held on 27 to 30 April 2023 at Kolkata.

Division of Clinical Neuropsychology

Professor
Ashima Nehra

HIGHLIGHTS

According to WHO, health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Therefore, dealing with health and illness surpasses the simple viewpoint of the presence or absence of the disease and infirmity (the biomedical paradigm), towards the bio-psycho-social-spiritual paradigm in which health refers to the state of complete physical, psychological, and social wellbeing. Unlike neuroimaging, 'Neuropsychological Psychodiagnostics assesses the person's mind and not the brain'. Clinical Neuropsychology, a specialization within Psychological Science at the Neurosciences Center, adopts WHO's Continuum of Care (CoC) Model (Refer to the Figure Below), where primary contact lies with the clinicians (Medical Doctors). They refer patients for Neuropsychological Psychodiagnostics, Neuropsychological Rehabilitation, or Neuropsychological Disability Evaluation. Supported by esteemed seniors and colleagues, alongside multidisciplinary teams and the center's students, garnered national and international acclaim. Over the past three years, Clinical Neuropsychology has diligently met Neurosciences Center's needs in patient care, research, and academia. Notably, one doctorate was awarded, another PhD candidate received writing permission, and two funded projects yielded fruitful results. Additionally, a new project secured funding. Research-wise, collaborative efforts led to 56 publications, including 7 Abstracts published in journals (only in 2023-24), 18 presentations, and participation in numerous conferences. The students' enthusiasm and dedication have been instrumental in delivering a high standard of care. Gratitude is extended to the Neurosciences Center and other departments at AIIMS for their unwavering support.



EDUCATION

Description				*Number*
	Main Guide (PhD)			**1**
	Co-Guide			**5**
		PhD	**1**	
		DM	**1**	
		MD	**1**	
		MS	**1**	
		MCh	**1**	
		MSc	**0**	
	Doctoral Committee Member			**1**
	Short term observership			**1**

CMEs/Workshops/Symposia /National and International Conference

1. Symposium: Challenges of Medical and Surgical Management in Neurotrauma. ANTC 2023, 18 March 2023, New Delhi

Lectures delivered: 2

Ashima Nehra: 2

1. Unleashing the power of Clinical Neuropsychology in Epilepsy Surgery, Epilepsy Workshop as Course Faculty. Organized by Nepalese Epilepsy Society, Kathmandu, Nepal., 4-6 May 2023, Kathmandu, Nepal. (Virtual)

2. Short Debate 3: Home Based Vs. Facility Based Neurorehabilitation, IANCON 2023, Madurai, 16 September 2023, Madurai

Lectures delivered over past 3 years

2021-2022	2022-2023	2023-2024
7	7	2

Oral papers and posters presented: 6

1. Bajpai S, Nehra A, Tripathi M, Dey AB, Pandey RM, Role of Clinical Neuropsychology In Neuropsychological Psychodiagnostics & Rehabilitation of Dementia: AIIMS Experience, 3rd Annual Research Day at AIIMS, New Delhi, 29-30 January 2024, New Delhi
2. Chopra S, Kumaran S, Sinha S, Kaur H, Nehra A, Visual Memory Activations post Traumatic Brain Injury-Effect of Cognitive Rehabilitation: A Functioning Imaging Study, 3rd Annual Research Day at AIIMS, New Delhi, 29-30 January 2024, New Delhi
3. Nehra A, 7th AIIMS ANNUAL NEUROTRAUMA CONFERENCE, 18-20 March 2023, Session 4 : Challenges of Medical and Surgical Management in Neurotrauma Time : 10 minutes each (16:00-17:10) Chairpersons: Sandip Mohindra, Ashima Nehra, Hitesh Kumar, Hall A (Conference Hall, 1st floor, JL Auditorium), AIIMS, New Delhi
4. Nehra A, Sharma P, Hazrati R, Makkar R, To ascertain the efficacy of 'Patient & Caregiver Indian Neuropsychological Continuum of Care' (PIN-CoC) Model: A Randomized Controlled Trial, 3rd Annual Research Day at AIIMS, New Delhi, 29-30 January 2024, New Delhi

5. Nehra A, Talk entitled: 'Unleashing the power of Clinical Neuropsychology in Epilepsy Surgery', 4-6 May 2023. Epilepsy Workshop as Course Faculty. Organized by Nepalese Epilepsy Society, Kathmandu, Nepal, Held on 5 May 2023, ONLINE
6. Sharma P, Nehra A, Makkar R, Hazrati R, Narain A, et al., 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: A Randomized Controlled Trial, 3 rd Annual Research Day at AIIMS, New Delhi, 29-30 January 2024, New Delhi

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
5	0	6

RESEARCH

Funded projects

Ongoing

1. Extension and Digitalization of Indian Aphasia Battery IAB, funded Project 2023-2025, Dr Ashima Nehra, BIRAC, 2 years, 2024-26, Rs 48,70,000/-

Completed

1. To develop and ascertain efficacy of Patient & Caregiver Indian Neuropsychological Continuum of Care (PIN-CoC) model: A Randomized Control Trial, Dr Ashima Nehra, WHO, 2023-2023, February 2023, December 2023, Rs 13,54,272
2. To study the effectiveness of Repetitive Transcranial Magnetic Stimulation (rTMS) on Activities of Daily Living, Behavioral and Cognitive ability (A-B-C) of Parkinson disease Patients, Dr Ashima Nehra & Professor Achal Srivastava, DBT, 2019-2023, 2019-23, Rs 67,03,358

Departmental Projects (including thesis/dissertations)

Ongoing

1. Patient & Carer Indian Neuropsychological Continuum of Care (PIN-COC) Model, Dr Ashima Nehra, 2019

Completed

1. 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, Dr Ashima Nehra, 2018-2023

Collaborative projects

Ongoing

1. A Population Based Prospective Cohort study to Unravel the Causes of Stroke and Cognitive Decline: A cross-cultural perspective"-AIIMS-ERASMUS COHORT STUDY. (An international collaborative project) By (PI) Dr Kameshwar Prasad, (Investigator) Ashima Nehra (DBT funded), Neurology, Clinical Neuropsychology, Cardiology, Center for Dental Education, etc.
2. A randomised controlled trial comparing the efficacy of cognitive behavioral therapy vs yoga nidra in persons with psychogenic nonepileptic seizures, Neurology, Biostatistics, Cardiology, Psychiatry, Clinical Neuropsychology
3. An Assessment of Neurodevelopmental Outcomes in Children with Transposition of Great Arteries with Intact Ventricular Septum who underwent primary Arterial Switch Operation in infancy with integrated ECMO support compared to children who underwent surgery without integrated ECMO support, Cardiothoracic and Vascular Surgery, Cardiac Anesthesia, Cardiothoracic Surgery, Clinical Neuropsychology

4. Brain Functional changes and Metabolic alterations in Spinocerebellar Ataxia (SCA), Neurology, Neuroimaging & Interventional Neuroradiology, Clinical Neuropsychology, NMR & MR Facility, Biostatistic, School of Computer & Systems Sciences; JNU, New Delhi, Centre for biomedical, Engineering-Indian Institute of Technology, Delhi
5. Cognitive Decline In Patients With Multiple Sclerosis A Multicentric Cross Sectional And Prospective Longitudinal Study, Clinical Neuropsychology, Neurology, Bio-Statistics
6. Correlation of neuropsychological deficits and lesions of white matter bundle in the pre-frontal area "Functional and neuropsychological outcome in moyamoya disease", Physiology, Neurosurgery, Clinical Neuropsychology, Neurosurgery, Neuropsychology
7. Designing a palliative care program for selected epilepsy patients and their caregivers-descriptive exploratory study, Clinical Neuropsychology, Neurology
8. Designing a palliative care program for selected epilepsy patients and their caregivers-descriptive exploratory study, Neurology, Clinical Neuropsychology
9. Effect of Probiotics supplementation on Cognition and Motor symptoms in patients with fluctuating Parkinson's Disease-A Randomised Controlled Trial, Microbiology, Physiology, Clinical Neuropsychology, Neurology, Bio Statistics, Psychiatry, Behavioural Sciences, IIT
10. Knowledge, Attitude and Concerns regarding Bariatric Surgery among patients with morbid obesity, Surgical Disciplines, Anaesthesiology, Clinical Neuropsychology
11. Neurodevelopmental assessment in Children/adolescents with retinoblastoma exposed to general anaesthesia before the age of 5 years: A Prospective cross sectional study, Anesthesiology, Pain medicine and Critical Care; Ophthalmology; Clinical Neuropsychology, Neurosciences Centre
12. Strategic Multimodal Intervention in at-risk Elderly Indians for Prevention of Dementia (SMRUTHI INDIA), Neurology, Clinical Neuropsychology
13. To Identify and Harmonize the issues of Epilepsy in Individuals leading to disability, Neuropsychology, Neurology, Bio-statistics.
14. To identify and harmonize the issues of writer's cramps in individual leading to disability, Neurology, Neuropsychology, Bio-Statistics
15. To study the Mental Health Status and Needs of Front-line Medical, Para-medical healthcare professionals in India to build preventive and curative models for enhancing their holistic well-being in times of Emergency National Crises: A cross-section study (First Phase), Pulmonary Medicine, Critical Care and Sleep Disorders; Neurology, Internal Medicine, Bio-Statistics, Neuropsychiatry, Clinical Neuropsychology
16. To understand, document and standardize current standards/ practices of Identifying Learning Disabilities across Centers in India, Clinical Neuropsychology, Neurology
17. To understand, document and standardize current standards/practices of Identifying Learning Disabilities across Centres in India, Clinical Neuropsychology, Neurology, Bio-statistics

Research over past 3 years

Research projects	2021-2022	2022-2023	2023-2024
Total funded projects	2	2	2

PUBLICATIONS

Total Publications: 8; Journal Articles: 4; Abstract: 4

Publications over past 3 years

Item	2021-22	2022-23	2023-24
Total	21	19	8
Journal Articles	20	18	**4**
Abstracts			4
Chapters in Books	1	1	0

Books			0
Monograph			0

PATIENT CARE

Facilities available in the department (including special clinics and/ or special laboratory facilities):
Cognitive screening is brief and quick tool. But the overall scope of testing is narrow and emphasis is on global cognitive functioning. These screenings may be carried out in emergency medical settings or physician clinics by clinicians and support staff who have appropriate training and an established protocol with exiting cut off scores and guidelines for next steps for patients who are 'screened in'. This further helps the Medical Doctor, who is a primary source of contact for the patient to formulate 'Reason for Referral' for Neuropsychological Psychodiagnostics or Neuropsychological Rehabilitation or Neuropsychological Disability based on the patient's workup; findings of the screenings performed and provisional diagnosis made. As stated above a referral question is a must for 'Clinical Neuropsychology services' for the best outcome. Clinical Neuropsychology/Neuropsychology (an internationally accepted term) is a specialized referral service which focuses on clinical application, including diagnostic formulation, assessment, cognitive retraining in brain functioning following brain attack/ insult/ injury etc. Neuropsychological Psychodiagnostics is based on scientific and evidence-based correlation of methods, which includes things i.e. 1. Clinical history taking (Non-Cognitive); 2. Psychometrics (Cognitive); 3. Clinical observation (Non-Cognitive). Finally integrating all of these (as per the Gold Standards) in order to reply to the 'Reason for Referral' by the Medical Doctor, a comprehensive interview; behavioral observations, assessment with series of neuropsychological/neurocognitive 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 &; Learning, Motor &; Sensory Skills, Perceptuo-motor Functioning/Visuo-spatial skills, Mood &; Personality (Orbito Frontal Functions), Language/ Aphasia Assessment etc. is done. Neuropsychological Psychodiagnostics is conducted by only qualified and trained individuals who have undergone specialist training in psychology and neuropsychology. This usually takes places in a quiet and distraction free room.

Community services/camps, etc.

Outpatient service (OPD): There are 4 Neuropsychology/Clinical Neuropsychology (CNP) OPDs/week

1. **Clinical Neuropsychology** (**CNP**) **Clinic:**
   a. Monday, Tuesday, Wednesday and Thursday:
2. **Specialized Clinics:**
   a. Neuro-Cognitive Rehabilitation/Neuropsychological Rehabilitation (**NCR**) 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. Wednesday: 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

Sr.No.	**Patient Related Service of Clinical Neuropsychology, Neurosciences Center, AIIMS, New Delhi**			
	CLINICAL LOAD			
	Work done at Clinical Neuro Psychology/Neuropsychology; Neurosciences Center (NSC), AIIMS, New Delhi.			
	Staff Strength **Faculty Strength: 1 (ONE)** **PhD Student: 1** **Student enrolled on 13 October 2020, PhD enrolment no. P-2020/14927**			
	Actual O.P.Ds : 4/four O.P.Ds/Week			
	Clinical Neuropsychology Clinic (CNP Registry)			
	Officially we have had two Specialized Clinics			
	Cognitive Retraining/Therapy (NCR-Neuro Cognitive Rehabilitation Registrations)			
	From 1 Apri 2023 to 31 March 2024	**Number of patients**		**Time taken/patient/sitting**
	No. of Consultations	**362 (Physical)(consultations)**		
	Patient Care in Inpatient Services	**Received 283 ward referrals. Many of them could notbeseenbecause they were on VEEG or because they were discharged before they could served or due to paucity of time (since there is a lone faculty continuing to work since the beginning)**		
	(Ward patients)			
	Patient Care in Outpatient Services			
	Clinical Neuropsychology (CNP Registrations)		**375**	**About 45 mins to 4 hours/ patient/session**
	(OPD patients) **Counseling of patients/relatives**		**329**	**45 minutes to 1 hour /session/ patient**
	Patient Care in Special Clinics			

		Cognitive Retraining/Therapy (NCR-Neuro Cognitive Rehabilitation Registrations)		With CNP	Upto 45 minutes to 1-1 ½ hour/ patient/session X the no. of sessions
	Evaluations For Medical /Disability Boards				
		Evaluation for Issuance of Disability Certificate for Neurological Disorders (Neurology)		51	Upto 4 to 6 hour/patient
		Neurosciences Center/ Neurology Disability Board "Disability in Neurological Conditions"		(All referred cases)	
		Trauma Center		(All referred cases)	
		MS Office		(All referred cases)	
		PMR		(All referred cases)	
	Patient care in outpatient service (Physical):				
	No. of Consultations				
		O P D patients		375 (as stated above) (consultations)	
		Counseling of patients		329 (as stated above) (consultations)	
	Patient care in inpatient service (Physical):				
	a.	Ward patients' referrals received		283 (as stated above) (consultations)	
	Patient care in special clinics (name the clinic) (Physical):				
	b.	Cognitive Retraining/Therapy (NCR-Neuro Cognitive Rehabilitation Registrations)		1	
	c.	Cognitive Disorders & Memory Clinic		16-	

	All Medical Boards requiring Neuropsychological Assessment/opinion (Neurological Conditions) from Neurosciences center;
	All Medical Boards requiring Neuropsychological Assessment/opinion (Neurosurgical Conditions) from Neurosciences center, or referred cases from Trauma center
	All Medical Boards if any requiring Neuropsychological Assessment/opinion (Neurological Conditions) from Medical Superintendent's office
A	In operation theatre: (Not applicable)

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Ashima Nehra was nominated to be a member of the Ethics Committee of Institute of Home Economics, University of Delhi, Ethics Committee Member, University of Delhi; Nominated to be a member of the NIFT Research Ethics Committee (NREC) at NIFT, New Delhi, Chair NIFT Research Ethics Committee (NREC), NIFT, New Delhi

List of Award Won by the Student

Neuropsychological Rehabilitation for Epilepsy: A Randomized Controlled Trial. Poster Presentation at XXV World Congress of Neurology (Virtual). Awarded Bursary, Awarded Bursary

AWARDS AND HONOURS

1. 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 it s 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? Published on 21 January 2021: Prepared Rehabilitation Competence Framework (in Neuropsychology) as a part of International Multidisciplinary Team. Adapting the World Health Organization (WHO) Rehabilitation Competency Framework to a specific context. A stepwise guide for competency framework developers. Version for field testing [through the support of the United States Agency for International Development (USAID)], Nominated by: International Council of Psychologists (ICP): as WHO Rehabilitation Competence Framework Working Group https://www.who.int/publications/i/item/9789240015333 Citation: World Health Organization. (?2020)? Adapting the WHO rehabilitation competency framework to a specific context: a stepwise guide for competency framework developers, version for field testing. World Health Organization. https://apps.who.int/iris/handle/10665/339078. License: CC BY-NC-SA 3.0 IGO
2. Contribution from a Psychological perspective in devising Guidelines for Women's Health'22 by Health Parliament on invite of Dr Rajendra Prasad. This was launched by Dr Jitendra Singh, M.D. Union Minister of State, PM Office on 28 October 2022 at Global Digital Health Summit held in Vigyaan Bhawan, New Delhi, Invited for: Contribution from a Psychological perspective in devising Guidelines for Women'sHealth'22 by Health Parliament
3. Nominated to be a member of the Ethics Committee of Institute of Home Economics, University of Delhi., Ethics Committee Member, University of Delhi
4. Nominated to be a member of the NIFT Research Ethics Committee (NREC) at NIFT, New Delhi, Chair NIFT Research Ethics Committee (NREC), NIFT, New Delhi

List of Award Won by the Student

1. Sharma S, Nehra A, Tripathi M, Chandra PS, & amp; Pandey RM. (2021). Randomized controlled trial on neuropsychological rehabilitation for patients with drug refractory epilepsy: Challenges, adaptations & findings. Epilepsia, 38-38., PhD Thesis Paper included in the WHO Website.
2. Sharma S. Accepted to Emerging Psychologists Program as a part of 32nd International Psychology Congress (July 2021), Accepted for Emerging Psychologists Program
3. Sharma S, Nehra A, Tripathi M, Chandra PS, Pandey RM. (2021, July). Indigenized Neuropsychological Rehabilitation for Epilepsy in India: Development and Efficacy. Oral Presentation at 32nd International Congress of Psychology (Virtual). Awarded Registration Waiver, Awarded Registration Waiver
4. Sharma S, Nehra A, Tripathi M, Chandra PS, Pandey RM. (2021, August-September). Randomized Controlled Trial on Neuropsychological Rehabilitation for Patients with Drug Refractory Epilepsy: Challenges, Adaptations & Findings. Oral Presentation at 34th International Epilepsy Congress (Virtual), Awarded Bursary
5. Sharma S, Nehra A, Tripathi M, Chandra PS, Pandey RM. (2021, October). Enhancing Memory and Quality of Life Through Novel Home Based Neuropsychological Rehabilitation for Epilepsy: A Randomized Controlled Trial.

   Poster Presentation at XXV World Congress of Neurology (Virtual). Awarded Bursary, Awarded Bursary

11.1 BB Dikshit Library

Professor-in-Charge

M Ramam

Chief Librarian (officiating)

Mahendra Kumar Vishwakarma

(from 23 December 2023 to till date)

Background

BB Dikshit Library is the central library and knowledge hub, which provides knowledge-based value-added services on healthcare to different stakeholders, i.e. faculty, undergraduates, postgraduates, and researchers of all the Departments and Centres. The library is open round the clock to access the vast amount of resources both in print and online. The library also has a rich collection of Hindi books in the healthcare sector for readers (employees; both technical and non-technical). The library is located on two floors. The first floor houses printed books with a seating capacity of 300 users and the ground floor has a journals archival collection, Rajkumari Amrit Kaur collection, and also a book bank facility (Currently this area is under renovation). On average 400 readers visit the library every day. The library is well-equipped with modern facilities to support biomedical education and research.

The library has predominantly e-resources (90%) which include e-journals and databases. These resources are accessible inside campus over AIIMS IP Range and are also accessible through remote access facilities i.e. Knimbus and Open Athens. Few society-based journals are also accessed through username and password. Necessary access to healthcare knowledge services is also disseminated through the library webpage (http://www. aiims.edu/en/library.html.). The library also provides research-based services to its stakeholders such as academic integrity and plagiarism verification facilities etc. The library has its own search engine called 'Single Point Search' web-scale discovery service to retrieve library subscribed electronic resources and library holdings effectively. It also acts as a tool for a bibliographic management system for users.

The Library Committee is an advisory body for the management of the library. It advises regarding the procurement of books and journals, budgetary allocation, improving library operations and services, and working out mechanisms in getting institutional membership of all journals for online access and also developing collaborations with other libraries across the globe for online activities. The committee meets at least once every three months and as and when required.

The library has its own Wi-Fi service and around 1500 active readers benefited during the year. The library provides Current Awareness Services and Reference Services. It also provides services such as Reprography service and printouts of academic literature. The library imparts orientation and information literacy programs to students, research scholars, and doctors regularly. The library has also provided Short Term observation/Training programs to 04 Library Professionals during the year.

Inter-Library Loan service was also provided through DELNET. BB Dikshit Library has established ETD (Electronic Thesis and Dissertation) facility to access all Thesis and Dissertation through online platforms. Now, the thesis and dissertation are available for library readers in printed/CD formats/online platforms (24X7).

A brief overview of the resource collection is given below:

Major Resources Statistics over past 3 years

Resources	2021-22	2022-23	2023-24
Total Printed books	74569	74569	74592
Total Hindi books	667	667	785
Pamphlets	17965	18065	18104

Total bound volumes of Journals	84391	84391	84391
Thesis	7942	7974	7980
E-Journals	1228	1167	1210
E-Books	265	804 (McGraw Hill Access Combo)	808 (McGraw Hill Access Combo)
Point of Care databases and other medical databases (Up-to-date, BMJ Best Practice, BMJ Case Report, BMJ RToP, BMJ Learning, JAMA Evidence, Acland Anatomy, HSTalks, NEJM JWatch)	Yes	Yes	Yes
Abstracting and Indexing databases (EMBASE, SCOPUS, WOS.)	Yes	Yes	Yes
Plagiarism Verification Service	Yes	No	Yes
Access facility Software and Services EBSCO Discovery Service (Single Point search for all subscribed E-resources). All E-Resources are accessed through IP-enabled (Open Athens & Knimbus) remote access facilities within and outside the campus	Yes		Yes

Library Services Statistics

S. No.	Services	Total (Start date – till 31 March 2023)	Service provided (April 2022 to March 2023)	Service provided (April 2023 to March 2024)
1	Knimbus Remote Access	804 (started in July 2015)	804	648
2	Open Athens Remote Access	293 (started in 2015)	168	196
3	No of article supplied through Inter Library Loan Service	Calculated every year	212	405
4	Library Membership RFID Card	4679 (New + Renewed 01/01/2016 to 31/03/2023)	678 (New + Renewed)	936 (New + Renewed)
5	Short Term Observation/Training Program	42 Library Professionals (recorded since 2015)	7 Library Professionals	04
6	WiFi Service (new registration)	4758 (recorded data from 2009)	431	501
7	No. of queries responded through email	-	-	2556

Staff Strength:

Librarians: 9

Supporting Staff: 17

Conferences/ Workshops/Awards/Honors

Sh. Mahendra Kumar Vishwakarma

Resource Person**:** Invited to deliver a lecture on "E-Library in Medical Institutions: Methodology & Process" during the Leadership Development (LEAD) National Workshop (8-10 March 2024) organised by the National Academy of Medical Sciences (NAMS), New Delhi.

Sh. Jahangir Khan

Participated as a Rapporteur General on the topic "International Conference on Library Technology Relationship" in the international conference of Association of Senior Library & Information Professionals (ASLIP) Conclave 2023 held in J.L.N. Medical College, Ajmer (Rajasthan) on 17 & 18 November 2023.

Prashant Shrivastava

Lectures Delivered

1. Invited lecture to M.Sc, Nursing students, College of Nursing AIIMS, New Delhi, on Databases in nursing and research, dated: 21 March 2024.
2. Academic Counsellor on Sundays Session: 2023-2024 for Department of Library and Information Science, School of Open Learning, University of Delhi for courses of MLIS and BLIS.

Publication

1. Asok K, Dandpat S, Gupta D K, Shrivastava P. Common Metadata Framework for Research Data Repository: Necessity to Support Open Science. Journal of Library Metadata 2024; 24(2): 133–145. https://doi.org/10.1080/19386389.2024.2329370

Resource person

1. Resource person on 5 Day National Workshop cum Training program in Library Automation and Digitalization organized by University Library and Centre for Employee Empowerment and Skill Acquisition, Cochin University of Science & Technology, during May 15-19, 2023.
2. Resource person on Refresher Course for Librarians and Researchers in Library and Information Science organized by the UGC- Human Resource Development Centre, Kannur University, Kerala from 26 October 2023 to 08 November 2023.

Conference attended

A one-day international conference titled "Open Access as a Knowledge Platform for SDGs." Organized by Ashoka University on 6 March 2024.

Sh. Umesh Kumar

Attended the National Seminar on Disaster Management in Libraries, Archives and Museums (NSDM-2024) and Presented a research paper jointly on "Budgeting for Posterity: Financial Considerations in Digital Preservation Planning" K. N. Jha, Umesh Kumar, M. Madhusudhan on 6-7 March 2024, Organized by Aligarh Muslim University (AMU), Aligarh.

11.2 Central Animal Facility

Professor-in-charge
SS Chauhan
(up to November 2023)

Faculty-in-Charge

Tony George Jacob

(From January 2024 onwards)

Senior Veterinary Officer
Pardeep Kumar Yadav
Member Secretary, IAEC & EAWC

During the year 2023-2024, Rats, Mice, Rabbits and Guinea-Pigs were maintained in the Central Animal Facility (CAF).

Laboratory Animal (Rodents):

Following numbers of different laboratory animals were maintained during the year 2023-2024:

1.	Rats (Wistar)	-	2083
2.	Rats (Sprague Dawley)	-	686
3.	Mice (Swiss)	-	590
4.	Mice Balb/c	-	747
5.	Mice C57 BL/6	-	783
6.	Rabbits (New Zealand)	-	86
7.	Guinea Pigs (Dunkin Hartley)	-	44

A total 2719 laboratory animals (Wistar Rats-1488, SD Rats-439, Mice Swiss Albino-284, Mice Balb/c-71, Mice C57BL/6-441, Rabbit-53 and Guinea-Pigs-13) were issued to various departments of the Institute with approved protocols by IAEC. A total of 4015 laboratory animals (Wistar Rats- 2190, SD Rats- 706, Mice Swiss Albino- 358, Mice Balb/c- 555, Mice C57BL/6- 113, Rabbit- 11 and G. Pig- 62) were sold to various Academic and Research Institutions of India as per CCSEA approved guidelines.

Experimental Surgery:

A total of 42 surgical procedures were performed by investigators and researchers from various departments in the Central Animals Facility. The departments include Anatomy, Biophysics, Biotechnology, Reproductive Biology, Stem Cell Facility and Cardiac Biochemistry.

Institutional Animal Ethics Committee:

The Institutional Animal Ethics Committee (IAEC) is approved by the Committee of Control and Supervision of Experiments on Animals (CCSEA) under the Ministry of Fisheries, Animal Husbandry and Dairying (Govt. of India). The chairperson of the IAEC from April 2023 to November 2023 was Dr SS Chauhan, Ex-Professor & Head of Department of Biochemistry and Biotechnology. From January 2024 onwards, Dr BR Mirdha, Professor, Dept of Microbiology have been holding this post. The AIIMS CCSEA registration No. is 10/GO/ReBiBt/S/99/CPCSEA "Research for Education Purpose, Breeding for in house use and Breeding for the purpose of trade of Rodents animals (Rat, Mice, Rabbit, Guinea Pigs and Hamsters)". The Institutional Animal Ethics Committee (IAEC) approved 51 new projects/protocols and gave an extension to 6 projects/protocols involving the use of laboratory animals (Rodents) received by various investigators of the Institute during the year 2023-24.

Services Provided:

The Central Animal Facility has been maintaining the laboratory animals Rats-108, Mice-141, and Guinea Pigs-02 belonging to the departments of Anatomy, Biochemistry, Biophysics, Biotechnology, Gastroenterology, Laboratory Medicine, Neuro-Surgery, Pediatric Surgery, NMR, Reproductive Biology, Stem Cell Facility, and Cardiac Bio-Chemistry in the year 2023-24.

The IAEC has also given permission to departments of Ocular Pharmacology & Pharmacy (R.P.C), Pharmacology, and Physiology to maintain the laboratory animals in their respective departments as per the norms and guidelines of CCSEA.

Academic and other activities

Dr Pardeep Kumar Yadav

a) Inspected the animal house facility of Jawaharlal Institute of Postgraduate Medical Education and Research Dhanvantri Nagar, Puducherry through CCSEA on 08-10 June 2023.

b) Attended as Chief Guest, Inauguration of Training programme Hands-on training on Artificial Insemination in Goats, on 11 September 2023 at ICAR-Central Institute for Research on Goats, Makhdoom, Mathura, U.P.

1. **Shiv Govid Sah, pesh Kumar Lal, Raivender Chauahn, and Dil Navab** attended a one-day workshop on animal handing and ethics under the aegis of the 5th course on laboratory animal science (5-CLAS) on 12 March 2024 at CSLS and CAHF Jamia Hamdard, New Delhi.

11.3 Central Workshop

Faculty Coordinator
Ganga Prasad
Professor (Department of Anaesthesiology, Pain Medicine and Critical Care)

Chief Technical Officer
Nitin Srivastava

Senior Technical Officer
Manpreet Singh Sudan

Objectives:

The Central Workshop was established in 1964 under the Colombo Plan—a collaboration between the Indian and Australian governments.—The aim of this workshop is to repair a variety of items and fabricate customized devices for patient care and research. Central Workshop houses various sections including Electronics, Electrical, Mechanical, Refrigeration, Fine Instrument, Sheet Metal, Painting, and Upholstery. to cater to the diverse needs of a premier multi-specialty institute like AIIMS. Skilled technicians ensure proper maintenance and repair of all equipment throughout the institute, thus averting the need for costly and time-consuming outsourcing. This significantly minimizes downtime ensuring seamless operations within the institute.

Strength of the employees

The Central Workshop has a team of engineering experts dedicated to repairing, maintaining, and fabricating equipment essential for General Use, patient care, medical education, and scientific research. Each section is supervised by a Senior Technical Officer or Technical Officer under whom the supporting staff of Workshop Technicians and Workshop Assistants work. The staff strength of the Central Workshop is as follows:

- Chief Technical Officer - 01
- Senior Technical Officer - 01
- Technical Officer - 05
- Technician (Grade I) - 07
- Technician (Grade II) - 05
- Workshop Assistant - 07
- Office Clerk (JAA) - 01
- Store Clerk (SAA) - 01
- Operator (E&M) - 03
- MTS (Outsourced staff) - 02

Services Available:

Department of Central Workshop provides following services to AIIMS Main Hospital, Dr Rajendra Prasad Centre for Ophthalmic Sciences, Dr BR Ambedkar Institute Rotatory Cancer Hospital, Centre for Dental Education and Research, Cardio-thoracic and Neurosciences Centre, JP Narayan Apex Trauma Centre, Mother & Child Hospital, Surgery Block, NCI Jhajjar, NDDTC Ghaziabad, and CRHSP Ballabhgarh:

1. Repair and Maintenance

During the year 2023-24, the Central Workshop successfully completed a total of **7668** repair jobs. Examples of some of the items repaired by specific sections are outlined below:

Sl. No.	Section	No. of Jobs completed	Job/Item Description
1	Electronics	694	Adaptor Cable, Air Mattress Pump, Bar code Printer, Bare Hugger, Molding Machine, Cardiac Monitor, Defibrillator, Micro Centrifuge, ECG machine, Electrophoresis power supply, Examination Table, Fetal Doppler, Induction Cooktop, Microwave oven, Goose Lamp, Gel tank, Infusion Pump, Mini Centrifuge, Mike, Micro motor, Nebulizer, Patient Warmer, PCR Machine, Mixer, DC Power Supply, Portable SPo2, Sweat testing apparatus, Digital Weighing Machine, C Vortex, X-Ray View Box, Tourniquet Machine etc.
2	Electrical	1123	Autoclave, Acrylic Grinder, Autopsy Machine, Electric Kettle, Boiler, Centrifuge, Display Counter, Bull Eye Lamp, Co2 Incubator, Fly killer, Fumigator machine, Hot Air Oven, Gauge Cutter, Hot Case, Hot Plate, Ice Crushing M/C, Needle Destroyer, Lap Grinder, Laminar Air Flow, Magnetic stirrer, OTG, Oil Radiator, Pender machine, Suction Machine, Pedestal Grinder, OT Light, Water Bath, UV hood etc
3	Mechanical and Sheet Metal	3167	Oxygen Stand, Pt. Trolley, I V Stand, Revolving Stool, Office Chair, Wheel Chair, Instrument Trolley, Loading Trolley, Screen, Push Cart, 3 Seater Bench, Mayo stand, Patient Bed, Cardiac Table, Kadhai, Palta, Food trolley, USG trolley, Laundry Trolley, Office Almirah, Bed Side Locker, Ligasure Trolley, Ladder, File Compactor, MLS stand, Medicine Trolley, Animal Ventilator, Surgical Drums, Surgical Instruments, Tr. Tube, Scissors (Gauge Cutting), OT Table etc.
4	Fine Instrument	2191	Digital BP Apparatus, Manual Dial BP, Torch, Glucometer, Pulse Oximeter, Wall clock, Weight Machine, Oxygen Flow Meters, Single Gauge & Double Gauge Oxygen Regulators, Suction Regulators, Wall Suction regulator and Flow meter, Laryngoscopes etc.
5	Refrigeration	213	Visi Coolers, Deep Freezers (up to -20°C), Ice Cream Cabinet, Refrigerators, Cold Display Counters, Mini cold Storage, Cold Centrifuge, Ice Flaking Machine etc.
6	Upholstery	280	Revolving Stool, Wheel Chair, Lead Apron, Executive Chair, Pt. Trolley Mattress, Surgical / Dental Stool, OT Table Mattress, Settee Mattress, Cardiac Table, Tourniquet cuff etc.
	Total	**7668**	

2. Fabrication and Guidance:

A total of 164 items have been fabricated by the Central Workshop during the year 2023-24. Details are as below:

Sl. No.	Item Description	Quantity	Department
1	Handle for Surgical Instruments (PVC)	28	Ortho OT, JPNATC OT, MOT
2	Hammer Teflon Cap	22	Ortho OT, JPNATC OT
3	Faraday Cage (As per design)	1	Physiology
4	T-Handle (M S Rod)	1	MOT
5	Right Angle Retractor	5	ENT
6	Infusion Pump Clamp (M S Rod)	2	MOT
7	Testicle Ball	5	Pediatric Surgery Department
8	Connector for intra-abdominal pressure monitoring system	5	Anesthesiology Department

9	Mayo Stand Mechanical Switch Breaker	2	N S OT
10	Tube Stand/Holder	2	Surgical block OT
11	Transducer Stand Hook	3	CTVS OT
12	Water Bath Tray	1	Physiology
13	Stylet	25	Pediatric Surgery
14	Straddle Trolley Gear Pin	1	CTVS OT
15	OT Table Attachment	1	TC NS OT
16	Oxygenator Holder	2	CTVS OT
17	Compressor Clamp knob	7	CT-3 Cardiology, CT2 ICU/CCU
18	VID Cart (Aluminum Sheet)	1	MOT Urology
19	Protein Purification Stand	1	Biotechnology
20	L-Shape Mould	5	Biophysics
21	Fabrication of Table Wheels	4	MOT 12
22	PCR Hood attachment	1	Forensic Medicine
23	Hydraulic Stool Clamp	1	ENT Main OT
24	Circular Sheets (Different Size)	3	CMET
25	Harington Retractor	1	SB OT 5+6
26	SS Hook (Customized)	1	Biophysics
27	Clamp of Lithotomy Rod	2	JPNATC OT
28	Clamp for Rochard Retractors	2	MOT
29	PCNL Roll	6	Pediatric OT
30	OT Table Mattress	2	JPNATC OT
31	Cushioning of Lithotomy Rod	2	JPNATC OT
32	Cushion Pillow	2	OMFS OT CDER
33	Sweat Testing Machine	4	Pediatrics
34	L- piece for ET Tube support	12	BPS OT, Gynae OT, Pediatric OT, MCH Block
35	Fabrication of customized metal box and fixing on Trolley Top	1	NS OT
	Total	**164**	

3. Painting and Aesthetics:

The painting Section in the Central Workshop helps maintain the aesthetics of the hospital, ensuring that it remains clean and presentable for patients and visitors. It carries out painting of all office and hospital furniture items and general purpose items.

During the year 2023-24, a total of 869 different items were painted by Central Workshop which included an oxygen Stand, Pt. Trolley, IV Stand, Office Chair, wheelchair, Instrument Trolley, Loading Trolley, Screen, Push Cart, 3 Seater Bench, Mayo stand, Patient Bed, Cardiac Table, Laundry Trolley, Office Almirah, Bed Side Locker, Refrigerator, Microwave oven, Hot Plate, Hydraulic Trolley, Foot Step, Metal Settee etc.

4. Teaching Activity and Short-term Training:

Central Workshop is involved in educating BSc OT technology students on how to use the equipment safely and effectively. It includes the working principle of the equipment and its proper operation according to the curriculum.

Central Workshop also provides short-term training (4-6 weeks) to the Diploma/undergraduate students of various engineering colleges.

Job Performance Chart (No. of jobs completed under each section)

YEAR	Repair/ Maintenance	Painting	Fabrication	Total No. of Jobs
2023-24	7668	869	164	8701
2022-23	6320	774	306	7400
2021-22	6422		327	6749

11.4 Computer Facility

Professor-in-Charge
Pooja Gupta

Assisting Faculty & Chief Security Officer
Vivek Gupta

Cyber Security Consultant
Rajiv Gupta

Systems Analyst
S K Meher Sanjay Gupta

Senior Programmers

Sh Hari Shanker	Sh Pawan Sharma	Sh Shyamal Barua
Smt Tripta Setia	Sh Sanjeev Kumar	Sh Amit Bhati

Programmers
Nursing Informatics Specialist
Data Entry Operators
Hardware/Network Engineers

Points of Pride

Software Services and Education	IT Infrastructure and Network
➢ Hospital Information System o Online Appointment o Admission, Discharge and Transfer o E-Hospital Billing o Smart Cash Card o Laboratory Information System o RIS/PACS ➢ Software Services o In-house Modules o Clinical Applications o E-Office ➢ Employees Health Services Application (EHS) ➢ AIIMS website: www.aiims.edu ➢ Email and SMS services ➢ Computer education classes for Undergraduate and Postgraduate Nursing students ➢ Inventory Management System ➢ Aadhaar-Based Biometric Attendance System	➢ NKN connectivity for high-speed Internet connection ➢ Wi-Fi Coverage in Hostel buildings ➢ In-house Data Centre ➢ Cyber Security ➢ Networking Architecture ➢ UTM/Firewall

Hospital Information System (E-Hospital)

A Hospital Information System (HIS) serves as the backbone of modern healthcare institution, facilitating the seamless integration of clinical, administrative, and financial processes. At AIIMS New Delhi, the implementation of a robust HIS has revolutionized healthcare management, enhancing efficiency, quality of care, and patient satisfaction.

Following are the modules included in the HIS:-

- Online Appointment System
- OPD Registration (New and Follow up)
- Admission, Discharge and Transfers (ADT)

- Medical Record Section
- Patient Billing
- Inventory Management Module
- Laboratory Information System
- Radiology Information System
- Dietary services
- Blood Bank

Online Appointments Stats (Ors And E-Hospital) Over Past 3 Years

Particulars	2021-2022	2022-2023	2023-2024
New Patients	516210	1101249	1185499
Follow up Patients	857579	1679625	2265938

OPD Registrations (New And Follow Up) Stats Over Past 3 Years

Centre Name		2021-2022	2022-2023	2023-2024
Main Hospital	New Registrations	238715	463218	449272
	Follow up Registrations	422949	972296	1191834
Cardio Neuro Centre	New Registrations	50482	84096	86367
	Follow up Registrations	71659	132144	229508
Dr. R. P. Centre	New Registrations	131528	224633	175631
	Follow up Registrations	142745	222885	347831
Dental Centre	New Registrations	58994	114413	103719
	Follow up Registrations	61879	87838	91909
IRCH	New Registrations	22990	28939	31801
	Follow up Registrations	908	8662	19700
NCI	New Registrations	8778	9354	77628
	Follow up Registrations	38448	41896	139430

Admission, Discharge And Transfer Module

The ADT module covers end-to-end functionality associated with the in-patient, right from the time of admission, through the length of stay until discharge, providing an easy overview of all the clinical and administrative processes performed on the patient.

It provides comprehensive data pertaining to admission of patients, ward and nursing management, allocation of beds, collection of advances, and service entries of investigations performed on the patient till the patient is discharged from the system. It also tracks the movement of the patient when the patient is admitted to a ward, room, or ICU till the patient is discharged from the hospital. The system also facilitates discharge notification notes preparation for initiating the patient's discharge process and subsequently verification of discharge notes by the treating doctors. The software also has features to allow auto discharge of daycare admissions patients from the system.

Special Features:

Bill Settlement Before Discharge: This feature automates the patient's bill calculation including the patient's advance credit history, bed charges details, reflecting service order entries details, and final bill generation and settlement due before the patient is discharged from the system.

Admission Blocking Feature: This module also has a powerful feature to block admission in a particular department if that department has occupied emergency beds for more than 48 hours. The system will not allow further admission in that department till the patients are transferred in their own departmental ward beds by freeing emergency beds.

Bed Blocking/Unblocking Features: ADT module also facilitates bed blocking and unblocking of beds in the system. **Real-Time Bed Occupancy**: ADT module is uniformly implemented in all our Centres and Blocks which helps in maintaining real time bed occupancy list.

ADT Statistics (2023-2024)

Admissions	Transfers	Discharges
304682	102064	305218

E-Hospital Billing

Implemented spectrum of digital modes of payments Debit/ Credit Card/ UPI/ Smart Cash Card to phase out all cash transactions in-line with the Digital India Mission of the honourable Prime Minister, thus, revolutionizing the way patients and visitors manage their financial transactions. Implemented a Single Window Payment/Refund System across the AIIMS.

Smart Cash Card

Smart Cash Card implemented in collaboration with the State Bank of India across the Institute for hospital & non - hospital payments. The implementation of Smart Cash Cards at AIIMS, New Delhi, is a milestone to fulfil the commitment to providing technology-oriented healthcare/financial services. The Smart Cash Card does not require the user to have a bank account or a smartphone. Thus, it caters to the most marginalized section of society who visit AIIMS in masses. This innovative approach not only simplifies financial transactions but also contributes to a more streamlined and patient-centric healthcare ecosystem.

Silent Features

Free of Cost: No card/transaction cost is charged to the user. All cost is borne by the Bank. The card comes with a validity of 5 years.

Uhid Linked: The Smart Card is UHID linked to make the demographic / billing information fetched online.

Secure: The issue of Smart Card and each transaction is secured by OTP. The ceiling of card holding is capped at Rs. 5 lakh.

Ease of Accessibility: - No KYC is needed for the issue of the card. Card is instantly issued and can be issued with zero amounts. The minimum top–up value is Rs. 100 only. It can be topped up in cash or any digital mode. Instant refund on surrender of card.

User-Friendly Interface: Smart Cash Card system is designed with a user-friendly interface for issuance of cards and making transaction.

Seamless Payments: The Smart Cash Card serves as a convenient and efficient mode of payment across the AIIMS campus. Patients and their attendants can use these cards to make payments for various services, such as diagnostic tests and cafeteria expenses.

Preloaded With Funds: Users can preload their Smart Cash Cards with desired amount. This eliminates the need for carrying physical currency or credit/debit cards, providing a hassle-free experience for patients and their families.

Integration With Hospital Systems: These smart cards are seamlessly integrated with AIIMS' existing e-hospital Module, allowing for real-time tracking of transactions. Hospital administrators can monitor and analyze spending patterns, facilitating efficient management of resources and services.

E-Hospital Laboratory Information System

- A new version of e-Hospital Lab module is launched using new technologies to make the process fast.
- All labs are going for NABL accreditation; accordingly, e-hospital updations are in progress.

- ABDM, QR Code is integrated during the Sample Collection in e-Hospital.
- The mechanism to link lab reports with ABHA address has been completed in e-Hospital
- Daily More than 2000 lab reports are linked with ABHA address and are available publically at ABDM dashboard.
- A feature to upload the PDF report in e-Hospital is available against the requisition done by the user.

Following additional labs are integrated with e-Hospital in the year(2023-2024):-

Sl. No.	Additional Labs integrated with e-hospital
1	Pathology
2	Main Blood Bank
3	Microbiology, JPNATC
4	Department of Biochemistry
5	Nuclear Medicine – GFR
6	Neurobiology – Genetics
7	Neurobiology – Autoimmune
8	Dental Hematology
9	Dental Histopathology
10	Dental Cytology

With the above integrations, Computer Facility has integrated over 58 labs across AIIMS.

RIS And PACS

Radiology Information System (RIS)

RIS, PACS, and Hospital Information Systems (HIS) are all critical components of modern healthcare infrastructure and Health IT, each serving a unique role. RIS systems specialize in the operational management of radiology departments, encompassing everything from patient scheduling to billing and report generation. In contrast, PACS is primarily concerned with the storage, retrieval, and distribution of medical images, serving as a digital archive that replaces the need for physical film storage. HIS, on the other hand, is an overarching system that manages all the administrative and clinical information across the hospital integrating various departments and functions. While each system has its distinct functionalities, they often work in tandem to ensure a smooth, efficient and integrated healthcare experience.

Various investigations appointments scheduled via RIS are listed under:

- Plain X-ray
- CT Scan
- MRI Scans
- Ultrasonography
- PET Scans
- Ophthalmic Radiology
- Mammography
- Angiography
- Dental X-rays

Appointment of radiological investigations is done through HIS e-Hospital system. Appointments are sent to RIS for scheduling using HL7 messages and RIS reports are sent back to HIS system using HL7 data transfer mechanism. The availability of RIS reports is in the process of integration with HIS e-Hospital system. Once the integration is done,

the system will allow patients to access radiology investigation reports as and when required to be downloaded from Patient Portal https://ors.gov.in

PACS

AIIMS has a common centralized PACS Server with web-based visualizer: Oviyam. This system helped in integrating with the standalone departmental PACS systems (Siemens / GE Centricity/Philips). This year, we have adopted an Institute-wide Fuji PACS system which is getting integrated with HIS e-Hospital system for the purpose of direct image viewing from HIS system eliminating the need to manually store and retrieve sensitive films and reports. It enables storage of medical documents and images in secure off-site servers while ensuring secure access to sensitive records from anywhere.

Software Services

Computer Facility has a team of developers who continuously maintain, upgrade and develop various In-house modules. This team is providing software development and maintenance services to all the departments/sections of AIIMS New Delhi. The technologies used are Dot Net technology, Python programming language, and PostgreSQL database.

The In-house modules are categorized under In-House Software and Clinical modules.

In-House Software

For administrative and back office automation, various In-house modules are developed, implemented and maintained by the Computer Facility. In-house software developed in the year 2023-24:

SANTUSTH: empowers users to voice concerns, resolving grievances promptly. It is accessible 24*7. Users can share their feedback seamlessly, thus helping us to enhance their healthcare experience.

Features:

1. SANTUSTH excels in efficient grievance resolution, ensuring swift and satisfactory solutions for patients.
2. Efficiently collect and process feedback, enhancing our services for optimal patient satisfaction.
3. Offers round-the-clock support, efficiently resolving grievances, and valuing patient feedback for continuous improvement.

Various Back-office software(s) which are being maintained across the Institute are listed below:

Sl. No.	Application Name
1	Hostel Allotment and Registration system
2	MSSO Rail Concession System
3	Letter of Intent and Award system for Engineering Services Department
4	Online Organ Donation Form
5	Online Transport System
6	Electronic Annual Performance Assessment and Report (eAPAR) for all regular employees of the Institute.
7	Cheque printing, RTGS and Reconciliation

Clinical Modules

Clinical modules developed in the years 2023-24 are:-

Neuro Bone Bank: This application is used to capture patients' demographic data, bone Details, Container Details, Box details, and shelf details in units where the patient's bone are stored. With this application, we will able to check container and box status whether it is vacant or occupied.

MRD System: A Medical Record System Application is Designed and developed to maintain Patient Demographic Details, Patients Birth and Death Details, MRD File Movement and all Patient Records.

EMLC BPS: eMLC (Burns and Plastic) This Application is used to create patients' MLC and Capture demographics Details, Diagnosis, Case History, Capture Patient Images and Generate MIS, MLC Card, MLC Print, Print Police Certificate etc.

Eye Bank: This Application is used to capture patients' Details, Generate a Priority List, Maintain Patient Visit History, Schedule Donor and Receiver Priority List, Generate MIS etc.

EM Consultation Dashboard: This application is used to create patient waiting list in Emergency, Send Patient Consultation Reminder to Doctors, Add Doctors available on Duty in Emergency, Send Pending Patients Details to Doctors via SMS, Generate MIS, and Patients Visit Details etc.

Various Clinical module(s) which are being maintained across the Institute are listed below:-

Sl. No.	Application Name
1	PDS MAIN
2	SMS APP
3	eMLC Main Hospital
4	eMLC RPC
5	eMLC (BURNS AND PLASTIC SURGERY)
6	RPC TISSUE UTILIZATION
7	OCULAR PATHOLOGY RPC
8	eCertificate RPC
9	EBC RPC
10	CNC LAB REGISTER
11	IRCH DAYCARE
12	VITILIGO
13	STUDENT WELLNESS
14	HEART TRANSPLANT WAITING LIST
15	eBIRTH
16	eCERTIFICATE AIIMS
17	BONE BANK (ORTHO & NEURO)
18	eDEATH NOTE
19	ONCO ANAESTHESIA IRCH
20	OT MODULE
21	ADMISSION SLIP
22	ANTICOAGULANT REGISTRATION
23	eCATHLIST
24	ADMIN FOR CREATING eMLC USER
25	QAMHA
26	QAM AIIMS

27	ADMISSION SLIP NCI JHAJJAR
28	OT MODULE NCI JHAJJAR
29	eDEATH NOTE NCI JHAJJAR
30	eMLC NCI JHAJJAR
31	IRCH DIAGNOSIS

E-Office

Comprehensive implementation of e-Office with over 3000 e-Office accounts created. Movement of physical files is completely arrested as all file work is now electronic. Around 30 e-office training sessions were conducted for different classes of employees of the Institute. Successful gradation of e-office version (from 6.x to 7.x)

Employees Health Services (EHS) Application

Employees Health Services (EHS) Software system is used for recording and maintaining employee health prescriptions generated in the EHS OPD. This system maintains all the employees' records and their dependent's details that are eligible for EHS benefits in the EHS OPD.

The system registers each EHS patient in the OPD and records their medicines prescribed online in the system. Medicines are also dispensed online via EHS Pharmacy counters. Medicines which are not available in the EHS pharmacy are sent for Local Purchase. LP Indents are automatically generated twice by the system and submitted in the online mode to the LP vendor. EHS Registration and Prescription data for FY 2023-24 and past years is listed below:

Particulars	2021-22	2022-23	2023-24
Total Registrations	207126	199636	238098
Total Online Prescriptions	183881	175580	208474

AIIMS Website (Https://www.aiims.edu)

- The official website of AIIMS serves as a comprehensive platform providing valuable information about the institute's diverse range of services, facilities, and academic programs.
- The AIIMS website connects patients, students, researchers, healthcare professionals, and the broader community with the institute's extensive range of services, expertise, and resources.
- Computer Facility maintains AIIMS website and various other services pertaining to it.
- Regular updating, uploading and creation of departmental webpages as and when the request is received from various Departments of AIIMS New Delhi.
- Micro website 'meetingminutes.aiims.edu' created for uploading all letters related to Reservation Roster, Governing Body meetings etc. This site will be LIVE in the next financial year.
- Information about various events, conferences, workshops and circulars are being circulated through content provider emails to all Faculties and Staff.

Email And SMS Services

- Using Google Workspace as our email service for @aiims.edu mails.
- Till now 4193 email accounts (@aiims.edu) have been created. These email id are used by Faculties, SRs, JRs, MBBS students and Scientists.
- Regular E-mails sent to all faculties regarding various conferences, seminars etc.
- Over 3000 accounts were created on "@aiims.gov.in" domain for employees of AIIMS.
- Mobile Seva CDAC SMS Gateway services are used by the Institute for providing messages to various stakeholders such as:

- o Patient's related SMS such as Appointment details, Lab reports OTP etc.
- o Examinations Section related messages
- o Academic Section related messages to the students
- o Blood Bank related messages to the blood donors
- o Organ Donors details

Computer Education

Computer Facility has been regularly providing computer classes to the Undergraduate and Postgraduate Nursing students. Computer classes include topics like Introduction to Operating System, Microsoft Office (Word, Excel, PowerPoint and Access), Introduction to HIS and Networking. Both physical and practical classes are carried out throughout the year.

Inventory Management System

Inventory Management Module allows systematic workflow-based process to manage Hospital Inventory. It oversees and controls the inventory or supplies, availability, tracking, and utilization of medical supplies, equipment, and consumables. The primary goal of inventory management is to ensure that the items are available in the right quantities, at the right time, in the right locations within the hospital.

Special Features

Monitoring And Tracking: System has features to accurately monitor and record inventory levels including item details, unit price, quantities, locations, batch numbers and expiration date.

Demand Forecasting: Historical data, patient trends, and other factors can anticipate future demand for supplies to ensure maintenance of appropriate stock levels.

Inventory Optimization: Inventory data identifies opportunities for improvement. This includes reducing excess stock, eliminating obsolete items, and implementing just-in-time inventory practices.

Indent Management System: Indenting rights are assigned to authorized personnel for Indent generation. The workflow consists of two levels of verification before the items are issued against an Indent. The system allows real-time tracking of Indents. Indents have categories such as Routine Indent, JSSK Indent, EHS Indent, PM-JAY Indent, and LP Indent to differentiate the types of Indents.

Vendor Management: The system allows maintaining of list of vendors and their details in the system.

Lot And Expiration Tracking: The system allows tracking of drugs and pharmaceuticals expiry and near expiry items by using different colour coding schemes.

Workflow Efficiency: By providing real-time visibility into inventory levels, the system enhances workflow efficiency. **Data Analysis And Reporting:** Inventory Management System captures valuable data used for performance evaluation and decision-making. Reporting features enable to generation of insights on inventory turnover, usage trends, and analytics. These insights help in data-driven and efficient decision-making.

Inventory Statistics

Main Stores	Sub Stores	Indents Generated	Indents Issues
94	1830	110664	110058

IT Infrastructure and Network

- Managed network infrastructure at Main Hospital, New OPD, Burns and Plastic Block, Surgery Block, Mother & Child Block, National Center for Ageing Block and Private Ward-III at AIIMS, New Delhi.
- Providing high-speed NKN internet connectivity for various Seminars/Conferences/Video conferences at different locations:-

a) Conference hall for National CME/Symposium/Workshop/Conferences held at AIIMS, New Delhi.

b) JLN Auditorium for transmission of various "Live surgeries".

c) SET facility, Convergence Block for various events.

- Continued management of the wireless networking zones at around 18 hostel locations, creating Wi-Fi zones for internet, information and online journal access to students and resident doctors. Approximately 710 IDs were created for hostel users.
- Technical support to BB Dixit Library for management of Wi-Fi services at BBDL.
- Facility management for call maintenance of user's complaints and resolution available 24x7x365 days through help-desk of Computer Facility. Approximately 18,000 calls were handled during the year.
- Approximately 150 new intranet/LAN connections were provided to faculty members, officers and staff of AIIMS.
- VPN-based access mechanism for e-Hospital Module and other in-house application servers from outside AIIMS.
- Continued management of secure tunnel for connecting NDDTC GZB, JPNATC and CRHSP Ballabgarh.
- The security measures like network segmentation, ACL, Port-security have been implemented across the managed network.

Cyber Security

Ensuring cybersecurity measures at AIIMS New Delhi is crucial given the sensitive nature of the medical data and the critical infrastructure the institution operates. Here are some of the measures taken to ensure the confidentiality, integrity, and availability of its systems and data:-

- Firewall devices were upgraded for security of the AIIMS network.
- Continued management of firewall at AIIMS and its centres.
- End Point Detection and Response (EDR) installed across the campus.
- Network and Security Operation Centers were established for monitoring of network by 24x7.
- Continuous monitoring of cyber threats, alerts and mitigation is being carried out.
- Security measures are being implemented for servers and endpoints.

Security Audit

Performing a security audit of software involves an assessment of its codebase, architecture, configuration, and implementation to identify vulnerabilities, weaknesses, and compliance issues. The Security Audit team of the Computer Facility has performed a Level I audit of 27 In-house applications and Level II audit of 2 In-House applications.

Aadhaar Enabled Biometric Attendance System

The NIC's Aadhaar-enabled Biometric Attendance System (AEBAS) is an innovative solution aimed at enhancing efficiency and accountability in attendance management by leveraging Aadhaar biometric authentication. By implementing AEBAS at AIIMS New Delhi, the institution can streamline attendance tracking processes, improve accuracy, and ensure transparency.

Key Features and Benefits are:-

Biometric Authentication: AEBAS utilizes biometric data such as fingerprints or Face scans linked to individuals' Aadhaar numbers for identity verification. This eliminates the possibility of proxy attendance and ensures that only authorized personnel can mark their attendance.

Real-Time Monitoring: With AEBAS, attendance data is captured in real-time, providing instant visibility into employee attendance patterns and discrepancies.

Centralized Database: AEBAS integrates with the Aadhaar database, creating a centralized repository of employee attendance records. Implementation included:-

Infrastructure Setup: Computer Facility has set up biometric attendance terminals, mapped 86 locations across the campus, including entry points and designated areas.

Enrollment Process: Employees were enrolled in the AEBAS by linking their Aadhaar numbers with their biometric data. This involves capturing biometric information and validating it against the Aadhaar database to ensure accuracy. Employees registered in the AEBAS system are 7741.

Training And Awareness: Computer Facility has conducted training sessions to familiarize employees with the AEBAS and its usage. This includes educating them about the enrolment process, and biometric authentication procedures.

11.5 Electron Microscope Facility

(Department of Anatomy)

Professor
TC Nag

Additional Professor
Subhash C Yadav

Associate Professor
Prabhakar Singh

HIGHLIGHTS

Electron microscope facility organized an "International Conference on Molecular and Cellular Electron Tomography and 2nd workshop on Electron Tomography of Biological Specimens" from 17-22 April 2023. The celebrated cryo-electron microscopist Professor PJ Peters from Maastricht University, The Netherlands, inaugurated this ceremony and delivered several lectures on the subject.



Professor Peters on inaugural lamp-lighting ceremony at the conference

EDUCATION

(i) EM classes (theory and practical) for M. Biotech. 1st-year students were conducted from 17 August 2023 to 11 September 2023.

(ii) EM classes (theory and practical) for Anatomy postgraduates were conducted from 16-22 September 2023.

CME/Workshops/symposium/National and International Conferences

1. International Conference on Molecular & Cellular Electron Tomography, 18-22 April 2023

2. Summer training program in electron microscopy, 15 May 2023 to 14 June 2023, attended: 22 participants
3. The 38th National Training Program in Electron Microscopy for Scientific Investigators, 22 November to 5 December 2023, attended: 12 candidates
4. Dr AK Sharma and Dr Ankit Mhase from Pathology Unit, Reliance India, Gandhinagar [18 April 2023]
5. Two clinicians from Alexis Multispecialty Hospital, Nagpur [16 May 2023]
6. Dr Richa Mahajan and Dr HR Singh from the Department of Anatomy, AIIMS, Jammu, J&K [9 August 2023]
7. Dr Shalika Sharma from AIIMS, Jammu, J &K [21 August 2023]
8. Professor Shailendra Kumar, Dr RML Avadh University, Ayodhya [21 August 2023]
9. Three students and two faculty from Govt Medical College, Baramulla, J &K [19 September 2023]
10. Dr LL Arya from Regional Institute of Ophthalmology, IGIMS, Patna [20 September 2023]
11. Faculty members from Bhutan and JIPMER [Chandigarh] visited along with members of AIIMS Hospital Administration [23 September 2023]
12. Postgraduates from the Department of Pathology, AIIMS, New Delhi [11 October 2023]
13. Forty students [22] and one faculty (Dr Madhu Yashpal) from various Disciplines of Gargi College [17 October 2023]
14. Forty-five students and two faculty (Dr Kriti Tyagi and Dr Anita Kapila) from the Microbiology Department, Gargi College [11 November 2023]
15. Ten students (MSc) and one faculty (Dr Narendra Kumar) from Daulat Ram College, University of Delhi [16 February 2024]
16. Forty students (BSc and MSc) and two faculty members from SGT University, Gurugram [14 March 2024]
17. Thirty students (MSc) and four faculty members (Dr P Arora, Dr S Alam Dr Avijit and Dr Manas) from SGT University, Gurugram [28 March 2024]

Lectures delivered

1. Vulnerability of Müller glial cells in ageing human retina: impact on photoreceptor cell survival, XLI Annual Meeting of the Indian Academy of Neurosciences and International Conference on Brain: Chemistry to cognition, 6 October 2023, Gwalior
2. Pathogenesis of age-related macular degeneration, Refresher Course on "Emerging Dimensions in Biological Sciences", NBU, West Bengal, 1 December 2023, Online
3. Ultracellular imaging of broncho-alveolar lavage from young age COVID-19 patients with comorbidities showed greater SARS-COV-2 infection but lesser ultrastructural damage than the old age patients, 20th International Microscopy Congress, IMC 20, 12 September 2023, Busan, Republic of Korea
4. Electron Microscopy of bronchoalveolar lavage of severe COVID-19 patients, International conference MMC2023, 4 July 2023, Manchester UK
5. Optimizing each step of TEM from sample collection, processing, ultramicrotomy and multiangle imaging improved the diagnosis of PCD, International conference MMC2023, 5 July 2023, Manchester UK
6. Electron Microscopy of BALF of severe COVID-19 patients, 92nd Annual Meet of the Society of Biological Chemists, 19 December 2023, BITS Pilani, KK Birla, Goa
7. Nanotechnology-based cost-effective, and simple diagnostic technology platforms for rural India, International Conference on Functional Materials, 9 January 2024, Indian Institute of Technology, Kharagpur
8. Nanotechnology-based cost-effective, and simple diagnostic technology platforms for rural Indian, Institution's Innovation Council 6.0, 19 March 2024, JNU, New Delhi

Oral Papers/Posters presented: 23

1. Cryo-electron microscopy, 39th National Training Program in Electron Microscopy for scientific investigators, 30 November 2023, AIIMS, New Delhi
2. Cryo-electron microscopy: sample preparation, Summer Training Program in Electron Microscopy, 9 June 2023, AIIMS, New Delhi

3. Cryo-electron microscopy: Techniques and Applications, Summer Training Program in Electron Microscopy, 12 June 2023, AIIMS, New Delhi
4. Cryo-sectioning, 39th National Training Program in Electron Microscopy for scientific investigators, 5 December 2023, AIIMS, New Delhi
5. Elemental analysis: theory and applications, 39th National Training Program in Electron Microscopy for scientific investigators, 4 December 2023, AIIMS, New Delhi
6. Immuno-electron microscopy, Summer Training Program in Electron Microscopy, 101 June 2023, AIIMS, New Delhi
7. Introduction and Principles of scanning electron microscopy, 39th National Training Program in Electron Microscopy for scientific investigators, 27 November 2023, AIIMS, New Delhi
8. Introduction of electron microscopy, 39th National Training Program in Electron Microscopy for scientific investigators, 22 November 2023, AIIMS, New Delhi
9. Introductory nanotechnology, Summer Training Program in Electron Microscopy, 31 May 2023, AIIMS, New Delhi
10. Nanoparticle synthesis and characterizations, Summer Training Program in Electron Microscopy, 1 June 2023, AIIMS, New Delhi
11. Nanotechnology: basic concept, 39th National Training Program in Electron Microscopy for scientific investigators, 1 December 2023, AIIMS, New Delhi
12. Principles of instrumentation details of SEM, Summer Training Program in Electron Microscopy, 23 May 2023, AIIMS, New Delhi
13. Principles of instrumentation details of TEM, Summer Training Program in Electron Microscopy, 16 May 2023, AIIMS, New Delhi
14. Principles of transmission electron microscopy, 39th National Training Program in Electron Microscopy for scientific investigators, 24 November 2023, AIIMS, New Delhi
15. Sample preparation for TEM, 39th National Training Program in Electron Microscopy for scientific investigators, 23 November 2023, AIIMS, New Delhi
16. Specimen preparation for scanning electron microscopy, Summer Training Program in Electron Microscopy, 28 May 2023, AIIMS, New Delhi
17. Specimen preparation for transmission electron microscopy, Summer Training Program in Electron Microscopy, 15 May 2023, AIIMS, New Delhi
18. Staining for TEM, 39th National Training Program in Electron Microscopy for scientific investigators, 28 November 2023, AIIMS, New Delhi
19. Staining in EM, Summer Training Program in Electron Microscopy, 2 June 2023, AIIMS, New Delhi
20. Ultramicroscopy, Summer Training Program in Electron Microscopy, 24 May 2023, AIIMS, New Delhi
21. Ultramicrotomy, 39th National Training Program in Electron Microscopy for scientific investigators, 25 November 2023, AIIMS, New Delhi
22. Ultrastructure of cell, 39th National Training Program in Electron Microscopy for scientific investigators, 29 November 2023, AIIMS, New Delhi
23. Ultrastructure of cell, Summer Training Program in Electron Microscopy, 8 June 2023, AIIMS, New Delhi

Oral/poster presentations over past 3 years

2021-2022	2022-2023	2023-2024
8	11	22

RESEARCH

Funded projects

Ongoing

1. An experimental study to understand the mechanisms of choroidal capillary death in ageing eye with emphasis on involvement of macrophages and other immunocompetent cells. TC Nag, ICMR, 3 Years, 2021-24, Rs 31 Lakhs
2. Cisplatin-encapsulated HPV virion-based targeted delivery vehicle validation on cervicectomy samples using high-resolution Cryo-Electron Tomography. Subhash C Yadav, ICMR, 3 Years, 2024-27, Rs 97.54 Lakhs
3. Cryo-Electron Microscope Imaging facility for biological specimens (Cells and Tissue), Subhash C Yadav. DBT, 4 Years, 2021-26, Rs 2400 Lakhs
4. Effects of maternal chronic intermittent hypoxia on the cholinergic system and cognitive function of offspring in rats. Prabhakar Singh, DST, 3 Years, 2023-2026, Rs 80 Lakhs
5. Establishment of Laser Confocal Microscope Facility for biomedical live cell Imaging and for nano-particulate drug delivery. Subhash C Yadav, DST-FIST, 5 Years, 2018-23, Rs 165 Lakhs
6. External delivery of Cisplatin using Human Papilloma Virus (HPV 16) based nanocarriers for treatment of cervical cancer. Subhash C Yadav, DHR, 3 Years, 2021-24, Rs 30 Lakhs
7. To study the role of cholinergic transmission on the amyloid beta-induced neurodegeneration and therapeutic interventions for Alzheimer's disease. Prabhakar Singh, ICMR, 3 Years, 2023-2026, Rs 30 Lakhs

Completed

1. Establishment of Laser Confocal Microscope Facility for biomedical live cell Imaging and for nano-particulate drug delivery. Subhash C Yadav, DST-FIST, 2018-23, 165 Lakhs

Research over past 3 years

Year	Total funded research projects	Total amount of extramural/intramural funding (Lakhs)
2023-2024	1	Rs 97.54
2022-2023	6	Rs 1738.78
2021-2022	10	Rs 155.74

Departmental projects

Ongoing

1. An experimental study to understand the mechanisms of choroidal capillary death in ageing eye with emphasis on involvement of macrophages and other immunocompetent cells
2. An investigation into the status of expression of sensors of unfolded protein response in rat retina due to iron accumulation
3. Identification of HPV-16-induced cervical cancer cells from cytology samples
4. Pattern of mTORC1 expression in rat retina in experimental iron overload
5. To study the morphological changes in endothelin-1 induced capsular infarct model in rat brain

Completed

1. Pattern of mTORC1 expression in rat retina in experimental iron overload

Collaborative projects

Ongoing

1. Fluorosis mitigation in community of Bihar through intervention and counselling (with Department of Anatomy)
2. Prevalence and genetic mutations profile of primary ciliary dyskinesia in Indian children (Department of Pediatrics)

Completed

1. Fluorosis mitigation in community of Bihar through intervention and counseling (with Department of Anatomy)

PUBLICATIONS 2023-2024

Total Publications: 5; Journal Articles: 5 Abstracts: 0

Publications over past 3 years

Item	2021-2022	2022-2023	2023-2024
Total	22	15	5
Journal articles	21	11	5
Abstracts	0	4	0
Chapters in books	1	0	0
Books	0	0	0

PATIENT CARE

Special laboratory facilities

During the last three years, the following laboratory facilities were provided for research and patient care:

Facility	2021-2022	2022-2023	2023-2024
Transmission electron microscope (User number)	444	549	886
Transmission electron microscope (Sample number)	2399	3770	3737
Scanning electron microscope (User number)	122	162	160
Scanning electron microscope (Sample number)	594	773	859

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor TC Nag examined one PhD thesis from the University of Chennai. He reviewed 112 manuscripts for publication in various journals. He received a Fellowship from the Indian Academy of Neurosciences, and organized a mini-symposium at the XLI Annual Meeting of the Indian Academy of Neurosciences (Jiwaji University, Gwalior; 4-6 December 2023). He was a member of abstract review committee and judge in third AIIMS Annual Research Day presentation, 29-30 January 2024.

Dr Subhash C Yadav was awarded second prize in Innovative Devices Category, on the AIIMS research day (30 January 2024). He organized the 2nd National Workshop on "Electron Tomography of Biological Specimens" [17-20 April 2023] and International Conference on "Molecular and Cellular Electron Tomography" [21-22 April 2023], at Electron Microscope Facility, AIIMS, New Delhi. He was an invited speaker at international conference MMC 2023, Manchester, UK [3-6 July 2023] and 20th International Microscopy Congress [IMC 20], Busan, Republic of Korea [10-15 September 2023]. He was the general secretary of the Scientific Training programs of SAIF AIIMS New Delhi (22 November to 5 December 2023).

Dr Prabhakar Singh has served as a guest editor for the Indian Journal of Biochemistry and Biophysics. He was the organizing secretary of the National Scientific Training Program in Biological Electron Microscopy, Summer Training Program in Biological Electron Microscopy, International Conference on Molecular and Cellular Electron Tomography and 2nd workshop on Electron Tomography of Biological Specimens [21-22 April 2023] organized by Electron Microscope Facility, AIIMS, New Delhi.

11.6 Hostel Section

Superintendent of Hostels

Sandeep Agarwala
(Till 15 June 2023) Pediatrics Surgery

Sanjay Kumar Rai
(From 16 June 2023) CCM

Deputy Superintendents of Hostel

Neerja Bhatla (Obstetrics & Gynecology)
(Retired on 31 January 2024)

Tanuj Dada (Opthalmology)

Raj Kumar Yadav (Physiology)

Rakesh Kumar (ENT)

KH Reeta (Pharmacology)

Vijay Sharma
(Orthopedic (Trauma Centre))

Harshal Ramesh Salve (CCM)

Bhupinder Kaur
(Chief Nursing Officer (Office))

Cecilia MS (College of Nursing)

Administrative Officer
Uttam Chand

Accounts Officer
Amit Kumar

Store Officer
Yatender Meena

Senior Warden
Mohan Kumar Sharma

Subordinate Staff

There are 11 Hostel Wardens (Wardens, Dy. Wardens, Assistant Wardens & Jr. Wardens), 8 Ministerial staff (02 storekeeper, 01 J.A.O., 02 S.A.A. & 03 J.A.A.), 11 Contractual staff (01 Prog. Asstt. & 10 D.E.O.), and subordinate staff including 12 male Office Attendants and 25 female Office Attendants are posted in different Hostels under Hostel Section. The AIIMS has several halls of residence with a capacity of over 2029 (approximate) single/double rooms, 262 married accommodations, 429 accommodations for nursing students/staff nurses and 24 guest rooms. These are spread over different hostels and residences in the AIIMS Main Campus, Masjid Moth, JPNATC Hostel (Raj Nagar).

List of existing total hostels & total strength (Total Hostel Strength = 2720)

Undergraduate Gents Hostels:

S. No.	List of Hostels	Type		Total Strength
		Single	Double/Three seater	
1	Hostel No. 1 (Charak Hostel)	67	----	67
2	Hostel No. 2 (Jivak Hostel)	57	----	57
3	Hostel No. 3 (Sushruta Hostel)	77	---	77

4	Hostel No. 4 (Madhava Hostel)	63	---	63
5	Hostel No. 5 (Nagarjuna Hostel)	59	---	59
6	Hostel No. 6 (Vagbhatta Hostel)	77	---	77
7	Hostel No. 7 (Ashwini Hostel)	-	107 x 2 = 214 (MBBS)	214
8	Hostel No. 18 (Kashyap Hostel)	-	14 x 3 = 42 (B.Sc)	42
Total		**400**	**256**	**656**

Undergraduate Ladies Hostels:

S. No.	List of Hostels	Type		Total Strength
		Single	Double/Three/Four/ Five/Six seater	
1.	Hostel No. 09 (Parvati Hostel)	3 (MBBS)	6 x 2 = 12 (BSc)	15
2.	Hostel No. 10 (Saraswati Hostel)	108 (MBBS)	4 x 1 = 4 (BSc)	112
3.	Hostel No. 11 (C-II Flats 10 to 14 & 25 to 29) (Akshara Hostel)	-	9 x 2 = 18 31 x 3 = 93 (M.B.B.S.)	111
4.	Hostel No. 13 (Laxmi)	33 (MBBS)	1 x 6 = 6 (BSc)	39
Total		**144**	**133**	**277**

Postgraduate Gents Hostels:

S. No.	List of Hostels	Type		Total Strength
		Single	Double/Three Seater	
1	Hostel No. 8 (Bharadwaj Hostel)	108	-	108
2	Hostel No. 12 (Dhanwantri Hostel)	72	-	72
3	Hostel No. 14 (Atreya Hostel)	46	-	46
4	Hostel No. 16 (Agnivesa Hostel)	10	-	10
5	Hostel No. 18 (Kashyap Hostel)	283	10 x 2 = 20	303
6	Hostel No. JPNATC	58	-	58
Total		**577**	**20**	**597**

Postgraduate Ladies Hostels:

S. No.	List of Hostels	Type		Total Strength
		Single	Double/Three/Four/Five/Six seater	
1	Hostel No. 09 (Parvati Hostel)	65	8 X 2 = 16	81
3	Hostel No. 14 (Atreya Hostel)	98	----------	98
4	Hostel No. 19 (Patanjali Hostel)	292	14 X 2 = 28	320
Total		**455**	**44**	**499**

Postgraduate and Undergraduate Girls Nursing Students Hostel:

S. No.	List of Hostels	Type		Total Strength
		Single	Double /Three/Four seater	
1	Hostel No. 15 (Medha Hostel)	160 (Student)	101 x 2 = 202 14 x 3 = 42 4 x 4 = 16	420
		09 (Nursing Officer)	-------	09
Total		**169**	**260**	**429**

Married Postgraduate Hostels:

S. No.	List of Hostels	Married	Total Strength
1	Hostel No. 14 (Atreya Hostel)	42	42
2	Hostel No. 16 (Agnivesa Hostel)	160	160
3	Hostel No. 17 (Ambuja Hostel)	54	54
4	Hostel No. JPNATC	06	06
Total		**262**	**262**

1. Shops & Establishments

Various Mess/Cafes and shops are provided in hostels located at Ansari Nagar, Trauma Centre & Masjid Moth. There are 12 contractor-run mess and 01 cooperative mess located on the premises of hostels.

Student's Wellness Centre

1. Main Campus

a. Student wellness Centre services are available at room no. 11, (Opposite Hostel No. 7 Ashwini Hostel), Gents Hostel, AIIMS.

b. Common Room/I, Hostel No. 9 Parvati Hostel, ladies hostels, AIIMS.

2. Masjid Moth Campus

Common Room (2/II), Second Floor, Hostel No. 19 (Patanjali Hostel) Masjid Moth.

3. Trauma Center Campus – In the Trauma Center

Significant Events

1. Civil Work

Renovation

1. Renovation work has been done in the cooperative mess of the first floor of Hostel No. 1 and Hostel No. 4.
2. Renovation work has been done in Hostel No. 1 to 6 approximately 81 rooms, Hostel No. 7 approximately 48 rooms, Hostel No. 9 Common Room No. 64, Hostel No. 10 Common Room, Hostel No. 11 (C-2 Flat No. 25 to 29), in Hostel No. 14 Transit Rooms, Hostel No. 9 Common Lav No. 5, 7 and 9 and Renovation work is in progress in about 76 rooms in Hostel no. 1 to 5.
3. Waterproofing work has been done on the roofs of Hostel No. 1 to 7, Hostel No. 9, Hostel No. 10 & hostel no. 11 (C-2 flat) & Hostel no. 13 and in hostel no. 8 waterproofing work is in progress.
4. Installation of new doors done in the electrical panel rooms and the store rooms built on the ground and first floors in Hostel No.14 and putting up boards with the names, designations and telephone numbers of the officers related to the Engineering and Sanitation Department was done.
5. Installation of sinks on all floors of Hostel No.16, Hostel No.18, Hostel No. 19 and J.P.N.A.T.C. and making platforms under the sinks has been done on all the floors in Hostel No. 16, Hostel No. 17, Hostel No. 18, Hostel No. 19 and J.P.N.A.T.C.
6. Making of soundproof music room has been done on the third floor of Hostel No. 18.
7. In J.P.N.A.T.C., work has been done to replace the balcony doors and the old pipeline in the shafts and the work to replace the old pipeline in the toilets of the rooms is going on.

2. Electrical work

1. Electrical renovation work done in four rooms of Hostel No. 9 and Hostel No. 13.
2. Installation of IGL gas pipeline connections has been done in Married rooms of Hostel No. 14 and Hostel No.17.
3. The work of installing geysers in all guest rooms of Hostel No. 17 has been done.

3. Air Conditioning

1. Installation of Fridge in Hostel No. 11 (C-2 Flat No. 25 to 29) and two ACs in common study rooms were installed.
2. Installation of centralized water cooler has been done in Hostel No. 14 (B Wing), Hostel No. 15, Hostel No. 16, Hostel No. 18, Hostel No. 19 and J.P.N.A.T.C.
4. **Miscellaneous**

1. 12 mattresses were provided for guest rooms in Hostel No.14.
2. Installation of C.C.T.V. cameras done in all floors of Hostel No. 14, Hostel No. 15, Hostel No. 16, Hostel No. 17, Hostel No. 18 and Hostel No. 19. In the basement of Hostel No. 17 construction of C.C.T.V. control room has been done.
3. Installation of C.C.T.V. cameras has been done by Computer facility in J.P.N.A.T.C.

11.7 Ethics Committee Annual Report for year

2020-21, 2021-22, 2022-23, 2023-24

Year	Institute Ethics Committee	Institute Ethics Committee for Post Graduate Research (Basic & Clinical Science)
2020-21	No. of Meetings: **16** New Project Proposal: **1610** Review Project: **757** Old Projects: **383**	No. of Meetings: **12** New Thesis: **1048** Review Thesis: **494** Old Thesis: **204**
2021-22	No. of Meetings: **12** New Project Proposal: **1300** Review Project: **1000** Old Projects: **500**	No. of Meetings: **12** New Thesis: **900** Review Thesis: **500** Old Thesis: **150**
2022-23	No. of Meetings: **12** New Project Proposal: **900** Review Project: **550** Old Projects: **350**	No. of Meetings: **12** New Thesis: **750** Review Thesis: **360** Old Thesis: **130**
2023-24	No. of Meetings: **12** New Project Proposal: **1100** Review Project: **1000** Old Projects: **800**	No. of Meetings: **10** New Thesis: **800** Review Thesis: **700** Old Thesis: **150**

In addition, the Institute Ethics Committee continues to receive notifications of serious adverse reactions, serious adverse events, annual progress reports completion reports etc.

The Institute Ethics Committee's Standard Operating Procedures (SOP's) were modified as per the need and available on the AIIMS website.

SIGNIFICANT EVENTS

The Institute Ethics Committee and Institute Ethics Committee for Post Graduate Research for Basic & Clinical Science was registered with DCGI and FWA,

12. Publications

Abstract; 542

AIIMS Books; 581

AIIMS Journal; 4526

Book and Mono; 26

13. Finance Division

Senior Financial Advisor	
Ms. Divya Yanamadala, IAAS	
Financial Advisor	
Shri Vijay Pal Singh	
F&CAOs	
Shri Padam Singh	Shri Trilok Chand
Shri Prem Pal	Sh. Rakesh Kumar Jha

Accounts Officers		
Sh. Surendra Koolwal	Sh. Komal Anwani	Smt. Meenakshi Dabral
Sh. Prakash Kumar Giri	Sh.Nikhil Jain	Sh. Joginder Singh
Sh. Amit Kumar	Shri Satish Kumar Yadav	Sh. Satish Kumar
Sh. Yogesh Kumar	Sh. Shivanand Thakur	Sh. Ravinder Kumar

Asstt. Accounts Officers		
Smt. Meena Gupta	Sh. Pramod Kumar	Smt..Rashu Kabtiyal
Smt. S. Tanveer	Smt. Sushil Kumari	Sh. Satya Dev Sharma
Sh. Nagender	Sh. Arvind Kumar	Ms. Veena Gaba
Ms. Urmila	Shri Yashpal Singh	Ms. Sonu Kaura
Sh. Naresh Chandra Sharma	Ms. Anuradha Garg	Ms. Raksha Rani
Sh. Suresh Kumar	Sh. Prem Sagar	Sh. Shakti Singh
Ms. Reema Kumar	Sh. Wajid Ali	Sh. Megh Singh Chauhan
Sh. Tej Pal Singh	Ms. Anita Singh	Sh. Darshan Lal
Sh. Mukesh Kumar		

Jr. Account Officers
Ms. Jyoti Sharma, Shri Surjit Singh, Sh. Satish Kumar & Shri Pradeep Kotnala

Functions of Finance Division (FD)

The Institute gets grants under the Heads Salaries, General & Capital Creation from the Government of India, Ministry of Health and Family Welfare. In addition, grants are received for National Drug Dependence Treatment.. Besides, extramural grants are also received from various external funding agencies such as ICMR, DST, CSIR, WHO, UNICEF, DBT, etc. for various research projects. Grant received from the Government of India under these three heads and other agencies are further allocated to various Centres/Departments/Research Projects as per their projections/requirements.

Finance Division of the Institute monitors/controls the expenditure against the above funds/budget by obtaining monthly expenditure from the respective centers/units/departments and also administers day to day financial matters, payment of salaries to faculty and staff, payment of personal claims, pension and GPF in respect of the employees of the institute. At the time of making the payment, all the checks as prescribed by the Government of India are being exercised by the respective DDOs cum Accounts Officers.

The other main functions of Finance Division are:

Budget-related: FD's Budget wing is responsible for calling for annual requirements from various Centres/Departments/ Divisions to formulate projections for next year. Once approved by Parliament in Annual Budget, the same is intimated to AIIMS by MoHFW. Budget for FY 2023-24 was as follows-

2023-24(Amount in Rs. Crore)

Head of Accounts	BE	RE	Actuals Expenditure
Grants-in-Aid: Creation of Capital Assets	414.67	414.67	414.67
Grants-in-Aid: General (including SAP)	1380.00	1525.00	1587.66*
Grants-in-Aid: Salary	2340.00	2550.00	2419.74
Total	**4134.67**	**4489.67**	**4422.07**

*Excess Expenditure met out from Institute's Reserve & Surplus.
** As per RE 2550.00 crore was received in GIA Salaries against which unspent transferred to Scheduled Commercial Bank account for making payment of salary for the month of March,2024 to be paid in April,2024.

Project Formulation & Appraisal: Institute is growing in terms of load of patient-care, medical education & research. There are several ongoing projectsof very high value and critical to carry out the mandate of AIIMS. The FD assist the Director, Standing Finance Committee& Governing Body of AIIMS and MoHFW/Government in ensuring compliance, prioritization and concurrence of projects.

Financial Concurrence: There are proposals on account of procurement of Machinery & Equipment, Rate Contract for chemicals, medicines, consumables, contract for works &services etc. received in FD for financial concurrence / advice. The scrutiny by FD is critical to ensure best value for money to public exchequer.

Scrutiny of bills for payment: Bills on account of personal claims, procurement of good & services through GeM, tendering etc. are processed and paid. While making payments, all prescribed checks are exercised by the FD. The FD caters to more than 15,000 employees &pensioners and over 2500 students & Residents.

Internal Audit: With increased activities and expansion of AIIMS, the number of units required to be audited annually has gone up substantially.The Internal Audit of the Institute is a continuous & mandatory process as the Ministry as well as the Office of the DGACE has emphasized upon the need to strengthen the internal audit of the Institute so that the procedural faults, if any, can be brought to the notice of the concerned authorities at initial level and rectified there only.

Accounts& Audit: AIIMS,being Central Autonomous Body, has to compile the Annual Accounts by 30th June each year and present the same for audit by C&AG's team. The Audited Utilization Certificates (UCs), of previous year's Grant-in-Aid releasesto Institute, are required to be sent to the Ministry for further continued budgetary support. The Annual Accounts, along with Separate Audit Report & Audit Certificate, is received by 31st October and tabled by MoHFW in the Parliament by 31st December

All the above works are executed by the Financial Advisor, Finance and Chief Accounts Officers (F&CAOs)/Account Officer/AAOs/JAOs under the overall control of Senior Financial Advisor.

अखिल भारतीय आयुर्विज्ञान संस्थान
All India Institute of Medical Sciences
अंसारी नगर, नई दिल्ली-29
Ansari Nagar, New Delhi-29
वित्तीय स्थिति
Statement of Financial Position
31 मार्च, 2024 को समाप्त वर्ष के लिए
as on 31st March, 2024

Amt. in Rs.

CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	2023-24	2022-23
Corpus/Capital fund and Liabilities	1	85,563,018,796	80,534,903,442
Reserves and Surplus	2	8,073,291,637	5,224,754,003
Earmarked / Endowment Fund	3	3,035,761,408	1,751,872,191
Secured Loans & Borrowings	4		
Unsecured Loans & Borrowings	5		
Deferred Credit Liabilities	6		
Current Liabilities and Provisions	7	7,354,469,631	6,179,975,309
TOTAL		104,026,541,472	93,691,504,946
ASSETS			
Fixed Assets	8	74,978,698,315	72,378,255,073
Investments from Earmarked / Endowment funds	9		
Investments-others	10	861,600,000	611,600,000
Current Assets, Loan & Advances etc.	11	28,186,243,157	20,701,649,873
Misc. Expenditure			
(to the extent not written off or adjusted)			
TOTAL		104,026,541,472	93,691,504,946

Accounting policies and notes forming part of accounts 24

Accounts Officer Financial Advisor Senior Financial Advisor

Director

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

आय और व्यय खाता

INCOME AND EXPENDITURE ACCOUNT

31 मार्च, 2024 को समाप्त वर्ष के लिए

FOR THE PERIOD ENDED 31-03-2024

Amt. in Rs.

INCOME	Schedule	2023-24	2022-23
Income from Sales/Services	12	645,594,742	600,692,862
Grants/Subsidies	13	40,155,150,028	35,652,233,698
Fees/Subscriptions	14	217,339,149	207,940,718
Income from Investments (Income on Invest. From earmeked/endow.Funds transfered to funds)	15		
Income for Royalty, Publication etc.	16		
Interest Earned	17	139,180,277	39,544,530
Other Income	18	1,885,773,956	697,302,718
Increase/(decrease) in stock of Finished goods and works-in-progress	19		
TOTAL (A)		43,043,038,152	37,197,714,526
EXPENDITURE			
Establishment Expenses	20	24,673,649,535	22,514,595,091
Other Administrative Expenses etc.	21	9,958,123,818	7,306,859,175
Material and supply	21B	6,072,481,603	5,272,221,206
Expenditure on Grants, Subsidies etc.	22		
Interest / Bank Charges	23	1,458	22,101,003
Depreciation (Net Total at the year-end - corresponding to Schedule 8)		902,624,126	819,145,367
TOTAL (B)		41,606,880,539	35,934,921,842
Balance being excess of Income over Expenditure (A-B)		1,436,157,613	1,262,792,684
Transfer to Special Reserve (Specify each)			
Transfer to /from General Reserve			
BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/ CAPITAL FUND			
TOTAL			

Accounts Officer **Financial Advisor** **Senior Financial Advisor**

Director

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Balance Sheet as on 31.03.2024

Amt. in Rs.

SCHEDULE 1- CORPUS/CAPITAL FUND:	2023-24	2022-23
Balances as at the begining of the year	80,534,903,442	77,395,139,659
Add : Contributions towards Corpus/Capital Fund	5,154,728,868	3,235,000,000
Less Condemnation during the year	-126,613,514	95,236,217
BALANCE AS AT THE YEAR-END	85,563,018,796	80,534,903,442

Accounts Officer **Financial Advisor**

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Balance Sheet as on 31.03.2024

Amt. in Rs.

SCHEDULE 2- RESERVES AND SURPLUS:	2023-24	2022-23
1. Capital Reserve:		-
As per last Account	30,756,605	4,212,355
Addition during the year	2,925	26,544,250
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	5,193,997,398	3,721,859,816
Addition during the year	1,436,157,613	1,262,792,684
Add/(Less): Adjustment	1,412,377,096	207,108,786
Cancelled Cheque Credit B.A		2,236,112
TOTAL	8,073,291,637	5,224,754,003

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Balance Sheet as on 31.03.2024

Amt. in Rs.

SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS	2023-24	2022-23
a) Opening balance of the funds	1,751,872,191	1,604,772,114
b) Additions to the Funds:		-
i. Donations/grants	261,385,669	718,259,396
ii. Income from investments made on account of funds		-
iii. CSR Hospital Billing AIIMS		-
iv. Research Section		-
v. Others	2,199,159,369	373,520,936
TOTAL (a)	4,212,417,230	2,696,552,446
		-
c) Utilisation/Expenditure towards objectives of funds		-
i. Capital Expenditure		-
- Fixed Assets	81,200,000	50,000,000
- Others		2,024,465
ii. Revenue Expenditure		-
- Salaries, Wages and allowances etc.	29,722,326	16,250,915
- Rent		-
-Other Expenses	1,065,733,496	876,404,875
Total Expenditure (b)	1,176,655,822	944,680,255
NET BALANCE AS AT THE YEAR-END (a-b)	3,035,761,408	1,751,872,191

Accounts Officer **Financial Advisor**

अखिल भारतीय आयुर्विज्ञान संस्थान
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Balance Sheet as on 31.03.2024

Amt. in Rs.

SCHEDULE 4-SECURED LOANS AND BORROWINGS:	2023-24	2022-23
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 #		
Add- Loan Recevied		2,696,400,000
Less- Repayment of Loan		2,696,400,000
6. Debentures and Bonds		
7. Others (Specify)		
TOTAL		-

Accounts Officer

Financial Advisor

अखिल भारतीय आयुर्विज्ञान संस्थान
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Balance Sheet as on 31.03.2024

Amt. in Rs.

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS	2023-24	2022-23
A. CURRENT LIABILITIES AND PROVISIONS		
1. Imprest	20,000	-
2. Sundry Creditors:	-	-
i) For Goods (Custom Duty to be paid)	-	-
ii) Others (Grants for HEFA Loan)	-	-
3. Advances Received	-	-
4. Interest accrued but not due on:	-	-
a) Refunded to the MoH&FW	3,970,504	21,049,065
a) Unsecured Loans/borrowings	-	-
5. Statutory Liabilities:	-	-
a) Overdue	-	-
a) Others	-	-
6. Other current Liabilities	7,350,479,127	6,158,926,244
7. Main AIIMS	-	-
TOTAL (A)	7,354,469,631	6,179,975,309
		-
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)	7,354,469,631	6,179,975,309

Accounts Officer

Financial Advisor

अखिल भारतीय आयुर्विज्ञान संस्थान
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Balance Sheet as on 31.03.2024

Amt. in Rs.

		2023-24					2022-23				
	SCHEDULE-8 (Fixed Assets)	Cost/valuation As at beginning of the year	Additions during the year	Condemnation	Depreciation	Cost/ Valuation at the year end	Cost/valuation As at beginning of the year	Additions during the year	Condemnation	Depreciation	Cost/ Valuation at the year end
	FIXED ASSETS DISCRIPTION										
A.	FIXED ASSETS:						-	-	-	-	-
1	LAND:						-	-	-	-	-
	a)Freehold / Leasehold	895,504,881.00	-			895,504,881	895,504,881	-	-	-	895,504,881
2	BUILDINGS:	-	-			-	-	-	-	-	-
	a) On Freehold Land	30,533,810,376.37	55,732,752.00	-	126,639,270	30,462,903,858	30,652,650,535	6,870,233	-	125,710,391	30,533,810,376
	b) Capital Work in Progress	460,303,700.00	222,963,000.96	-	132,731	683,133,970	460,303,700	-	-	-	460,303,700
3	PLANT MACHINERY & EQUIPMENT	38,147,917,778.39	3,033,642,878.25	118,885,025.87	753,952,948	40,308,722,683	36,741,353,789	2,173,119,767	93,645,884	672,909,894	38,147,917,778
4	Vehicles	115,694,281.60	16,545,147.68	1,770,621.00	4,454,153	126,014,656	93,106,029	28,187,094	1,590,333	4,008,508	115,694,282
5	Furniture	82,921,647.80	20,148,619.48	-	4,729,582	98,340,686	59,810,328	25,690,672		2,579,352	82,921,648
6	Computer/Peripherals	294,927,992.95	33,734,717.34	5,946,799.40	12,715,442	310,000,469	267,962,130	40,903,084	-	13,937,221	294,927,993
7	Library Books	1,847,174,415.12	246,913,765.92	11,068.00	-	2,094,077,113	1,532,979,529	314,194,886	-	-	1,847,174,415
	TOTAL OF CURRENT YEAR	**72,378,255,073.23**	**3,629,680,881.63**	**126,613,514.27**	**902,624,126**	**74,978,698,315**	**70,703,670,921**	**2,588,965,736**	**95,236,217**	**819,145,367**	**72,378,255,073**
	TOTAL OF PREVIOUS YEAR							-			

Accounts Officer **Financial Advisor**

आंखेल भारतीय आयुर्विज्ञान संस्थान
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Balance Sheet as on 31.03.2024

Amt. in Rs.

SCHECULE 10 - INVESTMENTS - OTHERS	2023-24	2022-23
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debenutres and Bonds		
5. Subsidiaries and Joint Venutres		
6. Others	861,600,000	611,600,000
8. Investment of Donations		
TOTAL	861,600,000	611,600,000

Accounts Officer **Financial Advisor**

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Balance Sheet as on 31.03.2024

SCHEDULE 11A **Amt. in Rs.**

Current Assets, Loans, Advances etc.	2023-24	2022-23
CURRENT ASSETS:		
1. Inventories/Advances for Procurement		-
a) M&E Foreign Purchase	320,663,824	320,663,824
b) M&S	9,782,099	9,782,099
c) Stock-in-trade		-
Finished Goods		-
Work-in-progress		-
2. Sundry Debtors:		-
a) Debts Outstanding	14,958,808	8,548,327
b) Others (outside recoveries)	3,245,441	4,887,397
c) Misc. recoveries receivable from Centres (Engg. Work)		76,000
3. Cash balances in hand (including cheques/ drafts and imprest)	204,201	3,978,845
4. Bank Balances:		-
a) With Scheduled Banks:		-
On Current Accounts / Saving Account	11,540,844,679	2,107,750,841
On Deposit Accounts / FDRs	2,696,919,723	5,477,957,030
b) With non-Scheduled Banks:		-
On FDRs		-
on FDRs		872,500,001
On Savings Accounts		-
5. Duty and Avances Others		65,108,462
TOTAL (A)	14,586,618,775	8,871,252,827

SCHEDULE 11B		**-**
LOANS, ADVANCES AND OTHER ASSETS		
1. Loans:		**-**
a) Staff	**6,149,149**	**7,943,934**
b) Other Entities engaged in activities/objectives similar to that of Entity		**-**
c) Other (Adv for purchase)		**-**
2. Advances and other amounts:-		**-**
a) On Capital Account		**-**
b) Letter of Credit	**53,149,281**	**190,482,162**
c) Custom Duty	**137,992,347**	**132,265,689**
d) PDA	**29,745,034**	**4,679,018**
3. Income Accrued:		**-**
a) On Investments from Earmarked / Endowment Funds		**-**
b) On Investments - Others		**-**
c) On Loans and Advances		**-**
d) Others	**13,372,588,571**	**11,495,026,243**
(includes income due unrealised - Rs……)		**-**
4. Claims Receivable:		**-**
TOTAL (B)	**13,599,624,382**	**11,830,397,046**
Total (A+B)	**28,186,243,157**	**20,701,649,873**

Accounts Officer **Financial Advisor**

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Income and Expenditure as on 31.03.2024

Amt. in Rs.

SCHECULE 13 - GRANTS /SUBSIDIES	2023-24	2022-23
(Irrevocable Grants & Subsidies Received)		
1. Central Government	40,155,150,028	35,652,233,698
2. State Government(s)		
3. Government Agencies		
4.Institutions/ Welfare Bodies		
5.International Organisations		
6.Others (Specify) PMJAY Transf. from Hospital		
TOTAL	40,155,150,028	35,652,233,698

Accounts Officer **Financial Advisor**

अखिल भारतीय आयुर्विज्ञान संस्थान
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Income and Expenditure as on 31.03.2024

Amt. in Rs.

SCHECULE 12 - INCOME FROM SALES / SERVICES	2023-24	2022-23
1) Income from Sales		
1. Sale of Finished Goods		
2. Sale of Raw Material		
3. Sale of Scraps	2,832,000	592,890
2) Income from Services	-	
a) Hospital receipts	636,480,030	598,458,016
b) Professional / Consultancy Services	-	
c) Agency Commission and Brokerage	-	
d) Maintenance Services (Equipment/Property)	-	
e) Others	6,282,712	1,641,956
TOTAL	645,594,742	600,692,862

Accounts Officer **Financial Advisor**

अखिल भारतीय आयुर्विज्ञान संस्थान
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Income and Expenditure as on 31.03.2024

Amt. in Rs.

SCHEDULE 14 - FEES/SUBSCRIPTIONS	2023-24	2022-23
1. Tuition Fee	92,187,443	90,278,201
2. Licence Fee	15,661,231	22,514,900
3. Seminar/Program Fees		
4. Exam. Receipt		
5. Others	109,490,475	95,147,617
Total	217,339,149	207,940,718

Accounts Officer

Financial Advisor

अखिल भारतीय आयुर्विज्ञान संस्थान
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Income and Expenditure as on 31.03.2024

Amt. in Rs.

SCHEDULE 17 - INTEREST EARNED	2023-24	2022-23
1. On Term Deposits:		
a) With Scheduled Banks	138,676,536	39,134,769
b) With Non-Scheduled Banks	-	
c) With Institutions	-	
d) Interest earned refunded MOH&FW	-	
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	503,741	409,761
b) Others		
4. Inerest on Debtors and other Receivables		
TOTAL	139,180,277	39,544,530

Accounts Officer

Financial Advisor

अखिल भारतीय आयुर्विज्ञान संस्थान
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Income and Expenditure as on 31.03.2024

Amt. in Rs.

SCHEDULE 18 - OTHER INCOME	2023-24	2022-23
1. Misc. Receipt	166,969,532	81,716,699
2. Misc. Estt. Receipts	-	-
3. Exam Section Receipt	1,686,449,925	600,000,000
4. Other Income	32,354,500	15,586,019
5. Research Other Income		-
TOTAL	1,885,773,956	697,302,718

Accounts Officer **Financial Advisor**

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Schedules forming part of Income and Expenditure as on 31.03.2024

Amt. in Rs.

SCHEDULE 20 - ESTABLISHMENT EXPENSES	2023-24	2022-23
Salaries and Wages	21,403,136,047	19,733,090,023
Travelling Allowance	57,429,032	139,748,847
Learning Resource Allowance	16,155,241	
Contibution to Provident Fund	-	
Staff Welfare Expenses (DLIS)	-	
Expenses on Employees ":Retirement and Terminal Benefits"	2,691,708,595	2,451,064,763
Others	505,220,620	190,691,458
Leave Salary Pension Contribution		
Total	24,673,649,535	22,514,595,091

Accounts Officer

Financial Advisor

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
अखिल भारतीय आयुर्विज्ञान संस्थान
Schedules forming part of Income and Expenditure as on 31.03.2024

Amt. in Rs.

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.	2023-24	2022-23
a) Purchases of hospital stores others specify	1,916,190,377	-
b) Manpower Outsourcing Charges	3,538,606,015	1,832,678,963
c) Office Expenses	1,072,401,787	858,816,650
d) Electrictiy and power	1,136,455,592	1,180,099,071
e) Water charges	65,233,956	52,632,946
f) Insurance	2,125,690	-
g) Repairs and maintenance (AMC/CAMC)	123,142,148	-
h) Repairs and mainteance of Buildings	1,614,093,930	808,028,945
i) Rent, Rates and Taxes	84,572,484	10,399,585
j) Vehicles, Running and Maintenance	5,171,360	-
k) Postage, Telephone and Communication Charges	1,361,163	-
l) Printing and Stationary	1,121,385	-
m) Travelling and Conveyance Expenses	114,358,408	-
n) Expenses on Seminar/Workshops	-	-
p) Expenses on Fees	-	-
t) Provision for Bad and Doubtful Debts/Advances	-	-
u) Irrecoverable Balances Written-off	-	-
v) Other Expenses	-	-
w) Hostel	-	-
x) Bank Charges	436,481	-
y) Advertisement and Publicity	-	-
z) Others (specify)(Contingency charge)	282,853,042	2,564,203,015

SCHEDULE 21B - Material and Supplies	2023-24	2022-23
Hospital stores M&S	6,052,481,603	5,228,570,009
Others M&S	20,000,000	43,651,197
Total	6,072,481,603	5,272,221,206

Accounts Officer **Financial Advisor**

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
अखिल भारतीय आयुर्विज्ञान संस्थान
Schedules forming part of Income and Expenditure as on 31.03.2024

Amt. in Rs.

SCHEDULE 23- INTEREST DEBIT/ BANK CHARGES	2023-24	2022-23
a) On fixed Loans	-	
b) Bank Charges	1,458	1,003
c) Transfer to the Ministry of Health and Family Welfare	-	22,100,000
Total	1,458	22,101,003

Accounts Officer **Financial Advisor**

अखिल भारतीय आयुर्वज्ञिान संस्थान
All India Institute of Medical Sciences

SCHEDULED 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. However, depreciation has been charged on the assets acquired in FY 2023-2024. Computation of depreciation has been made on straight line method after taking into account the actual life of assets subtracting the salvage value of assets.
3. Consolidated final accounts of AIIMS New Delhi have been prepared for FY 2023-2024.
4. Interest figures also include interest earned on revenue receipts of the Institute.
5. 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.
6. 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.
7. Income of the Institute is exempted from Income-Tax under Section 11 of the Income Tax Act, 1961. No provision for the TDS/Income Tax liability is required.
8. All Assets (Machinery & Equipment, 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.
9. A statement showing the expenditure made by various Project Investigators for Research Projects during 2023-24 and balance amount lying with the Institute as on 31-03-2024 is attached with the Accounts.
10. Advances for treatment under the packages were treated as revenue and expenditure incurred against hose 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 31-03-2024 are prepared in the Uniform format and grouping and regrouping and classification, wherever necessary have been changed /adopted for better presentation or as per Audit Observation.
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 consolidated 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.

Accounts Officer **Financial Advisor** **Sr. Financial Advisor**

Director

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI

Receipts and payment account of General Provident Funds for the year 2023-24

Receipts	2023-24	2022-23	payment	2023-24	2022-23
Opening Balance	149,213,328.54	145,102,805.00	GPF Withdarwal	1,710,919,355.00	1,514,248,692.00
Subscription /Receipts	1,027,200,437.46	1,025,042,513.00	Investment during the year	279,999,999.00	1,069,999,984.00
Interest	480,520,998.00	535,982,424.00	Bank Charges	1,593.00	649.00
Investment Maturity	340,699,997.00	1,034,999,977.00	Commission	0.00	7,665,065.00
			Closing Balance	6,713,814.00	149,213,329.00
Total	**1,997,634,761.00**	**2,741,127,719.00**	**Total**	**1,997,634,761.00**	**2,741,127,719.00**

INCOME AND EXPENDITURE STATEMENT OF GENERAL PROVIDENT FUNDS OF AIIMS FOR THE Financial year 2023-24

Expenditure	2023-24	2022-23	Income	2023-24	2022-23
Interest paid on Subscription	564,074,347.00	553,464,626.00	Interest received	480,520,998.00	535,982,424.00
Bank Charges	1,593.00	649.00	Add.adj. Of Subscription	0.00	0.00
Commission	0.00	7,665,066.00			
Excess of income over expenditure	0.00		Excess of Exp. Over Income with Bank Charges	83,554,942.00	25,147,917.00
Total	**564,075,940.00**	**561,130,341.00**	**Total**	**564,075,940.00**	**561,130,341.00**

Accounts officer

Financial Advsior

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI
BALANCE SHET OF GENERAL PROVIDENT FUNDS FOR THE AIIMS AS ON 31st MARCH 2024

Liabilities	2023-24	2022-23	Assets	2023-24	2022-23
Opening Balance(GPF)	7,834,751,218.54	7,918,037,352.00	Investment Opening Balane	7,291,976,524.00	7,404,521,098.00
			Less: Correction SAR		3,000,000.00
GPF Sub. Recd. During the year	1,027,200,437.46	1,025,042,513.00	Add: Investment made	279,999,999.00	1,069,999,984.00
Add: Interest Credited to GPF Account	564,074,347.00	553,464,626.00	Less : Invesment Maturity	340,699,997.00	1,034,999,977.00
			Less: Difference in Investment Value		144,544,581.00
Less: Withdrawal /Payment	1,710,919,355.00	1,514,248,692.00	Total	7,231,276,526.00	7,291,976,524.00
Less: Correction SAR		3,000,000.00	Cash Book Closing Balance	6,713,814.00	149,213,328.54
Less: Difference in Investment Value		144,544,581.00	Add: excess of expenditure over income during the year 22-23	393,561,366.00	368,413,449.00
			Add: excess of expenditure over income during the year	83,554,942.00	25,147,917.00
Total	**7,715,106,648.00**	**7,834,751,218.00**	**Total**	**7,715,106,648.00**	**7,834,751,218.54**

Accounts officer **Financial Advsior**

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 2024

1. We have audited the attached Balance Sheet of All India Institute of Medical Sciences (AIIMS), New Delhi, as at 31 March 2024, and the Income & Expenditure 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 Earmarked/Endowment Funds (Schedule 3) - ₹303.58 crore

A.1.1.1 Amount received as grants or assistant, or retained by the entity to be utilized for specific of earmarked purposes and remaining to be expended/utilized for specific purpose for which these are intended are required to be disclosed under this schedule -3 earmarked/endowment funds.

AIIIMS has been operating various bank accounts for receiving grant for specific purposes i.e. rare disease treatment, poor patient treatment/ medicine/lab test etc. from various agencies such as PMO, Delhi Arogya Kosh and others. Similarly AIIMS received funds under Corporate Social Responsibility scheme (CSR) for various purposes. The balances in the above accounts, as on 31.03.2024, amounting to ₹158.30 crore were being depicted under current liabilities (Schedule 7) instead of schedule – 3 earmarked/endowment funds. This has resulted in overstatement of Current Liabilities and understatement of Earmarked/Endowment funds by ₹158.30 crore.

A.1.2 Current Liabilities and Provisions (Schedule 7) - ₹735.45 crore

A.1.2.1 AIIMS appointed (25.03.2009) M/s HSCC (India) Limited as consultant for construction of 16 Buildings/ Hospitals/Hostels/Centres in the first phase. The HSCC, from September 2014 to March 2023, remitted ₹93.90 crore to AIIMS as interest earned on the advances received for above mentioned work.

AIIMS, however, has refunded only ₹61.71 crore to Ministry of Health & Family Welfare (MoH&FW) till 31.03.2024. The remaining interest of ₹32.19 crore was neither refunded to MoH&FW nor depicted as refundable under current liabilities. This has resulted in understatement of Current Liabilities and overstatement of Surplus/Corpus by ₹32.19 crore.

A.2 Assets

A.2.1 Current Assets, Loans and Advances (Schedule 11) - ₹2818.62 crore

A.2.1.1 Bank Reconciliation Statement (BRS) of bank account no. 10874584010, reflects an amount totalling ₹77.02 crore as cheque issued but not debited by the bank. These cheques were issued by AIIMS between the periods from 01.02.2010 to 07.09.2023 and were yet to be en-cashed by the receiver. As on 31.03.2024, all of these cheques had become time barred and could not be en-cashed. The institute however did not cancel the above cheques and write back the above amount. This has resulted in understatement of Current Assets and Current Liability by ₹77.02 crore.

B. General Provident Fund Account

B.1 Balance Sheet

B.1.1 Assets

B.1.1.1 AIIMS maintains a separate General Provident Fund account and places the same along with consolidated accounts of the Institute. As per GPF accounts for the year 2023-24, an amount of ₹771.51 crore has been shown as closing balance under the assets. Audit however noticed that Multi Option Deposit (MOD) balance amounting to ₹14.31 crore available in the bank as on 31.03.2024 was not included in the assets side of balance sheet of GPF. This has resulted in understatement of current assets by ₹14.31 crore under GPF accounts.

C. General

C.1 An amount of ₹1337.26 crore has been depicted as other advances in the Schedule11B (Loans, Advances and Other Assets). Out of the total amount of ₹ 1337.26 crore, ₹ 1259.38 crore pertains to AIIMS (Main). Out of these advances, 109 number of advances amounting to ₹509.28 crore are very old, ranging from three years to more than eight years and figuring in the annual accounts without any addition/adjustment during the financial year 2023-24. The details are given below:

33 numbers of Advances amounting to ₹34.77 crore are being reflected continuously in the current assets without any change in the figure i.e. there is no addition/adjustment in the advances for more than eight years.

22 numbers of Advances amounting to ₹17.45 crore are being reflected continuously in the current assets without any change in the figure i.e. there is no addition/adjustment in the advances for more than seven years.

14 numbers of Advances amounting to ₹35.23 crore are being reflected continuously in the current assets without any change in the figure i.e. there is no addition/adjustment in the advances for more than six years.

9 numbers of Advances amounting to ₹22.16 crore are being reflected continuously in the current assets without any change in the figure i.e. there is no addition/adjustment in the advances for more than five years.

15 numbers of Advances amounting to ₹76.17 crore are being reflected continuously in the current assets without any change in the figure i.e. there is no addition/adjustment in the advances for more than four years.

16 numbers of Advances amounting to ₹323 crore are being reflected continuously in the current assets without any change in the figure i.e. there is no addition/adjustment in the advances for more than three years.

It was pointed out in previous year that Jai Prakash Narayan Apex Trauma Centre (JPNATC) had depicted an amount of ₹ 65.00 lakh as advance paid to Hospital Services Consultancy Corporation Limited (HSCC) under Schedule 11 (Current Assets, Loan and Advances etc). This advance is pending till today with HSCC since 2010-2011. Efforts may be taken to settle the advances.

Similar observation was issued to the AIIMS during previous years.

C.2 During 2023-24, the AIIMS adjusted ₹46.10 crore against the advances sanctioned during 2023-24 or before. Out of these, no vouchers or files were produced for Rs.3.29 crore to audit. Thus, the accuracy of the remaining amount of ₹3.29 crore shown as adjusted advance in the annual accounts of the AIIMS could not be verified.

C.3 An amount of ₹735.45 crore has been depicted as "Other Current Liabilities" in Schedule 7 of the AIIMS accounts. Out of the total amount of ₹735.45 crore, ₹713.34 crore pertains to AIIMS (Main). Examination of these liabilities (AIIMS-Main) reveals that there are seven numbers of items of liabilities amounting to ₹7.95 crore, ranging from five to nine years, the amount of which is unchanged. Details are as follows:

(a) four number of liabilities amounting to ₹27 lakh are being depicted in the current liability without any addition

or adjustment from more than nine years.

(b) one case of liability amounting to ₹43 lakh is depicted in the current liability without any addition or adjustment from more than eight years.

(c) one case of liability amounting to ₹5.62 crore is being depicted in the current liability without any addition or adjustment from more than six years.

(d) one case of liability amounting to ₹1.63 crore is being depicted in the current liability without any addition or adjustment from more than five years.

C.4

(i) An adverse balance of ₹1.78 crore has been depicted under the head "Cochlear Patient treatment account" under the other current liabilities AIIMS (Main) account.

(ii) An adverse balance of ₹1.02 crore under the head "Outside recovery" was as per closing balance of the previous year. During the financial year 2023-24, the AIIMS adjusted ₹6.24 lakh only and thus, ₹95.90 lakh remained adverse in the current financial year.

(iii) There is an adverse balance of ₹8.17 crore under advance to the M/s Delhi Metro Rail Corporation.

C.5 The Bank Reconciliation Statement (BRS) of Jai Prakash Narayan Apex Trauma Centre (JPNATC) reflects cheques not deposited but credited by Bank worth ₹42.36 lakh for the period July 2015 to February 2024. These payments are outstanding for settlement as the details/particulars of these deposits is not identified by JPNATC. Efforts may be made to reconcile the difference.

C.6 National Drug Dependence Treatment Centre (NDDTC) does not maintain Asset Register for Library Books.

C. 7 The Cardio Thoracic Neurosciences Centre (CN Centre) maintains Earmarked Fund/Endowment Fund viz Gamma Knife A/C, NSC Payment A/c, NS PT A/c, CT Patient A/c, CT Payment A/c, Angio Pts. A/c under Schedule 3 of Annual Accounts.

1. The Cash Book Statement for the month of March 2024 shows cheque deposited in bank but not credited of amount ₹17.12 lakh in Gamma Knife Account of period June 2008 to October 2019, excess debited amount of ₹39.01 lakh for which no cheque was issued (pertaining to period February 2008 to February 2009) and excess credited amount of ₹23.94 lakh pertaining to period April 2004 to April 2015. As these are very old transactions, these need to be reconciled urgently.
2. Similarly, Cash Book Statement of NS. PT. A/c for the month of March 2024 shows excess debited amount of ₹17.68 lakh for which no cheque was issued (pertaining to period April 2004 to December 2010), cheque deposited in bank but not credited of amount ₹18.41 lakh (pertaining to period December 2004 to October 2020) and excess credited amount of ₹10.61 lakh of the period October 1994 to October 2019. As these are very old transactions, these need to be reconciled urgently.
3. Cash Book Statement of CT. PT. A/c (10874584258) for the month of March 2024 shows amount of ₹76.57 lakh for which cheques were deposited in bank but not credited to account (pertaining to period September 1998 to July 2020), excess debited amount of ₹13.47 lakh for which no cheque issued (of period January 1992 to June 2016) and excess credited amount of ₹53.06 lakh in the bank account pertaining to period March 1993 to October 2019. As these are very old transactions, these need to be reconciled urgently.
4. The CTC Payment account shows in Cash book statement for March 2024 cheque issued but not debited by bank of amount ₹27.41 lakh pertaining to period July 2016 to December 2023. No Payment Certificate may be obtained from Bank and necessary treatment be made in account accordingly.

C.8 Uniform Format of Accounts prescribes that the accounts of CABs shall be prepared on Accrual Basis. The format also requires the CABs to prepare Receipt and Payment account apart from the Balance Sheet and Income & Expenditure Accounts.

AIIMS has been preparing its accounts on Cash Basis. Further it does not prepare a consolidated Receipt and Payment Accounts. This contravenes extant instructions issued by Ministry of Finance for preparation of accounts.

C.9 In AIIMS (Main) A/c an amount of ₹14.04 crore has been depicted as opening balance under Schedule 03 earmarked/endowment fund. The detail/bifurcation of amount, Agency (ies) from which the above amount was received was called for but the same was not provided to audit. Thus the balance of ₹14.04 crore under schedule-3 earmarked/ endowment fund could not be verified in audit.

C.10 An amount of ₹50.00 lakh has been shown as Debt outstanding under currents assets of AIIMS main. As per information furnished to audit, this amount has been given to National Drugs Dependence Treatment Centre (NDDTC) as Loan. The scrutiny of NDDTC account revealed that no such liability of loan is pending against the NDDTC. Thus the assets amounting to ₹50.00 lakh could not be verified in audit.

C.11 As per information furnished to audit 23 bank accounts were included under current assets.Out of these, the record relating to following accounts were not provided:-

(Amount in ₹)

Sl. No.	Name of account	Balances
1	PD account	14153908
2	PP programme	77930
3	RAN revolving umbrella scheme	18771709

Due to non- supply of records, the above balances could not be verified in the audit.

C.12 In AIIMS (main) account, ₹16.01 crore has been shown as miscellaneous receipt under schedule-14 other income. Out of ₹16.01 crore, ₹40.49 lakh pertains to receipts against condemnation. Audit however noticed that during 2023-24, no deduction of assets has been shown under Schedule-6 Fixed assets.

The list of condemnations/ fixed assets/items along with their book value against which the above amount was received, was called for vide audit enquiry 09 dated 02.09.2024 however the same was not provided. In absence of above, the authenticity of above receipts and disposal of fixed assets against which the above receipts were received could not be verified in audit. Further the non-availability of list of condemned items with accounts department indicates lack of internal coordination between accounts and store department of the institute.

C.13 An amount of ₹36.09 crore has been included in the total amount of ₹556.59 crore depicted in the annual accounts of AIIMS (main), Geriatric Block as "other current liability". This amount has also been depicted as current asset as closing balance. Audit, however, noticed that, as on 31.03.2024, only ₹31.36 crore was available with the Institute. This difference between assets and liability needs reconciliation.

C.14 Schedule 8 – 'Fixed Assets', of the annual accounts of the AIIMS (Main) and other centres of the AIIMS disclosed assets valued at ₹7497.87 crore as on 31 March 2024. However, an Assets Register, required to be maintained in Form GFR-22 under General Financial Rules 2017 has been maintained by the AIIMS only for the assets acquired after the financial year 2020-21 onwards. In the absence of Assets Register for all the assets, the value of assets acquired prior to 2020-21, could not be verified in audit.

C.15 AIIMS has started charging depreciation on fixed assets as disclosed in Schedule-8 from the financial year 2020-21 onwards and no depreciation has been charged on the fixed assets acquired prior to year 2020-21. This issue has featured in our comments since the year 2020-21 however, despite assurances AIIMS has not taken any corrective measures and has not charged depreciation on the fixed assets acquired prior to the year 2020-21.

Audit noticed that JPNATC has not charged depreciation on Buildings on freehold land of ₹68.91 crore over the years.

Further, NDDTC has depicted library books of cost/valuation at beginning of the year amounting to ₹6.71 crore and additions during the year worth ₹33.70 lakh. However, NDDTC has not depreciated the cost of Library books over the years.

In view of the above audit is unable to ascertain and verify the actual value of these assets and the impact of non-charging of depreciation on accounts.

D. Grants-in Aid

During the year 2023-24, AIIMS received total grants of ₹4,489.67 crore from the ministry (Grant in Aid- Salary ₹ 2,550.00 Crore, Grant in Aid-General ₹ 1,515.00 crore, Grant in Aid-Capital Assets ₹414.67 crore and SAP ₹10.00 crore). In addition, AIIMS had ₹48.54 crore as Opening Balance under Grant in Aid-Salary. Out of the total grants of ₹4,538.21 crore (₹4,489.67 crore + ₹48.54 crore) available with AIIMS, ₹4422.07 crore was utilised (Grant in Aid-Salary ₹2,419.74 crore, Grant in Aid-General ₹1,577.66 crore (excess amount of ₹62.66 crore from its own resources) Grant in Aid-Capital Assets ₹414.67 crore and SAP ₹10.00 crore). AIIMS transferred ₹178.80 crore of unspent Grant in Aid -Salary from TSA to its saving account for the payment of the salary for the month of March 2024 to be paid in April 2024.

E. Management Letter

Deficiencies which have not been included in the Audit Report have been brought to the notice of management of AIIMS 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 Accounts and Receipt & Payment Accounts 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 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 2024; 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

(Rajeev Kumar Pandey)
Place: New Delhi **Director General of Audit**
Date: **(Central Expenditure)**

Annexure

1. Adequacy of internal audit system

Details of total number of units planned and number of units actually audited during the year 2023-24 was not provided by AIIMS. There was no internal audit manual.

2. Adequacy of Internal Control System

a. AIIMS has been preparing its accounts on Cash Basis and Receipt and payment account too is not prepared.

b. No Cash Books maintained by the JPNATC for various accounts.

c. No effective steps were taken to adjust various advance which were outstanding for many year.

d. The AIIMS was not maintaining fixed assets register as per the prescribed format for the assets acquired up to year 2019-20.

e. No depreciation has been charged on the fixed assets acquired prior to year 2020-21

f. Non availability of list of condemned items with accounts department indicates lack of internal coordination between accounts and store department of the institute.

g. AIIMS 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.

h. 55 paras of external audit for the period from 1996-98 to 2021-22 were outstanding as on 31 March 2023.

3. System of physical verification of Assets

As per Para 12 of the Significant Accounting Policy, physical verification was done once in a year, however, AIIMS could not provide any evidence regarding physical verification of fixed assets having been conducted for the year 2023-24.

4. System of physical verification of inventory

As per Para 13 of the Significant Accounting Policy, physical verification was done once in a year, however, AIIMS could not provide any evidence regarding physical verification of inventory like books and publications, stationery and other consumables having been conducted for the year 2023-24.

5. Regularity in payment of dues

As per accounts, no payments for over six months in respect of statutory dues were outstanding as on 31.03.2024.



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