I feel privileged to present the Fifty-seventh Annual Report and audited statement of accounts for the year 2012–2013. The accomplishments and achievements of the All India Institute of Medical Sciences (AIIMS), New Delhi reflect a shared dedication of the members of the AIIMS fraternity, from the researchers who advance our understanding of the causes of ill health, to the educators who train new generations of physician and scientists, the practitioners whose services change people’s lives, and the staff that supports a common vision. I am pleased to highlight in this report a few of our remarkable accomplishments.

Established in 1956 by an Act of the Indian Parliament with the objective of developing a strong curricular foundation for undergraduate and postgraduate healthcare education in India, the Institute continually seeks to achieve a high standard of healthcare education, research and service. It is recognized, in India and globally, as a medical institution that best combines excellent medical education with cutting edge research and quality healthcare at affordable cost.

Education
AIIMS has 52 teaching Departments and Centres, and manpower of over 10,000 including over 500 faculty members, who are supported by resident doctors, nurses, paramedics, scientists, non-medical officers and staff. It produces a large number of specialists (MD/MS), super-specialists (DM/MCh), PhD scholars and allied health and basic sciences experts, including nurses and paramedical professionals. New post-graduate courses were started last year in pulmonary medicine, surgical oncology and geriatric medicine.

AIIMS continuously analyses how medicine and science are taught so as to nurture a passion for scholarship and innovation. During the last few years, newer skill acquisition methods through medical simulation systems for medical education including practical skill development in experimental laboratories and surgical situation were put in place for the benefit of the students and resident doctors. The Department of Anatomy has established a state of the art eLearning facility. By establishing a plastination facility, the department was also able to overcome the shortage of bodies that are needed for practical teaching of gross anatomy. The Neurosurgery Department set up a Neurosurgery Education and Training School (NETS) and Neurosurgery Skills Training Facility (NSTF) in collaboration with IIT-Delhi to disseminate information about the surgical management of diseases involving the central nervous system and to conduct cutting edge research. These facilities will focus on development of skills training modules and curriculum, global e-Learning platform, computerized evaluation of neurosurgery skills and virtual reality simulation platforms.

Our scholars are leading institutes of medicine, science and education and biomedical laboratories in India and abroad for the past many decades. They have also served on many national expert groups on healthcare issues. It is due to this single-minded devotion to developing dynamic leaders with creativity, intellectual rigour and professionalism, that AIIMS has retained its position at the top of the India Today’s Best Medical Schools survey. Significantly, AIIMS is also in third place behind IISc, Bengaluru and IIT, Mumbai in the list of the Times Higher Education India Reputation Rankings. The ranking is an indicator of global academic prestige in teaching and research, and is based on the results of a survey of over 16,600 academics from across the globe. It is, therefore, not surprising that the central government has recently opened MBBS courses modelled on our curriculum in six new AIIMS in different states. AIIMS conducted the entrance examination for selection of students to the MBBS course for these 6 new AIIMS at Rishikesh, Bhubaneswar, Bhopal, Raipur, Jodhpur and Patna. AIIMS is also playing a significant role in nurturing and mentoring these institutions. For example, consultative workshops were organized for directors of the 6 new AIIMS in emergency and trauma care to help standardise the technological platform in emergency care.

AIIMS offered Continuing Medical Education to thousands of physicians and healthcare professionals. The diverse portfolio provided extraordinary opportunities to maintain and improve skills, increase knowledge and improve performance. The Institute organized/hosted 161 workshops,
symposia, conferences and training programme in collaboration with various national and international agencies. The Jai Prakash Narain Apex Trauma Centre made significant contribution towards capacity building in India in both basic life support and advanced trauma life support in collaboration with the National Disaster Management Authority and the Ministry of Health and Family Welfare. The centre was also engaged in a major initiative to upgrade the knowledge and skill base of nurses and to give them empowered positions through formation of special cadres such as Nursing Informatic Specialists, Trauma Nurse Coordinators, Hospital Infection Control Nurses and Wound Care Nurses. This reorganization led to improvement in effectiveness and efficiency of clinical services, and to improved initiative and innovation in the academic sphere, indicated by the fact that nurses from the centre have won more than 70 awards for research in international and national meetings in the past 4 years. The Department of Surgical Disciplines trained more than 100 surgeons from all over the country in laparoscopic surgery at the Minimally Invasive Surgery Training Centre. The Telemedicine Facility was charged with developing novel ways to expand offerings to a wider and more diverse professional audience.

In an effort to foster a culture that values and promotes diversity inclusion, mentoring and service, AIIMS has initiated an honorary position of Professor-in-charge Students’ Welfare to look after the interests of its diverse student community. It also organized various orientation programmes including an integrated self-enrichment orientation programme for fresh MBBS students.

**Research**

AIIMS researchers contributed to numerous scientific advances in 2012–13. Over 508 research projects were conducted in 2012–13 and the institute attracted extramural research grants of over Rs 69 crores, an increase of over 6% from the previous year. Our faculty obtained significant international research grants in frontier and cutting edge biomedical areas such as structural biology, immunology, biotechnology, virology, neonatology, foetal medicine, epidemiology and cancer. More than 200 research projects were successfully completed this year. Hopefully, these projects would translate to benefit to our patients. During the year the faculty and scientists of the Institute published over 1600 research papers in national and international journals and about 250 monographs, chapters in books and books. Over 500 young scientists at different positions like research fellows, research associates and PhD students are engaged in major research projects.

AIIMS continues to be active in its partnership with the Wellcome Trust, the Department of Biotechnology, Department of Science and Technology and Indian Council of Medical Research, and Government of India, to support research and develop projects that would provide innovative healthcare products at affordable costs. The Stanford-India Bodesign Programme funded by the Department of Biotechnology, Ministry of Science and Technology, and Stanford University is a successful initiative of this type. National bodies like the Indian Council for Medical Research and various ministries of the Government of India regularly request various departments of AIIMS to conduct studies on public health issues of national relevance.

AIIMS took up key initiatives to encourage integration and collaboration across disciplines to accelerate biomedical and scientific breakthroughs. The work on building a Convergence Centre, which will house state-of-the-art technology for research based on modern platforms is nearing completion. It will serve as a knowledge hub that will allow AIIMS to manage and store large volumes of clinical and research data and enhance our research capacity. Hopefully, it will foster broad clinical and translational collaborations towards identifying ways to speed new therapies to patients. The Neurosurgery Department set up a DBT Center of Excellence for Advanced Epilepsy in collaboration with the National Brain Research Center, Manesar.

Essential to the enterprise of advancing science at AIIMS is the constant drive to develop effective new methods for educating the next generation of scientists, so as to help them meet the needs of a rapidly evolving health care profession. To lead this effort, the Research Section has been augmented and reorganized under the Dean and Sub Dean, Research. Intramural grants of Rs 5 crores were disbursed to talented young faculty for undertaking 58 new research projects in diverse areas including cardiology, neurosciences, stem cell studies, drug designing, protein research, genetics and immunology. AIIMS felicitated 8 faculty members for their outstanding work and contribution to
health research. During the year, the Research Section took a number of steps to enhance research capacity by imparting training in research techniques using platform based technology. About 60 young faculty members were trained in cutting edge research areas of molecular medicine.

The German biochemist Robert Huber, who received the Nobel Prize in 1988 for his work on protein and its application in medicine, delivered the first AIIMS foundation day lecture. Professor Huber talked about his pioneering research work on proteins and their structures; and their position and role at the interface of Physics, Chemistry and Biology.

Clinical care
The AIIMS main hospital and its centres - the Cardiothoracic and Neurosciences Centre (CN Centre), the Jai Prakash Narain Apex Trauma Centre (JPNATC), the Dr. B.R. Ambedkar Institute–Rotary Cancer Hospital (Dr. BRAIRCH), the Dr. Rajendra Prasad Centre for Ophthalmic Sciences (RPCOS), the Centre for Dental Education and Research (CDER), the Centre for Behavioural Sciences (National Drug Dependence Treatment Centre, NDDTC) - have a total bed strength of 2428, including day care beds. During the year 2012–2013, the Institute attended to about 28.8 lakh outdoor patients and 2.1 lakh inpatients and provided surgical intervention for close to 1.5 lakh patients, because of its efficient disbursal of services as reflected in various parameters of patient care services, e.g. average bed occupancy of about 85%, average hospital stay of about 5 days, and net death rate of below 2%. While AIIMS advances the delivery of health care in India, it is also taking a leadership role in service throughout the developing world. An increasing number of foreigners are coming for treatment to AIIMS, mostly from South and South-East Asia. This trend was particularly salient in the departments of neurosurgery, orthopaedics, oncology and surgery.

AIIMS is setting up a separate outpatient facility to cater to increased patient inflow at the main hospital. The Institute is also in the process (with the help of National Informatics Centre) of creating detailed on-line data management system for patients, to make services more patient- and environment-friendly. These efforts will improve patient care as doctors would be able to access data from all hospital sources instantly. AIIMS also plans to start an outlet under the Government of India’s Jan Aushadhi scheme to provide generic medicines free of cost to patients. This will be in addition to the 24x7 pharmacy which sells medicines and surgical consumables prescribed by AIIMS at 56% discount on the maximum retail price. A night shelter with basic amenities such as a sleeping area, bathrooms and toilets was built to house about 300 patients to facilitate outpatients from other states.

The Outreach OPD of the second campus of the AIIMS was inaugurated at Jhajjar this year. The OPD provides General Medicine, Orthopaedics, Obstetrics and Gynaecology, Paediatrics, Ophthalmology, ENT, Anaesthesia and General Surgery services; supported by diagnostic and laboratory facilities, and a system of providing free generic medicines to outdoor patients. A National Cancer Institute (NCI) and a National Cardio Care Centre (NCCC) will also be set up at this campus.

AIIMS doctors and staff pooled their knowledge and creativity as never before in the service of alleviation of human suffering caused by ill health. The Department of Medicine has set up an Intermediate Reference Laboratory for diagnosis of Multi-drug resistant tuberculosis and a biosafety level-3 laboratory to conduct specialized tests for HIV and TB patients. The Department has also started a Rheumatology Day Care Centre with 6 dedicated beds to facilitate integrated treatment in the form of intravenous infusions of biological agents, pulse therapy and joint injections. The department of Neurology has started new procedures such as autonomic function and quantitative sensory testing. Orthopaedic surgeons have started computer-assisted total hip replacement procedures to ensure better quality of treatment to patients with hip joint damage. A fluid solution developed by RP Centre for Ophthalmic Sciences to preserve corneas promises to increase the window period for eye transplant (replacing a diseased or scarred cornea with a donor graft) from 4 to 14 days. The JPNA Trauma Centre is now equipped with Spine fixation under ‘O’ ARM control and Mobile CT Scan.
AIIMS policy experts provide critical insights into the design and delivery of the country’s healthcare. The Institute’s contribution to national programmes including the Integrated Child Development Services, Iodine Deficiency Disease Control Program, National Program for Control of Blindness, Reproductive and Child Health, Diarrheal disease, AIDS control and Non-communicable diseases is noteworthy. The National Drug Dependence Treatment Centre (NDDTC) in collaboration with the World Health Organization launched an E-portal —www.alcoholwebindia.in. It provides information for alcohol users, family members, policy-makers, professionals and the general public. The portal has a web-based self-help programme for people who wish to reduce or stop drinking. The NDDTC also launched a methadone maintenance treatment (MMT) programme in collaboration with the United Nations Office on Drugs and Crime (UNODC). Also, the NDDTC was requested by WHO to investigate the increasing trend of substance abuse in slum and street children, and to conduct Life Skills Training project at 15 non-governmental organizations (NGOs) in the country.

The Centre for Community Medicine is actively engaged in its mission to train leaders in primary care and health systems innovation, education and policy. Its faculty has many innovations to its credit in areas such as primary care, infectious disease, maternal and newborn health, non-communicable diseases and health systems. The centre is a part of ICMR’s national task force project on healthcare access to poor migrants in 13 Indian cities. The inputs of this study will be crucial to the implementation of the forthcoming National Urban Health Mission (NUHM) in the country.

We are fully cognizant of the problem of long waiting lists for various imaging investigations and surgical procedures covering neurosurgery, cardiac surgery, orthopaedics, ENT, surgical oncology, video EEG, etc. The setting up of 7 AIIMS in different states will bring down the demand at AIIMS, New Delhi in times to come. We are also trying to enhance bed capacity and the turnover of patients by using day care procedures and increasing the operating time.

AIIMS has made sincere and ongoing effort to live up to the mandate given to it by the Parliament as it strives to assist the government in its endeavour to provide quality health care to the Indian people. The AIIMS fraternity reaffirms the pledge that it will not rest on its laurels, and that it will harmonize its intellect, fervour and inventiveness to shape the future of medicine.

Professor M. C. Misra
Director, AIIMS
2. The Institute and its Committees

INSTITUTE BODY

1. Shri Ghulam Nabi Azad
   President
   Union Minister for Health and Family Welfare
   Nirman Bhawan, New Delhi 110011

2. Smt. Sushma Swaraj, MP (Lok Sabha)
   Member
   8, Safdarjung Lane, New Delhi 110011

3. Shri Motilal Vora, MP (Rajya Sabha)
   Member
   33, Lodhi Estate, New Delhi 110011

4. Dr Jyoti Mirdha, MP (Lok Sabha)
   Member
   31, Meena Bagh, New Delhi
   875, Sector-17B, Gurgaon, Haryana 122001

5. Professor Dinesh Singh
   Member (Ex-Officio)
   Vice Chancellor, University of Delhi, Delhi 110007

6. Shri P.K. Pradhan
   Secretary (Health), Ministry of Health and Family Welfare
   Government of India, Nirman Bhawan, New Delhi 110011
   (up to 31 January 2013)

   Shri Keshav N. Desiraju
   Secretary (Health), Ministry of Health and Family Welfare
   Government of India, Nirman Bhawan, New Delhi 110011
   (w.e.f. 20 March 2013)

7. Dr Jagdish Prasad
   Member (Ex-Officio)
   Director General of Health Services
   Government of India, Nirman Bhawan, New Delhi 110011

8. Dr M.K. Bhan
   Member
   Secretary, Department of Biotechnology, 7th Floor, Ministry of Science and Technology, CGO Complex, Lodhi Road, Block-II, New Delhi 110003

9. Dr S.P. Agarwal
   Member
   Secretary General, Indian Red Cross Society, Rafi Marg, New Delhi

10. Professor K.C. Pandey
    Member
    Department of Zoology, Lucknow University, Lucknow 226007

11. Ms Vibha Puri Das
    Member
    Secretary, Department of Higher Education, Ministry of Human Resource Development, Shastri Bhawan, New Delhi 110001
    (up to 27 May 2012)

    Shri Ashok Thakur
    Member
    Secretary, Department of Higher Education, Ministry of Human Resource Development, Shastri Bhawan, New Delhi 110001
    (w.e.f 27 July 2012)

12. Professor K.K. Talwar
    Member
    President, National Academy of Medical Sciences,
    Ansari Nagar, New Delhi 110029
13. **Dr R.A. Badwe**  
   Member  
   Director, Tata Memorial Hospital, Dr E. Borges Road,  
   Lower Parel, Mumbai

14. **Dr Ramakant Panda**  
   Member  
   Vice Chairman, Asian Heart Institute, Bandra East,  
   Mumbai, Maharashtra

15. **Dr Abdul Hamid Zargar**  
   Member  
   Director, Sher-I-Kashmir Institute of Medical Sciences,  
   Soura, Srinagar 190011, Kashmir

16. **Shri R.K. Jain**  
   Member (up to 29 August 2012)  
   Additional Secretary and Financial Adviser, Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi 110011

   **Shri Rajiv Takru**  
   Member (8 October 2012 to 31 January 2013)  
   Additional Secretary and Financial Adviser, Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi 110011

   **Shri S.K. Srivastava**  
   Member (w.e.f. 20 March 2013)  
   Additional Secretary and Financial Adviser, Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi 110011

17. **Professor R.C. Deka**  
   Member Secretary  
   Director, All India Institute of Medical Sciences

18. **Shri Debasish Panda**  
   Special Invitee (up to 13 April 2012)  
   Joint Secretary, Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi 110011

   **Dr Vishwas Mehta**  
   Special Invitee (up to 14 April 2012 to 19 March 2013)  
   Joint Secretary, Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi 110011

   **Dr Sundeep Kumar Nayak**  
   Special Invitee (w.e.f. 20 March 2013)  
   Joint Secretary, Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi 110011

19. **Dr Rani Kumar**  
   Special Invitee (up to 30 April 2012)  
   Dean, All India Institute of Medical Sciences

   **Dr Shashi Wadhwa**  
   Special Invitee (w.e.f. 1 May 2012)  
   Dean, All India Institute of Medical Sciences

20. **Dr D.K. Sharma**  
    Special Invitee  
    Medical Superintendent, All India Institute of Medical Sciences

**GOVERNING BODY**

1. **Shri Ghulam Nabi Azad**  
   Chairman  

2. **Smt. Sushma Swaraj, MP (Lok Sabha)**  
   Member

3. **Shri Motilal Vora, MP (Rajya Sabha)**  
   Member
4. Ms Vibha Puri Das  
   Member  
   (up to 27 May 2012)

   Shri Ashok Thakur  
   Member  
   (w.e.f. 30 August 2012)

5. Shri P.K. Pradhan  
   Member  
   (up to 31 January 2013)

6. Professor K.K. Talwar  
   Member

7. Dr R.A. Badwe  
   Member

8. Dr Jagdish Prasad  
   Member

9. Dr S.P. Agarwal  
   Member

10. Shri R.K. Jain  
    Member  
    (up to 29 August 2012)

    Shri Rajiv Takru  
    Member  
    (w.e.f. 9 January 2013 to 31 January 2013)

11. Professor R.C. Deka  
    Member Secretary

12. Shri Debasish Panda  
    Special Invitee  
    (up to 13 April 2012)

    Dr Vishwas Mehta  
    Special Invitee  
    (w.e.f. 14 April 2012 to 19 March 2013)

    Dr Sundeep Kumar Nayak  
    Special Invitee  
    (w.e.f. 20 March 2013)

13. Dr Rani Kumar  
    Special Invitee  
    (up to 30 April 2012)

    Dr Shashi Wadhwa  
    Special Invitee  
    (w.e.f. 1 May 2012)

14. Dr D.K. Sharma  
    Special Invitee

STANDING FINANCE COMMITTEE

1. Shri P.K. Pradhan  
   Chairman  
   (up to 31 January 2013)

2. Shri Motilal Vora, MP (Rajya Sabha)  
   Member

3. Dr Jagdish Prasad  
   Member

4. Shri R.K. Jain  
   Member  
   (up to 29 August 2012)
Shri Rajiv Takru

5. Ms Vibha Puri Das

Shri Ashok Thakur

6. Dr S.P. Agarwal

7. Professor Dinesh Singh

8. Professor R.C. Deka

9. Dr Rani Kumar

Dr Shashi Wadhwa

10. Shri Debasish Panda

Dr Vishwas Mehta

Dr Sundeep Kumar Nayak

STANDING ACADEMIC COMMITTEE

1. Dr Jagdish Prasad

2. Dr Jyoti Mirdha, MP (Lok Sabha)

3. Professor Dinesh Singh

4. Dr M. K. Bhan

5. Ms Vibha Puri Das

Shri Ashok Thakur

6. Dr Ramakant Panda

7. Professor K.C. Pandey

8. Dr Abdul Hamid Zargar

AIIMS 2012-2013/ 8
9. Professor R.C. Deka

STANDING SELECTION COMMITTEE

1. Dr R.A. Badwe
2. Dr Jagdish Prasad
3. Ms Vibha Puri Das
   Shri Ashok Thakur
   (up to 27 May 2012)
4. Dr M.K. Bhan
5. Professor K.K. Talwar
6. Dr Ramakant Panda
7. Dr Abdul Hamid Zargar
8. Professor R.C. Deka

STANDING ESTATE COMMITTEE

1. Dr S. P. Agarwal
2. Dr Jyoti Mirdha, MP (Lok Sabha)
3. Shri R.K. Jain
   Shri Rajiv Takru
   (up to 29 August 2012)
   (w.e.f. 9 January 2012 to 31 January 2013)
4. Dr M.K. Bhan
5. Professor R.A. Badwe
6. Dr Jagdish Prasad
7. Professor K.K. Talwar
8. Professor R.C. Deka

STANDING HOSPITAL AFFAIRS COMMITTEE

1. Shri Motilal Vora, MP (Rajya Sabha)
2. Dr Jyoti Mirdha, MP (Lok Sabha)
3. Dr R.A. Badwe
4. **Professor K. C. Pandey**  
   Member

5. **Dr Ramakant Panda**  
   Member

6. **Professor K.K. Talwar**  
   Member

7. **Dr Abdul Hamid Zargar**  
   Member

8. **Professor R.C. Deka**  
   Member Secretary
3. Academic Section

Dean
Rani Kumar (up to 30 April 2012)                Shashi Wadhwa (w.e.f. 01 May 2012)

Sub-Dean
Rakesh Yadav

Registrar
Sanjay Kumar Arya

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

UNDERGRADUATE EDUCATION
The section handles post-admission formalities for new students, develops and revises curricula and administers teaching programmes including internal assessment of undergraduate students admitted in various courses. The courses include MBBS, BSc (Hons) Medical Technology in Radiography and Ophthalmic Techniques, BSc Nursing (Post-certificate) and BSc (Hons) Nursing courses.

Bachelor of Medicine and Bachelor of Surgery (MBBS)
The pattern of education in MBBS course was reviewed and re-structured from July 2004 onwards. The MBBS course is of 5½ years duration which comprises of 3 phases and internship. The details are as follows:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Duration (years)</th>
<th>Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>One</td>
<td>Pre-clinical</td>
</tr>
<tr>
<td>Second</td>
<td>One-and-a-half</td>
<td>Para-clinical</td>
</tr>
<tr>
<td>Third</td>
<td>Two</td>
<td>Clinical</td>
</tr>
<tr>
<td>Internship</td>
<td>One</td>
<td>Compulsory rotation in various departments</td>
</tr>
</tbody>
</table>

In the MBBS course, at present, every year 72 Indian students are admitted. There was provision for 5 foreign nationals till 2011. However, this year only 3 foreign nationals were admitted on the recommendations of Ministry of External Affairs, Government of India. For Indian nationals 72 seats were filled from various categories as below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>37</td>
</tr>
<tr>
<td>OBC</td>
<td>19</td>
</tr>
<tr>
<td>SC</td>
<td>11</td>
</tr>
<tr>
<td>ST</td>
<td>05</td>
</tr>
</tbody>
</table>

These selections were made based upon an All India entrance test organized by AIIMS, New Delhi. 3% reservation on horizontal basis was provided for Orthopaedic Physically Handicapped (OPH) candidates. For these 72 seats, 76014 applications were received and 58002 candidates appeared in the entrance examination held on 1 June 2012. The total number of MBBS students on rolls as on 31 March 2013 was 390 including 77 interns.

In this year, 6 meritorious MBBS students were awarded scholarships for securing first and second positions in first, second and final phase of examination.

Paramedical and Nursing Education
In 2012–13, 74 students (39 general, 10 SC, 6 ST and 19 OBC) were admitted for BSc (Hons) Nursing course. For BSc Nursing (Post-certificate) course, 24 students (16 general, 1 SC, 5 ST and 2 OBC) were admitted. For other undergraduate courses, i.e. BSc (Hons) Ophthalmic Techniques, 19 students (10 general, 3 SC, 1 ST and 5 OBC) and in BSc (Hons) Medical Technology in Radiography, 9 students (5 general, 1 SC, 1 ST and 2 OBC) were admitted. The number of students on rolls in these courses as on 31 March 2013 was:
<table>
<thead>
<tr>
<th>Course</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing</td>
<td></td>
</tr>
<tr>
<td>BSc Nursing (Post Certificate)</td>
<td>47</td>
</tr>
<tr>
<td>BSc (Hons.) Nursing</td>
<td>255</td>
</tr>
<tr>
<td>Paramedic</td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Ophthalmic Techniques</td>
<td>40</td>
</tr>
<tr>
<td>BSc (Hons) Medical Technology in Radiography</td>
<td>25</td>
</tr>
</tbody>
</table>

**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 PhD, DM, MCh, MD, MS, MDS, MHA, MBiotech and MSc courses in different disciplines.

The admissions to all postgraduate courses for Indian nationals as well as sponsored candidates are made through an All India Entrance Examination which is held twice a year for all postgraduate courses except MSc and MBiotechnology courses, for which the examination is held once in a year. Under sponsored category, foreign nationals are admitted through the same entrance examination test. In 2012–13, 538 students (including 15 Indian sponsored and 16 foreign nationals) were admitted to various courses. The number of postgraduate and doctoral students on roll as on 31 March 2013 was 1349.

**Details of admissions in various courses in 2012–2013**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of course</th>
<th>July 2012</th>
<th>January 2013</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MSc/MBiotech/MSc Nursing</td>
<td>58</td>
<td>0*</td>
<td>58</td>
</tr>
<tr>
<td>2</td>
<td>MD/MS/MDS/MHA</td>
<td>175</td>
<td>129</td>
<td>304</td>
</tr>
<tr>
<td>3</td>
<td>DM/M.Ch</td>
<td>42</td>
<td>42</td>
<td>84</td>
</tr>
<tr>
<td>4</td>
<td>PhD</td>
<td>49</td>
<td>43</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>324</strong></td>
<td><strong>214</strong></td>
<td><strong>538</strong></td>
</tr>
</tbody>
</table>

*Admissions are done once a year

**Details of postgraduate student on rolls as on 31 March 2013**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of course</th>
<th>Number of students enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PhD</td>
<td>403</td>
</tr>
<tr>
<td>2</td>
<td>DM</td>
<td>142</td>
</tr>
<tr>
<td>3</td>
<td>MCh</td>
<td>69</td>
</tr>
<tr>
<td>4</td>
<td>MD/MHA</td>
<td>556</td>
</tr>
<tr>
<td>5</td>
<td>MS</td>
<td>82</td>
</tr>
<tr>
<td>6</td>
<td>MDS</td>
<td>39</td>
</tr>
<tr>
<td>7</td>
<td>MSc/MBiotech/MSc Nursing</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1349</strong></td>
</tr>
</tbody>
</table>

**Subject wise distribution of PhD students on rolls as on 31 May 2013**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Subject</th>
<th>Open</th>
<th>Sponsored</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anatomy</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Biochemistry</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Biophysics</td>
<td>39</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Biostatistics</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Biotechnology</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Cardiac Anesthesiology</td>
<td>Nil</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Cardiac Biochemistry</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Cardiac Radiology</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Cardiothoracic and Vascular Surgery</td>
<td>3</td>
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</tr>
<tr>
<td>10</td>
<td>Community Medicine</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Community Ophthalmology (Dr RP Centre)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>Dental Surgery</td>
<td>3</td>
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</tr>
<tr>
<td>S. No.</td>
<td>Subject</td>
<td>Open</td>
<td>Sponsored</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------------</td>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>1</td>
<td>Cardiac Anaesthiology</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Cardiology</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Clinical Haematology</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Endocrinology</td>
<td>8</td>
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<tr>
<td>5</td>
<td>Gastroenterology</td>
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<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Haemato-Pathology</td>
<td>4</td>
<td>1</td>
</tr>
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</table>

**Subject wise distribution of DM students on rolls as on 31 March 2013**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Subject</th>
<th>Open</th>
<th>Sponsored</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cardiac Anaesthiology</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Cardiology</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Clinical Haematology</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Endocrinology</td>
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<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Gastroenterology</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Haemato-Pathology</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject</th>
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<th>Sponsored</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td><strong>385</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>
Subject wise distribution of MCh students on rolls as on 31 March 2013

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Subject</th>
<th>Open</th>
<th>Sponsored</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cardiothoracic and Vascular Surgery</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Neurosurgery</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Gastrointestinal Surgery and Liver Transplantation</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
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<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Urology</td>
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<tr>
<td>6</td>
<td>Surgical Oncology</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>57</strong></td>
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Subject wise distribution of MD/MS/MDS students on rolls as on 31 March 2013

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<td>3</td>
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<td>12</td>
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<td>5</td>
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</tr>
<tr>
<td>6</td>
<td>Dermatology and Venereology</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Forensic Medicine</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Hospital Administration (MHA)</td>
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<td>9</td>
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<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Medicine</td>
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<td>11</td>
<td>Microbiology</td>
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<tr>
<td>12</td>
<td>Nuclear Medicine</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>Obstetrics and Gynaecology</td>
<td>37</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>Ophthalmology</td>
<td>110</td>
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<tr>
<td>15</td>
<td>Paediatrics</td>
<td>28</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>Pathology</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Pharmacology</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>Physical Medicine and Rehabilitation</td>
<td>7</td>
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<td>19</td>
<td>Physiology</td>
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<td>20</td>
<td>Psychiatry</td>
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<tr>
<td>21</td>
<td>Radiodiagnosis</td>
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<td>3</td>
</tr>
<tr>
<td>22</td>
<td>Radiotherapy</td>
<td>9</td>
<td>0</td>
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<tr>
<td>23</td>
<td>Geriatric Medicine</td>
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<td>1</td>
</tr>
<tr>
<td>Subject (MS)</td>
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<td>Open</td>
<td>Sponsored</td>
</tr>
<tr>
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<td>-----</td>
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</tr>
<tr>
<td>Emergency Medicine</td>
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<tr>
<td>Total</td>
<td>529</td>
<td>27</td>
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</tr>
<tr>
<td>Orthopaedics</td>
<td>25</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Otornolaryngology (ENT)</td>
<td>26</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Surgery</td>
<td>27</td>
<td>44</td>
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<td>Total</td>
<td>76</td>
<td>6</td>
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<tr>
<td>Subject (MDS)</td>
<td>MSc</td>
<td>Open</td>
<td>Sponsored</td>
</tr>
<tr>
<td>Conservative Dentistry and Endodontics</td>
<td>28</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>29</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>30</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Oral and Maxillofacial Surgery</td>
<td>31</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
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</tr>
<tr>
<td>Grand Total</td>
<td>639</td>
<td>38</td>
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</table>

Subject wise distribution of MSc students on rolls as on 31 March 2013

<table>
<thead>
<tr>
<th>S. No.</th>
<th>MSc</th>
<th>Open</th>
<th>Sponsored</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anatomy</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Biochemistry</td>
<td>3</td>
<td>1 (Foreign National)</td>
</tr>
<tr>
<td>3</td>
<td>Biophysics</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Pharmacology</td>
<td>1</td>
<td>1 (Foreign National)</td>
</tr>
<tr>
<td>5</td>
<td>Physiology</td>
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<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Perfusion Technology</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>M Biotechnology</td>
<td>14</td>
<td>1 (Foreign National)</td>
</tr>
<tr>
<td>8</td>
<td>Nuclear Medicine Technology</td>
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<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Subject wise distribution of MSc (Nursing) on rolls as on 31 March 2013

<table>
<thead>
<tr>
<th>S. No.</th>
<th>MSc (Nursing)</th>
<th>Open</th>
<th>Sponsored</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cardiological/CTVS Nursing</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Neurosciences Nursing</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Paediatric Nursing</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Psychiatric Nursing</td>
<td>4</td>
<td>1 (Foreign National)</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>1</td>
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</tr>
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TRAINING PROGRAMMES

There is a provision for short term, long term and elective training to students and employees from various organizations in India as well as abroad. During 2012–13, 851 persons underwent training as listed below:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Training</th>
<th>No. of trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Short Term training: Indian nationals</td>
<td>714</td>
</tr>
<tr>
<td>2</td>
<td>Short Term training: Foreign nationals</td>
<td>47</td>
</tr>
<tr>
<td>3</td>
<td>Long Term training: Indian nationals</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Elective Training: Foreign nationals (UG students)</td>
<td>54</td>
</tr>
<tr>
<td>5</td>
<td>WHO Fellows: Indian nationals</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>WHO Fellows: Foreign nationals</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>851</td>
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</table>
COMMITTEE MEETINGS
The Academic Section is responsible for organizing meetings of the Academic committee, Staff Council, Dean’s Committee, Faculty and Research Presentations. During 2012-13 the number of meetings held was as under:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Committee/Group</th>
<th>Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Academic Committee</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Staff Council</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Dean’s Committee</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Faculty (General Discussions)</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Research Presentations</td>
<td>6</td>
</tr>
</tbody>
</table>

ORATIONS
The Academic Section organized the following Oration during 2012–13

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Oration</th>
<th>Name of Orator</th>
<th>Date Time and Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23rd Sarveshwari Memorial Oration</td>
<td>Professor Juha Antero Hernesniemi, Chairman, Department of Neurosurgery, University of Helsinki</td>
<td>15 February 2013 at 4.00 PM in J.L. Auditorium, AIIMS</td>
</tr>
</tbody>
</table>

CONVOCATION
The 40th Annual Convocation of the Institute was held on 16 October 2012 at the Jawaharlal Auditorium, AIIMS, New Delhi. The Hon’ble President of India, Shri Pranab Mukherjee addressed the Convocation. He distributed Institute Medals/Awards to the outstanding meritorious students and delivered convocation address. The President, AIIMS and Hon’ble Minister of Health and Family Welfare, Government of India, Shri Ghulam Nabi Azad distributed the degrees.
The details of various professional examinations conducted by the section from 1 April 2012 to 31 March 2013 are given below

### Postgraduate and Undergraduate Professional Examinations

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Month and year</th>
<th>Examination</th>
<th>Number of students</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Appeared</td>
</tr>
<tr>
<td>1</td>
<td>May 2012</td>
<td>Final Postgraduate/Postdoctoral (MD/MS/MDS/DM/M.CH/MHA)</td>
<td>158</td>
</tr>
<tr>
<td>2</td>
<td>-do-</td>
<td>MSc (Nursing) Phase I</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>-do-</td>
<td>MSc (Nursing) Phase II</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>-do-</td>
<td>Second MBBS (Supplementary)</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>-do-</td>
<td>Final MBBS (Supplementary)</td>
<td>09</td>
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<tr>
<td>6</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase IV</td>
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<tr>
<td>7</td>
<td>-do-</td>
<td>BSc (PC) Nursing Phase II</td>
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<tr>
<td>8</td>
<td>-do-</td>
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<tr>
<td>9</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase I</td>
<td>59</td>
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<tr>
<td>10</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase III</td>
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</tr>
<tr>
<td>11</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase II</td>
<td>56</td>
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<td>12</td>
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<td>BSc (Hons) Ophthalmic Techniques Phase III</td>
<td>11</td>
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<tr>
<td>13</td>
<td>-do-</td>
<td>BSc (Hons) Medical Technology in Radiography Phase II</td>
<td>08</td>
</tr>
<tr>
<td>14</td>
<td>-do-</td>
<td>BSc (Hons) Medical Technology in Radiography Phase III</td>
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<tr>
<td>15</td>
<td>-do-</td>
<td>First MBBS Professional</td>
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<td></td>
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<td>16</td>
<td>-do-</td>
<td>BSc (Hons) Medical Technology in</td>
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<tr>
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<td>Event Description</td>
<td>Category</td>
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<td>-------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>----------</td>
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</tr>
<tr>
<td>August 2012</td>
<td>First MBBS Professional (Supplementary)</td>
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<tr>
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<tr>
<td>-do-</td>
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<tr>
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<tr>
<td>January 2013</td>
<td>Final MBBS (Compartmental examination)</td>
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<td>02</td>
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<tr>
<td>Grand Total</td>
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*Not eligible due to short of Attendance.
### Entrance Examinations for Undergraduate and Postgraduate courses

<table>
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<th>Date of Examination</th>
<th>Number of candidates</th>
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<td></td>
<td>Applied</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Appeared</td>
</tr>
<tr>
<td>1</td>
<td>MD/MS/MDS (AIIMS) July 2012</td>
<td>06.05.2012</td>
<td>24369</td>
</tr>
<tr>
<td>2</td>
<td>DM/MCh/MHA July 2012</td>
<td>20.05.2012</td>
<td>2107</td>
</tr>
<tr>
<td>3</td>
<td>MBBS (AIIMS) August 2012</td>
<td>01.06.2013</td>
<td>76014</td>
</tr>
<tr>
<td>4</td>
<td>BSc (Hons) Nursing 2012</td>
<td>10.06.2012</td>
<td>1012</td>
</tr>
<tr>
<td>5</td>
<td>BSc Nursing (Post-Certificate) 2012</td>
<td>16.06.2012</td>
<td>78</td>
</tr>
<tr>
<td>6</td>
<td>BSc (Hons) Paramedical Courses 2012</td>
<td>03.06.2012</td>
<td>259</td>
</tr>
<tr>
<td>7</td>
<td>MSc courses 2012</td>
<td>07.07.2012</td>
<td>395</td>
</tr>
<tr>
<td>8</td>
<td>MSc Nursing 2012</td>
<td>23.06.2012</td>
<td>833</td>
</tr>
<tr>
<td>9</td>
<td>MBiotechnology 2012</td>
<td>14.07.2012</td>
<td>734</td>
</tr>
<tr>
<td>10</td>
<td>Senior Residents Recruitment Examination, July 2012</td>
<td>17.06.2012</td>
<td>1287</td>
</tr>
<tr>
<td>11</td>
<td>PhD July 2012</td>
<td>30.06.2012</td>
<td>564</td>
</tr>
<tr>
<td>12</td>
<td>Online: Senior Residents Recruitment Examination, January 2013</td>
<td>06.01.2013</td>
<td>779</td>
</tr>
<tr>
<td>13</td>
<td>MD/MS/MCh (6 years)/MDS January 2013</td>
<td>18.11.2012</td>
<td>30636</td>
</tr>
<tr>
<td>15</td>
<td>AIIMS National Eligibility-Cum-Entrance Test MDS/PG Diploma 2013</td>
<td>13.01.13</td>
<td>16554</td>
</tr>
<tr>
<td>16</td>
<td>PhD January 2013</td>
<td>20.01.2013</td>
<td>556</td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total</strong></td>
<td></td>
<td>158591</td>
</tr>
<tr>
<td></td>
<td><strong>Candidates who passed PhD Viva-Voce examination: 57</strong></td>
<td></td>
<td>128413</td>
</tr>
</tbody>
</table>

### Examinations for Recruitment

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name</th>
<th>Written Exam</th>
<th>Interview Date</th>
<th>Applied</th>
<th>Appeared</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private Secretary: Skill test</td>
<td>28-04-2012</td>
<td>-</td>
<td>31</td>
<td>31</td>
<td>13-06-2012</td>
</tr>
<tr>
<td>2</td>
<td>Personal Assistant: Skill test</td>
<td>29-04-2012</td>
<td>-</td>
<td>67</td>
<td>37</td>
<td>13-06-2012</td>
</tr>
<tr>
<td>3</td>
<td>Manager (HRD)</td>
<td>29-04-2012</td>
<td>11-05-2012</td>
<td>40</td>
<td>23</td>
<td>14-05-2012</td>
</tr>
<tr>
<td>4</td>
<td>Operation Theatre Assistant</td>
<td>28-07-2012</td>
<td>28-08-2012 to 30-08-2012</td>
<td>483</td>
<td>315</td>
<td>19-02-2012</td>
</tr>
<tr>
<td>5</td>
<td>Laboratory Attendant</td>
<td>04-08-2012</td>
<td>-</td>
<td>127</td>
<td>-</td>
<td>Result Awaited</td>
</tr>
<tr>
<td>6</td>
<td>Child Psychologist</td>
<td>12-08-2012</td>
<td>05-09-2012</td>
<td>110</td>
<td>63</td>
<td>06-09-2012</td>
</tr>
</tbody>
</table>
### Entrance Examinations conducted

1. **NATIONAL ELIGIBILITY-CUM-ENTRANCE TEST (NEET):** Examination for admission to MD/PG Diploma courses against 50% open merit seats quota was held at 33 centres (local 12, outstation 21) in 5 cities on 13 January 2013. Result is pending due to court case.

2. **AIIMS PG Entrance Examination** for admission to MD/MS/MDS courses was conducted on 6 May 2012 for July 2012 at 58 centres (Delhi 22, outstation 36) and 18 November 2012 for January 2013 at 56 centres (Delhi 18, outstation 38). The results were declared on 29 May 2012 and 27 November 2012, respectively.

3. **Selections for various Post-Doctoral (super-speciality) courses like DM/MCh and MHA for July 2012 and January 2013** were done on the basis of a 2-stage performance evaluation on 20–26 May 2012 and 16–22 December 2012, respectively.

4. **AIIMS also conducted a written test for the post of Senior Residents/Senior Demonstrators.** This was done online in January 2013.

5. **Selections of candidates for registration to the PhD programme for July 2012 and January 2013 sessions** were held and the results were declared on 7 July 2012 and 30 January 2013, respectively.

6. **The Entrance Examination for admission to MBBS course of AIIMS, including 6 new AIIMS-like Institutes for August 2012 was held in 163 (local 44, outstation 119) centres in 17 cities on 1 June 2012.**

7. **BSc (Hons) Nursing Entrance Examination was held in Delhi and Thiruvananthapuram on 10 June 2012.**

8. **Entrance Examination for admission to MSc and MBiotech courses for August 2012 was held in Delhi on 7 July and 14 July 2012, respectively.**

9. **Entrance Examination for admission to MSc Nursing course was introduced from 2005.** This examination was held on 23 June 2012 in Delhi only. Admission was done by merit basis through counseling held on 13 July and 19 July 2012.

10. **BSc Nursing (Post-Certificate) Entrance Examination was held in Delhi on 16 June 2012 followed by the personal assessment of candidates on 20 June 2012.**

11. **Entrance Examination for admission to Paramedical courses like BSc (Hons) Ophthalmic Techniques and BSc (Hons) Medical Technology in Radiography for August 2012 session was held in Delhi at one centre on 3 June 2012.** The admissions to these two courses were made by allotment of seats on merit basis through counseling held on 2 July 2012 and 18 July 2012.

12. **Examination Section has also conducted Written/Skill Test for recruitment to the following posts at the Institute:**
   
   i) Skill test for post of Private Secretary, 28 April 2012.
   
   ii) Skill test for post of Personal Assistant, 29 April 2012.
   
   iii) Written test for post of Manager (HRD), 29 April 2012. Interview conducted on 11 May 2012.
   
   
   v) Written test for post of Laboratory Attendant, 4 August 2012.
   
   

### Participation in other events

1. The Section actively participates in counseling for admission to AIIMS-PG, BSc (Hons) Paramedical, MSc (Nursing) courses and personnel assessment for BSc (Nursing) Post-Certificate course.

2. The Section helped in the evaluation of PG students thesis (Approx 71) from B.P. Koirala Institute of Health Sciences, Dharan, Nepal.
3. AIIMS also conducts MBBS Entrance Examination of North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong, Meghalaya since 2010 and this year it was conducted on 22 July 2012.

4. The Section provides technical expertise to various Universities and Institutions in India and abroad for conduct of their Entrance Examinations.

SIGNIFICANT EVENTS
As a step towards introduction of more checks and balances, and to maintain complete confidentiality and integrity of the examination system, question papers for outstation centres are now kept in the safe custody of approved banks. In order to avoid any case of impersonation, thumb impressions are obtained during the entrance examination. In addition physical frisking using metal detectors has been introduced from the year 2006.

The Section has been inviting online applications for all Entrance Examination since January 2010. Candidates can now apply online and also downloaded their Admit Cards. This has been done to overcome the difficulty in obtaining Prospectus and Application Forms, as reported by the candidates, from time to time. After launch of the online method of submission of application forms, the problem of non-availability of Prospectus-cum-Application form has been completely resolved.

The Section introduced integrated mode of payment (Debit Card, Credit Card, online transfer, etc.) for submission of application fee from 2012.

In all Entrance Examinations, each candidate is provided with a pen to write. This was done to prevent cheating using electronic gadgets.

Photography (snapshot) is being done in case of doubt in genuineness of the identity of a candidate during the course of the examination or if the candidate does not bring a photograph for the purpose.

Cash transaction carried by AIIMS representatives to meet examination expenditure has been minimized by sending 90%–95% of the amount through Demand Draft/Bankers Cheque in advance to the designated centres.

The quality of the OMR Sheet has been improved for better marking. The declaration regarding un-attempted (unanswered) questions has been introduced in the OMR sheet (in numeric and words) for more transparency.
5. General Administration

Deputy Director (Administration)
Vineet Chawdhry (up to 29.11.2012) R.S. Shukla (w.e.f. 30.11.2012)

Deputy Secretary/Chief Vigilance Officer
Sanjiv Chaturvedi (w.e.f. 29.6.2012)

The General Administration, including Personnel and Establishment, Security, Estate, matters related to Engineering Services Department, Stores, Vigilance and Public Relations activities of the Institute are controlled and supervised by the Deputy Director (Admn.). 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 Officer
Attar Singh

Superintending Engineer
B.S. Anand (up to 30.09.2012) Manjul Rastogi (w.e.f. 01.10.2012) (Acting)

Executive Engineers
S. Bhaskar V.K. Sharma (Acting)

Chief Procurement Officer
A. K. Kamra

Deputy Chief Security Officer
Rajeev Lochan R.S. Rawat

Sr. Administrative Officer
K.K. Vaid

Administrative Officers
Recruitment, PIC Cell and Hostel Section

General, Estate*, Transport Section & RPC
V.V. Mishra (*up to 26.06.2012)

Faculty Cell
Lalit Kumar (up to 31.08.2012)

JPNA Trauma Centre
A.K. Nim

C.N. Centre
R.K. Sharma

Legal/Estate
Razi Jawaid (w.e.f. 26.06.2012)

Hospital
Santosh Kr. Aggarwal (w.e.f. 20.06.2012)

Store Officers
S.S. Bhaduria
Pradeep Kumar Gupta
K.D. Sharma Rakesh Kumar Sharma

Assistant Administrative Officers
Coordination Cell/RTI Cell Academic Section
Mahesh Kr. Sharma Renu Bhardwaj

Research Section
Narender Kumar
All matters related to Establishment section and General administration including appointment, organizing meetings of the statutory committees, management of estate and property, purchase of equipment, materials and consumable, security arrangements, employees welfare, etc., are looked after by these sections.

There is total sanctioned staff of 11,658 in the Institute including all Centres/Main Hospital/D.O. as detailed below.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Category/Group</th>
<th>Sanctioned Strength</th>
<th>In-position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Faculty</td>
<td>823</td>
<td>507</td>
</tr>
<tr>
<td>2.</td>
<td>A</td>
<td>554</td>
<td>412</td>
</tr>
<tr>
<td>3.</td>
<td>B</td>
<td>5530</td>
<td>4407</td>
</tr>
<tr>
<td>4.</td>
<td>C</td>
<td>4751</td>
<td>3947</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>11,658</td>
<td>9273</td>
</tr>
</tbody>
</table>

Scheduled Caste/Scheduled Tribe cell

**Liaison Officer**

Dr K. C. Goswami (Professor, Department of Cardiology)

**Assistant Administrative Officer**

Lalit Oraon

During the year various representations from SC/ST category employees were received in the SC/ST cell. These are as under.

- Representations received: 9
- Cases resolved/disposed off: 7
- Cases under consideration: 2

**Brief summary of the cases**

1. Shri Kuldeep Kumar, General Secretary, SC/ST Medical Association, Atrocities against SC/ST Member at AIIMS. Reply/comment has been sent to the said Association.

2. Representation of Shri Ajay Kumar, PPS, Department of Biotechnology, regarding discrimination. Reply has been sent to the National Commission for Scheduled Castes.

3. Representation of Shri Rahul, Lab Technician, regarding promotion. The matter is under consideration.

4. Joint Representation of Shri M. Rajendran and Shri M. A. Laviraj, Medical Physicist, AIIMS, received through National Commission for Scheduled Tribes, regarding harassment by Dr V. Subramani, Medical Physicist, AIIMS.

5. Joint Representation of Shri M. Rajendran and Shri M. A. Laviraj, Medical Physicist, AIIMS, received through Smt. Sushma Swaraj, Leader of Opposition, Lok Sabha, regarding harassment by Dr V. Subramani, Medical Physicist, AIIMS.
6. Representation of Dr V. Subramani, Sr. Medical Physicist, AIIMS, received through Shri S. N. Sharma, Under Secretary, Ministry of Health and Family Welfare, regarding Grievance of caste based discrimination, harassment and victimization and non action of AIIMS administration.

Since the aforesaid grievance/matter at S. No. 4, 5, and 6 are intrinsically interlinked, a committee was constituted to look into the behavior of Dr V. Subramani and Shri M. A. Laviraj, on the basis of report, the Competent Authority has taken the decision and the same has been referred to concerned authority for implementation and further action.

7. Representation of Shri Bhupendra Kumar, Lab Technician, regarding harassment by National Institute of Biologicals, Noida. The AIIMS administration has served several requests in writing to National Institute of Biologicals, Noida, to furnish the detailed report of Shri Bhupendra Kumar. However, the same is still awaited on the part of NIB, Noida. A reply has been sent to National Commission for Scheduled Castes.

8. Representation of Shri Avadh Narayan, Ex-Khalasi (Ad hoc) Engineering Service Department, regarding regularization of ad-hoc appointment to the post of Khalasi at AIIMS. The matter is under consideration.

9. Representation of Smt. Saroj Kumari, regarding justice. Reply sent to the National Commission for Scheduled Castes. The matter does not pertain to AIIMS, a reply has been sent to the National Commission for Scheduled Castes.
6.0 Main Hospital

Medical Superintendent
D.K. Sharma

Professor
Sidhartha Satpathy

Additional Professor
I.B. Singh  Sanjay Arya

Assistant Professor
Nirupam Madaan  Amit Lathwal
Anoop Daga  Mahesh R.

<table>
<thead>
<tr>
<th>Hospital performance indices</th>
<th>2012–13</th>
<th>2011–12</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main Hospital</td>
<td>CNC</td>
<td>Main Hospital</td>
</tr>
<tr>
<td>Average length of stay (days)</td>
<td>4.9</td>
<td>6.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Average bed occupancy rate (%)</td>
<td>84.7</td>
<td>84.1</td>
<td>81.6</td>
</tr>
<tr>
<td>Net death rate (%)</td>
<td>1.9</td>
<td>3.6</td>
<td>2.2</td>
</tr>
<tr>
<td>Combined crude infection rate (%)</td>
<td>7.8</td>
<td>–</td>
<td>8.3</td>
</tr>
</tbody>
</table>

Please see Tables I and II for details.
6.1 Medical Records Services (Hospital)

Chief Medical Record Officer and Sub-Registrar, Births and Deaths
N.K. SHARMA

EDUCATION AND TRAINING
1. A group of 19 MSc Nursing 2nd year students of College of Nursing, AIIMS, visited Medical Record Section (Main Hospital) and a brief lecture on Medical Record Management at AIIMS was delivered by Shri N.K. Sharma, Chief Medical Record Officer on 20 April 2012.
2. A group of 7 students of Medical Record Training Course from St. Stephens Hospital, New Delhi, visited Medical Record Section (Main Hospital) and Dr Raj Kumari Amrit Kaur Out Patient Department of AIIMS on 27 April 2012.
3. Dr S. Das along with his officers from S.H.K.M. Govt. Medical College, Nalhar, Mewat, Haryana, visited Medical Record Section (Main Hospital) on 12 September 2012 and a brief lecture was given regarding day-to-day functioning of Medical Record Section to establish the Medical Record Department in Medical College at Nuh, Distt. Mewat, Haryana.

MEETINGS
1. Dr Nirupam Madaan, Asst. Prof. of Hospital Administration and Officer-in-Charge, Medical Records and Shri Ashok Kumar, Jr. Medical Record Officer attended the meeting regarding the digitalization of medical records of all the Central Government Hospitals in Delhi, organized by the Directorate General of Health Services and Central Bureau of Health Intelligence in Nirman Bhavan, 2 December 2012.
2. Shri N.K. Sharma, Chief Medical Record Officer and Sh. Ashok Kumar, Jr. Medical Record Officer, attended the workshop on registration system of patient conducted by Delhi Cancer Registry, Dr B.R. Ambedkar Institute Rotary Cancer Hospital, AIIMS, 12 January 2013.
3. A Training of Officers/Officials engaged in the work of registration of Births and Deaths organized by the Office of the Chief Registrar, Birth and Deaths, Govt. of NCT of Delhi, was held on 17 January 2013. The following officer/officials were nominated from the Medical Record Section (Hosp.).
   1. Shri N.K. Sharma, Chief Medical Record Officer
   2. Shri Ashok Kumar, Jr. Medical Record Officer
   3. Smt. Sreeja Nair, Data Entry Operator

COURT ATTENDANCE
A total number of 973 summons/notice (average 3-4 per day) were received in the Medical Record Section (Main Hospital) from various Courts of Delhi and outside Delhi. The concerned doctors or consultants (as per case) and staff from the Medical Record Department were deputed to attend the court on the behalf of AIIMS hospital.

COMPUTERIZATION OF MEDICAL RECORDS
Central Admission Office and Enquiry of Main Hospital have been computerized by NIC, w.e.f. 4 June 2012. The Medical Record Section (Hospital) will be computerized and connected with the Central Admission Office and Hospital Enquiry.

In-Patient Services
AIIMS has maintained its tradition of services and quality of patient care, in spite of ever increasing number of patients that come to this hospital from all over the country as well as from abroad. A total number of 1,05,728 patients were admitted during the year in various clinical units of the Main Hospital and C.N. Centre. The Department-wise, State-wise and Gender-wise admissions are given in Tables III and IV.

The number of surgical procedures done during the year in various surgical disciplines is given in Table V.
Medical records of indoor patients is systematically classified and categorized for easy retrieval for the purpose of Education, Research and Training. These records are stored in the compactors. All the in-patient records of C.N. Centre are also maintained by the Medical Record Section of the Main Hospital.

In addition to above, the following three departments have commissioned inpatient admissions for provision of healthcare services.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Department</th>
<th>No. of Beds</th>
<th>Location</th>
<th>Date of Commissioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Geriatric</td>
<td>24 (General)</td>
<td>New Private ward</td>
<td>17 July 2012</td>
</tr>
<tr>
<td>2.</td>
<td>Pulmonary Medicine and Sleep Disorder</td>
<td>18 (9 General and 9 ICU)</td>
<td>Old Nurses Hostel, 3rd floor</td>
<td>1 August 2012</td>
</tr>
<tr>
<td>3.</td>
<td>Rheumatology day care</td>
<td>6 (General)</td>
<td>Old Nurses Hostel, 3rd floor</td>
<td>17 September 2012</td>
</tr>
</tbody>
</table>

CENTRAL ADMISSION OFFICE AND HOSPITAL ENQUIRY
The office functions round the clock for 365 days a year without a break. All admissions to the inpatient areas of the Main Hospital and C.N. Centre are made through this office. It performs important functions like patient registration for initiation of Admission Slip (Face-Sheet), issuing of attendant passes and general enquiry office in providing prompt and accurate information regarding patients and AIIMS. The staff working there is on shift duties and the office is manned by receptionists, Jr. Medical Record Officer, Medical Record Technicians and other ministerial and hospital staff.

OUT PATIENT DEPARTMENT AND SPECIALTY CLINICS
A total of 16,69,789 patients attended various General Out-Patient Department (OPD) and Specialty clinics of AIIMS (Table VI).

COMPUTERIZATION AND MODERNIZATION OF OPD BLOCK
The central registration area of Dr Rajkumari Amrit Kaur OPD including E.H.S. has been modernized with state-of-the-art facility for registration. The OPD of various disciplines has been computerized by NIC. The OPD cards of patients are generated with a unique UHID number for all purposes and future references.

Table I. Yearly statistical health bulletin

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Detail</th>
<th>Main Hospital</th>
<th>CN Centre</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total patients admitted</td>
<td>85892</td>
<td>19836</td>
<td>105728</td>
</tr>
<tr>
<td>a.</td>
<td>Adults and children</td>
<td>83434</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b.</td>
<td>Newborn infants</td>
<td>2458</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>Total patients discharged</td>
<td>81782</td>
<td>19044</td>
<td>100826</td>
</tr>
<tr>
<td>a.</td>
<td>Adults and children</td>
<td>79265</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b.</td>
<td>Newborn infants</td>
<td>2517</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>Total days of care</td>
<td>402855</td>
<td>124749</td>
<td>527604</td>
</tr>
<tr>
<td>a.</td>
<td>Adults and Children</td>
<td>387139</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b.</td>
<td>Newborn infants</td>
<td>15636</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>Average length of stay (ALS)</td>
<td>4.9</td>
<td>6.6</td>
<td>5.2</td>
</tr>
<tr>
<td>a.</td>
<td>Adults and Children</td>
<td>4.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b.</td>
<td>Newborn infants</td>
<td>6.2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5.</td>
<td>Total number of patients in hospital (as per daily census)</td>
<td>333384</td>
<td>126120</td>
<td>459504</td>
</tr>
<tr>
<td>a.</td>
<td>Adults and Children</td>
<td>331225</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b.</td>
<td>Newborn infants</td>
<td>2159</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6.</td>
<td>Daily average number of patients (as per daily census)</td>
<td>10959</td>
<td>4148</td>
<td>15107</td>
</tr>
<tr>
<td>a.</td>
<td>Adults and Children</td>
<td>10888</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b.</td>
<td>Newborn infants</td>
<td>71</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7.</td>
<td>Average bed occupancy (%)</td>
<td>84.7</td>
<td>84.1</td>
<td>84.5</td>
</tr>
<tr>
<td>a.</td>
<td>Adults and Children</td>
<td>85.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b.</td>
<td>Newborn infants</td>
<td>29.6</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
8. Births in hospital 2458 - -
   a. Male 1319 - -
   b. Female 1139 - -

9. Total deaths (including newborns) 2552 928 3480
   a. Death within 48 hours 1020 256 1276
   b. Death over 48 hours 1532 672 2204
   c. Gross death rate (%) 3.1 4.9 3.5
   d. Net death rate (%) 1.9 3.6 2.2

10. Attendance in Casualty 1,31,108 - -

Deaths in casualty 1,551 - -
Brought dead in casualty 818 - -

Table II. Department-wise admissions, discharges and death rates (Main Hospital+CN Centre)

<table>
<thead>
<tr>
<th>Department</th>
<th>Admission</th>
<th>Discharges</th>
<th>Days of care</th>
<th>Average length of stay</th>
<th>Deaths Total</th>
<th>Under 48 hours</th>
<th>Over 48 hours</th>
<th>Gross Death rate (%)</th>
<th>Net Death rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine I</td>
<td>1513</td>
<td>1423</td>
<td>13409</td>
<td>9.4</td>
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*Neurology III commenced from February 2013
Table III. State-wise distribution of in-patients

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Table IV. Gender-wise distribution of in-patients (Main Hospital and CN Centre)

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<td>43484</td>
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<tr>
<td>g) Renal</td>
<td>7346</td>
<td>28973</td>
<td>36319</td>
</tr>
<tr>
<td>h) Renal transplant</td>
<td>161</td>
<td>5944</td>
<td>6105</td>
</tr>
<tr>
<td>i) Renal transplant counseling</td>
<td>460</td>
<td>1673</td>
<td>2133</td>
</tr>
<tr>
<td><strong>Haematology</strong></td>
<td>3377</td>
<td>24174</td>
<td>27551</td>
</tr>
<tr>
<td><strong>Gastroenterology</strong></td>
<td>18729</td>
<td>47119</td>
<td>65848</td>
</tr>
<tr>
<td><strong>Paediatrics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. General O.P.D.</td>
<td>39212</td>
<td>41145</td>
<td>80357</td>
</tr>
<tr>
<td>2. Speciality Clinics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speciality</td>
<td>Visits</td>
<td>New Cases</td>
<td>Total</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>----------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Dermatology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. General O.P.D.</td>
<td>36527</td>
<td>44517</td>
<td>81044</td>
</tr>
<tr>
<td>2. Specialty Clinics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Sexually transmitted diseases</td>
<td>790</td>
<td>535</td>
<td>1325</td>
</tr>
<tr>
<td>b) Allergy</td>
<td>577</td>
<td>1458</td>
<td>2035</td>
</tr>
<tr>
<td>c) Leprosy</td>
<td>451</td>
<td>2760</td>
<td>3211</td>
</tr>
<tr>
<td>d) Pigmentation</td>
<td>494</td>
<td>2009</td>
<td>2503</td>
</tr>
<tr>
<td>e) Derma-Surgery</td>
<td>618</td>
<td>1015</td>
<td>1633</td>
</tr>
<tr>
<td><strong>Psychiatry</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. General O.P.D.</td>
<td>14351</td>
<td>--</td>
<td>14351</td>
</tr>
<tr>
<td>2. Specialty Clinics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Walk-in-clinic</td>
<td>2335</td>
<td>33697</td>
<td>36032</td>
</tr>
<tr>
<td>b) Child guidance</td>
<td>506</td>
<td>617</td>
<td>1123</td>
</tr>
<tr>
<td><strong>Surgical Specialties</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgical Discipline</td>
<td>44492</td>
<td>28915</td>
<td>73407</td>
</tr>
<tr>
<td>Urology</td>
<td>14704</td>
<td>32344</td>
<td>47048</td>
</tr>
<tr>
<td>Gastrointestinal Surgery and Liver Transplantation</td>
<td>2464</td>
<td>6146</td>
<td>8610</td>
</tr>
<tr>
<td><strong>Paediatric Surgery</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. General O.P.D.</td>
<td>5783</td>
<td>13392</td>
<td>19175</td>
</tr>
<tr>
<td>2. Speciality Clinics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Hydrocephalus</td>
<td>20</td>
<td>118</td>
<td>138</td>
</tr>
<tr>
<td>b) Intersex</td>
<td>-</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>c) Paediatric Urology</td>
<td>570</td>
<td>3129</td>
<td>3699</td>
</tr>
<tr>
<td>d) Craniosynostosis</td>
<td>-</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Anaesthesia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Pain</td>
<td>1180</td>
<td>2145</td>
<td>3325</td>
</tr>
<tr>
<td>b) Pre-anaesthesia</td>
<td>7133</td>
<td>753</td>
<td>7886</td>
</tr>
<tr>
<td><strong>Orthopaedics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. General O.P.D.</td>
<td>50518</td>
<td>49389</td>
<td>99907</td>
</tr>
<tr>
<td>2. Speciality Clinics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Physiotherapy</td>
<td>20567</td>
<td>39154</td>
<td>59721</td>
</tr>
<tr>
<td>b) Occupational therapy</td>
<td>1495</td>
<td>6924</td>
<td>8419</td>
</tr>
<tr>
<td>c) Hydrotherapy</td>
<td>3386</td>
<td>8473</td>
<td>11859</td>
</tr>
<tr>
<td>d) Follow up</td>
<td>-</td>
<td>9814</td>
<td>9814</td>
</tr>
<tr>
<td>e) Tuberculosis</td>
<td>259</td>
<td>876</td>
<td>1135</td>
</tr>
<tr>
<td>f) Polio</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>g) Scoliosis</td>
<td>742</td>
<td>1598</td>
<td>2340</td>
</tr>
<tr>
<td>h) Hand</td>
<td>1118</td>
<td>1570</td>
<td>2688</td>
</tr>
<tr>
<td>i) Congenital talipes equino varus</td>
<td>196</td>
<td>2517</td>
<td>2713</td>
</tr>
<tr>
<td>j) Arthritis</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>k) Sports</td>
<td>235</td>
<td>224</td>
<td>459</td>
</tr>
<tr>
<td><strong>Otorhinolaryngology including RUAS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. General O.P.D. | 43064 | 44536 | 87600
2. Specialty Clinics
   a) Audiology | 110 | 51 | 161
   b) Speech | 1265 | 1865 | 3130
   c) Hearing | 794 | 1347 | 2141
   d) Voice | 809 | 966 | 1775
   e) Vertigo | 92 | 53 | 145
   f) Rhinology | 61 | 44 | 105
Obstetrics and Gynaecology
1. General O.P.D. | 33466 | 62306 | 95772
2. Specialty Clinics
   a) Postnatal
   b) Infertility
   c) IVF | 531 | 2337 | 2868
   d) Family welfare | 8776 | 5673 | 14449
   e) Antenatal | 773 | 4097 | 4870
   f) Endo-gynaecology | 46 | 70 | 116
   g) High risk pregnancy | 2303 | 12261 | 14564
   h) Postoperative (Gynae)
   i) Menopause
Radiotherapy | 473 | 31179 | 31652
Others
   Casualty | 127375 | 3733 | 131108
   Employees Health Scheme | 100572 | 67050 | 167622
   Nutrition | 3768 | 1553 | 5321
   Physical Medicine and Rehabilitation | 22361 | 91651 | 114012
   Sex and Marriage Counselling Clinic | 1755 | 2320 | 4075
Total | 736395 | 933394 | 1669789

### 6.2 Hospital Dietetics Services

**Chief Dietician**
Dr (Mrs) Alka Mohan Chutani

No. of indoor patients served different diets (Main Hospital and Centres)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Type of diet</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Normal</td>
<td>357,015</td>
<td>53</td>
</tr>
<tr>
<td>2.</td>
<td>Private ward</td>
<td>94,796</td>
<td>14</td>
</tr>
<tr>
<td>3.</td>
<td>Semisolid</td>
<td>43,351</td>
<td>6</td>
</tr>
<tr>
<td>4.</td>
<td>Therapeutic</td>
<td>153,003</td>
<td>22</td>
</tr>
<tr>
<td>5.</td>
<td>Enteral feeds</td>
<td>34,645</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>Total</td>
<td>682,810</td>
<td>100</td>
</tr>
</tbody>
</table>

Outpatient nutrition counselling (excluding Endocrinology, Paediatrics and Centres)

<table>
<thead>
<tr>
<th>Patients</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>3768</td>
<td>1883</td>
<td>1885</td>
</tr>
<tr>
<td>Old</td>
<td>1553</td>
<td>820</td>
<td>733</td>
</tr>
<tr>
<td>Total</td>
<td>5321</td>
<td>2703</td>
<td>2618</td>
</tr>
</tbody>
</table>

Indoor nutrition counselling | 2956
Patients and employees welfare services were organized by the Welfare unit.

**PATIENTS WELFARE**

**Patients care: Rs 48,54,000 (approx.) raised as donation**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Donation</th>
<th>Donor</th>
</tr>
</thead>
<tbody>
<tr>
<td>For treatment and surgery of poor and needy patients who are undergoing treatment in the main hospital and centres</td>
<td>Rs. 3,08,000</td>
<td>Jawahar Bhawan Trust</td>
</tr>
<tr>
<td></td>
<td>Rs. 2,26,035</td>
<td>Sahu Jain Trust</td>
</tr>
<tr>
<td></td>
<td>Rs. 40,000</td>
<td>Indo Global Social Service Society</td>
</tr>
<tr>
<td></td>
<td>Rs. 28,386</td>
<td>Baj Nath Bhandari Public Charitable Trust</td>
</tr>
<tr>
<td></td>
<td>Rs. 28,798</td>
<td>Sewa Prakalp Mahila Mandal Trust</td>
</tr>
<tr>
<td></td>
<td>Rs. 21,000</td>
<td>Vijay Gujral Foundation</td>
</tr>
<tr>
<td></td>
<td>Rs. 97,842</td>
<td>Other donors</td>
</tr>
<tr>
<td>AIIMS Poor Patients Fund Account</td>
<td>Rs. 1,00,000</td>
<td>Mr. Surjit Kumar Jairath</td>
</tr>
<tr>
<td></td>
<td>Rs. 1,50,000</td>
<td>Mrs. Dwarka Prasad Trust</td>
</tr>
<tr>
<td></td>
<td>Rs. 51,000</td>
<td>Shri Jarnail Singh</td>
</tr>
<tr>
<td></td>
<td>Rs. 31,000</td>
<td>Lt. Col. K.K. Varma</td>
</tr>
<tr>
<td></td>
<td>Rs. 30,000</td>
<td>Col Yash Bhatnagar</td>
</tr>
<tr>
<td></td>
<td>Rs. 30,000</td>
<td>Smt. Maharani Prasad</td>
</tr>
<tr>
<td></td>
<td>Rs. 11,000</td>
<td>Mrs. Diljeet Kaur Varma</td>
</tr>
<tr>
<td></td>
<td>Rs. 12,000</td>
<td>Mrs. Anjana Ahluwalia</td>
</tr>
<tr>
<td></td>
<td>Rs. 5,000</td>
<td>Mrs Shakuntala Bhatia</td>
</tr>
</tbody>
</table>

Anti-cancer drugs provided free to patients

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Donation</th>
<th>Donor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rs. 34,53,759</td>
<td>Gopal Foundation</td>
</tr>
<tr>
<td></td>
<td>Rs. 2,30,902</td>
<td>Dr. Chetan Memorial Divine Trust</td>
</tr>
</tbody>
</table>

In addition to the above, poor patients are being guided and assisted to avail of financial assistance for their treatments from Rashtriya Arogya Nidhi, P.M. National Relief Fund, Health Minister’s Discretionary Grant and other governmental and non-governmental agencies. Assistance to poor patients from Hospital Poor Patient Fund is also extended and they are also guided and helped for admission, exemption of levied charges, investigation charges, etc.

**Dharamshalas**

As a welfare activity through the aegis of the AIIMS Hospital Social Welfare Society, the Rajgarhia Vishram Sadan, Sureka Vishram Sadan and Shri Sai Vishram Sadan provided shelter to over 11,800 patients undergoing treatment and their attendants at the Institute and its Centres. In special cases, food was arranged through donors for the poor and needy inmates of the Vishram Sadans. A pick and drop facility from the Sadans to the hospital is also being run by the Institute for the benefit of the patients and their attendants.

Sapna (NGO) distributed 60 packets of dry ration once a week to the inmates of Rajgarhia Vishram Sadan. In addition, 60 packets of half a litre milk was also distributed every day to the patients staying at Rajgarhia Vishram Sadan. Yoga classes free of charge have been organized once a week through Cancer Patients Aid Association for the benefit of the inmates of the Vishram Sadans. Cancer Patients Aid Association celebrated Holi & Diwali with the inmates of the Sadans.

**Free Hearse van facility**

Free Hearse van facility has been organized through Shri Sai Bhakta Samaj (Regd.) to enable easy transportation of the dead body by relatives to their homes/crematorium in Delhi.
EMPLOYEES WELFARE

Appointment on compassionate grounds
Cases for appointments on compassionate grounds were dealt with. Counselling services and moral support was provided to the family members so as to assist them to accept/overcome the loss they had suffered and thereby enable them to shoulder their responsibilities.

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

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

Diwali celebration
Mr Sunil Bhutani celebrated Diwali with the children of our employees studying in the Nursery and Primary School being run by Medical Institute Residents Welfare Association (MIRWA). Sweaters, gifts and sweets were distributed on this occasion.

Celebration of Diwali with School Children. Seen in the picture are Dr D.K. Sharma, Medical Superintendent who distributed sweaters, gifts and sweets to the children studying in the Nursery and Primary School run by Medical Institute Resident Welfare Association (MIRWA) in the Community Hall, AIIMS. Also seen in the picture are donors Mr Sunil Bhutani and Mrs Shakuntala Bhatia.
6.4 Hospital Billing Section

The donations received and payments made to the patients during 2012-13 are as follows:

Donations received from donors  Rs. 10,10,782
(Bank interest+donations+poor fund boxes)

Payment made to 188 (137+51) patients Rs. 87,269

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

6.5 Nursing Services

Organization of Nursing services

<table>
<thead>
<tr>
<th>Role</th>
<th>Staff Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Nursing Officer (CNO)</td>
<td>1 (Acting CNO)</td>
</tr>
<tr>
<td>Nursing Superintendents</td>
<td>1</td>
</tr>
<tr>
<td>Deputy Nursing Superintendents (DNS)</td>
<td>14</td>
</tr>
<tr>
<td>Assistant Nursing Superintendents (ANS)</td>
<td>75</td>
</tr>
<tr>
<td>Staff Nurses Grade I</td>
<td>416</td>
</tr>
<tr>
<td>Staff Nurses Grade II</td>
<td>1101</td>
</tr>
<tr>
<td>Total</td>
<td>1606</td>
</tr>
</tbody>
</table>

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

Staff strength

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

Staff strength in main hospital

<table>
<thead>
<tr>
<th>Role</th>
<th>Staff Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Nursing officer</td>
<td>1 (Acting CNO)</td>
</tr>
<tr>
<td>Nursing superintendent</td>
<td>1</td>
</tr>
<tr>
<td>DNS</td>
<td>14</td>
</tr>
<tr>
<td>ANS</td>
<td>75</td>
</tr>
<tr>
<td>Sister Grade I</td>
<td>416</td>
</tr>
<tr>
<td>Sister Grade II</td>
<td>1101</td>
</tr>
<tr>
<td>Total</td>
<td>1606</td>
</tr>
</tbody>
</table>

Orientation/Briefing session

A well planned orientation programme is conducted at the time of recruitment of new Grade II staff nurses by designated nursing personnel to give an overview of the policies and functioning of the hospital in general and of nursing services in particular.
Last year from 297 newly recruited nurses received orientation during 15–22 January and 16–19 April regarding various aspects, viz. hospital layout, various departments, OPD schedules and their professional duties and responsibilities.

Experts from nursing services also conducted orientation/briefing sessions for visitors from various educational institutions across India.

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

**Nursing in-service education programme**
A well structured in-service education programme has been instituted since January 2011. Initially classes were held twice a week with each class of one hour duration, which were later increased to thrice in week classes. Two classes in a week are conducted for bedside nurses (Sister Grade II and Sister Grade I), whereas one class in a week is for senior nurses (Sisters in-charge and above)

- **Facilitator:** Mrs B.D. Prema H Kumar, CNO (acting) AIIMS
- **Mentor:** Mrs Ansamma Neelakantan, DNS, w.e.f February 2012
- **Educator:** Mrs Rebecca J. Herald, Sister Grade I (HR)
  Mrs Merin Lisa Kuriakose, Sister Grade II

During January–December 2012, a total of 3129 nurses from different departments in the main hospital attended this programme. The following lectures were delivered:

1. **Classes for Sister Incharges/ANS/DNS/NS/CNO**
   - Human relations in nursing
   - Materiel management
   - Ethical and legal issues in clinical nursing
   - Conflict management
   - Stress management
   - Nursing administration

2. **Classes for bedside nurses**
   - Patient safety
   - Nursing process
   - Human relations in nursing
   - Ethical and legal issues in clinical nursing
   - Pre and post operative nursing management
   - Stress management
   - Medication Administration Safety

A total of 114 lectures were taken on the above topics in different batches.

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

<table>
<thead>
<tr>
<th>CNO/NS</th>
<th>DNS</th>
<th>ANS</th>
<th>Sister Grade I</th>
<th>Sister Grade II</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17</td>
<td>268</td>
<td>1023</td>
<td>1820</td>
<td>3129</td>
</tr>
</tbody>
</table>

**Higher studies in Nursing**
Nursing services at AIIMS focuses on uplifting the quality of nursing care by facilitating abundant opportunities for higher studies. After 5 years of regular services, nurses are eligible for pursuing higher studies with full pay. Currently 7 nurses are pursuing post basic BSc nursing programme and 5 in MSc nursing programme. Higher degree allowance is provided to the graduates in Nursing.

**Conferences and workshops attended**
During the year, 279 nurses from different departments in the main hospital attended several national and international conferences/workshops. These include
11–18 January, TNAI workshop on ‘Nursing administration and Supervision for effective patient care’, TNAI Headquarters, Green Park, New Delhi. Participants 2

21–28 February, Skill Update for nursing personnel in Cardiac Nursing, RAK College of Nursing, New Delhi. Participants 2

30 March 2012, Chronic Kidney Disease: A hidden tsunami. Gulmohar Hall, India Habitat Centre, Lodhi Road, New Delhi. Participants 10

7–8 April, National Haematology update IX at J.L.N Auditorium, AIIMS, New Delhi. Participants 9

24 April, School children education programme at J.L.N Auditorium, AIIMS. Participants 9

18 April, Women’s Health—Menopause (Nutrition lecture series) at CMET, AIIMS. Participants 45

17–19 April, Psycho-Oncology volunteers training programme at Seminar Room, Surgery Department, AIIMS. Participantd-1

26–27 May, Training of staff on the examination of the rape victim reporting to emergency department of the institute. Participants 21

11–16 June, GFATM workshop for training of nurses on HIV/AIDS at Nightingale Institute of Nursing, Institutional Area, Sector 62, Noida (UP). Participants 5

11–18 June, Skill update on nursing administration at RAK College of Nursing, New Delhi. Participants 1

18–23 June, GFATM workshop for training of nurses on HIV/AIDS at Nightingale Institute of Nursing, Institutional Area, Sector 62, Noida (UP). Participants 5


3–10 July, Skill update on child healthcare at RAK College of Nursing, New Delhi. Participants 3


1–8 August, Workshop on human relation and communication skills for effective and efficient patient care at TNAI Headquarters, Green Park, New Delhi. Participants 2

20–25 August, GFATM workshop for training of nurses on HIV/AIDS at Nightingale Institute of Nursing, Institutional Area, Sector 62, Noida (UP). Participants 5

27 August–1 September, GFATM workshop for training of nurses on HIV/AIDS at Nightingale Institute of Nursing, Institutional Area, Sector 62, Noida (UP). Participants 5

4 September, Role of functional food in disease prevention and health promotion at CMET, AIIMS. Participants 30

3–8 September, GFATM workshop for training of nurses on HIV/AIDS at Nightingale Institute of Nursing, Institutional Area, Sector 62, Noida (UP). Participants 5

17–22 September, GFATM workshop for training of nurses on HIV/AIDS at Nightingale Institute of Nursing, Institutional Area, Sector 62, Noida (UP). Participants 5

8–15 October, Quality improvement on MCH care at RAK College of Nursing, New Delhi. Participants 2

8–13 October, GFATM workshop for training of nurses on HIV/AIDS at Nightingale Institute of Nursing, Institutional Area, Sector 62, Noida (UP). Participants 5

26 October, Symposium on Human rights and ethics at J.L.N. Auditorium, AIIMS. Participants 28

2 November, Bedside care to benchside research in Neuro Nursing at J.L.N. Auditorium, AIIMS, New Delhi. Participants 6


26 November–1 December, GFATM workshop for training of nurses on HIV/AIDS at Nightingale Institute of Nursing, Institutional Area, Sector 62, Noida (UP). Participants 5
Consultancy and participation as experts
Nurses from different departments participated and performed as facilitators for skill stations and hands-on-training sessions in various workshops conducted last year.

Visitors from various educational institutions
Nursing educators in AIIMS conducted orientation for groups from different educational institutions across India as listed below. A total of 477 visitors from various hospitals received orientation about AIIMS.

- Sinhgad College of Nursing, Pune, 18 January 2012 (45, BSc Nursing final year students and lecturers)
- Holy Spirit Institute of Nursing Education, Andheri (East), Mumbai, 2 February 2012 (30, BSc Nursing final year students and lecturers)
- Jaslok Hospital and Research Centre, 15 Dr G. Deshmukh Marg, Mumbai, 2 February 2012 (21, BSc Nursing final year students and lecturers)
- St. John’s College of Nursing, Bangalore, 6 February (35, BSc Nursing final year students and lecturers)
- St. John’s College of Nursing, Bangalore, 5th February (34, BSc Nursing students and lecturers)
- Bel – Air College of Nursing, Panchgani, Maharashtra, 22 February (48, BSc Nursing final year students and lecturers)
- Holy Cross College of Nursing, Amritapuri (C.G), 27 February (53, BSc Nursing final year students and lecturers)
- Terna Nursing College, Nerul (West), Navi Mumbai, 29 February (10, BSc Nursing final year students and supervisors)
- College of Nursing, St. Martha’s Hospital, Bangalore, 21 March (52, BSc Nursing final year students and lecturers)
- Yashoda College of Nursing, Saroor Nagar, Hyderabad, 23 March (9, Second year MSc Nursing students and lecturers)
- Govt. College of Nursing, Vandanam Medical College Complex, Allapuzha, 19 April (20, Second year MSc Nursing students and lecturers)
- Govt. College of Nursing, Fort, Bangalore, 25 April (38, BSc Nursing final year students and lecturers)
- Eashwari Bai Memorial CON, West Marredpally, Sikendrabad, 30 July (38, BSc Nursing final year students and lecturers)
- Govt. College of Nursing, Victoria Hospital, Fort, Bangalore, 9 August (40, third year BSc Nursing students and lecturers)
- CON, Christian Medical College, Ida Scudder Road, Vellore, 4 September (28, Second Year MSc Nursing students)
- S.P.D.S. College of Nursing, Khandwa Road, Indore, 11 October (17, BSc Nursing final year students and lecturers)
- Mother Theresa’s P.G. and Research Institute of Health Sciences, Pondichery, 15 November (37, MSc Nursing students and lecturers)
7. College of Nursing

Principal
Manju Vatsa

Lecturers
Meena Agarwal
Ashia Qureshi
Shashi Mawar
Sandhya Gupta
Deepika C. Khakha
Poonam Joshi
Rachel Andrews
Kamlesh Sharma
L. Gopichandran

Senior Nursing Tutor
Geeta Razdan

Nursing Tutors
Kiran Singh Simak
Sucheta
Philomina Thomas
Ujjwal Dahiya
Neelima
Gayatri Batra
Shashi Mawar
Meena Ara
Anubha D.
Nemkholam
Poonam Joshi
Babita Sahoo
Seema Sachdeva
Aditi Sinha
Hansaram

HIGHLIGHTS
This year 59 BSc (Hons) Nursing, 22 BSc Nursing (PC) students and 19 MSc nursing students graduated from the college. The college conducted 12 workshops/conferences and trained 750 nurses.

EDUCATION
Undergraduate
• BSc (Hons) Nursing: 59 students graduated from the four years course.
• BSc Nursing (Post-certificate): 22 students graduated from the two years course.

Postgraduate
• MSc Nursing: 19 students graduated from the MSc Nursing two year course, while 24 students have joined the programme this year in the following specialties:
  a) Paediatric Nursing
  b) Psychiatric Nursing
  c) Cardiology/ CTVS Nursing
  d) Neurosciences Nursing
• The College of Nursing conducted orientation/briefing sessions for 5 groups of visitors from various educational institutions from India and 2 groups of visitors from abroad (Ireland and Sweden)
• Faculty members of the college attended over 20 workshops/conferences and delivered lectures for continuing nursing/medical education programs and workshops held during the year.
• Faculty members were appointed examiner for several universities in India

Continuing Nursing Education (CNE)
The College of Nursing organized the following CNE programmes: Short term courses/ Symposia/Workshops
1. Workshop on Maternity Nursing, 21–23 February 2013; 28 nurses from AIIMS attended the workshop. Ms Kamlesh Sharma, Lecturer and Ms Poonam Joshi, tutor were the coordinators.
2. Workshop on Nursing update on CTVS Nursing, 6–8 March 2013; 33 nurses from AIIMS attended the workshop. Mrs Rachel Andrews was the coordinator.
3. Workshop on Effective human relations and communication skills in nursing, 25–27 February 2013; 24 nurses from AIIMS attended the workshop. Mrs Ashia Qureshi, Lecturer and Ms Ujjwal Dahiya were the coordinators.
4. Workshop on Management of nursing services: Leading today’s workforce, 11–13 February 2013; 26 nurses from AIIMS attended the workshop. Ms Shashi Mawar, Lecturer, was the coordinator.
5. Symposium on Human Rights and Ethics in Health Care, 26 October 2012, Annual day of the college. More than 300 nurses, students and others from AIIMS attended the programme. Ms D. Khakha, Lecturer was the coordinator.
6. Workshop on Nursing update on psychiatric emergencies, 13–15 March 2013; 29 nurses from AIIMS attended the workshop. Ms Deepika Khakha, Lecturer was the coordinator.
7. Neuro science Nursing Update, 20–22 March 2013; 31 nurses from AIIMS attended the workshop. Ms Meena Agarwal, Lecturer was the coordinator.

**National and International Conferences Organized**

1. 4th Annual Conference of the Indian Association of Neonatal Nurses, Bharati Vidyapeeth University, Pune. More than 200 nurses from all over India attended the conference. Dr Manju Vatsa, Principal, coordinated the conference.
2. Workshop on Evidence Based Nursing Practice, a part of 4th Annual Conference of Indian Association of neonatal nurses, Pune. More than 40 nurses attended the workshop and Dr Manju Vatsa, Principal, coordinated the workshop.
3. Workshop on Neonatal Resuscitation Program for nurses, a part of XXXII Annual Convention of National Neonatology, 15 December 2012, Delhi. More than 60 nurses attended the workshop. Dr Manju Vatsa, Principal was the convenor.
4. 33rd Annual Conference of the Society of India Neuroscience Nursing on ‘Evidence Based Practices in Neuroscience Nursing’, 19–20 December 2012, Gurgaon. Ms M. Aggarwal was the coordinator.
5. Workshop on CPAP, part of 4th Annual Conference of Indian Association of Neonatal Nurses, Pune. More than 40 nurses attended the workshop Ms Poonam Joshi, Lecturer coordinated the workshop.

**Lectures delivered**

<table>
<thead>
<tr>
<th>Lecturer</th>
<th>Session</th>
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<tbody>
<tr>
<td>Manju Vatsa</td>
<td>15</td>
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<tr>
<td>Ashia Qureshi</td>
<td>1</td>
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<td>Deepika C. Khakha</td>
<td>19</td>
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<tr>
<td>Kamlesh Sharma</td>
<td>8</td>
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<td>Shashi Mawar</td>
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<td>Poonam Joshi</td>
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<td>L. Gopichandran</td>
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<td>Philomina Thomas</td>
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<td>Ujjwal Dahiya</td>
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**RESEARCH**

**Funded projects**

1. Identification of barriers and facilitators for education of nurses, care of sick and at risk newborn babies in India. Manju Vatsa. Funded by Indo Shastri grant, Canada and SEARO, WHO

**Departmental projects**

**Ongoing**

1. A study to identify the periodicity of deliveries on the basis of data on deliveries from selected hospitals in India.
2. Is antenatal breast feeding education useful for improving breast feeding practice? A study conducted on primigravidae.
3. Migration of highly trained health personnel project India Case Study—a Canadian Institutes of Health Research–University of Ottawa project.

**PUBLICATIONS**

**Journals:** 11  
**Books:** 1

**PATIENT CARE**

1. The faculty and students participated in outdoor and indoor patient care activities of all clinical departments of the Institute.
2. The faculty and students organized and conducted:
   a) Participated in 4 rounds of Pulse Polio programme at 6 centres of South Delhi, organized by Govt. of N.C.T. of Delhi. Ms Shashi Mawar coordinated and supervised the programme.
   b) 85 health education sessions in rural areas and more than 80 in urban slums and OPDS of AIIMS on various health issues, such as B.P., immunization, newborn care, PNC Care, etc.
   c) Students conducted 9 surveys in various blocks of Ambedkar Nagar community to identify their health and social needs and conducted awareness programmes in the form of role plays and exhibitions. Ms S. Mawar coordinated and supervised.
AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Manju Vatsa was nominated member of Board of studies in nursing for PhD, M.M. University, Ambala; nominated UG and PG board of studies in nursing, PGIMS Rohtak, BHU Varanasi, Vir Bahadur Singh Poorvanchal University, Jaunpur, UP; Member, National Editorial Advisory Board, Prism’s Nursing Practice – Journal of Clinical Nursing (earlier called The Journal of Nursing) since its inception in 2005; International Journal of Nursing Education; nominated member International advisory board, Journal of Neonatal Nursing; Interviewed by Aakashvani Programme ‘Hamari Awaz’, 8 March 2013; Chief Guest, Valedictory function of National conference of Nurses League of Christian Medical Association of India; Elected second time President of Indian Association of Neonatal Nurses; Completed Post Graduate Diploma in Bioethics conducted by ICMR in collaboration with NIH-US and IGNOU; General Body, Executive and Nursing Education Committee Member of Indian Nursing Council; Core group member of INC PhD Consortium; Peer team member for Hinduja Hospital, College of Nursing, Mumbai, for NAAC (National Assessment and Accreditation Council of UGC); Member working group on strengthening Health Systems and Services–US–India Health Initiative, MOHFW; Member curriculum committee for BSc (Community Health) of the Medical Council of India; Member selection committees for UPSC New Delhi, NIMHANS Bangalore, IGIMS Patna, Hyderabad Central University, ILBS (Institute of Liver and Biliary Sciences – New Delhi), BMHRC (Bhopal memorial Hospital and Research Center); Examiner for BPKIHS, Dharan, Nepal; Invited for consultation on Gender Issues and its relation with healthcare by ICMR, Delhi; Participated in various committees of AIIMS – prevention of sexual harassment at workplace, ethics sub-committee, Staff Council, Convocation, Institute day, selection committee, etc.; Invited as Judge for Hindi Essay Competition by Hindi section, AIIMS during Hindi Week celebration; Nominated executive member of AIIMSONIANS; Acted as expert for MOHFW, Trained Nurses Association of India, National Medical Library, Public Health Foundation of India, Delhi Nursing Council, and National Neonatology Forum for various committees and meetings.

Manju Vatsa and Kamlesh Sharma were awarded first Prize for Paper presentation – Sithara S, Sharma K K, Sakshena M, Vatsa Manju “Breastfeeding problems: Epidemiology and its impact on exclusive breastfeeding rate at six months” 4th Annual conference of IANN, Pune, February 2013

M. Aggarwal won the Best Paper Award: Manju Dhandapani, Meena Agarwal, A.K. Mahapatra and Alka Chutani for “a study to assess the Nutritional Status in patients of severe head injury” during the National annual leaf of the society of Indian Neuroscience Nurses, Gurgaon, December2012; 3rd prize for Poster Presentation: Biju S., M. Agarwal and Gurdutta Satyara Comparison of Continues version intermit Nasogastric tube feeding in Head injury patients a randomized controlled trail. In national Conference of the society of Indo Neuroscience nursing, December 2012, Gurgaon.

A. Qureshi invited as chief guest during 4th Foundation day of College of Nursing, RIMS, Imphal, December 2012 and delivered lecture on Evidence Based Nursing practice; Invited for selection Committee meeting, 29 May 2012, RIMS, Imphal.

Deepika Khakha was Examiner for Jamia Hamdard, PGIMER, Chandigarh, Ch. Charan Singh University, Baba Farid University of Health Sciences, AIIMS; Supervisor for MBBS Enterance Exam, & adjudicator for MSc thesis for BP Koirala Institute of Medical Sciences; Chaired two sessions session on ‘Technologies that enhanced nursing care delivery’ Second International Conference on Cost Effective use of technology in Emergency Healthcare, JPNATC, AIIMS, September 2012; Chaired a free paper presentation at Neuropedicon 2012, November 2012; Chaired two sessions, 61st Annual National Conference of the Neurological Society of India and 33rd Annual Conference of Society of Indian Neuroscience Nurses, December 2012; Reviewer for Baba Farid University Nursing journal; Conducted 3 visits as Counselling supervisor for HIV counselors, GFATM, University of Delhi.

Kamlesh Sharma was ad-hoc inspector of Indian nursing council (INC) to inspect schools of nursing in Jammu in October 2012; Contributed for revising Indian Nursing Council ANMs curriculum; Examiner for Gujarat University, NINE PGIMER, Chandigarh, Rufaïda College of Nursing, Jamia Hamdard University, Florence Nightingale College of Nursing, Jiwaji University, Gwalior, and Baba Farid University of Health Sciences; Chaired a session on “Wound management” TRAUMA 2012 – an International Conference, CME cum Live Workshop and Fifth Conference of the Indian Society for Trauma and Acute Care (ISTAC), November 2012, AIIMS; Chaired a session on ‘Human Milk in NICU and Neonatal Morbidities: evidence, mechanism and best practices. Empowering nurses to handle difficult parental situations, Developmental

Poonam Joshi was resource person in a national project on Development of neonatal healthcare services delivery model for rural India for training programmes by AIIMS and UNICEF; Examiner at Jamia Hamdard, Hamdard University, AIIMS, and IP University, Delhi; Presented three posters on Neonatal sepsis, bacterial Isolates and antibiotic susceptibility patterns among neonates in a neonatal intensive care of a selected tertiary level care hospital., The prevalence, probable causes of stress, symptoms associated and coping strategies among nurses working in various paediatric and neonatal care units, an exploratory survey, Complementary feeding practices among children between 6 months to 24 months: a survey, at National Neonatology Forum Conference from Dec, 2012.

Ujjwal Dahiya underwent organ donation certificate course for transplant coordinators, 24-26 September 2012, ILBS, New Delhi
8. Research Section

As per the mandate given to the All India Institute of Medical Sciences (AIIMS), research forms an important component. AIIMS has been at the forefront of conducting high quality research, both in the fields of basic and applied sciences. During the year under review, the faculty of the AIIMS drew extramural grants for various research projects from national and international agencies of nearly Rs. 69 crores and intramural grants funded by AIIMS of Rs 1.31 crores. At present, 508 extramural and 51 intramural funded projects are being conducted at AIIMS.

This section deals with the administration of all the extramural research conducted at AIIMS. The Research Advisory Councils constituted by the Director are as follows.

**Research Advisory Council (Basic Medical/Allied Sciences)**

1. Professor R.C. Deka, Director, AIIMS  
   Chairman
2. Professor Krishna N. Ganesh, Director  
   Indian Institute of Science and Research, Pune  
   Member
3. Dr Sayed Hasnain, Distinguish Professor of  
   Biological Sciences at the Indian Institute of Technology, Delhi  
   Member
4. Professor N.R. Jagannathan, Head, NMR Facility, AIIMS  
   Member
5. Professor S.P. Thiagarajan, PhD, Director and Chief Advisor,  
   Sri Ramachandran University, Porur, Chennai  
   Member
6. Professor Balram Bhargava, Cardio/Bio-designs, AIIMS  
   Member
7. Professor Anand Mohan, PhD, Professor of Electronics,  
   Institute of Technology, BHU, Varanasi  
   Member
8. Professor Madhu Khullar, Department of Experimental  
   Medicine, PGIMER, Chandigarh  
   Member
9. Professor A.B. Dey, Dean (Research), AIIMS  
   Member–Secretary

**Research Advisory Council (Clinical)**

1. Professor R.C. Deka, Director, AIIMS  
   Chairman
2. Professor T.M. Mohapatra, Ex Directore, IMS-BHU  
   Varanasi  
   Member
3. Professor P. Satish Chandra, Director  
   NIMHANS, Bangalore  
   Member
4. Professor N.K. Mehra, Professor and Head  
   Department of TII, AIIMS  
   Member
5. Professor S.K. Panda, Head of Pathology, AIIMS  
   Member
6. Professor Narendra K. Arora, Executive Director  
   Inclen Trust India, New Delhi  
   Member
7. Professor K.M. Shyam Prasad, Chancellor  
   Martin L. Christian University, Shillong, Meghalaya  
   Member
8. Professor Neeraj K. Seth, Head (Planning and Evaluation)  
   National Institute of Health and Family Welfare (NIHFW), New Delhi  
   Member
9. Dr R. Goswami, Additional Professor of Endocrinology  
   and Meta, Sub-Dean (Research)  
   Member
10. Professor A.B. Dey, Dean (Research)  
    Member–Secretary
9.1 Anaesthesiology

**Professor and Head**
Chandralekha

**Professors**
Mahesh K Arora
Rajeshwari Subramaniam
Lokesh Kashyap
Dilip K Pawar
Anjan Trikha
Dilip Shende (RP Centre)
Ravinder Kumar Batra
Maya Dehran
Ganga Prasad

**Additional Professors**
Virender K Mohan
Vimi Rewari
Vanlalnghaka Darlong

**Associate Professors**
Renu Sinha (RP Centre)
Ravinder Pandey
Jyotsna Punj
Rashmi Ramachandran
Anjolie Chhabra

**Assistant Professors**
Amar Pal Bhalla
Dalim Baidya (Dental)
Devlina Goswami (Dental)

**HIGHLIGHTS**
The department has established a high fidelity Human Patient Simulation system to provide training to postgraduates. Four workshops using this system were organized and conducted by the department. The department offers short term and long term training in various subspecialty areas such as Paediatric anaesthesia, Intensive care and Pain clinic. An international conference, 5th SAARC Critical Care Congress (SCCC) and 2nd International Conference on Recent Advances in Anesthesiology (INCRAA) was organized by the department. For the first time, the department was awarded the Bakshi Memorial Rolling Trophy donated to ISA Delhi in 1987, for best presentation and best clinical meeting of the year 2012–13.

**EDUCATION**
The departmental faculty is actively involved in the teaching and training of undergraduates, postgraduates and nursing students (BSc and MSc). The departmental teaching programme for postgraduates is conducted on four days of the week and includes Seminars, Case presentations, Journal clubs and Tutorials.

The Department has started regular postgraduate training on high fidelity patient simulation system and 18–20 sessions per year are being conducted. All first semester postgraduates are trained on manikins for acquiring basic skills, e.g. intravenous cannulation, lumbar puncture, epidural puncture, central venous cannulation and endotracheal intubation.

**Short and long term training**
- Long term trainee: One (Army)
- Short term trainee: Three (Army; JLN Hospital and Research Centre, Bhilai; Hindu Rao Hospital, Delhi)
- Observers: Two (Afghanistan)
- DM trainees: One (Paediatric Neurology)
- MD trainees: Three (Radiodiagnosis 2, Emergency medicine 1)

**International conferences**
The department organized the 5th SAARC Critical Care Congress (SCCC) and 2nd International Conference on Recent Advances in Anesthesiology (INCRAA), 5–7 October 2012; 500 national and international delegates attended. The scientific programme consisted of 32 lectures delivered by reputed national and international faculty. Fifty-eight international delegates from various countries such as UK, Ireland, Canada, USA, Australia, Germany, Iran, Saudi Arabia, and SAARC countries (Pakistan, Nepal, Maldives, Afghanistan and Bangladesh) participated in the conference.
Workshops
The department conducted four workshops on ‘High Fidelity Human Patient Simulation System’, on 29 September 2012, 30 September 2012, 5 October 2012 and 27 November 2012 at AIIMS, New Delhi. Senior faculty members from various medical colleges of Delhi and outside Delhi attended these workshops and were given certificate of training. The workshop on 5 October 2012 was co-conducted by three international faculty from Australia and Germany.

Other workshops conducted by the department/departmental faculty include
1. Workshop for occasional paediatric anaesthetists to make their clinical practice safer, K.K. Women’s and Children’s Hospital, Singapore, 18 August 2012.
3. Workshop on Training the trainer course in Paediatric Anaesthesia, West China Hospital, Sichuan University, Chengdu, China, 16–19 March 2013.

Lectures delivered
Anjan Trikha: 14 Maya Dehran: 1 Vimi Rewari: 3 Renu Sinha: 2
Jyotsna Punj: 2 Rashmi Ramachandran: 2

Papers presented
Chandralekha: 1 M.K. Arora: 2 Vimi Rewari: 3 Renu Sinha: 6
Jyotsna Punj: 2

RESEARCH
Funded projects
Ongoing
1. Comparison between skin conductance algesimeter index and VAS based pain therapy: a pilot study. Chandralekha, CSIR.
2. Comparison of paralysis of laryngeal adductor vs adductor pollicis at time of intubation with NIM EMG endotracheal tube. Jyotsna Punj. AIIMS Intramural grant. Rs 5 lakhs.

Completed

Departmental projects (including thesis/dissertations)
Ongoing
1. Pain assessment in the critically ill, mechanically ventilated adult patients a comparison between skin conductance algesimeter index, critical care pain observation tool and physiologic indicators
2. Efficacy and safety of dexmedetomidine in providing analgesia for patients undergoing tubal ligation under local anesthesia.
4. Safety and efficacy of intrathecal morphine for peri operative analgesia in patients undergoing total laparoscopic hysterectomy.
5. Retrospective analysis of effect of anesthesia on the outcome of pregnancy after IVF.
6. To study the safety and efficacy of dexmedetomidine in arthroscopic knee surgery.

8. To evaluate the efficacy of obturator nerve block in controlling the adductor muscle spasm during transurethral resection of bladder tumour involving lateral wall: Nerve stimulator guided Vs Ultrasound guided technique.

9. Continuous thoracic paravertebral infusion in modified radical mastectomy: Randomized, prospective, double blinded study to compare efficacy of ropivacaine with and without fentanyl.


11. Evaluation of minimum dose of atracurium in pediatric cataract surgery; a randomized controlled trial.

12. Effect of fentanyl administered at different time intervals on induction dose of propofol.


15. Anaesthetic implications and perioperative concerns in pregnant patients with antiphospholipid antibody syndrome – a retrospective audit.


17. Effect of addition of magnesium to local anaesthetic for peribulbar block – a prospective randomized double blind study.


19. Comparison between skin conductance algesimeter index and VAS based pain therapy—a pilot study.

20. To assess the analgesic efficacy of TAP block (ropivacaine) in adult patients undergoing open inguinal hernia repair under local anaesthetic infiltration.

21. Sono-anatomical analysis of right internal jugular vein and carotid artery at different levels of positive end expiratory pressure in anaesthetized paralysed patients – A randomized controlled trial.

22. Effect of three different dextrose containing intravenous fluid regimens on carbohydrate and lipid metabolism, acid base status and stress hormones in neonates.

Completed


2. Effect of dexmedetomidine as an adjuvant to bupivacaine in femoral nerve block for perioperative analgesia in patients undergoing total knee replacement arthroplasty under subarachnoid block – A dose response study.

3. Effect of addition of various doses of clonidine 15 mcg, 25mcg, 35mcg to hyperbaric bupivacaine 0.5%, 2ml (10 mg) on subarachnoid block characteristics and haemodynamic parameters in patient undergoing transurethral resection of prostate and transurethral resection of bladder tumors.

4. Evaluation of hemodynamic changes and fluid responsiveness in lithotomy and prone position by stroke volume variation and pulse pressure variation during volume controlled ventilation in patients undergoing percutaneous nephrolithotomy.

5. Use of spectral entropy to monitor sedation in patient undergoing surgery in sub-arachnoid block.

6. Air-Q ILA as a conduit for orotracheal intubation in children; An interventional clinical trial.


8. Comparison of total intravenous Anaesthesia with conventional general anaesthesia in children undergoing cochlear implant surgery.

9. Requirement of isoflurane and vecuronium in diabetic patients with and without diabetic autonomic neuropathy undergoing elective surgery; as determined by entropy and Neuro Muscular Transmission (NMT) monitor respectively.

10. Comparison of Morphine and Nalbuphine for intraoperative and postoperative analgesia in patients undergoing open gynaecological surgery.

11. Comparison of topical lignocaine gel 2% and proparacaine 0.5% eye drops for prevention of oculocardiac reflex and providing perioperative analgesia in children undergoing elective strabismus surgery.

13. Evaluation of minimum dose of neuromuscular blocking agent in paediatric cataract surgery—a randomized controlled trial.

14. Variation in LMA cuff pressure and ventilatory parameters in paediatric patients: effect of air and O₂ – air mixture used for LMA cuff inflation.


17. Analgesic efficacy of transverses abdominis plane block for laparoscopic inguinal hernia repair in adult patients: a randomized controlled trial.

Collaborative projects

Ongoing

1. Quantitative estimation of indices for components of balanced anesthesia using electroencephalographic signals from sub-human primates. (Centre for Biomedical Engineering, Indian Institute of Technology, Delhi and Central Scientific Instruments Organization, Chandigarh).

2. Development of an anesthesia delivery work station. (Centre for Biomedical Engineering, Indian Institute of Technology, Delhi and Central Scientific Instruments Organization, Chandigarh).

3. Comparison of outcomes after laparoscopic incisional hernia repair using absorbable versus non absorbable tackers (Surgical Disciplines).

4. Comparison of outcomes in patients undergoing Single Incision Laparoscopic Surgery (SILS) versus conventional 4-port cholecystectomy. (Surgical Disciplines).

5. Evaluation of focal consolidation and systemic cheoreduction in management of intraocular retinoblastoma (Ophthalmics).

6. Results of medical and surgical treatment in cases with traumatic and iatrogenic facial nerve injury. (ENT).

Completed

1. Comparison of long term outcomes in laparoscopic hernia repair (Surgical Disciplines).

2. Comparison of testicular pain and chronic groin pain in open vs laparoscopic hernia repair (Surgical Disciplines).

3. Comparison of long term outcomes and quality of life after laparoscopic incisional and ventral hernia repair with or without tackers (Surgical Disciplines).

PUBLICATIONS

Journals: 39      Abstracts: 5      Chapter in Books: 1

PATIENT CARE

Anaesthetics administered

1. Main operation theatres:
   Surgical Disciplines: 2523  Gastrointestinal surgery: 421
   Urology: 1123  Otorhinolaryngology: 1036
   Obstetrics and Gynaecology: 958  Paediatric surgery: 1725
   Dental surgery: 105

2. Main operation theatres emergency cases
   Cases done: 3958  Calls attended: 1938

3. Peripheral operation theatres
   Maternity: 2310  IVF: 318
   Orthopaedics: 2679
   Dr. R.P. Centre for Ophthalmic Sciences: 7417
   Routine cases under GA: 5903  Emergency cases under GA: 1381
   Surgery done under MAC: 133

4. Procedures under GA in periphery:
   Modified Electroconvulsive therapy: 1486
   CT scan: 873  MRI: 291
   Paediatric USG (RPC): 101  Others: 56
   Grand Total (anaesthetics administered): 26,059
   Intervventional pain management procedures: 273

AIIMS 2012-2013/ 48
Intensive care Unit AB8
Admissions: 484  Transfers to ward: 384  Deaths: 100

Preanaesthesia clinic
Old cases: 750  New cases: 7459  Total: 8209

Pain clinic
Old cases: 2207  New cases: 1090  Total: 3297

AWARDS, HONOURS AND SIGNIFICANT EVENTS
**Professor Chandralekha** was awarded a Fellowship of Indian College of Anaesthesiologists (FICA) 2012; nominated Executive Member to Bureau of Indian Standards (BIS) and Chairperson of Anaesthetic, resuscitation and allied equipment sectional committee MHD-11; Chairperson, Academic Committee of Indian College of Anaesthesiologists; nominated Member, Governing Body of Indian College of Anaesthesiologists; nominated Senate member, Mahatma Gandhi Medical University of Health Sciences, Navi Mumbai; nominated President, SAARC Association of Critical Care Medicine for two years; Committee Member, New Drug Division of Drug Controller General of India; President Elect, ISA Delhi Branch, 2014.

**Professor Anjan Trikha** was awarded fellowship of Indian College of Anesthesiologist (FICA); nominated member, Academic committee, Indian College of Anesthesiologist; nominated President, Association of Obstetric Anesthesia; nominated Chief Editor, *Journal of Obstetric Anesthesia and Critical Care* (JOACC); nominated expert, Committee for setting up curriculum for diploma course in Anesthesia to be started by IGNOU, New Delhi; nominated expert, Committee for setting up curriculum for diploma course in Intensive Care to be started by IGNOU, New Delhi.

**Dr Darlong** was awarded second prize in Best research paper awards by *Singapore Medical Journal* for paper titled ‘Low- versus high-dose combination of midazolam-ketamine for oral premedication in children for ophthalmologic surgeries’

**Dr Anjolie Chhabra** was awarded Commonwealth Academic Staff Fellowship 2012 at St James’ University Hospitals, Leeds, UK; October 2012–31 March 2013 for training in ultrasound guided regional anaesthesia; Granted Fellowship of the International Medical Sciences Academy in August 2012; Continuing as Editorial Board Member, *Trends in Anaesthesia and Critical Care*, an Elsevier publication available online Science Direct.
9.2 Anatomy

Professor and Head
Shashi Wadhwa

Professors
R.D. Mehra
T.S. Roy
A. Shariff
Pushpa Dhar
S.B. Ray

Additional Professors
T.K. Das (Electron Microscopy)
Rima Dada
T.C. Nag (Electron Microscopy)
Arundhati Sharma (Genetics)
Renu Dhingra
Ritu Sehgal

Assistant Professor
Saroj Kaler

HIGHLIGHTS
A state-of-the-art audiovisual system has been installed in the Gross Anatomy Laboratory consisting of a network of workstations with large screen high-definition monitors suspended from the ceiling for all the dissection tables which can be accessed using wireless keyboards with track pads for presenting relevant learning resource materials, from the departmental servers as well from the internet for teaching/learning of gross anatomy. Apart from this, the department has provided training to postgraduates and faculty from various universities and medical colleges. It has helped in conducting several cadaveric workshops which has facilitated the training of personnel from different departments like Neurosurgery, Orthopaedics, Pulmonary medicine and Sleep disorders, Anaesthesia, etc. Several members have served as visiting faculty to different universities and institutes and have delivered guest and invited lectures both in India and abroad.

The faculty and students have presented their research work in various national and international forums and won awards in different aspects of anatomy including neurosciences, embryology and genetics. The faculty is engaged in research work funded by grants from the intra- and extramural agencies and have noteworthy research publications in peer reviewed journals. The faculty has served as members on several committees including developing course curriculum for graduate and postgraduate students. They have also served on the editorial boards of several national and international journals and have acted as reviewers for research projects from various intra- and extramural funding agencies. The department provided hospital service in the form of embalming facilities and patient care through diagnostic and counselling services for various genetic and metabolic disorders.

EDUCATION
Innovative educational activity
A state-of-the-art audiovisual system has been installed in the Gross Anatomy Laboratory consisting of a network of 9 workstations. Tutors and students of respective dissection tables can access these workstations using wireless keyboards with track pads. These are used for presenting learning resource materials in the form of video/power point presentations for teaching/learning of gross anatomy. All the workstations can also be controlled from a teacher’s console for interactive presentation of gross anatomical demonstrations, etc., to one or more groups of students. Specific learning objectives and quizzes are constantly presented through one of the channels on the workstations to guide and stimulate learning in the dissection hall. These audiovisual systems have been conceptualized and implemented by Dr A Shariff with funds sanctioned by the Oversight (Moily) committee for the augmentation of the departmental facilities for the undergraduates.

Short and long term training
Six students from different Universities received training in neuroanatomical techniques, cryosectioning, immunohistochemistry, western blotting, animal handling and various cytogenetic and molecular genetic techniques. Faculty from the department took lectures on Neuroanatomy and Human Genetics for MSc Neuroscience and MSc Human Molecular Genetic students, Jiwaji University, Gwalior. The faculty also delivered lectures in the Technology Training Platform held in July and November 2012 and January 2013 for new faculty members who joined AIIMS to familiarise them with the language of Molecular Biology and its
techniques. Three faculty members from AFMC, Pune, Govt Medical Colleges, Srinagar and Thrissur, one faculty member from Nepal and two BTech students from Amity University underwent training in cytogenetics and various techniques of Molecular biology.

CMEs/Workshops/Symposia/National and International conferences
The department helped conduct several cadaveric workshops which facilitated training of personnel from departments such as Anaesthesiology, Neurosurgery, Orthopaedics, Pulmonary medicine and Sleep disorders, etc.

Lectures delivered
S. Wadhwa: 2  R.D. Mehra: 2  T.S. Roy: 4  P. Dhar: 1
S.B. Ray: 2  Rima Dada: 7  A. Sharma: 1  R. Dhingra: 1

Papers/posters presented: 37

RESEARCH
Funded projects
Ongoing
2. Estrogen induced regulation of complement system in rat brain: An approach to understand neuroprotective and anti-inflammatory role of the hormone. RD Mehra, ICMR, 2012–14, Rs 45 lakhs.
5. Estrogen, menopause and the aging brain: An experimental approach to understand the menopausal effects in non-reproductive areas of brain and to assess the protective effects of estrogen and estrogen-like compounds as therapeutic intervention. RD Mehra, ICMR, 2012–15, Rs 27 lakhs.
7. Selective neurotransmitter and neuropeptide receptors as targets for relieving postoperative pain in combination with loperamide, a mu-opioid receptor agonist after intrathecal administration in rats. S B Ray, DBT, 2011–14, Rs 80.1 lakhs.
8. Role of sperm factor (oxidative stress, DNA damage) in RSA. R Dada, DBT, 2010–13, Rs 15 lakhs.
16. Morphological and biochemical changes in neonatal chick retina following exposure to variable photoperiods. TC Nag, DST, 2013–16, Rs 33.60 lakhs.

Completed
1. Influence of prenatal chronic noise exposure on brain stem auditory nuclei, hippocampus and spatial memory in chicks. Shashi Wadhwa, DBT, 2008–12, Rs 65.5 lakhs.
5. Structural and biochemical changes in the vascular network of aging human retina. TC Nag, AIIMS, 2011–13, Rs 5.0 lakhs.

**Departmental projects**

**Ongoing**
1. Estrogen hormone interactions in female rat hippocampus
2. Neuroprotective and anti-inflammatory role of estrogen and tamoxifen via regulation of complement proteins in female rat hippocampus
3. Effect of rat Raloxifene on cardiac morphology in ovariectomized rats
4. Effect of exogenous α-Lipoic acid on arsenic induced oxidative stress in developing rat kidney
5. Development and aging of the human auditory system
6. Age changes in the human trochlear, abducent and cochlear nerve
7. Morphology of the fetal and adult human pancreatic duct system
8. Effect of antioxidants on sodium arsenite induced neurotoxicity in the developing rat cerebellum
9. Radiographic evaluation of morphological & morphometric features of mental foramen
10. Morphometric evaluation of Mandibular condyle using Cone Beam Computed Tomography
11. Effect of arsenic exposure during early post natal period on rat kidney
12. Role of s-VEGFR in endoplasmic reticulum stress in preeclampsia
13. Effect of hypoxia on the expression of PPARs and angiogenic factors in trophoblast cells
14. Status of Histone acetyl transferase and SIRT 1 expression in a rat model of light-induced retinal damage

**Completed**
1. Effect of lipoic acid as an antioxidant supplement on arsenic induced toxicity in developing rat hippocampus

**Collaborative**

**Ongoing**
1. Evaluation of development of neurosurgery skills by hands–on skills training and interactive virtual training. (Neurosurgery)
3. Oxidative stress assessment in Follicular fluid in Endometrioses and PCOS. (Obstetrics & Gynaecology)
4. Role of Oxidative stress and DNA damage in unexplained fetal malformations. (Obstetrics & Gynaecology)
5. Levels of oxidative stress biomarkers in follicular fluid of women with PCOS undergoing IVF and its relation with ART outcome (Obstetrics & Gynaecology)
6. Assessment of oxidative stress in Amniotic Fluid in congenital malformed fetuses diagnosed by USG (Obstetrics & Gynaecology)
7. Clinical, radiological and genetic study in Blepharophimosis, Molecular analysis in congenital cataract (RP Centre)
8. Investigation of genetic variations in CH13L1 and effect of YKL-40 production in Indian Asthmatic patients; Markers of stress and their contribution with mild cognitive impairment and dementia; Mutation screening of GPR-65 in LGS; Evaluation of Reflexology as an adjunctive therapy in patients with Lennox Gastaut Syndrome. (Biophysics)
9. Randomised controlled trial to compare the efficacy of doxycycline alone and in combination with Diclofenac on oxidative status in infertile men (Obstetrics and Gynaecology, LHMC, N Delhi)
10. A study of chronic exposure to magnetic field on pain status of fibromyalgia patients (Physiology)
11. Molecular and Clinical profile in intractable epilepsy (Neurosurgery)
12. Study on the genotype-phenotype correlation in Asian Indian patients with growth hormone deficiency. (Endocrinology)
13. MEN1 gene mutation in patients of primary hyperparathyroidism, pancreatic tumors and pituitary tumors and its clinical implications. (Department of Endocrinology)
15. A study on the molecular etiology underlying skeletal dysplasia. (Endocrinology)
16. A study on the association of Monoaminergic pathway gene polymorphisms and opioid dependence (NDDTC)
17. The spectrum of 11p13 and 11p15 deletions in Wilm’s tumour with histological correlation (Pathology)
18. Assessment of fine needle aspiration cytology for molecular genetic analysis in neuroblastoma (Paediatric Surgery)
19. Clinical and mutational spectrum of Fuch’s endothelial dystrophy in Indian population (RP Centre)
20. Determinants of disc morphometry in juvenile open angle glaucoma (RP Centre)
21. Identification of HLA alleles and correlation with Prakruti types (NMR)
22. Feasibility study of a novel intradose access device for emergency vascular access (Cardiac Radiology, IIT and Stanford University)
23. Department of Science and Technology DST FIST Program Level 2. Department of Computer Science and Engineering: IIT Delhi as Repository- Centre for Archival transmission and Computing (Neurosurgery)
24. Functional development of the visual cortex following prenatal repetitive auditory stimulation in chicks (Gallus domesticus): role of noradrenaline (Physiology)

Completed
1. Role of TNF-α in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF-α therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas. TS Roy, ICMR, 2009–12, Rs 29.81 lakhs (with Gastroenterology)
2. Comparison of administration of bone marrow mononuclear (BMMNCs) in combination with melatonin versus BMMNCs alone in middle cerebral artery occlusion model of stroke in rats. TS Roy, DBT, 2009–12, Rs 29.7 lakhs (with Neurology)

PUBLICATIONS
Journals: 34 Abstracts: 5 Chapters in books: 3

PATIENT CARE
Genetic Diagnostic and Counselling Services
Cytogenetic analysis 341 Yq microdeletion analysis by PCR 59
Seminal ROS estimation 325 Karyotyping 490
Molecular diagnosis of genetic disorders, prenatal diagnosis and counselling 61

Embalming of dead bodies
For transportation 785 For teaching/research 19

Fluorosis Diagnostic Laboratory: Fluoride estimation
Urine Blood/serum 180 Drinking water 70

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shashi Wadhwa was nominated for the Prof. BK Bacchawat Memorial Lifetime Achievement Award of IAN- 2013; nominated member, Standing Academic Committee, Sher-i-Kashmir Institute of Medical Sciences, Srinagar; Chief Guest and inaugurated DST sponsored Inspire Internship programme, 8 January 2013, Amity University Campus, Haryana; delivered inaugural talk on ‘Environment and the developing brain’ to students of 12th class from various schools; invited by Department of Health Research, Govt. of India, to participate in meeting of expert group on ‘Human Resource Development for Institutions’, New Delhi, 14 Mar 2013; chairperson, review committee to finalize the Twelfth Five-year Plan programme on ‘Improving combat efficiency at High and Extreme altitude’, DIPAS, New Delhi, 21 March 2013; member, National Apex Committee for Stem Cell Research and Therapy; member, CSIR travel grant committee;
selection committee member for promotion of scientists at the NBRC, Manesar, Haryana; external examiner for MD examination of Lucknow University; external examiner, PhD thesis, SGPGI, Lucknow; external expert, selection of Senior Technical Officer in Electron microscopy at CCMB, Hyderabad; Officer in Charge, Electron Microscope Facility (till December 2012); Central Public Information Officer (CPIO) for disclosure under RTI for Anatomy Department; Chairperson, Deans’ committee; Member, Patent cell committee, Institutional committee for stem cell research and therapy; member, editorial board, Journal Anatomical Society of India; reviewed neuroscience research projects and annual project reports for ICMR and DBT; chaired session at XXX Annual Conference of Indian Academy of Neurosciences (IAN) and the International Symposium on ‘Translational Neurosciences: Unravelling Mysteries of Brain in Health and Disease’ Guru Nanak Dev University, Amritsar, 27–30 October 2012.

Professor R.D. Mehra was member, Selection Committee, selection of Assistant Professors in Anatomy; invited Expert, Senior Research Fellow selections, Vardhaman Mahavir Medical College, IP University; member, Panel for selection of Jyotsna Raghunath Bhattacharya prize of IAN in October 2012; Member, Board of Selectors of six AIIMS like Institutions of Govt. of India for appointment of faculty in Anatomy; Expert, selection of Sr. Tutors in Anatomy at AIIMS; member, Exhibition Committee for Institute Day celebrations and Co-ordinator for 15 August and Institute Day Cultural Programme; reviewed neuroscience research projects for ICMR, DBT, DST, CSIR and manuscripts for publication in Brain Research, Neurosciences letters, International journal of Sciences and Life Science; nominated Chairperson of Window AC Committee; member, Chronic Disease Biology (Neuroscience, biomarkers and neuroengineering), Task Force of DBT; chairperson, reception committee for Convocation; Election Commissioner, Students Union Election 2013; Convenor and Chairperson, Symposium on ‘Brain Aging and Plasticity’, XXX Annual Conference of Indian Academy of Neurosciences and International Symposium on Transitional Neurosciences: Unravelling Mysteries of Brain in Health and Disease’, 27–30 October 2012, Amritsar; member, national committee and chairperson, scientific committee of the 27th conference of Society for Neurochemistry (SNCl) International Conference on Recent Advances in Molecular Mechanisms in Neurological Disorder, 21–23 February 2013, New Delhi.

Professor T.S. Roy was nominated executive and life member of the Association of Gerontology, India; member, editorial board, Pancreas; coordinator and member, Medical Council of India expert committee for evaluation of medical colleges in India; examiner and expert for postgraduate examination and faculty selection committee for various Indian Universities; member, Board of Studies, Department of Anatomy, Aligarh Muslim University, Aligarh; worked as expert in establishment of new medical college in Delhi (MCD); reviewed projects on neurosciences for various research organizations and manuscripts for the journal, Clinical Anatomy, Pancreas, National Medical Journal of India, Indian Journal of Medical Research, PLoS One, Brain Research and Neuroscience Letters; member, Review committee of intramural projects funded by AIIMS, chaired a session on ‘Medical Gerontology’ in the International Symposium on aging (ISOA 2012) and 16th Biennial Conference of Association of Gerontology, 1–3 October 2012, Shillong, India.

Professor P. Dhar was Inspector for Medical Council of India; set paper and examiner for MBBS, MD (Anatomy) at various institutes and universities; reviewer for manuscripts submitted to BJMMR; member, Teaching Schedule and Anti-ragging Committee of AIIMS; Attended training Course, ‘Enhancement of training skills for faculty members of training institutes and health professionals’, National Institute of Health and Family Welfare (NIHFW), 11–15 Mar 2013, New Delhi.

Professor S.B. Ray served as an external examiner for first professional MBBS examination, University of Delhi; Visiting Faculty, Jiwaji University, Gwalior; reviewed manuscripts for Molecular Medicine and Indian Journal of Experimental Biology.

Dr Rima Dada was awarded the Lalor foundation award and NIH travel grant by American society of Andrology in its annual meeting at Arizona, USA; jury member for Medical Research Council fellowships, Edinburgh and for Royan International research awards in Reproductive Biomedicine and Stem cells, Iran; reviewed articles submitted to Journal of Reproduction and Contraception, PLoS One, American J of Human genetics, RBM on line, Indian Journal of Medical Research, Andrologia, Fertility and Sterility, Mitochondrian, BMJ case report, Andrologia, J of Paediatric Neurology and J of Paediatric Biochemistry, Indian Journal of Urology Genetics and Molecular Research, Current Paediatric Research, Human
Reproduction, Expert Reviews in Gynaecology and Obstetrics, Indian Journal of Medical Research, Indian J of Urology, Indian J of Biochemistry and Biophysics, Breast cancer Research and Treatment, reviewed projects submitted to DBT, ICMR, Indo US technology Forum and Wellcome Trust; editorial board member, J of Paediatric Neurology and J of Paediatric Biochemistry, The open Andrology Journal, International J of Medicine; nominated as member of American Society of Andrology and the Indian Society of Fertility; member of ICMR task force on male Infertility; member, Core committee of AIIMS convocation, AIIMS institute day exhibition and cultural evening; anti ragging committee and member of Institute Biosafety committee on Recombinant DNA research; Attended 9th International Congress of Andrology, 23–26 February 2013, Melbourne, Australia, and presented 2 posters; also attended the postgraduate course.

Dr Arundhati Sharma nominated expert of the Metabolism and Molecular Research Society for mapping various genetic diseases prevalent in the northern part of the country and to create a database of the common and rare mutations in this region; nominated Quality Manager of the Department for the NABL accreditation of AIIMS laboratories; External examiner, practical and viva voce examinations of the MSc Molecular Human Genetics students of Jiwaji University, Gwalior; external examiner for PhD, ICMR-SRF fellowships and MD thesis from various Institutes and Universities; reviewed several projects for the Department of Biotechnology (DBT), Council for Scientific and Industrial Research (CSIR), and several papers from national and international journals; participated in Institute day poster exhibition and workshop on health and medical research to popularize the importance of genetic testing; imparted training to senior faculty and MBBS students from various universities in the field of genetics; team’s work on genetic basis of growth hormone deficiency and standardization of prenatal diagnosis won an award at the ESICON Kolkata; External Faculty for Genetics at the Department of Molecular Human Genetics, Jiwaji University, Gwalior; facilitated dissemination of information on C-Camp, a teaching and training platform of DBT, India; Nominated to undergo training conducted by Bureau of Indian Standards and National Institute for Training for standardization on ‘Medical laboratory quality management system and internal audit as per IS/ISO 15189, 8–11 August 2012, AIIMS, New Delhi; Attended ‘Technology Training Platform for Research – Advanced Module: Genome wide analysis of expression arrays’, Research section AIIMS, 16–18 February 2013, AIIMS, New Delhi.

Dr Renu Dhingra was appointed member of the international scientific committee for ICP2012 held in Beijing, China; reviewed abstract proceedings of the ICP2012 and was chairperson for a scientific session; reviewed a paper for the journal of International Society of Plastination; on the editorial board of Journal of International Society of Plastination; member, International Society of Plastination; member, DBT task force on premature placentas and executive member of DASMOS; reviewed annual reports and research projects for ICMR; member, teaching schedule committee, academic advisory panel for virtual teaching in AIIMS and the committee for rules for student conduct.

Dr T.C. Nag reviewed manuscripts for Indian Journal of Ophthalmology, Experimental Eye Research; member, International Society for Eye Research (USA).

Dr S. Kaler participated in workshops ‘Effective Teaching through Microteaching’, and ‘MCQ and Item Analysis’, November 2012 and February 2013 respectively organised by KL Wig CMET, AIIMS, New Delhi; attended the ‘XXX Annual Conference of Indian Academy of Neuroscience (IAN) and International Symposium on Translational Neurosciences’, 27–30 October 2012, Guru Nanak Dev University, Amritsar.
# 9.3 Biochemistry

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<th>Professor and Head</th>
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<tr>
<td>Neeta Singh</td>
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<th>Professors</th>
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<tr>
<td>D.N. Rao</td>
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<td>M.R. Rajeswari</td>
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<td>Nibhriti Das</td>
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<tr>
<th>Subrata Sinha (on deputation)</th>
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<td>S.S. Chauhan</td>
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<th>Additional Professors</th>
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<tr>
<td>P.P. Chattopadhyay</td>
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<td>Alpana Sharma</td>
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<td>Kalpana Luthra</td>
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<td>Kunzang Chosdol</td>
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<th>Assistant Professors</th>
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<td>Sudip Sen</td>
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<td>Archana Singh</td>
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## HIGHLIGHTS
- 30 research projects are ongoing in the department funded by various national and international agencies such as DBT, DST, ICMR, CSIR, DRDO, Indo-Canadian and UKIERI, amounting to Rs. 15.8 crores and 15 research projects were completed this year.
- 48 publications and 13 abstracts published in indexed National and International journals.
- 2 books and 2 chapters in different books were also published by the faculty.
- Three faculty members received AIIMS Excellence award 2012 for best publications.
- Department faculty members have presented their research work at various national and international scientific forums.
- Six guest lecturers were delivered in the department by eminent scientists from abroad.
- The department organized the International Conference on ‘Recent advances in Molecular mechanisms of Neurological disorders’ and the symposium on ‘Emerging Trends and Molecular Targets in Cancer Diagnostics and Therapeutics (IACR)’.
- Patient care services are being provided free of cost for a number of tumour markers.

## EDUCATION

### Undergraduate
The department continues with its UG teaching programmes which includes MBBS (two semesters), Nursing (one semester) and BSc (Hons) Nursing (one semester). New problem–based modules have been incorporated for small group discussions to facilitate self-directed and contextual learning of biochemical concepts. Two UG students received short term training.

### Postgraduate
These include 8 MSc and 12 MD students. The department also has 31 PhD students.

### Conference Organized
- International Conference (www.snci2013.com): Organizing Secretary, Dr MR Rajeswari, 27th Annual Meeting of ‘Society for Neurochemistry, India’ and International Conference on ‘Recent advances in Molecular mechanisms of Neurological disorders’, AIIMS, 21–24 February 2013, which had more than 300 participants from India and abroad.
- Symposium on ‘Emerging Trends and Molecular Targets in Cancer Diagnostics and Therapeutics’, (Dr Neeta Singh, Chairperson), AIIMS on 8 December 2012 under Delhi Chapter of Indian Association for Cancer Research (IACR).

### Continuing Medical Education, National and International Conferences

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<th>Lectures delivered</th>
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<tr>
<td>Neeta Singh: 4</td>
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<td>D.N. Rao: 6</td>
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<td>Nibhriti Das: 4</td>
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<td>M.R. Rajeswari: 5</td>
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<td>Alpana Sharma: 3</td>
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<td>Kunzang Chosdol: 3</td>
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RESEARCH
Funded projects

Completed

1. Evaluation of curcumin in the management of advanced cancer cervix, Neeta Singh, DBT, 2006–12, Rs. 59 lakhs.
2. Development of vaccine for plague using YscF antigen, D.N. Rao, ICMR, 2010–12, Rs. 8.00 lakhs.
8. Hypoxia and p54-HIC1 axis in stemness of glial tumors and cell lines, P. Chattopadhyay, DBT, 2009–12, Rs. 51.50 lakhs.
11. Production and characterization of site-selected human monoclonal antibodies against the envelope glycoprotein of HIV-1 (Clade-C), Kalpana Luthra, DBT, 2010–12, Rs. 55 lakhs.

Ongoing

7. To evaluate the FoxP3 mediated immune suppression mechanism via chromatin remodeling during the leprosy disease progression. D.N. Rao, ICMR, 2011–13, Rs. 20 lakhs.
9. To clone and express E1, E2 and E3 proteins of Chikungunya virus and synthesize peptide spanning these sequences to identify B & T cell epitopes to develop subunit vaccine for Chikungunya virus. D.N. Rao, DRDO, 2011–14, Rs. 36 lakhs.
10. A new research partnership between the University of Liverpool and AIIMS, India, Nibhriti Das, British Council (International collaborative UKIERI project), 2012–14, Rs. 20.34 lakhs.
17. Identification of neutralizing antibody epitopes on Indian and South African HIV-1 subtype C viruses for HIV vaccine design. Kalpana Luthra, DST, 2011–14, Rs. 68.4 lakhs.
25. Study of circulatory levels of Fibulin-1 and Nidogen (Extracellular matrix proteins) in multiple myeloma. Alpana Sharma, AIIMS, 2011–13, Rs. 3.3 lakhs.
26. To analyse the link between cancer and inflammation by studying the interaction between FAT1 and Cyclooxygenase 2 (COX2) at the level of signal transduction, cell growth properties and expression of inflammatory modulators. Kunzang Chosdol, DST, 2011–14, Rs. 20.24 lakhs.
27. Hypoxia and Notch signaling in Glioblastoma: Implications for an adverse phenotype. Kunzang Chosdol, DBT, 2011–14, Rs. 47.81 lakhs.
28. Integrative investigation on critical transcriptional modules involved in proliferation of malignant cells. Sudip Sen, DBT, 2012–15, Rs. 27 lakhs.
29. Isolation and molecular characterization of colorectal cancer stem cells. Sudip Sen, AIIMS, 2012–14, Rs. 5 lakhs.

**Departmental projects**

**Completed**

1. Generation of potentially neutralizing recombinant antibodies against Hepatitis B virus.
2. To study and correlate the expression of Notch signaling molecules, Epithelial-mesenchymal transition (EMT) markers and HIF1alpha in glioblastoma multiforme.
3. Characterization of FAT (Tumor suppressor) pathway in Human glial tumors.
4. Notch and related pathways: Their interaction in glial tumorigenesis and hypoxia.
5. Modulation of curcumin responsive pathways by hypoxia: a study in glial cells.
7. Insights into the role of one carbon metabolism in the progression of cervical carcinogenesis.

**Ongoing**

1. Development of HPV18 candidate vaccine prototype.
4. Evaluation of effects of metformin on epithelial ovarian cancer.
5. Levels of complement receptor 1 & 2 (CR1 and CR2) in the blood cells in relation to Rheumatoid Arthritis.
6. Expression and modulation of leukocyte Complement Receptor 1 and CD59 (Protectin) in relation to rheumatoid arthritis.
7. Expression and modulation of complement regulatory proteins DAF (CD55) and MCP (CD46) in relation to the pathophysiology and clinical disease activity of rheumatoid arthritis.
8. Elucidation of the role of calcium signaling in pathophysiology of systemic lupus erythematosus and its correlation with the expression of complement regulatory proteins, MCP and CD59.
9. Thermodynamic stability of binding of triplex forming oligonucleotides with different regions of hmga1 gene and their effect on hmga1 expression.
10. Structural studies on DNA containing (GAA) or (CAG) trinucleotide repeats and proteomic analysis in Friedreich’s ataxia (FRDA) and spinocerebellar ataxia (SCA) associated with these repeats.
11. In vitro stability and thermodynamics of DNA triple helices, targeted to hmgb1 and their effect on HMGB1 expression in cancer.
13. Production and characterization of human antibodies against the envelope glycoprotein of HIV-1, Clade-C.
14. Genetic polymorphisms of IRS-1, TNF-α and PPARγ in insulin-resistance and their association with metabolic profile.
15. Generation and characterization of single chain variable region (scFv) antibody fragments against envelope gp120 of HIV-1, Clade C.
16. Molecular and immunological characterization of Indian HIV-1 subtype C primary isolates Purification and characterization of clones from HIV-1 anti-V3 human scFv phage library.
17. Th1 and Th2 Cytokine gene polymorphism in parthenium induced contact dermatitis.
18. Study of hyaluronic acid signaling cascade in urothelial carcinoma.
19. Study of cytokines, transcription factors, chemokine receptors and their ligands of Th17 and Treg cells in pemphigus vulgaris.
22. Study of small-leucine rich proteoglycans in transitional carcinoma of urinary bladder.
25. FAT1 and inflammation related pathways in glioma.
26. FAT1 and YAP1: Functional interaction and role in glioma cell survival and proliferation.
27. Regulation of FAT1 gene expression in glioma.
28. To study the gene expression in GBM cell lines under different degrees of hypoxia and the role of p53 in HIF1 regulation under severe hypoxic condition.
30. Analysis of the expression of mucins and angiogenesis markers in human oral mucosal epithelial cells (OMEC) on using mycophenolate mofetil (MMF) and Bevacizumab (BVCZ) in vitro.

Collaborative projects

Completed
1. Role of cobalt chloride induced hypoxia on MA10 cells (Reproductive Biology).
2. Isolation and analysis of the outer membrane proteins, beta lactamases of Acinetobacter baumannii (Microbiology).
3. A comparative evaluation of levels of interleukin-1-β in GCF during canine distraction and canine refraction, (Dental Surgery).
Ongoing

1. To study the safety and efficacy of iv estrogen as a therapeutic agent for the treatment of hemorrhagic shock patients at the level 1 (Trauma Centre).
2. To study the role coenzyme on oxidative stress mediated dysfunction and idiopathic recurrent miscarriage, (Obstetrics and Gynaecology).
3. Mitochondrial CNA, CNA and other biochemical parameters of Neurological disorders Freidreich’s ataxia and spinocerebellar ataxia, 2, 3, 12 (Neurology).
5. Proteomic analysis of host parasitic interactive proteins of Cryptosporidium (Microbiology).
6. Characterization of Salmonella enterica serotype typhi strains from North India (Microbiology).
7. A comparative evaluation of levels of interleukin-1-β in GCF during canine distraction and canine refraction, (Dental Surgery).
8. Structural characterization of plasmodium vivax tryptophan rich antigens (Biotechnology).
9. HMGB1 proteins in peri-implantitis around temporary anchorage device (TAD) (Dental Surgery).
10. Studies on N-22 region of Torque Teno virus; cloning, expression and use of peptides in immunologic and proteomic analysis (Laboratory Medicine).
11. Role of soluble vascular endothelial growth factor receptor -1 on endoplasmic reticulum stress in pre-eclampsia: An in vitro study (Anatomy).
12. Effect of progressive resistance exercise training (PRT) on hepatic fat in Asian Indians with non-alcoholic fatty liver disease (NAFLD) (Medicine).
14. Role of T helper cytokines in skin autoimmune disorder Pemphigus vulgaris (Dermatology and Venereology).
15. Study of catecholamines in melanocyte transplanted patients of vitiligo (Dermatology and Venereology)
16. Study of T regulatory cells in Vitiligo (Dermatology and Venereology)
17. Epithelial-Mesenchymal transition (EMT) in carcinoma of the eyelid: An immunohistochemical and molecular study (Dr RP Centre).
18. To study the effect of climate, air pollution, and socio economic factors on health (immunological) and disease state (Rheumatoid arthritis) (Medicine).
19. Determination of catecholamines and their metabolites in vitiligo patients undergoing melanocyte transplantation (Dermatology and Venereology).
20. Elucidating Foxp3 expression and Foxp3 promoter methylation level in active non-segmental vitiligo (Dermatology and Venereology).

PUBLICATIONS


PATIENT CARE

Tumor marker tests: 955 samples
PSA: 28 samples CA 19.9: 393 samples CEA: 534 samples

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Mr Zahid Akhter, PhD student was awarded the best poster at the Indian Association for Cancer Research, 13–16 February 2013.

Dr Amarpreet Kaur, MD student was awarded the ACBR Young Scientist Award for best oral presentation at Indian Association for Cancer Research, 13-16 February 2013.

Professor Neeta Singh was Member, Selection Committee for faculty selection for six AIIMS like Institutes; Employees’ State Insurance Corporation (ESIC); Ram Manohar Lohia Inst. of Med. Sciences, Lucknow; Inst. of Liver and Biliary Sciences, New Delhi; Pandit B D Sharma Univ. of Health Sciences, Rohtak; Member, Organizing Committee, 32nd Annual Convention of IACR 2013, Emerging trends in cancer research road to prevention and cure–International Symposium on infection and cancer, New Delhi, 1–16 February 2013; Member, Dean’s Committee, B. B. Dixit Library Committee, Hospital Management Committee and Anti ragging Committee, AIIMS; Chairperson, Teaching Schedule Committee; Elected Vice President of Indian Association for Cancer Research; Secretary (Delhi Chapter), Indian Association for Cancer Research;
Editorial Board member, Indian Journal of Clinical Biochemistry; Member, International Union Against Cancer (UICC); American Association for Cancer Research (AACR); Indian Society of Cell Biologists; Indian Women Scientists Association; Indian Society of Lung Cancer and Indian Society for Free Radical Research in India; Asia-Oceania Research Organization in Genital Infection and Neoplasia (AOGIN); Association for Clinical Biochemists of India (ACBI); Fellow, National Academy of Medical Sciences, India; Subject expert/Committee member, Life Sciences Committee of Women Scientists Scheme of DST; for R&D programme for North-Eastern Region 2012—Medical Biotechnology Committee of DBT; Expert, Staff assessment, Rajiv Gandhi Centre for Biotechnology, Trivandrum; MCI Inspector, moderator and onsite assessor for DNB of NBE, New Delhi; Member, Technical/Specifications committee for procurement of equipment for six AIIMS like Institutes by HLL and various other committees at AIIMS; Chairperson, Symposium on Emerging Trends and Molecular Targets in Cancer Diagnostics and Therapeutics, AIIMS, 8 December 2012 under Delhi Chapter of Indian Association for Cancer Research (IACR); Project Reviewer for Ganga Ram Hospital, DBT, DST, ICMR, CSIR, Council for Science and Technology, UP; Indo-French, Indo-US research proposals; Reviewer for J. of Interferon and Cytokine Research, Intl. J. of Cancer, Indian Journal of Clinical Biochemistry, Current Science. External examiner for PhD thesis of Mumbai University, Banaras Hindu University, Jamia Hamdard University, Panjab University, Kerala University.

Professor D.N. Rao  was Recipient of first prize—AIIMS Excellence award 2012; Vice president of FIMSA; Secretary of Indian Immunology Society; Officer In-charge, CAF and Ethics Committee member of various institutions in Delhi; SAC member, project review member of various extramural funding agencies; Selection committee member, Various medical colleges and universities; Ethics committee member of small animals, human and stem cell of AIIMS and other institutions in Delhi.

Professor Nibhriti Das delivered the Dr GP Talwar Oration of the Association of Clinical Biochemists of India. 11–14 December 2012; ACBICON 2012 – Ranchi; Guest of honor for the inaugural session of CME, Immunology, KGMU, Lucknow, February 2013; Treasurer, Indian Immunology Society; professional member, American Heart Association; member, executive committee, IARS; Member, Selection Committee ESIC, Delhi; Six new AIIMS-like Institutes, and University of Health Sciences, Rohtak; Conducted MCI inspections; Project reviewer for DST, ICMR, etc.; Reviewer of publication for National and International Journal like NMJI, Lupus, human genetics, etc. Member, PG education committee, Jamia Hamdard.

Professor S.S. Chauhan was Member, Central Recruitment Committee of Research Staff; Apex Condemnation Committee; Institute day celebration Committee; Biotechnology Teaching Advisory Committee; Bio-safety Committee of Institute of Genomics and Integrative Biology, Delhi.

Professor M.R. Rajeswari was elected Fellow, Royal Society of Chemistry, 2012; awarded P.B. Rama Rao Memorial Award, Society of Biological Chemists, India, for her contribution in the field of biomedical Sciences 2012; Research Excellence Award –Certificate in recognition of research work (2011–12), AIIMS; received the Best oral presentation award (PG student S Charasia) at the Int. Conference at Sydney, Australia, 2012; Associate Editor, International Journal of Integrated Omics; reviewer Board Member of ‘International Journal of Paed. Biochem’; active member of Executive Council of Society of Neurochemistry of India (2012–15); Executive Committee Member, DNA Society of India; Expert Member, Standing Committee on NMEICT of MHRD; Project Review Committee (Neurochemistry) ICMR; member of a number of committees of UGC; Reviewed research articles submitted to: Plos One, J. Mol. Bio Reports, J. Phys. Chem, Molecular Biosystems, Am Chem. Soc., DNA & Cell Biology, etc. Reviewer for research proposals of ICMR; Examiner of PhD and MSc thesis.

Dr P. Chattopadhyay was awarded the Second prize, AIIMS Excellence award 2012.


Dr Alpana Sharma was Project review committee member R & D Twinning programme for NE region (DBT); Executive member, Indian Immunology Society; Reviewer for projects from DBT, DST and ICMR;

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External examiner for PhD, MD and MBBS for various universities; member, American Association for Cancer Research and Int Gyne Cancer Society.

Dr Sudip Sen is Member, European Association for Cancer Research (EACR); course co-ordinator for course in advanced research techniques for faculty members of AIIMS; member, American Association for Cancer Research (AACR), Indian Association for Cancer Research (IACR), Association for Clinical Biochemists of India (ACBI); Completed training programme on ‘Medical Laboratory Quality Management Systems and Internal Audit (ISO 15189)’ held in August 2012 and declared competent to act as internal auditor for NABL Lab accreditation; Organizing Secretary for symposium on ‘Emerging Trends and Molecular Targets in Cancer Diagnostics and Therapeutics’, AIIMS, 8 December 2012, under Delhi Chapter of IACR.

VISITING SCIENTISTS
2. Dr Neelu Puri, Assistant Professor, Biomedical Sciences, University of Illinois, Chicago, USA on ‘Role of C-Met and EGFR synergism and identification of targets causing resistance to their inhibitors’, 30 October, 2012.
4. Dr Vijayalaxmi, Department of Radiology, University of Texas Health Sciences Centre on ‘Radiofrequency fields (mobile phones), Genetic damage and Cancer: Evaluation of the International agency for research on Cancer’, 4 February 2013.
5. Dr Rashmi Gopal Srivastava, Director, Extramural Research Programme, Office of Rare Diseases Research, NIH at National Center for Advancing Translational Sciences (NCATS), NIH, USA on ‘Collaborations and Activities related to Rare Disease Research’, 8 March 2013.
6. Professor Abhay Pandit, Director, Science Foundation Ireland Strategic Research Cluster (NFB), National University of Ireland, Galway on ‘Developing Tissue Constructs with Inductive Signals’, 28 March 2013.
9.4 Biomedical Engineering

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**EDUCATION**

**National and International Conferences**

Lectures delivered: 3

**RESEARCH**

**Funded projects**

4. 3D-expansion and differentiation of mesenchymal stem cell into osteoblast for bone tissue engineering on biocomposite scaffold. A.R. Ray, ICMR, 2010–13, Rs. 20.12 lakhs.

**Collaborative project**

2. Develop an indigenous bite force measuring sensor to measure the bite force absorbed by the soft liner in complete denture patients. (Centre for Dental Education and Research).

**Technology transfer and Patents**


Major facilities/equipment commissioned
Ultracentrifuge, mammalian tissue laboratory and Gel permeation chromatography.

PUBLICATIONS
Journals: 5 Abstracts: 1 Books: 1
9.5 Biophysics

Distinguished Biotechnology Research Professor
T.P. Singh

Additional Professor and Head
Punit Kaur

Additional Professors
A. Srinivasan  Savita Yadav  Sujata Sharma

Associate Professor
Krishna Dalal

Assistant Professors
Sharmishtha Dey  G. Hariprasad Rao

Scientists
S. Baskar Singh  Asha Bhushan

HIGHLIGHTS
The Department had 12 ongoing research projects and 4 completed research projects. It received a Fund for Improvement of Science and Technology Infrastructure in Higher Educational Institutions (FIST) grant from the Department of Science and Technology (DST), Government of India. In the past one year, faculty and scientists had 38 research publications in various peer reviewed journals. The Department continued to provide postgraduate education and short and long term training to MSc, PhD and MD students. The faculty members and scientists were invited to deliver lectures and seminars all over the country.

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

Short and Long term Training
The Department also imparted long- and short-term training to MSc and MTech students from different institutes and universities.

National and International Conferences
Lectures delivered

RESEARCH
Funded Projects
Ongoing
1. Protein structure determination and drug design, T.P. Singh, DBT, 2009–14, Rs. 55 lakhs.
2. Protein interactions of Alzheimer’s peptide: picking the relevant to disease pathogenesis, A. Srinivasan, ICMR, 2011–14, Rs. 28 lakhs.
7. Structure and function of C-terminal half (C-lobe) of lactoferrin and its application as an agent to reduce NSAID-induced gastropathy, Sujata Sharma, DBT, 2011–14, Rs. 41 lakhs.
8. In search of anti-allergenic drugs: Determination of molecular structure-function interrelationships of plant allergens and structure-based design of anti-allergenic ligands, Sujata Sharma, ICMR, 2011–14, Rs. 30 lakhs.
11. Extraction, purification and characterization of medicinal proteins from plant source having antimicrobial, anti-inflammatory and anti-cancer properties, Sharmistha Dey, ICMR, 2012–14, Rs. 5 lakhs.

Completed
2. Isolation, purification and structural and functional characterization of new proteins from seminal plasma, Savita Yadav, DST, 2008–11, Rs. 22 lakhs.

Departmental projects
1. Structural studies of Lactoferrin and its fragments and ligand design
2. Structural and functional studies of drug targets from *Acinetobacter baumannii*
3. Structural and functional studies of lactoperoxidase and peptidoglycan recognition proteins
4. Structure based drug design against Inflammatory disorders
5. Structural and functional studies of plant allergens
6. Biochemical and structural studies of ZAG-PIP complex, PSA and other heparin binding proteins from human body fluids
7. Structure-function relationships of Alzheimer related proteins
8. Proteomic studies of human salivary proteins and amniotic fluid
9. Molecular modelling and ligand design

Collaborative projects
1. Structure determination of chitinase D from *Serratia proteamaculans*, Department of Plant Sciences, School of Life Sciences, University of Hyderabad.
2. Evaluation of antimicrobial properties of Peptidoglycan Recognition Protein from different sources. Department of Microbiology, University of Delhi.

PUBLICATIONS
Journals: 34

PATIENT CARE
The following services are provided by the department:
1. Protein N-terminal sequencing
2. Receptor-ligand binding studies-Biacore
5. Peptide synthesis
6. X-ray intensity data collection for small molecules
7. X-ray intensity data collection for macromolecules

Central facilities
Bioinformatics Centre for Drug Designing (ICMR supported)
AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor T.P. Singh** was elected President, Indian Biophysical Society, 2013–15; received Bhamara’s Y.T. Thathachari Award for Life Sciences, Mysore–2012; Delivered 52nd Agharkar Memorial Lecture at the DST-Agharkar Research Institute, Pune, 2012.

**Dr Punit Kaur** co-chaired a session at the Biophysical Society, 57th Annual Meeting, USA, 2–6 February 2013.


**Dr Sujata Sharma** organized a one-day conference titled ‘Current Trends in Structural Biology 2013’, 20 February 2013; awarded the AIIMS Excellence award–2012; Member, National Academy Medical Sciences, Indian Biophysical Society, European Peptide Society and Indian Peptide Society.

**Dr Hariprasad G.** became Member, National Academy of Sciences, India

VISITING SCIENTISTS
Following eminent scientists and academicians visited the department to increase scientific cooperation and delivered lectures.

- Professor Ch. Betzel, Germany
- Professor Faizan Ahmad, New Delhi
- Dr Ajay K. Saxena, New Delhi
- Professor N.K Gupta, New Delhi.

- Professor R.N. Kini, Singapore
- Dr Pushkar Sharma, New Delhi
- Professor M.N. Gupta, New Delhi
9.6 Biostatistics

Professor and Head  
R.M. Pandey

Professor  
S.N. Dwivedi

Additional Professor  
V. Sreenivas

Assistant Professor  
Maroof Ahmad Khan

Scientists  
Guresh Kumar  M. Kalaivani

HIGHLIGHTS
The Department had more than 100 ongoing research projects, generally collaborative in nature; and 26 completed collaborative research projects with various centres/departments in the Institute. Faculty members and scientists served on various administrative and scientific committees in the Institute; Invited members of various scientific committees of the ICMR, DBT, DST, AYUSH; Served on Data Safety Monitoring Boards (DSMB) of several National and International Clinical Trials; Delivered over 30 invited lectures all over the country during various workshops on Research Methodology and Biostatistics; and, Examiners to various universities in the country. In the last one year, faculty and scientists had 98 research publications in various peer reviewed journals. Faculty members and scientists continued to be reviewer for almost all the major medical journals in the country and for a number of international medical journals from various medical specialties.

EDUCATION
The department continued teaching ‘Biostatistics and Essentials of Research Methods’ for undergraduate, paramedical and postgraduate courses, viz. MBBS, BSc (Hons) in Medical Technology in Radiology, MBiotech, BSc, MSc (Nursing), and MD Community Medicine. As in past years, a series of 14 evening classes on ‘Essentials of Biostatistical Methods and Research Methodology’ was organized for residents, PhD students and other research staff at AIIMS. On request, faculty members delivered series of lectures for the residents, PhD students and participated in departmental scientific presentations in several departments in the Institute. Besides guiding PhD students in the department, faculty members and scientists contributed to the academic activities of other departments as Co-Guides, Doctoral committee members of PhD, DM, MCH and MD/MS students. To build capacity of data management and statistical analysis, three workshops on ‘Hands on Training in using STATA’ of 3–6 days duration were organised for new faculty members and PhD students.

CMEs/Workshops/Symposia/National and International Conferences
Lectures delivered
R.M. Pandey: 7  S. N. Dwivedi: 10  V. Sreenivas: 7  Guresh Kumar: 2  M. Kalaivani: 2

Papers presented: 1

RESEARCH
Funded projects
Ongoing
1. A study to quantify the research output of the faculty of AIIMS. V. Sreenivas. AIIMS, 2012–13. Rs. 5 lakhs.
Completed

Departmental projects
Ongoing
1. Trends, differentials and determinants of neonatal, infant and under-five mortality in Empowered Action Group States.
2. A study on appropriate statistical models to determine quality of life and mortality in head injured trauma patients.
3. Multilevel modelling to identify the factors associated with neonatal and post neonatal mortality in India.

Completed
1. Newborn screening for congenital hypothyroidism and congenital adrenal hyperplasia: A multicentric study.

Collaborative projects
Ongoing
2. Clinical, investigative and therapeutic profile of patients presenting with haemoptysis (Medicine).
3. 3D CD Scan evaluation of the anterior cruciate ligament footprint on femur and the position of femoral tunnel of single bundle, Anatomical ACL graft (Orthopaedics).
4. Randomized controlled trial of 1.5 MM 3D plate versus 2 MM single mini plate in the treatment of mandibular angle fracture (Centre for Dental Education and Research).
5. Comparison of incidence of infection in placebo V/s Amoxycillin+Clavulinic acid among mandibular third molar extraction: A non-inferiority randomized controlled trial (Oral and Maxillofacial Surgery, CDER).
6. Outcome implications of implementing sepsis resuscitation bundle in severe sepsis and septic shock (Medicine).
7. Evaluation of biosensor technology in the laboratory diagnosis of Gonorrhoea (Microbiology).
10. Association of non alcoholic fatty liver disease with obstructive sleep apnoea in Asian Indians (Medicine).
11. Assessment of Quality of life (QoL) in Indian patients with genital herpes (Dermatology and Venereology).
12. Efficacy of low glycaemic index diet therapy in children with refractory epilepsy – a randomized controlled trial (Paediatrics).
13. Assessment of magnitude and progression of myopia in school going children in Delhi (Dr Rajendra Prasad Center for Ophthalmic Sciences).
14. Study of non alcoholic fatty liver disease and coronary artery disease in Asian Indians (Medicine).
15. Stochastic Models for Graft Rejection in Renal Transplant (Department Health Informatics, SGPGIMS, Lucknow).
16. Effect of Hypoxia on the expression of peroxisome proliferator activated receptors (PPARs) and angiogenic factors in trophoblast cells- an in vitro study (Anatomy).
17. Role of soluble vascular endothelial growth factor receptor-1 (sVEGFR-1/sfLT-1) on endoplasmic reticulum stress in preeclampsia- an in vitro study (Anatomy).
18. Role of Fluoride Toxicity on Renal Pathogenesis in Childhood Nephrotic Syndrom: an Ultra structural, Biochemical and Proteomic Study (Anatomy).
20. To study the changes in predictors of difficult intubation during pregnancy (Anaesthesiology).
21. Insights into the Role of One-Carbon Metabolism in Progression of Cervical Carcinogenesis (Biochemistry).
23. Study on awareness and health-seeking practices about common eye conditions in urban slums of Delhi (Community Ophthalmology).
26. Functional status and co-morbidities of older patients with cancer (Geriatric Medicine).
27. Efficacy of daily iron folic acid supplementation in correction of iron deficiency anemia amongst children aged 3–5 years of age (Human Nutrition).
28. Assessment of Zink Deficiency amongst Children in 6 months to 60 months of age in different regions of India (Human Nutrition Unit, AIIMS).
29. Assessment of Status of Iodine Deficiency Disorders in National Capital Territory of Delhi (Human Nutrition Unit, AIIMS).
30. Biomarkers in severe dengue fever (Medicine).
31. Evaluation of sirtuins as bio-markers for Parkinson’s disease (Medicine).
32. Molecular characterization of isolates of invasive and commensal streptococcus pneumonia (Microbiology).
33. Intestinal Parasitic Co-Infections in Patients with HIV/AIDS and its effect on CD4 count, Viral Load, and Antiretroviral Drug Resistance (Microbiology).
34. Assessment of therapeutic response of radiolabeled anti CD20 antibodies 131 Iodine Rituximab /90 in Delhi and adjoining area (Microbiology).
35. Molecular characterization of Neisseria meningitides isolated from cases of acute bacterial meningitides in Delhi and adjoining area (Microbiology).
36. A Randomized Controlled Trial (RCT) of Early versus Late Surgery in Childhood Intractable Epilepsy (Neurology).
38. Study of the prevalence and pattern of periodic limb movements of sleep in patients with spinal cord lesions (Neurosurgery).
39. Neuro-psychological and neurobiological basis of bilingual developmental dyslexia, studies pre and post therapy by cognitive behavior and functional magnetic resonance imaging (fMRI) (NMR).
41. Sequential study of the pathophysiology of demyelinating lesion in a experimental model of multiple sclerosis by Magnetic Resonance (NMR).
42. Study of Human Breast Cancer by Magnetic Resonance Techniques (NMR).
43. Magnetic Resonance Spectroscopic Imaging (MRSI) and Diffusion Weighted MRI in the non-invasive detection, assessment of treatment response and tumor metabolism in breast cancer (NMR).
44. Role of various Magnetic Resonance Imaging and Spectroscopic methods in the evaluation of prostate cancer (NMR).
45. Study on cytogenetic toxicity of low dose 131I therapy in hyperthyroid patients by using micronuclei assay (Nuclear Medicine).
46. Dosimetric Studies in Radionuclide Therapy of Neuroendocrine Tumors with 177Lu DOTA- TATE (Nuclear Medicine).
47. Detection of Minimal Residual Disease (MRD) in B-cell Lineage Acute Lymphoblastic Leukemia by Flow Cytometry at end of Induction (Paediatrics).
49. Intensive adverse drug reaction (ADR) monitoring and analysis of pattern of observed ADRs in Medicine and Nephrology Wards at All India Institute of Medical Sciences (Pharmacology).
51. Effect of Exercise on C reactive Protein Level in Obese Patients (PMR).
52. Biomarkers in peripheral arterial disease (Surgical Disciplines).
53. A study to evaluate the efficacy of survived exercise training program in patients of peripheral artery disease of lower limbs and evaluate their quality of life (Surgical Disciplines).
54. Analysis of putative virulence factors and molecular typing of clinical isolates of Vancomycin and high level Gentamycin resistant Enterococcus faecium and Enterococcus faecalis (Microbiology).
55. Prevalence of Chlamydia trachomatis in patients with infertility and urogenital infections and genotyping by PCR-Restriction Fragment Length Polymorphism and OMPA sequencing (Microbiology).
56. Diagnosis of Legionella pneumophila infection by molecular methods and analysis of clinical and environmental isolates of Legionella pneumophila using molecular markers (Microbiology).
57. Rapid Diagnosis of neonatal sepsis with special reference to molecular typing of Klebsiella pneumonia (Microbiology).
58. Molecular Characterization of Neisseria gonorrhoea strains with decreased susceptibility to Extended Spectrum cephalosporins (Microbiology).
59. Role of CD56CD16+CD3- Natural Killer Cells in HIV infected Indian Individuals (Microbiology).
60. Development of a molecular diagnostic probe for detection of Cryptosporidium spp. and further characterization of the parasite in patients (Microbiology).
61. A study on alternate antimicrobial agents against Typhoidal Salmonellae (Microbiology).
62. Quantitative real time PCR and genotyping for Cytomegalovirus in ulcerative colitis (Microbiology).
63. Clinical and Microbiological Characteristics of Bacteremia caused by Coagulase Negative Staphylococci in a tertiary care hospital (Microbiology).
64. Toll like receptors in TB (Medicine).
65. Expression analysis of potential micro RNAs in tuberculosis (Medicine).
66. Comparative drug susceptibility test in M.Tb by solid culture method and line probe assay in MDR Tb patients (Medicine).
67. Comparison of solid, liquid and molecular tests in Multidrug-resistant tuberculosis (MDR-TB) at tertiary care centre (Medicine).
68. Immuno-pathogenesis of IRIS in HIV-TB co-infection (Medicine).
70. Study of Predictors of Mortality in Severe Malaria (Medicine).
71. Influence of complete spinal cord injury on ventro medial hypothalamic functions: Role of magnetic field (Physiology).
72. Effect of magnetic field on behavioural, electrophysiological and neurochemical correlates of pain in rats exposed to 3G frequency band (Physiology).
73. Quantitative EEG correlates of Cognitive Deficits and Stress Reactivity in Mild Cognitive Impairment and Alzheimer’s disease (Physiology).
74. Quantitative EEG correlates of emotion induced changes in cognitive performance in healthy volunteers (Physiology).
75. Dynamics of differential T-regulatory cell expression in patients with inflammatory bowel disease and intestinal tuberculosis (Gastroenterology).
76. Effect of nalbuphine on opiate withdrawal in rats: Behavioral, Biochemical and molecular study (Psychiatry).
77. Impact of total sleep time on neurocognitive performance and behavioral patterns among school going adolescents (Psychiatry).
78. Parathyroid autoimmunity in patients with sporadic idiopathic hyperparathyroidism and its comparison to other metabolic and autoimmune endocrine disorders (Endocrinology).
79. Role of oral vitamin D as an adjunct therapy in category I pulmonary tuberculosis along with assessment of immunological parameters (double blind, randomized, placebo controlled clinical trial) (Endocrinology).
80. Multilevel modelling to identify the factors associated with neonatal mortality in India (Biostatistics).
81. Comparative appraisal of data collection methods and related epidemiological models for smoking, drinking and tobacco chewing among adolescent children in India (Biostatistics).
82. Gene deletions and mutations in Wilm’s tumour: correlation with histopathology and outcome (Pathology).
83. Economic Evaluation of Influenza Immunization of under five children in India (CCM).
84. Cloning and expression of Chikungunya Virus Genes and Evaluation of their Role in Chikungunya Pathogenesis in Children and Adults (Pediatrics/Neonatology).
85. Evaluation of Chikungunya and Dengue fever infection in pediatric and adult population of India (Pediatrics/Neonatology).
86. To study the biological and clinical significance of Wnt/B- Catenin Signaling pathway in AML patients (Medical Oncology).
87. Clinical and Biological significance of mutations in mitochondrial DNA (Medical Oncology).
88. Assessment of T cell kinetics in patients of Neuroblastoma and PNET–A prospective study (Medical Oncology).
89. A comparative study of the effect of loperamide and morphine on nociception and expression of µ-opiod receptor and calcium channels in the signal cord of rat following surgery (Anatomy).
90. Age related morphological and neurochemical changes in the human spiral ganglion (Anatomy).
91. Optimization of sentinel lymph node biopsy and evaluation techniques in breast cancer in Indian settings (Surgery).
92. Genomic diversity of HLA in Indian population (Transplant Immunology).
93. Epidemiological study of Diabetic Retinopathy in North India (Community Ophthalmology).
94. Development of a diagnostic panel of blood markers in the diagnosis and prognostication of acute ischemic stroke (Neurology).
95. Mucocutaneous manifestations in HIV as a marker of immunosuppression (Dermatology).
97. Functional disability among elderly persons in rural Ballabgarh, Haryana (Centre for Community Medicine).
98. Anthropometric characteristics and undernutrition among elderly persons in rural Ballabgarh, Haryana (Centre for Community Medicine).
99. Community based study of childhood injuries in an urban resettlement colony in New Delhi (Centre for Community Medicine).
100. Clinical and biochemical characterization of short stature in 4–16 years old children with special attention to idiopathic short stature (Paediatrics).

**Completed**

1. Role of Circulating Angiogenetic Factors in the Pathogenesis of Pre Eclampsia (Anatomy).
2. A Comparative study of effectiveness of Immunotherapy with Intralesional injection of killed Mycobacterium w vaccine and imiquimod cream in clinical resolution of external genital warts and reduction of viral load: A Randomized Trial (Dermatology and Venereology).
3. Assessment of Beta Cell Function in Children of Families with Type-2 Diabetes Mellitus. (Endocrinology and Metabolism).
4. Assessment of Status of Iodine Deficiency Disorders in National Capital Territory of Delhi (Human Nutrition Unit).
5. Evaluation of risk factors associated with hospital mortality: A case control study (Medicine).
7. An exploratory study on psychological & drug-use correlates of adult ADHD with heroin dependence (Psychiatry).
11. The Correlation of VEGF and TGF Beta1 Expression to Clinico-Pathological Response, ER, PR and HER2/neu Status in Locally Advanced Breast Cancer: A Pilot Study (Radiotherapy).
12. Optimization of Course Evaluation Survey (CES) Questionnaire and Its Online Implementation – A Pilot Study (College of Medicine, and Deanship of Quality and Academic Accreditation, University of Dammam).
14. Study of efficacy and safety of concomitant use of Nevirapine and Rifampicin in patients co-infected with HIV and Tuberculosis (Medicine).
15. Role of Vitamin D receptor variants in susceptibility to development and severity of pulmonary Tuberculosis (Medicine).
17. A study of chronic exposure to magnetic field on pain status of fibromyalgia patients (Physiology).
18. Use of draw a person test as a tool for assessing psychopathology in children (Psychiatry).
19. A study on clinical, biochemical and radiological markers to describe the outcomes in preterm infants less than 35 weeks gestation born with abnormal antenatal umbilical artery Doppler flow (AREDF) (Paediatrics/Neonatology).
20. Diagnostic performance of same day repeat screen of two stage newborn hearing screening using automated auditory brainstem responses (AABR) in healthy newborns (Paediatrics/Neonatology).
21. Efficacy of different regimens of Vitamin D supplementation in Preterm infants: a randomized double blind Trial (Paediatrics/Neonatology).
23. To determine the incidence of Tumor Lysis Syndrome and to assess the predictors in newly diagnosed Indian children with acute Lymphoblastic Leukemia admitted for induction chemotherapy. (Paediatrics/Neonatology).
24. Clinical and prognostic significance of proliferation and apoptic markers in acute myeloid leukemia (AML) (Medical Oncology).
25. Neoadjuvant chemotherapy with weekly paclitaxel and carboplatin followed by chemoradiation in locally advanced cervical carcinoma: a pilot study (Medical Oncology).
26. Evaluation of serum VEGF and Diffusion Weighted MRI in locally advanced carcinoma of cervix treated with neoadjuvant chemotherapy followed by chemoradiation (Medical Oncology).
27. Serum Alpha Feto Protein and Albumin level in Fanconi Anemia (Hematology).

PUBLICATIONS
Journals: 76 Abstract :1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

S.N. Dwivedi chaired a session on Meta-Analyses/Combined Data Sources, Conference of International Society for Clinical Biostatistics, Department of Biostatistics, University of Oslo, Norway, 19–23 August 2012; co-chair, Organizing Committee, Pre-Conference Workshops on Topics related to Evidence Based Medicine, and First International Congress on Evidence-Based Healthcare, Clinical Epidemiology Unit, All India Institute of Medical Sciences, New Delhi, 6–8 October 2012 India International Centre, New Delhi.

V. Sreenivas was Guest of Honour at the CME on Research Methodology and Biostatistics, LLRM Medical College, Meerut, 8–10 February 2013; Chaired a session on ‘Best Sources for Evidence at the point of care for Healthcare Practitioners’, First International Conference on Evidence-Based Healthcare’, Clinical Epidemiology Unit, All India Institute of Medical Sciences, New Delhi, 7–8 October 2012; Chaired a session on ‘Centre of Excellence: Convergence of Thoughts, Actions and Lessons’, Conference on Centre of Excellence, Liver Foundation, West Bengal and Bristol Myers Squibb Foundation, Kolkata, 6 November 2012.

HIGHLIGHTS
Department of Biotechnology runs a successful Masters in Biotechnology course with specialization in Medical Biotechnology admitting 12–14 students per batch as well as a PhD programme. The total strength of MSc and PhD students is about 45. The department also provides support to the Fellowship programme of National Science Academies. A large numbers of extramural research grants are attracted by the faculty from government funding agencies. Faculty have provided expert advice to the Government of India and various universities/institutions on various aspects of teaching and research, delivered invited lectures, and published papers in high impact journals.

EDUCATION
Postgraduate teaching
The department continues with its 2 years postgraduate programme in Medical Biotechnology leading to MBiotech degree. The teaching programme includes theory and practical classes, seminar presentations and research project (dissertation) in a frontier area of medical research. Students are given individual attention and hands on experience in practical classes. Experts are invited from JNU, IGIB, ICGEB, NII and NIIT besides AIIMS faculty from various specialties to provide insight to the students in their respective areas of research and developments related to biotechnology, bioinformatics, molecular medicine, genomics, proteomics, etc. The department continues conducting PhD programme in the area of Medical Biotechnology.

Short Term Training
Three students were provided short term training in the Department.

CMEs/Workshops/Symposia/National and International Conferences
Organized

National and International Conferences
Lectures delivered
Y.D. Sharma: 5  J.S. Tyagi: 6  H.K. Prasad: 1  S.N. Das: 1
Poster presentations: 10

RESEARCH
Funded Projects
Ongoing
1. Molecular studies on Plasmodium vivax tryptophan-rich proteins. Y.D. Sharma. DBT, 3 years (2010–14), Rs.20.40 lakhs.
2. Post Graduate Training Program in Biotechnology with special application to Biomedicine. Y.D. Sharma. DBT, 5 years (2009–14), Rs. 22.58 lakhs per year.
3. Biotechnology Informatics System. Y.D. Sharma. DBT, 5 years (2008–13), Rs. 3-5 lakhs per year.
6. National Alliance Program for Biodesign and in-vitro diagnostics between Translations Health Science and Technology Institute and All India Institute of Medical Sciences. THSTI (DBT), 2010–15, Rs. 100 lakhs.
7. J.C. Bose Fellowship research grant, J.S. Tyagi. DST, 2009–12, Rs. 68 lakhs.
8. Deciphering the transcriptional profile of dormant and replicating tubercle bacilli within THP-1 human macrophages. J.S. Tyagi. Tata Innovation Fellowship research grant, DBT, 2009–12, Rs. 22.20 lakhs.
10. Functional characterization of selected host gene mutations and host pathogen interaction that potentially influence onset of disease or resistance to tuberculosis. H.K. Prasad. BRNS, 2011–14, Rs. 34.17 lakhs.
11. Development and characterization of autologous NKT cell-based dendritic cell vaccine for oral squamous cell carcinoma. Satya N. Das. DBT, 3 years, Rs. 23.0 lakhs.
12. Phenotypic and functional characterization of T helper 17 (Th 17) cells in patients with oral squamous cell carcinoma and evaluation of their anti-tumour activity. Satya N. Das. DBT, 3 years, Rs. 51.15 lakhs.

Completed
2. Computational design and development of inhibitors for the treatment of tuberculosis. J.S. Tyagi. DBT, 2008–11, Rs. 4.18 lakhs.
3. Comprehensive proteomics profiling of CSF proteins from patients of different meningitis infections for biomarker discovery. J.S. Tyagi. DBT, 2008–11, Rs. 64.31 lakhs.

Departmental projects
Ongoing
1. Innate immunity to Mycobacterium tuberculosis.
2. Human immune response to Mycobacterium tuberculosis
3. Diagnosis of tuberculosis in humans and cattle
5. Phenotypic and functional characterization of T\textsubscript{H} 17 cells in patients with oral squamous cell carcinoma.
6. Phenotypic and functional characterization of CD4\textsuperscript{+}CD25\textsuperscript{+}Foxp3\textsuperscript{+} regulatory T cells (T\textsubscript{Reg}) in patients with oral squamous cell carcinoma.
7. Studies on prognostic biomarkers in oral and oropharyngeal carcinoma.
8. Investigations of anticancer activities of some select medicinal plants and their molecular targets on human oral cancer cell lines.

Completed
4. Studies on Beclin1, mTOR signaling and autophagy in oral cancer.
5. Functional and Phenotypic characterization of Natural Killer T cells and Dendritic cells in Oral cancer.
7. Study of the anti-cancer activities of Plumbagin on oral cancer cell lines.

Collaborative projects
Ongoing
1. Evaluation of nano level expression of p38\textsubscript{α} MAP kinase, a cell signaling protein in oral cancer and design of structure based peptide inhibitors against the same (Biophysics).
2. Clinical correlation of ER, PR, HER2, neu expression and BRCA1 gene mutations in Indian Breast cancer patients (BRA-IRCH).

**Completed**

1. Role of *Mycobacterium tuberculosis* GlcB or HspX Antigens or devR DNA detection in the Diagnosis of Tuberculous Meningitis in Children (Microbiology, Paediatrics AIIMS; Dr RML Hospital, and LNJP Hospital).

PUBLICATIONS

**Journals:** 11  **Abstracts:** 3

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Y.D. Sharma** is a Fellow of all the three National Science Academies; Member, Sectional Committee of Medical Sciences, Indian Academy of Sciences, Bangalore; Member, DBT Task Force Subcommittee on Human Resources Development; Member, DBT-JRF examination committee; DBT Special Committee for malaria vaccine projects; Chairman, DSIR Project monitoring committee on Malaria; Member, Board of Studies of Biotechnology, Biosafety Board Screening Committee for faculty positions and Selection Committee of Technical Officers and Technicians at South Asian University, Delhi; Member, Board of Studies of Biotechnology at Jawaharlal Nehru University, New Delhi; UGC-Science Advisory Panel for Centre for Molecular Medicine at JNU, New Delhi; Expert Member; Board of PG Studies in Biotechnology of Vanasthalri Vidyapeeth; Expert Member, Teaching Advisory Committee of Banaras Hindu University, Varanasi; Member, Himachal University, Shimla; Member, Board of Studies, University of Delhi at South Campus, Delhi; Member, Board of Studies, Manipal Sikkim Institute of Medical Sciences, Gangtok; Member, Board of Studies in Neurosciences at Jiwaji University, Gwalior; Expert in the Doctoral Committee of Faculty of Engineering and Interdisciplinary Sciences, Jamia Hamdard University, New Delhi; Member, Store Purchase Committee of AIIMS; Chairman, Negotiation Committee, AIIMS; Member Secretary, Committee of faculty position at AIIMS; Member, Committee for Continuing Medical Education and Technology, AIIMS; Chairman, Patent Cell, AIIMS; Chairman, Central Recruitment Committee of Research staff in projects in AIIMS; Member, Facility for Nanotechnology at AIIMS; Member, Computerization of AIIMS Committee; Member, Committee for RFD for Research at AIIMS; Member, Organizing Committee, Institute Day celebration, AIIMS; Member, Selection Committee for faculty positions at several universities and Research institutions; Expert member of Biosafety Committee of Univ. College of Medical Sciences (UCMS), Delhi; Member, Selection Committee of UGC Faculty Recharge Programme.

**Professor J. S. Tyagi** is J.C. Bose National Fellow, Fellow of all three National Science Academies (National Academy of Sciences, Allahabad; Indian Academy of Sciences, Bangalore; Indian National Science Academy, New Delhi); Member, Guha Research Conference; Member, Governing Body, National Institute of Immunology; Member, Scientific Advisory Committee, National Institute for Research in Tuberculosis, Chennai; JALMA Institute for Leprosy and other mycobacterial diseases, Agra; Member, Scientific Advisory Committee, Bose Institute, Kolkata, and Centre for DNA fingerprinting and Diagnostics, Hyderabad; Member, Selection Committee DST–INSA INSPIRE; Faculty Fellowship, Expert to evaluate projects in Health Indo–Australia Grand Challenge Programme; Member, Indian expert panel in Health; Member, Faculty selection committee at THSTI; Member, Screening Selection and Evaluation Committee for Innovation Awardees, THSTI; Member, Faculty selection committee ILS, Bhubaneswar; Member CSIR Animal Science and Biotechnology Research Committee and Project monitoring committee; Expert, TB Review Meeting to evaluate DBT Indo-Swedish research projects; Reviewer of projects submitted to DBT, CSIR, DST, MRC UK, Fondazione Cariplo Italy; Mentor, TB diagnostics programme, CBD THSTI; Member, AIIMS Patent Committee; Member, AIIMS Review Committee of intramural projects (para and preclinical); Member, Committee for proposed Inter-Institutional Bio-Design, Centre (AIIMS, IIT Delhi and THSTI Faridabad); Central Public Information Officer (CPIO) of the Department; Chairperson, Department Equipment Purchase Committee, Negotiation Committee; Doctoral Committee member for students of AIIMS, NII and IIT Delhi; Reviewing manuscripts for International and National journals; Examiner of PhD thesis from various National Institutions, Universities, and Laboratories; Member NIH Alumni Association; Life member, Society of Biological Chemists (India), Indian Society of Cell Biology, Association of Microbiologists of India.
Professor H.K. Prasad was Expert Member, Technical Committee of NRDC, ICMR, National JALMA Institute for Leprosy and Other Mycobacterial Diseases, Agra; Purchase Committee, School of Environmental Sciences, JNU and Department of Anatomy, AIIMS; Scientific Advisory Committee, Leprosy Mission’s Stanley Browne Laboratories; Member, Medical Biotechnology Sectional Committee (MHD-20), Bureau of Indian Standards; Institutional Biosafety Committee, National JALMA Institute for Leprosy and Other Mycobacterial Diseases, Agra and DBT Representative IBSC of Shriram Institute for Industrial Research (SIIR), Delhi; Institutional Animal Ethics Committee, University of Delhi, South Campus; Selection Committee, ICMR; LRS Institute of Tuberculosis and Respiratory Diseases and Jawaharlal Nehru Fellowship, JNU; Project Monitoring Committee (PMC), SBIRI-BCIL, Department of Biotechnology, Ministry of Science and Technology; Board of Studies in Biotechnology, Jiwaji University, Gwalior; ICMR Immunology Task Force Committee; Project Review Committee of ICMR, DBT, and DST; Examiner: various Universities and Institutions; and Vice Chief Librarian, B.B. Dikshit Library, AIIMS.

Professor S.N. Das was elected Fellow, National Academy of Medical Sciences, International Academy of Biological Therapy; Life Member, Indian Immunology Society; Member, American Association for Cancer Research, USA; Member, DKFZ Alumni Association, Heidelberg, Germany; Member, Alexander von Humboldt Foundation Alumni Association, Germany; Member, The Cytometry Society, India; Member, Task Force group on Cancer Biology, DBT, Ministry of Science and Technology, Govt of India; Member, Technical Committee, Institute of Pathology (ICMR) New Delhi; Member, Bioethics Committee for Recombinant DNA Research, AIIMS; Member, Negotiation Committee, AIIMS; Member, Selection Committee for posts under sponsored projects, AIIMS; Nominated Member of the Doctoral Committee for the Department of Medical Elementology and Toxicology, Jamia Hamdard University, New Delhi; PhD Examiner, Jamia Hamdard University, New Delhi, Pondicherry University, Birla Institute of Pilani, Rajasthan; Editorial Board: Open Journal of Toxicology, International Journal of Osteoporosis and Metabolic Disorders; Referee, Reviewer for National and International Journals: Oral Oncology, Cancer Investigations, DNA and Cell Biology, Life Sciences, International Journal of Immunogenetics, European Journal of Oral Sciences, International Journal of Human Genetics, International Journal of Cancer, Oral Pathology Oral Medicine, Plos ONE, Cancer Letters, Indian Journal of Medical Research, Indian Journal of Cancer.

OTHER ACTIVITIES
Bioinformatics Centre
The bioinformatics resource centre of the department provides database and bibliographical search facility, DNA and protein sequence, search and retrieval, e-mail, Internet services, training and assistance to students in graphics, statistics and data presentation. This facility is being widely used by students and faculty of this Institute as well as other neighbouring institutes.
**EDUCATION**

**BSc Nursing and Post-certificate Nursing Students**

BSc nursing and Post-certificate nursing students are posted to the urban health programme and at the Comprehensive Rural Health Services Project (CRHSP), Ballabgarh. The rural posting is residential. They have to spend one month at the referral hospital at Ballabgarh and two weeks at the Primary Health Centre (PHC), Dayalpur. They are provided training in antenatal (ANC) care, ward management and immunization. They are also posted to the wards. They provide health talks and IEC in the OPD and ward. Training of nursing students is supervised by faculty from College of Nursing, AIIMS.

**Undergraduate**

The programme remains the same. They are posted for five weeks, as a residential posting in rural areas during their seventh semester, and for seven weeks in urban area during their fourth/fifth semesters. An orientation programme of the National Service Scheme (NSS) was conducted for new batch of MBBS students on 17 July 2012 at the Centre.

**Interns**

The interns are posted for three months at CRHSP, Ballabgarh. They are posted for 6 weeks at referral hospital, Ballabgarh and 3 weeks each at the PHCs at Dayalpur and Chhainsa. At the referral hospital, they learn application of basic clinical skills in the OPD and ward. They are posted to all clinical disciplines under the supervision of Senior Residents of the respective department. During the PHC posting, interns participate in healthcare delivery at the primary care level. They also get experience in community level activities such as supervision of health workers, follow up of tuberculosis (TB) defaulters, sub-centre supervision, etc. At the end of the posting they make a presentation about the activities done during their posting to the faculty at CRHSP, Ballabgarh.

**Postgraduates**

The postgraduates of the department are posted in the urban area for 20 months, and in the rural area for 16 months. During their urban posting they provide outpatient services to various clinics run by the department. In the rural area, they spend 5 months 10 days each, at a referral hospital, and two PHCs on rotation. This gives them time to gain experience both at the referral hospital and at PHCs. They are encouraged to take part actively in decision making. With the advent of computer facility, postgraduate students are encouraged to use computers for analysis of data collected for their thesis. They also do different field based exercises during the posting. The regular teaching exercises include seminars, family and case presentations, journal clubs, etc.
CMEs/Workshops/Symposia/National and International conferences
Organized by the department

Guest Lectures
2. The burden of paediatric neurological disease in the community – Canadian Perspectives. A Narayan Prasad, 4 September 2012.
4. Physician leadership styles and leadership effectiveness Sudha Xirasagar, Associate Professor, School of Public Health, University of Southern California, USA, 7 January 2013.

Workshops
1. Regional STEPS NCD surveillance training workshop for participants from SEAR countries, 11–14 June 2012, Claridges Surajkund,

Poster presentation

RESEARCH
Funded projects
Ongoing
1. Direct and indirect protection by influenza vaccine given to children in India. Shashi Kant, Centre for Disease Control, USA, Rs 1.5 crores.
2. Epidemiological study of respiratory pathogens in acute respiratory tract infection among children and elderly in India. Anand Krishnan, CDC Atlanta, 2011–16 (Rs 6 crores for 2011–12), Rs 22.5 crores.
4. Innovative culturally appropriate intervention package to reduce low birth weight. DST, Puneet Misra, Rs 23 lakhs.
5. Prevention of type 2 diabetes in women with prediabetes using vitamin D supplementation and lifestyle intervention in North India. Puneet Misra, DST, 3 years. 2012–15, Rs. 56 lakhs.
7. Health insurance for the poor: A study to assess willingness to pay for health insurance among socioeconomically disadvantaged migrants in Delhi, India. Y. S. Kusuma, ICMR, 2010–13, Rs 22 lakhs.

Completed
1. Development of a model for strengthening of existing health system to address non communicable diseases in India–Phase II. Anand Krishnan, ICMR, 2010–12, Rs 60.54 lakhs.

Departmental projects
Ongoing
1. Assessment of under-nutrition in under-five children in rural Ballabgarh, Haryana.
2. Functional disability among elderly persons in rural Ballabgarh, Haryana.
3. A study of prevalence of work-related neck pain in desk-job workers at All India Institute of Medical Sciences.
4. Study on depression among elderly persons in rural area of Ballabgarh, Haryana.
5. Community-based study of childhood injuries in an urban resettlement colony in New Delhi.
6. Dietary calcium intake and serum calcium level among pregnant women residing in a rural community of Ballabgarh, Haryana.
8. Determinants of breast feeding practices amongst women delivering at government health facilities in district Faridabad.
9. Implementing and monitoring healthy settings approach for prevention of non-communicable diseases in middle schools of rural Ballabgarh (block), District Faridabad, Haryana, India.
10. Adherence to the treatment amongst patients with hypertension and diabetes mellitus in rural Haryana: Community based study.
11. An assessment of sexual high risk behavior among female factory workers in Faridabad.

**Completed**

1. Anthropometric characteristics and under-nutrition among elderly in rural Ballabgarh, Haryana.
2. Epidemiological study of patients of road traffic injuries (RTI) attending Emergency Department of Jai Prakash Narayan Apex Trauma Centre (JPNATC), AIIMS, New Delhi.

**Collaborative projects**

**Ongoing**

1. Community-based epidemiological study on corneal disorders. (Community Ophthalmology, Dr R. P. Centre for Ophthalmic Sciences).
2. Study on awareness and health-seeking practices about common eye conditions in urban slums of Delhi. (Community Ophthalmology, Dr R. P. Centre for Ophthalmic Sciences).
3. A study to assess the cardiovascular risk factors among Delhi school children. (College of Nursing).
4. A study to assess knowledge, attitude and practices of parents of children regarding child rights. (College of Nursing).
5. Multisite influenza surveillance in India Ph-II. Co-PI. (Centre for Disease Control, USA; Microbiology).
6. Congenital cytomegalovirus infection and hearing loss in rural Indian population. (Microbiology).

**PUBLICATIONS**

**Journals: 49**  **Chapters in books: 1**

**PATIENT CARE**

**Outpatient Care**

<table>
<thead>
<tr>
<th>Site</th>
<th>New cases</th>
<th>Old cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Hospital Ballabgarh</td>
<td>94,032</td>
<td>66,846</td>
<td>160,878</td>
</tr>
<tr>
<td>PHC Chhainsa</td>
<td>10,234</td>
<td>12,354</td>
<td>22,588</td>
</tr>
<tr>
<td>PHC Dayalpur</td>
<td>8,735</td>
<td>7,235</td>
<td>15,970</td>
</tr>
<tr>
<td>Mobile Health Clinic</td>
<td>–</td>
<td>–</td>
<td>26,159</td>
</tr>
<tr>
<td>Antenatal Clinic, Civil Hospital Ballabgarh</td>
<td>5,870</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Sex and Marriage Counseling Centre</td>
<td>1,755</td>
<td>2,320</td>
<td>4,075</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120,626</strong></td>
<td><strong>88,755</strong></td>
<td><strong>229,670</strong></td>
</tr>
</tbody>
</table>

**Inpatient Services**

<table>
<thead>
<tr>
<th>Site</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Hospital Ballabgarh</td>
<td>8419</td>
</tr>
<tr>
<td>PHC Chhainsa (deliveries)</td>
<td>407</td>
</tr>
<tr>
<td>PHC Dayalpur (deliveries)</td>
<td>270</td>
</tr>
</tbody>
</table>

**Referral Hospital Ballabgarh**

**Outpatient**

The following outpatient departments are run:

a) General OPD for adults – daily
b) Child Welfare Centre (Paediatric OPD) for children – daily
c) Ophthalmology OPD – daily
d) ENT – twice a week
e) Dental outpatients – daily
f) Obstetrics & Gynecology OPD – daily
g) Physical Medical Rehabilitation (PMR) OPD – once a week
h) Psychiatric OPD – daily (except Monday and Thursday)
i) ANC Clinic – thrice a week
j) Pediatric Surgery OPD cum surgery – once a week
k) NCD clinic – once a week
l) Homeopathy (AYUSH) OPD – daily

**OPD load**
New patients: 94,032  Old and new patients: 160,878
ANC registration: 5,870 Immunization : 7,026

**Inpatient**
The number of beds has remained unchanged at 50+1 (Nursery)
a) Total number of admissions including hospital births: 8,419
b) Number of hospital births: 2,277
c) Bed Occupancy rate: 70.1% (including newborns); 51.1% (excluding newborns)
d) Average duration of stay: 1.6 days
e) (v) Admissions via Casualty: 4,847 via OPD: 1,328 newborns: 2,277

**Distribution of Inpatients by specialty**

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine</td>
<td>1,676</td>
</tr>
<tr>
<td>Surgery</td>
<td>352</td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>3,166</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>3,035</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>160</td>
</tr>
<tr>
<td>New born</td>
<td>2,277</td>
</tr>
<tr>
<td>Total</td>
<td>8,419</td>
</tr>
</tbody>
</table>

**Casualty**
Number of patients registered: 2,788
Number of medico-legal cases: 4,363

**Diagnostic tests performed**
a) Laboratory investigations (including malaria slides) 104,263
b) X-ray (Total) 9,108
c) Ultrasoundography (USG) 1,513
d) Malaria slides 4,440 Malaria cases 15
   - *P. vivax* 15
   - *P. falciparum* Nil

**Total number of surgical procedures done**
Male: 467  Female:1,105  Total: 1,572

**Revised National Tuberculosis Control Programme (RNTCP)**
Ballabgarh hospital is a treatment unit under the RNTCP and has 4 (four) microscopy centres under it. Total cases treated at Ballabgarh Hospital in 2012 were 547.

_**Break-up of cases treated at Ballabgarh Microscopy Centre**_
Category I: 420 Category II: 127  Total: 547

**Community Health Services**

_**Intensive field practice area (IFPA)**_
This comprises of the two PHCs, i.e. Dayalpur and Chhainsa. Outpatient, domiciliary, and referral services are being provided.

**Indices**
a) Population: 91,362
b) Birth rate per 1000 population: 22.48
c) Death rate per 1000 population: 6.24
d) Neonatal mortality rate per 1000 live births: 28.7
e) Infant mortality rate per 1000 live births: 40.4
f) Maternal mortality rate per 100,000 live births: 146
OPD load at various centres in IFPA

<table>
<thead>
<tr>
<th>Name of PHC</th>
<th>New cases</th>
<th>Repeat visits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dayalpur</td>
<td>8,735</td>
<td>7,235</td>
<td>15,970</td>
</tr>
<tr>
<td>Chhainsa</td>
<td>10,234</td>
<td>12,354</td>
<td>22,588</td>
</tr>
</tbody>
</table>

**Family Welfare and Maternal Child Health**

The project area is dependent on the District Family Welfare and Immunization Offices for the supply of vaccines and other items.

- a) Total ante natal cases (new registration): 2,259
- b) Pregnant women receiving ante natal care: 100%
- c) Complete TT coverage of registered cases: 100%
- d) Institutional deliveries: 88.6%
- e) Total deliveries in delivery hut: 677  PHC Chhainsa: 407  PHC Dayalpur: 270
- f) Eligible couple protection rate: 47.3%
- g) Total number of persons who accepted family planning methods: 2,508
  - Tubectomy: 381  Vasectomy: 19  Intrauterine device: 441
  - CC users: 1,257  Oral pills: 410

**Expanded Programme on Immunization**

*Coverage of 12 to 23 month of age*

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>97.2%</td>
</tr>
<tr>
<td>OPV (3 doses)</td>
<td>98.5%</td>
</tr>
<tr>
<td>DPT (3 doses)</td>
<td>98.0%</td>
</tr>
<tr>
<td>Measles</td>
<td>95.5%</td>
</tr>
</tbody>
</table>

**National programmes**

*Malaria*

Collection of blood slides is done by active and passive surveillance in the IFPA.

- Total number of slides collected: 12,255  Total number of positive cases: 222

*Indices*

- a) Annual blood examination rate 13.41%
- b) Annual parasite incidence rate 2.42/1000 population
- c) Slide positivity rate 1.81%

*Tuberculosis*

The RNTCP is carried out in the IFPA on the national pattern. Dayalpur PHC has been designated as a Microscopy Centre and caters to all villages under the IFPA. The break-up of patients treated in the total Field Practice Area is as follows:

- Category I: 102  Category II: 29  Total 131

**Special services**

*Animal bite management clinic (PHC Chhainsa)*

- Number of patients provided Anti Rabies Vaccine (ARV): 660

*Family welfare camp (PHC Chhainsa)*

- Number of tubectomy: 230  Number of vasectomy: 16

**IEC Activities under CRHSP Ballabgarh**

*World Health Day Celebration*

1. World T.B. Day  22 March 2012  Exhibition and Health talk
2. World Health Day  07 April 2012  Exhibition and Health talk
3. World No Tobacco Day  31 May 2012  Exhibition and Health talk
4. World Population Day weekend  11–24 July 2012  Health talk
5. World Breast Feeding eek  1–7 August 2012

**Activities**

1. August 2012  Health talk, Short Film Show and Poster displayed – 10
2. August 2012  Group Discussion & Individual Counseling
3. August 2012  Short Film Show on Breast Feeding & Health Talk
4. August 2012  Health talk & Posture Displayed
5. August 2012  Health Talk & Pamphlet Distribution
6. August 2012  Health Talk
7. Nutrition Week:  Health talk & Posture Displayed
8. 17 September 2012  Nukhad Natak on HIV/AIDS, NACO and DGHS, Haryana

**Group Health Talks: 82**

*Topics covered:* Neonatal care and Kangaroo mother care, Breast-feeding and weaning, Antenatal Care, High risk pregnancy, Anaemia in pregnancy, Importance of institutional delivery, Immunization, Female discrimination, Diarrhoea, Pneumonia, Scabies, Tobacco-de-addiction, Malaria & Dengue, Tuberculosis, Anaemia in children, Malnutrition in Children, Vit-A Deficiency, Diabetes, Hypertension, HIV/ AIDS, Accidents in children, Personal Hygiene, Family planning methods, Post-natal Care and Diet, Care of Newborn, Swine Flu, Geriatric Care, Mental health problem, etc.

**Short Film Shows: Child Welfare Centre:** (Timing 9.30 to 10.30, Daily) On Important Topics: Breast Feeding, Antenatal, and Child Care, Female feticide, Eye Care, Vit A Deficiency, Malnutrition, and Diarrhoea.

**Counseling in Ward**

**Exclusive Breastfeeding Feeling**

**Time:** 2 PM–4 PM Daily (Monday–Friday) and 12 Noon–1 PM Saturday

**Counseling provided to**

- Post Natal Mothers: 1,917
- Antenatal Mothers: 852

**Urban Health Programme:** The Urban Field Practice Area for training of undergraduate and postgraduate students in Community Medicine is located at Dakshinpuri Extension, Dr Ambedkar Nagar, Delhi. Health care services are provided to a population of about 35,000 in this area. The services include clinic-based services and domiciliary health services.

I. Clinic-based services – these were provided by the Mobile Health Clinic till 7 January 2013. Since 15 March 2013, these services are being provided from the Urban Health Centre which has been established at the Basti Vikas Kendra, Mini Subhash Camp, Opp. Block 14, Dakshinpuri Extension, Dr Ambedkar Nagar, New Delhi.

II. Domiciliary health services – these are provided through home visits by Public Health Nurse Supervisor, Medical Social Service Officer and Health Assistants.

a. Total patients seen at Dakshinpuri Extension, Dr Ambedkar Nagar: 26159
b. Total number of referrals: 1141
c. Health talks given on different health topics at Dr Ambedkar Nagar: 110
d. **Immunization**

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<th>0 dose</th>
<th>484</th>
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<th>383</th>
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<tr>
<td>DPT II</td>
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<td>DPT B</td>
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<tr>
<td>OPV I</td>
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<td>OPV II</td>
<td>479</td>
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<tr>
<td>OPV III</td>
<td>486</td>
<td>OPV B</td>
<td>463</td>
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<tr>
<td>DT (Booster)+OPV</td>
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<td>Measles</td>
<td>428</td>
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<tr>
<td>MMR</td>
<td>471</td>
<td>TT I (ANC)</td>
<td>211</td>
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<tr>
<td>TT II (ANC) &amp; TT (Booster)</td>
<td>246</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>TT Others + above 6 years</td>
<td></td>
<td></td>
<td>182</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hepatitis B**

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>490</th>
<th>541</th>
<th>61035</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II dose</td>
<td>490</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typhoid</td>
<td>541</td>
<td>Vitamin A I dose</td>
<td>894</td>
<td></td>
</tr>
<tr>
<td>Folifer (Adult)</td>
<td>61035</td>
<td>Folifer (Paediatric)</td>
<td>4975</td>
<td></td>
</tr>
</tbody>
</table>

**Family Planning Acceptors**

- Condoms: 3860 Oral contraceptive pills: 112 cycles

**Laboratory services**

AIIMS 2012-2013/ 83
Rapid test for malaria. 154  Haemoglobin 450  
Urine albumin and sugar 44  Blood sugar estimation  977  

**Sex and Marriage Counselling Clinic**  
New patients  1755  Old Patients  2320  

**Health Promotion and Health Communication (HPHC) unit**  

<table>
<thead>
<tr>
<th>Date</th>
<th>Name of activity</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 April 2012</td>
<td>Project interventions on ‘Hypertension’ at six places in Block No. 2 Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>160</td>
</tr>
<tr>
<td>19 July 2012</td>
<td>Project interventions on ‘Oral Health’ at six places in Block No. 3 Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>180</td>
</tr>
<tr>
<td>9 August 2012</td>
<td>Exhibition on ‘Breast feeding and weaning’ on the eve of breast feeding week at Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>90</td>
</tr>
<tr>
<td>3 September 2012</td>
<td>Family Health Advisory Service (FHAS) intervention programme (Role Plays) organized on ‘Large Size Family, Diarrhoea, PEM, Immunization, Obesity, Alcohol and Heart Attack’ Block No. 5 Park, Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>160</td>
</tr>
<tr>
<td>7 September 2012</td>
<td>Project interventions on ‘Malaria and Dengue’ at six places in Block No 06 Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>210</td>
</tr>
<tr>
<td>10 September 2012</td>
<td>Family Health Advisory Service (FHAS) Intervention Programme (Role Plays) organized on ‘Child Marriage, TB., PEM, ANC, Breast Feeding and Weaning and Immunization’, Block No. 5, Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>200</td>
</tr>
<tr>
<td>25–27 September 2012</td>
<td>4 Posters were displayed and 12 films were screened on public health issues on the eve of ‘Institute Day Health Exhibition’ at AIIMS</td>
<td>–</td>
</tr>
<tr>
<td>1 December 2012</td>
<td>Exhibition on ‘World AIDS Day’ at Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>140</td>
</tr>
<tr>
<td>14 February 2013</td>
<td>Project interventions on ‘Hypertension’ at six places in Block No. 1 Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>260</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Posters Developed/Modified and Designed on</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Urban Health Programme- Contribution to healthcare Rural Health Centre</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Posters on Swine Flu</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Posters on Hypertension</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Meningitis Poster</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Poster on details of published articles</td>
<td>1</td>
</tr>
</tbody>
</table>

Information on vector borne diseases was disseminated by the distribution of 2,000 booklets on dengue in all residential areas of AIIMS. Posters on various topics like ‘Dengue, Swine flu and Hypertension; were displayed at prominent places at AIIMS for health promotion. A telephonic ‘Dengue helpline’ was made operational during the 2012–13. Adequate informations were provided and doubts cleared of the people.

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**  
Centre for Community Medicine is designated as WHO Collaborating Centre for Capacity Building and Research in Community Based Non-communicable Disease, prevention and control.

Professor C.S. Pandav was conferred Dr B.C. Dasgupta Memorial Oration during South-East Asian Regional Public Health Conference and 57th All India Annual Conference of Indian Public Health Association, 1–3 February 2013, Science City, Kolkata; appointed Member, Working Group on Disease Burden (Communicable and Non-communicable Diseases) for formulation of Twelfth Five-Year Plan (2012–17); Attended symposium on Non-Communicable Diseases—Lifestyle Modification, Bangalore, 9–10 April, 2012, Indian Public Health.
Association; Member, Selection Committee, National AIDS Research Institute (NARI), ICMR, Pune, 9–10 August 2012; Attended Workshop on Improving Quality Assurance for Salt Iodization in India, 24–25 August 2012, Gandhinidham, Gujarat; Attended 57th Foundation Day Celebration of Indian Public Health Association, 28–29 September 2012, Kolkata; Attended Joint State Conference of IPHA and IAPSM Maharashtra Chapter, 22–24 January 2013, Nagpur, Maharashtra; Attended South-East Asian Regional Public Health Conference and 57th All India Annual Conference of Indian Public Health Association, 1–3 February 2013, Science City, Kolkata; Conducted 6th Annual National Rural Health Mela (Late Shri Digvijay Singh Memorial Health Mela), Banka, Bihar; 22–24 February 2013; Visited Kumbh Mela, Allahabad, 18–20 February 2013, to assess public health implications of a large gathering and submit guidelines for the same, Indian Public Health Association; Attended symposium on Non-Communicable Diseases, Bangalore, 9–12 March 2013, Indian Public Health Association; Visited Nepal as an Expert, 16–19 January 2013, to ‘Examining and Assessing the Goitre Control Programme in Nepal’, Ministry of External Affairs, Government of India; Conducted MD (Community Medicine/Community Dentistry) Parts I and II Examinations, 11–13 February 2013, Colombo, Sri Lanka; Attended 13th World Congress of Public Health, 23–27 April 2012, Addis Ababa, Ethiopia, as National President of Indian Public Health Association; Attended the Annual International Council for Control of Iodine Deficiency Disorders (ICCIDD), Board Meeting, Pisa, Italy, 6–8 September 2012; Participated in the Symposium cum Workshop on Sustainable Elimination of Iodine Deficiency Disorders in Thailand at Bangkok, 18–23 March 2013.

Professor Shashi Kant was awarded Fellow of Indian Association of Preventive and Social Medicine; Member, Governing Council of IAPSM, 2013–20; Faculty Co-ordinator, Central Workshop, AIIMS; In-charge, Telemedicine Facility, AIIMS; Member, Ethics sub-committee, AIIMS; Member, Dean’s Committee and Staff Council, AIIMS; Member, Housing Advisory Committee, AIIMS; Member, Doctoral Committee for Ph.D students enrolled in department of Physiology and Biostatistics, AIIMS; Member, Ethics Committee/Institutional Review Board of National Institute of Medical Statistics (New Delhi), and Institute of Health Management and research (Jaipur); Member, Scientific Advisory Committee of NIMS (New Delhi); Member, Expert Committee, Indian Council of Medical Research (New Delhi) for review of various project proposals; Expert for recruitment of Faculty members for six AIIMS set up under PMSSY; Member, Steering Committee, Establishment of National Health Portal (New Delhi); Reviewed research articles submitted to Indian Journal of Community Medicine, Indian Journal of Public Health, and National Medical Journal of India; member of many Technical Resource Groups (e.g. on STI/RTI, HIV Sentinel Surveillance, HIV research and development, etc.) set up by Department of AIDS Control, Ministry of Health, Government of India; participated as member of Technical Coordination committee and Apex Committee for collaborative work with BMGF and its grantee institutions on HIV/AIDS epidemic analysis; attended International Conference on Global Public Health 2012, Colombo, Sri Lanka; the INDEPTH mortality data analysis workshop, 2–6 July 2012, Accra, Ghana; 40th Annual Conference of Indian Association of Preventive and Social Medicine, 22–24 January 2013, Nagpur.

Professor Sanjeev Kumar Gupta was an Expert Member of the Task Force Project ‘Development of Indian Anxiety and Panic Questionnaire’, Indian Council of Medical Research, New Delhi; Special invitee, Project Review Group Meeting, Fertility Regulation and Expanding Contraceptive Choices, Indian Council of Medical Research, New Delhi; Member, Review Committee, Intramural Projects funded by the AIIMS (2012-2013); Member, Stores Purchase Committee, Centre for Dental Education and Research; Member, Disease Prevention and Outbreak Response Cell (DPORC) Committee, AIIMS; Member, Core Committee of the AIIMS, under the Revised National Tuberculosis Control Programme; Reviewer for Indian Journal of Community Medicine, The National Medical Journal of India, Indian Journal of Medical Research, BMC Public Health; Member, Doctoral Committee, Ph.D. theses in Department of Community Ophthalmology, Dr R. P. Centre, AIIMS; Member, Staff Council AIIMS; Examiner for theses of MD (Community Medicine), for the University of Delhi South Campus; November 2012; Member, Board of Examiners for MD (Community Health Administration) Examination, National Institute of Health and Family Welfare, Munirka, New Delhi, 25–25 April 2012, and 18–19 October 2012.

Professor Kiran Goswami participated in Hindi fortnight and won first prize in Essay Writing Competition (Hindi speaking category); Central Team member in INCLEN, conducted projects of Determinants of Under nutrition in Children and Assessment of Management at Different level of Healthcare and in-depth Analysis of Cold Chain, Vaccine Supply and Logistics Management for Routine Immunization in Three Indian States; Conducted training workshop and supervision for Gujarat State Supervision of FGDs for data collection in
Srinagar (J & K) under ‘Childhood Obesity in India: A Multicenter Study on its Measurements and Determinants with Reference to Cardio-Metabolic Risk Factors’: ICMR Taskforce Study; Member, National Steering Group for Research Priority Setting Exercise in Maternal Newborn, Child Health and Nutrition (MNCHN).

Dr Anand Krishnan worked with WHO/SEARO as a temporary International Professional in the area of NCDs for five months; Head, WHO Collaborating Centre for Capacity Development and Research in Community based NCDPC; Organized WHO Regional STEPs surveillance training workshop, 11–14 June 2012, with participation from five South-East Asian Countries; Attended WHO Consultation to develop the regional strategic action plan with indicators and targets for prevention control of NCDs, 25–27 February 2013; Attended WHO Regional meeting on NCD including mental health and neurological disorders, 24–26 April 2012; attended and facilitated WHO Regional workshop on prioritized research agenda for prevention and control of NCDs through a PHC approach8 to 10 Aug 2012; attended meetings in National Health System Resource Centre (NHSRC) related to curriculum development for BSc (Community Health) and Role of ASHAs in NCD Prevention and Control, attended Project Review Committee meetings at Indian Council of Medical Research of NCD Division; attended Project Review Committee Meetings of Department of Electronics and Information Technology; Peer Reviewed manuscripts for Lancet, Bulletin of WHO, Global health Action, Indian Paediatrics, National Medical Journal of India, Indian J Med Research.

Dr Baridalyne Nongkynrih was Resource person, Annual Conference cum workshop on Research Methodology and Biostatistics organized, Indian Journal of Medical Specialties, 26 August 2012, Lady Hardinge Medical College, New Delhi; Member, project committee in ENT projects, ICMR External examiner to RIMS Manipur, MD Exam on 18–19 April 2012; External examiner for MBBS final exams in NEIGRIHMS, Shillong. 13–14 December 2012; Thesis evaluation for Community Medicine School of Public health PGIMER Chandigarh. Reviewer for Indian Journal of Community Medicine, Global Health Action, Indian Journal of Maternal and Child Health.

Dr Puneet Misra, elected President of Indian Association of Preventive and Social Medicine (IAPSM); awarded Fellowship of IAPSM; participated in workshop organised by International Journal of Epidemiology and INDEPTH, Accra, Ghana; participated in live telecast on Dengue during dengue season and HIV on World AIDS day on Loksabha TV and All India Radio; participated in National conference of IPHA and IAPSM at Nagpur; participated in Programme advisory committee meeting and reviewed many research projects under DST, Govt of India.

Dr Sanjay Rai, Nodal person for Central Zone for HIV /AIDs sentinel surveillance in India; responsible for supporting HIV sentinel surveillance activity of five central zone states of India (Bihar, Delhi, Jharkhand, Uttarakhand and Uttar Pradesh), supported by NACO; Delivered ‘JE Park Memorial Oration’ at 56th All India Annual Conference of IPHA at Kochi, 13 February 2012; Member of the Sub-committee on ‘Developing PG curriculum in community medicine’ and ‘Immunization’ of Academy of Indian Public Health Association; Reviewed manuscript for publication in various journals, like Health and Population Perspective and Issues, Indian Journal of Public Health, Indian Journal of Community Medicine, etc.; Organized Health Mela under NRHM in Banka District of Bihar, 2–4 March 2012; Conducted several supervisory field visits of Bihar, Jharkhand, Delhi and UP to monitor HIV Sentinel Surveillance of India.


Dr Kapil Yadav participated in POSHAN (Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India) IFPRI, June 19, 2012; Member of technical committee for procurement of equipments of new AIIMS; Delivered lecture ‘Iodine deficiency disorders – reaching the goals in the Twelfth

Dr Anil Goswami attended ‘Disease Prevention and Outbreak Response Cell (DPORC), Horticulture and Sanitation Advisory Committee’ AIIMS, 11 October 2012; attended ‘Faculty Development Workshops’, 1 November 2012, 3 December 2013, and 7 February 2013, AIIMS, KL Wig CMET; attended Ninth Joint Annual Conference of ‘The Indian Society for Malaria and other Communicable Diseases (ISMOCD)’ and ‘The Indian Association of Epidemiology (IAE)’, 2–4 November 2012, India Habitat Centre, New Delhi; participated as member in the meeting of ‘Family Welfare Programme – Advisory Committee of All India Radio’, New Delhi, 16 January 2013; Nodal Officer for ‘Disease Prevention Outbreak Control Cell (DPORC)’, AIIMS; attended 40th Annual National Conference of Indian Association of Preventive and Social Medicine’, 22–24 January 2013, Department of Preventive and Social Medicine, Govt. Medical College, Nagpur, Maharashtra; Attended ‘South-East Regional Public Health Conference’ and 57th All India Annual Conference of ‘Indian Public Health Association’, 1–3 February 2013, Science City, Kolkata; participated in the Workshop on ‘Prevention and Control of Vector Borne Diseases’, India Habitat Centre, 20 February 2013, South Delhi Municipal Corporation; participated as a resource person in a Public Lecture on ‘Awareness about Vector Borne Diseases’ AIIMS, 28 February 2013; Continued to be the ‘Treasurer of Indian Association of Preventive Medicine (IAPSM) (A National Body)’, 2012–13, for a second consecutive term; delivered a lecture on ‘Role of Medical Social Work in Community Medicine’ for Bachelor of Social Work students, Dept. of Social Work, Dr Bhimrao Ambedkar Collge, University of Delhi, Yamuna Vihar, 27 July 2012; conducted sensitization session on ‘Vector Borne Disease Control Programme’, AIIMS Sulabh Staff, sanitation inspectors and sanitation officers under the banner of ‘Disease Prevention Outbreak Control Cell (DPORC)’, AIIMS, 18 May 2012, 17 August 2012, and 31 August 2012; delivered a lecture ‘Teaching, Training and Research activities in Community Medicine’ to students of Social Work from ‘Shri Saraswati College of Social Work, Washim (Maharashtra)’ 11 December 2012; a judge for Street Play Competition, ‘PULSE 2012’, a cultural event of AIIMS students, 19 September 2012, where 21 street plays were judged; attended AIIMS Rajbhasha Karyanvayan Samittee meeting, 26 March 2013 to review the past functioning and future plans.
9.9 Dermatology and Venereology

Professor and Head
Vinod Kumar Sharma

Professors
Neena Khanna
Kaushal K. Verma
M. Ramam

Additional Professors
Binod K Khaitan
G. Sethuraman
Sujay Khandpur
Somesh Gupta

EDUCATION
Three candidates completed MD Dermatology and Venereology training, 5 candidates took short term training from 2–4 weeks.

CONFERENCES, CMEs
Lectures delivered
VK Sharma: 10  M Ramam: 10  Sujay Khandpur: 10  G. Sethuraman: 2
Somesh Gupta: 4

RESEARCH
Funded projects
Ongoing
1. Genetic analysis of psoriasis and psoriatic arthritis in India., VK Sharma, 2010–13, NIH, USA, Rs.68 lakhs.
2. Elucidating role Fox3 promoter DNA methylationLevel in active non-segmental Generalized vitiligo, VK Sharma, 2011–14, DBT, Rs. 60 lakhs.
3. Programme support for skin pigmentation, VK Sharma, 2008–12, DBT, Rs. 28 lakhs.
5. Urologic evaluation of dermatologic patients on chronic cyclophosphamide therapy, Sujay Khandpur, AIIMS, Rs. 1 lakh.
10. Comparison of immunohistochemistry and immunofluorescence antigen mapping in the diagnosis of epidermolysis bullosa and correlation of these tests with DNA based diagnostic tests, G. Sethuraman, 2012–15, DST, Rs. 36 lakhs.
11. Determination of plasma and urinary levels of catecholamines in patients with vitiligo and their correlation with stability and outcome of melanocyte transplantation, Somesh Gupta, ICMR, 2011–13, Rs.10 lakhs plus staff.
12. The role of immunological factors in determining stability of pigmentation by comparing the levels of immunohistochemical markers in successful and unsuccessful re-pigmentation at 0–2 weeks, Somesh Gupta. 2012–13, AIIMS, Rs. 5 lakhs.

AIIMS 2012-2013/ 88
Completed
1. A comparative study of effectiveness of immunotherapy with intralesional injection of killed mycobacterium w Vaccine and imiquimod cream in clinical resolution of external anogenital warts and reduction of viral load: A randomized trial. 3 years+1 year extension, DBT, July 2008–July 2012, Rs 49.3 lakhs.

Departmental projects
1. Clinical profile of photodermatoses at AIIMS
2. ND Yag laser in the treatment of N. Ota lentigines, Melasma, etc.
3. Pulse Dye laser for PWS
4. Occupational dermatoses
5. Evaluation of effectiveness and safety of oral acyclovir 1gm twice a day for 3 days versus oral acyclovir 1gm once a day for 5 days in genital herpes
6. Assessment of Quality of Life (QoL) In Indian patients with genital herpes
7. Weekly azathioprine pulse (WAP) therapy versus betamethasone oral mini pulse therapy in the treatment of moderate to severe alopecia areata
8. Further validation and responsiveness of a rating scale to measure the psycho-social impact of vitiligo
9. Clinico-pathological study of granulomatous cheilitis and lupus miliaris disseminatus faciei
10. Clinico-pathological study of inflammatory leg nodules
11. Histological evaluation of palmoplantar psoriasis
14. Comparison of three treatment regimes in palmpoplantar psoriasis
15. Utility of horizontal sections of scalp biopsies in alopecias.
16. Clinico-pathological study of granulomatous cheilites and lupus miliaris disseminatus faciei
17. Dermoscopic study of alopecia.
18. Weekly azathioprine pulse therapy versus betamethasone oral mini pulse therapy in the treatment of moderate to severe alopecia areata.
19. Study of cytokines, transcription factors, chemokine receptors and their ligands of Th17 and Treg cells in pemphigus vulgaris.

Collaborative projects
1. Real time polymerase chain reaction for Herpes Simplex viruses (Microbiology).
2. Radioactive skin patches for treatment of basal cell carcinoma and keloids (Nuclear Medicine).
3. Genetic polymorphism in Th-1 and Th-2 cytokines and their association with parthenium induced contact dermatitis (Biochemistry).

PUBLICATIONS
Journals: 21 Chapters in books: 3

AWARDS, HONOURS, AND SIGNIFICANT EVENTS
Professor K.K. Verma awarded Fellowship of International Medical Sciences Academy (FIMSA), Professor in-charge (Examinations), AIIMS; Hon. Secretary, International Union against Sexually Transmitted Infections – Asia Pacific (IUSTI-AP), 2008–12; Vice Chair, International Union against Sexually Transmitted Infections – Asia Pacific (IUSTI-AP), South Asia Region, 2012–14; Chair Elect, International Union against Sexually Transmitted Infections – Asia Pacific (IUSTI-AP) 2014–16; President, Indian Association of Dermatologists, Venereologists and Leprologists, Delhi State (IADVL- DSB) – 2012; President, Pemphigus ad Pulse Therapy Foundation 2011–13; Organized Annual and Mid-year Conferences of Indian Association of Dermatologists, Venereologists and Leprologists, Delhi State (IADVL- DSB), as President of the Organization; Organized and coordinated monthly academic meetings of the Indian Association of Dermatologists, Venereologists and Leprologists, Delhi State (IADVL- DSB), at various Institutions, as its President in 2012; Delivered Key note Lecture as a Special Invitee on ‘Occupational Dermatoses in Indian Subcontinent’, 11th Congress of European Society of Contact Dermatitis from June 13-16, 2012 at Malmo, Sweden; Delivered a guest lecture on ‘Tropical Skin Infections in India’ 21 June 2012, University Hospital Zurich, Switzerland; Delivered a guest lecture, ‘India’s response to STI/HIV epidemic: Success Story’, 15–17 October 2012, 13th International Union against Sexually Transmitted Infections (IUSTI), World Congress, Melbourne, Australia; Organized a CME cum workshop on ‘Pemphigus and other Autoimmune diseases in Dermatology’ as President of Pemphigus and Pulse Therapy Foundation, in association with office bearers and local organizing committee, 16–18 February 2013, Udaipur, Rajasthan; Participated in Central Council Meeting of Indian Association of Dermatologists, Venereologists and Leprologists (IADVL), 14–15 July 2012, Hyderabad, President of IADVL, Delhi State.

Professor M. Ramam First Dr B N Banerjee Oration Award 2012 of IADVL, West Bengal Branch; UCSF Community Faculty Award of the Year 2012; Dr Bishnupriya Debi Award 2012 for best original article in the IJDVL; Visiting Professorship at University of California, San Francisco; Member, Editorial Board, Journal of Cutaneous Pathology; Member, Editorial board, International Journal of Dermatology; Secretary, Dermatopathology Society of India; Member, Executive Council, International Society of Dermatopathology; Editor Elect, Indian Journal of Dermatology Venereology and Leprology.

Dr Sujay Khandpur Hony. Secretary, Indian Association of Dermatologists, Venereologists and Leprologists (Delhi Branch) 2012; Joint Secretary, Dermatopathology Society of India 2012–13; Vice President, Indian Association of Dermatologists, Venereologists and Leprologists (Delhi Branch) 2013; Member Advisory Committee, Indian Association of Dermatologists, Venereologists and Leprologists (IADVL); Textbook of Dermatology 2013; Member, Special Interest Group on Clinical Trials, Indian Association of Dermatologists, Venereologists and Leprologists 2013; Joint Organizing Secretary, International Congress of Dermatology 2013; Reviewer of Indian Paediatrics, Dermatology, IJDVL, Indian Journal of Dermatology, ACSI, British Journal of Dermatology.


Dr Somesh Gupta nominated Editor-in-chief, Journal of Cutaneous and Aesthetic Surgery. Continuing as Joint Editor of Journal, Sexual Health (Australia); Recipient of Silver Medal by International Union against Sexually Transmitted Infections for efforts in controlling STI at global level; Received Award of Excellence 2012 by Indian Association of STD and AIDS; Congress President: 4th Spring Meeting of International Society for Dermatologic Surgery (ISDS) combined with 11th National Conference of Association of Cutaneous Surgeons of India, Hotel Leela Kampinsky, Gurgaon, 12–15 April 2012.
HIGHLIGHTS
The Department of Emergency Medicine started postgraduate course in Emergency Medicine in July 2012. Three residents joined the Department, one in July 2012, and two in January 2013. This is one of very few such departments across India. The departmental faculty has actively participated in providing training to future faculty of the discipline of Emergency Medicine. The Department has been actively collaborating with international universities from the USA to organize conferences on Emergency Medicine with the aim to train doctors, nurses and paramedics in this field.

EDUCATION
The Faculty organized life support courses for undergraduates and postgraduates posted to the Department. The Department runs a schedule of academic activities for residents of Emergency Medicine (seminars, journal clubs, case discussions) thrice a week. In addition, the department faculty was involved in didactic teaching of undergraduates, postgraduates and nursing students through lectures and seminars.

The Department imparted short term training to 11 undergraduate students from USA, England, Ireland, Germany, Australia and Austria.

CONTINUING MEDICAL EDUCATION
Conferences/seminars/workshops organized
2. 8th Indo–US Emergency Medicine Summit – 2012 (INDUS-EM 2012), Nashik, in collaboration Maharashtra University of Health Sciences, 24–28 October 2012. The international collaborating partners were University of South Florida, USA and State University of New York, Downstate Medical Center, USA.

Papers presented
1. Reconstruction with fibular autograft and silicone implant arthroplasty for giant cell tumour of metacarpal, Asia Pacific Orthopaedic Association Conference on 3–6 October 2012.
5. Common poisoning scenario in Delhi, XXIII Annual CME of Delhi State Chapter, Association of Physicians of India, Delhi, 17–18 November 2012.

Lectures delivered
Praveen Aggarwal: 4   Mohammed Tahir Ansari: 1

PUBLICATIONS
Journals: 8

PATIENT CARE
The details of various activities of Department of Emergency Medicine (2011–12)
Average number of patients: 11,281/month
Total number of patients 1,35,375 (from January 2012 to December 2012)
AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor Praveen Aggarwal** is Chief co-Editor, Journal of Emergencies, Trauma and Shock, an international journal, indexed in PubMed; nominated Member, Postgraduate Broad-Specialty Committee appointed by the Board of Governors, Medical Council of India; nominated a member of the Committee under Directorate General of Health Services, Ministry of Health and Family Welfare to prepare format of medical certification of pilgrims visiting Shri Amarnath Shrine; nominated a member of the Expert Committee for developing Curriculum and Training Module on High Altitude Mountain Medicine under Directorate General of Health Services, Ministry of Health and Family Welfare; Member of Scientific Body, Indian Pharmacopoeia Commission, Ministry of Health and Family Welfare, Government of India; Member of Institute’s Ethics Committee.

**Professor L.R. Murmu** is Chief co-Editor of Journal of Emergencies, Trauma and Shock, an international journal, indexed in PubMed.
9.11 Endocrinology and Metabolism

Professor and Head
A. C. Ammini

Professors
Nikhil Tandon
Nandita Gupta
Ravinder Goswami

Additional Professor
Rajesh Khadgawat

Associate Professor
Viveka P. Jyotsna

Assistant Professor
Mohd Ashraf Ganie

Scientist IV
M. L. Khurana

HIGHLIGHTS
The Department runs daily outpatient facilities, laboratory services for hormone assays, metabolic studies and bone density measurement.

EDUCATION
Undergraduate, Postgraduate, Paramedical Training
The department was actively involved in teaching undergraduate medical students and nursing students. Postgraduate students (MD) from Internal Medicine and Geriatric Medicine come for one and two month postings to the department.

Long and Short Term Training
- Four candidates completed their DM and three new candidates joined the DM course.
- Two students joined PhD (Endocrinology).
- Four students completed short term training.

National and International Conferences
Lectures delivered
A. C. Ammini: 8  N. Tandon: 12  R. Goswami: 1  R. Khadgawat: 6
V.P. Jyotsna: 3  Mohd Ashraf Ganie: 3

RESEARCH
Funded projects
Ongoing
1. A phase III randomized, placebo-controlled clinical trial to assess the safety and efficacy of Odanoacatib (MK-0822) to reduce the risk of fracture in osteoporotic postmenopausal women treated with vitamin D and calcium. AC Ammini, MSD, 2009–14, Rs 40 lakhs.
3. Genetic determinants of birth weight and growth trajectory and influence of parental genotype on these anthropometric indicators. N. Tandon, DBT, 2012–15, 3 years, Rs 126.63 lakhs
4. Childhood obesity: Inflammatory markers, gene variation and epigenetics, an association study in urban and rural areas of north India. N. Tandon, DBT, 2011–14, Rs 60.91 lakhs.
10. A randomized double blind controlled trial to investigate the effects of vitamin D supplementation on insulin resistance and beta cell function in obese Asian-Indian subjects, aged 11–17 years. Rajesh Khadgawat, ICMR, 2011–14, Rs 47 lakhs.
13. A prospective phase III, multicentric, randomized, open label study to evaluate the comparative safety and efficacy of recombinant growth hormone (hGH) of USV with Eutropin in treatment of pre-pubertal of children (4–12) years with growth hormone deficiency. Rajesh Khadgawat, USV, Rs 10 lakhs.
15. Genotype phenotype correlation in patients of growth hormone deficiency. VP Jyotsna, DBT, Rs 21 lakhs.
16. MEN 1 gene mutations in patients of primary hyperparathyroidism, pituitary tumor and pancreatic tumor. VP Jyotsna, AIIMS, Intramural project, Rs 5 lakhs.
17. Role of inflammation in Indian women with polycystic ovary syndrome (PCOS) and its modulation by dietary factors. Ashraf Ganie, DBT, 2013–15, Rs 57 lakhs.

Completed
1. International follow-up study, after the investigational drug exposure in diabetic patients previously included in the REGULATE trial (CL3-00780-148: benfluorex versus pioglitazone). AC Ammini, Serdia.
2. Registry of people with diabetes in India with young age at onset. N. Tandon, ICMR, 2006–12.
3. A non-interventional, multi-centric study to compare hepatic fat and relevant metabolic parameters in overweight/obese, prediabetic/diabetic subjects, with healthy subjects in different geographical regions in India. N. Tandon, Torrent Pharma, 2011–12.
5. Role of oral vitamin D as an adjunct therapy in category I pulmonary tuberculosis long with assessment of immunological parameters: Randomized double blind trial. R. Goswami, DBT, 2006–12.
7. Effect on glycemic control, depression and quality of life, in patients of diabetes mellitus with rhythmic breathing (Sudarshan kriya yoga and pranayam) in addition to standard treatment of diabetes. VP Jyotsna, ICMR, 2009–12.
Collaborative projects

Ongoing
2. Childhood obesity in India: a multicenter study on its measurements and determinants with reference to cardio-metabolic risk factors. N. Tandon, ICMR.
3. ADVANCE-ON – Action in Diabetes and Vascular Disease Preterax and Diamicron MR Controlled Evaluation Post Trial Observational Study. N. Tandon, George Institute for International Health, Australia.

PUBLICATIONS
Journals: 75  Chapter in Book:1

PATIENT CARE
Endocrinology and Metabolism department runs OPD on all six working days with two specialty clinics, Pediatric and Adolescent Endocrinology clinic, PAEC (Every Monday, 2–5 pm) and Diabetes of Young Clinic, DOY (Every Saturday 9–1 pm). Hormonal and biochemical investigation and bone density measurements are also done when indicated for patients attending Endocrine Clinics.

About 72,600 hormone tests were done in the year under consideration with the breakup as follows:

Service Laboratory for immunoassay Of Hormones for Patient Care
(TOTAL SAMPLES FOR HORMONE ASSAY = 72, 600)

<table>
<thead>
<tr>
<th>No</th>
<th>Hormone</th>
<th>Tube assays done</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T4</td>
<td>11,363</td>
</tr>
<tr>
<td>2</td>
<td>TSH</td>
<td>15,610</td>
</tr>
<tr>
<td>3</td>
<td>TPO</td>
<td>1760</td>
</tr>
<tr>
<td>4</td>
<td>LH</td>
<td>2625</td>
</tr>
<tr>
<td>5</td>
<td>FSH</td>
<td>2636</td>
</tr>
<tr>
<td>6</td>
<td>PRL</td>
<td>2241</td>
</tr>
<tr>
<td>7</td>
<td>CORTISOL</td>
<td>5040</td>
</tr>
<tr>
<td>8</td>
<td>TESTOTERONE</td>
<td>2736</td>
</tr>
<tr>
<td>9</td>
<td>DHEA</td>
<td>866</td>
</tr>
<tr>
<td>10</td>
<td>17 OHP</td>
<td>381</td>
</tr>
<tr>
<td>11</td>
<td>ACTH</td>
<td>2281</td>
</tr>
<tr>
<td>12</td>
<td>PTH</td>
<td>5798</td>
</tr>
<tr>
<td>13</td>
<td>VITAMIN D</td>
<td>8463</td>
</tr>
<tr>
<td>14</td>
<td>INSULIN</td>
<td>5437</td>
</tr>
<tr>
<td>15</td>
<td>C PEPTIDE</td>
<td>2423</td>
</tr>
<tr>
<td>16</td>
<td>GH</td>
<td>799</td>
</tr>
<tr>
<td>17</td>
<td>GAD</td>
<td>245</td>
</tr>
<tr>
<td>18</td>
<td>FT4</td>
<td>1113</td>
</tr>
<tr>
<td>19</td>
<td>IGF 1</td>
<td>292</td>
</tr>
<tr>
<td>20</td>
<td>E2</td>
<td>491</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>72, 600</td>
</tr>
</tbody>
</table>

The biochemical investigations done in the Metabolic Laboratory for Patient Care during the year in consideration (i.e. April 2012–March 2013) are tabulated as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>INVESTIGATION</th>
<th>NUMBER OF SAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Blood sugar</td>
<td>14, 198</td>
</tr>
<tr>
<td>2</td>
<td>Glycated haemoglobin</td>
<td>12, 016</td>
</tr>
<tr>
<td>3</td>
<td>Urine pH</td>
<td>699</td>
</tr>
<tr>
<td>4</td>
<td>Osmolality</td>
<td>609</td>
</tr>
<tr>
<td>5</td>
<td>Cholesterol</td>
<td>2114</td>
</tr>
<tr>
<td>6</td>
<td>Triglyceride</td>
<td>2114</td>
</tr>
<tr>
<td>7</td>
<td>HDL</td>
<td>2114</td>
</tr>
</tbody>
</table>

Total No. of DEXA scan done : 3450

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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor A.C. Ammini is Member, NDAC (Expert Committee to advise DCGI in matters related to approval of new drugs and clinical trials); Member of working group for Internal Medicine – Endocrinology for ICD – 11; Member, Life Sciences Research Board, DRDO.

Professor N. Tandon was appointed on the Technical Resource Group for the National Programme for the Prevention and Control of Diabetes, CVD, Stroke and Cancer; Appointed on Technical Committee for supervising and monitoring clinical trials; Appointed Co-Chairman of the Chronic Disease Biology Taskforce, DBT; Member Technical Screening Committee of the SBIRI, Programme of DBT; Co-chairman of the Taskforce for Chronic Disease Biology – DBT; Vice-President of National Academy of Sciences.

Professor R. Goswami was Member of the committee for selection for the Senior Research Fellow and Research Associates by the ICMR from 2007 to date; Member of the selection committee for awarding MD, DM and MCh thesis financial grant by The Indian Council of Medical Research 2009 to date; Member of the Task for Chronic disease biology of the DBT 2007 to date; Member of the Steering Committee for ‘Drug from Sea’ from Ministry of Earth Sciences.

Dr R. Khadgawat attended Society of India (ESICON), 13-15 December, 2012, Kolkata; Khadgawat R, Marwaha RK, Garg MK, Ramot R, Oberoi AK, Gupta N. Effect of vitamin D fortified milk on vitamin D status of apparently healthy school going children aged 10–14 years; Best paper (poster) award* in Annual Conference of Endocrine Society of India (ESICON), 13–15 December 2012, Kolkata. Birla S, Kachhawa G, Sharma A, Jora R Khadgawat R. Gene analysis of POU1F1 and PRO1 and prenatal diagnosis in combined pituitary hormone deficiency*; IJEM Annual Awards 2012 for Excellence in Endocrine Writing, Endocrine Society of India (ESI). Khandelwal D, Bhattacharya S, Khadgawat R, Kaur S, Tandon N, Ammini AC. Hypokalemic paralysis as a presenting manifestation of primary SJögren's syndrome: A report of two cases. Indian J Endocrinol Metab. 2012 Sep;16(5):853-5; The AIIMS Excellence Award – 2012 – These awards are started by the institute for good original research work published from the institute; received third prize (certificate and Rs 10,000) in this category. The award was given by Nobel laureate for outstanding research; received this award, certificate and cheque of Rs. 10,000 from Prof Robert Huber, Nobel laureate (Won Nobel Prize in Chemistry 1988) on the occasion of Institute Day, 25 September 2012. This prize was given for publication ‘Gahlot M, Khadgawat R, Ramot R, Eunice M, Ammini AC, Gupta N, Kalaivani M. The effect of growth hormone deficiency on size-corrected bone mineral measures in pre-pubertal children. Osteoporos Int. 2012 Aug;23(8):2211-7; Dr Paritosh Bansal Memorial oration on ‘Short Stature – How to Proceed?’ in Annual Conference of Indian Academy of Pediatrics (IAP), Rajasthan state chapter, Jodhpur, Rajasthan; Best paper (Oral) Award and won prestigious AR Seth Award in Annual Conference of Endocrine

Dr Mohd Ashraf Ganie won Second Prize for Best Paper presented in IJEM Annual awards at 42nd Annual ESICON 2012 at Kolkata; Member of reviewer committee for the ‘Food and Inflammation’ by the DBT 2012 to date; Designated as Convenor of Indian Research group for PCOS by AE-PCOS Society; Coordinator for Research funding (ICMR,DST,DBT) at SKIMS Srinagar; Elected executive member of Indian Thyroid Association during the annual meeting of the Association held at Bangalore ITSCON 2013; Member of 2nd Industry Validation meeting for Occupational Standards in Allied Health and Paramedics; Member of Editorial team for AE-PCOS News letter from year 2012 onwards.

Visiting Scientists
1. Dr Merlin Thomas, Professor Department of Epidemiology and Preventive Medicine at Monash University, Australia, delivered a talk on ‘Early detection of vascular complications in type 2 Diabetes and management with emerging therapies.

2. Dr K. N. Pandey, Professor, Department of Physiology, Tulane University, New Orleans, USA, delivered a talk on ‘Physiological genomics and molecular signaling of natriuretic peptides receptor in hypertension and cardiovascular disease states’.
9.12 Forensic Medicine and Toxicology

**Professor and Head**
Sudhir K. Gupta

**Professor**
D.N. Bhardwaj

**Additional Professors**
O.P. Murty
Sanjeev Lalwani (JPNATC)
Millo Tabin
Adarsh Kumar (JPNATC)

**Assistant Professor**
Chittaranjan Behera

**Scientist II**
Anupama Raina

**Chemist**
A.K. Jaiswal

**HIGHLIGHTS**
The department is engaged in multiple activities. It is involved in teaching, research, training, medico-legal postmortems, embalming services, casualty work, clinical forensic medicine services, and work related courts. The department is referred cases from courts, NHRC, CBI, Crime Branch, Delhi Police and investigating agencies from other states. The department runs three laboratory services—Toxicology laboratory, DNA finger printing laboratory and Histopathology laboratory.

**EDUCATION**
The department is actively engaged in undergraduate and postgraduate teaching. Currently, 9 postgraduate (MD) students and 3 PhD students are enrolled in the department. The department is also imparting training in DNA-Fingerprinting and Medical Toxicology to BSc/MSc students of other Indian Universities.

**CMEs/Workshops/Symposia/Conferences**
1. Workshop on Quality Forensic Services, 4 May 2012.
2. Workshop on Quality Forensic Services and Teaching, 7 November 2012.

**Lectures delivered**
Adarsh Kumar: 14  C. Behera: 1  A.K. Jaiswal: 1

**Papers presented (Oral/poster):** 7

**RESEARCH**
**Completed**
1. Histological study of conduction system of heart in sudden natural death cases.
2. Prevalence of Coronary atherosclerosis in young Indian population – An autopsy study at AIIMS.
3. A comparative study for determination of postmortem interval by analysis of CSF and Vitreous humor in South Delhi region.
4. A study of factors affecting tissue and organ donation in medico-legal cases at a tertiary care hospital.

**Ongoing**
1. Effect of acute and chronic exposure of combination of Triazophos and Butylated hydroxyanisole on oxidative stress related parameter in Wistar rats.
2. Influence of exposure to combination of pesticide Cypermethrin and Endosulfan on sub cellular changes in viscera’s of Wistar rats.
3. Pilot study to identify reliable source among forensic exhibits for individualization with STR markers in uncertain novel forensic situations.
4. Estimation of lead level in blood among south Delhi population – A Cross Sectional Autopsy Based Study.
5. Estimation of Post Mortem Interval by naked eye examination of rigor mortis.
6. Study of various injuries in neck due to ligature pressure in cases of hanging.
7. Comparative study of human and non human long bones by radiological and anatomical methods.

Collaborative project
1. An evaluation of the different endoscopic approaches to inner ear.

PUBLICATIONS
Journals: 30

PATIENT CARE
1. Casualty services: The department provides round the clock coverage to the casualty in medico-legal cases in injury, sexual offences, poisoning and other complicated medico-legal cases. The department is attending all the calls pertaining to medical examination in police and judicial custody. 277 medico-legal cases were examined in 2012–13.
2. Medico-legal Post-mortem services: The department provides medico-legal postmortem services on all the days of the week, which includes magistrate inquest cases, board cases and exhumation cases. Totally 1712 postmortems were conducted.
3. Clinical Forensic Medicine: The department examines cases of age estimation, medical examination, marriage disputes, potency, DNA fingerprinting etc referred by honorable court, CBI and other investigating agencies. Total 41 cases were dealt in 2012–13.
4. DNA Fingerprinting: The department provides training to candidates of various universities and provides DNA fingerprinting services in referred cases from court and investigating agencies. It also provides short term training. Total 46 samples were analysed.
5. Medical Toxicology: Tests for various poisons, e.g. Heavy metals, opiates, benzodiazepines, and alcohol are done in toxicology laboratory. It provides clinical laboratory services to the hospital patients. It also provides short term training to candidates from various universities. Total 151 samples were analysed during 2012–13. Six candidates were given short-term training in the laboratory.
6. Forensic Pathology: The department is providing the histopathology service for samples of medico-legal autopsy cases in AIIMS and also for research purpose. Total 134 samples were analysed during 2012–13.
7. Court summons: The department received 874 summons during 2012–13 and were attended in courts of law.
8. Community service: The department participates in training programme for CBI officials, police officers, medical officers, judges, public prosecutors and forensic experts from all over the country. It provides short term trainings to the candidates from various universities in Toxicology and DNA laboratory.

AWARDS AND HONOURS
Karthik Krishna won first prize for the paper – Medical, Research and Ethico-legal aspects of Museum Designing in Forensic Medicine: Challenges and Possibilities in India, and received the ‘Scottish Travel Grant’ by University of Dundee, Scotland, UK, at 34th Annual National Conference of Indian Academy of Forensic Medicine, 1–3 February 2013, Department of Forensic Medicine and Toxicology, Kasturba Medical College, Mangalore.

Dr Adarsh Kumar was nominated member, International Board of Editors, Romanian Journal of legal Medicine for 2012; nominated Board Member representing Asia in ‘International Association of Personal Injury’ 2012–14; Conferred Fellowship of Indian Association of Medicolegal Experts, 26 January 2013, Thiruvanthapuram, Kerala.

Dr C. Behera was awarded best paper presentation in faculty category of poster ‘Forensic approach to a case of aluminum phosphide poisoning involving humans and dogs’, XXXIV (34th) Annual National Conference of Indian Academy of Forensic Medicine (Forensic Medicon-2013), 1–3 February 2013, Department of Forensic Medicine and Toxicology, Kasturaba Medical College, Mangalore; awarded fellowship by International Medical Science Academy; nominated member, Technical committee, National Consultation to develop guidelines for Tissue Retrieval and Tissue Tracking, ORBO, AIIMS, New Delhi for the purpose of The Transplantation of Human Organs Act (Amendment) Act, 2011 (THOA Amendment 2011) and draft Rules.
HIGHLIGHTS
The department received Excellence of Centre by US–INDO Foundation for Research and Training in the field of Inflammatory Bowel Disease. Dr SK Acharya was awarded the JC Bose National Professorship by the Department of Science and Technology. The department organized World Hepatitis Day on 28 July 2012. On this occasion, public lectures were organized to increase awareness of Viral Hepatitis in India. The department organized another CME namely GI Immunology and hands on training workshop on Endosonography. The faculties of the department continued to be on national and international boards related with education, research and programmes.

EDUCATION
The department continued the training programme for courses on DM in Gastroenterology, and PhD in Gastroenterology and Human Nutrition. The department also participated in the training of Undergraduate and postgraduate students enrolled in

**Long term training:** 13 DM candidates  6 PhD candidates
**Short term training:** 10 trainees were trained during 2012–13 for 3–6 months.

**Molecular Gastroenterology:** This included didactic lectures and hands on training.
1. Advanced and conventional ELISA for understanding serological markers
2. Molecular assay/NAT assays for the viruses
3. Genetic and epigenetic markers of GI diseases
4. Biochemical biomarker

**CME/Workshops/Symposia organised by the department**
1. Public lectures to increase the awareness of Viral Hepatitis in India, The event was attended by more than 500 patients and general public and it was a successful programme. The major message was given on Hepatitis B and C which are major causes of cirrhosis and liver cancer in India and they are preventable and treatable. 28 July 2012, AIIMS, New Delhi.
2. CME, GI Immunology, 12–13 January 2013, The Oberoi, Gurgaon.

**CMEs, National and International Conferences**
**Lectures delivered:** 58
**Oral papers/posters presented:** 2

RESEARCH
**Funded projects**
**Ongoing**
1. Probiotics for spontaneous Bacterial Peritonitis. S.K. Acharya, CD Pharma, 4 years.
2. Natural Course of Immunotolent Patients with chronic HBV infection. S.K. Acharya, MSD (Fulford India), 3 years, Rs. 18,79,750.

3. Randomized control trial (RCT) of Transarterial Chemoembolization (TACE) versus TACE and Oral Drug Therapy in the Treatment of Unresectable Hepatocellular Carcinoma. S.K. Acharya, ICMR (HCC sanctioned project), 3 years, Rs. 42,27,933.

4. Randomized Control Trial (RCT) of Oral Thalidomide and Capecitabine versus supportive therapy in the treatment of Advanced Hepatocellular Carcinoma (BCLC stage D). S.K. Acharya, ICMR (HCC sanctioned project) for 3 years, Rs. 14,05,895.

5. Randomized control trial (RCT) of Radiofrequency Ablation (RFA) and Percutaneous acetic acid (PAI) for the treatment of Hepatocellular Carcinoma in patients of cirrhosis. S.K. Acharya, ICMR (HCC sanctioned project), for 3 years, Rs. 22,98,821.

6. Randomized controlled trial of transarterial chemotherapy (TAC) versus oral thalidomide and Capecitabine in the treatment of Unresectable Hepatocellular carcinoma (BCLC C). S.K. Acharya, ICMR (HCC sanctioned project), for 3 years, Rs. 31,51,663.

7. To study the pathogenesis of Non Alcoholic Fatty liver disease in Indian Population. SK Acharya, DST, 3 years (2013–15), Rs 45 lakhs.

8. Identification of biomarker(s) for differentiation of Crohn’s disease from intestinal tuberculosis using proteomic. S.K.Acharya, DBT, 3 years, Rs 43 lakhs.

9. Validation of Mid Upper Arm Circumference (MUAC) for Detecting Severe Acute Malnutrition against Weight for Height Below -3 SD Using as Gold Standard in Children 6–59 Months. Umesh Kapil, ICMR, 15 Months, Rs. 54 Lakhs

10. Iodine Status in Three Regions of Uttarakhand State, India, Umesh Kapil, ICMR, for 2 years [period], Rs. 60 lakhs.

11. Iodine Status of Pregnant Mothers, School Age Children and Neonatal Thyroid Stimulating hormone concentration in three regions of Himachal Pradesh, India. Umesh Kapil, DBT, 2 years, Rs. 71 lakhs.

12. Status of procurement, distribution and management system of zinc dispersible tablets, IFA tablet/liquid and VA supplements in Uttar Pradesh, Maharashtra, Himachal Pradesh, Kerala and Rajasthan states of India. Umesh Kapil, ICMR, 2 years, Rs. 29 lakhs.

13. Genome Wide Association Study of Chronic Pancreatitis’. Pramod Garg, DBT, 3 years, Rs. 1.63 crores.

14. A Study of SPINK-1, Cathepsin B and CFTR gene mutations as risk factors for gallstone induced acute pancreatitis. Pramod Garg, ICMR, 3 years, Rs. 27 lakhs.


17. Vitamin A is the ‘microenvironmental cue’ for triggering disease activity in patients with Inflammatory Bowel Disease (Ulcerative colitis, Crohn’s Disease), Vineet Ahuja, DBT, 4 years (2013–16), Rs. 82 lakhs.

18. Indo US Joint R&D network centre of excellence on Inflammatory Bowel Diseases.


20. A multi-centric study on treatment of abdominal tuberculosis (intestinal or peritoneal): A randomized controlled trial to compare the 6 months of Cat I treatment with 9 months of Cat I treatment (extension for 3 months) in abdominal tuberculosis under the Revised National Tuberculosis Control programme. Govind Makharia, Central TB Division, Ministry of Health and Family Welfare, Government of India, for 4 years (2008–12), Rs 57 lakhs.


22. Pathophysiologic of paracellular permeability and tight junctions in the first degree relatives of patients with celiac disease. Govind K. Makharia, Department of Biotechnology, 4 years, Rs. 43.82 lakhs.

23. Small intestinal and whole gut metagenome in patients with celiac disease, their first degree relatives and controls. Govind K. Makharia, DBT, 3 years, Rs. 39.47 lakhs.

24. Prevalence of celiac disease in indigenous populations of southern, northern, and north-eastern parts of India and identification of reasons for difference in its prevalence. Govind K. Makharia, ICMR, 3 years, Rs.75.42 lakhs.


26. Effect of IL 28B gene polymorphism on outcomes of Hepatitis C virus therapy in Indian patients. B. Nayak. 2012 –13, Rs. 5 lakhs (AIIMS intramural)
**Completed**

1. An open level responses adaptative study of Telbivudine in adults with HBeAg compensated chronic hepatitis B. S.K. Acharya, Novartis, 1 January 2008–10 January 2011, Rs. 11.11 lakhs.
5. Role of TNF-α in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF-α therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas. ICMR, 2009–13, Rs. 29 lakhs.

**Departmental projects**

**Ongoing**

1. HBeAg –ve chronic hepatitis B Magnitude, Viral and host characteristics.
2. Immunotolerant chronic HBV infection: Natural course.
3. Role of HVPG in Portal hypertension.
4. Comparison of Phenotype and Genotype of Young Patients with Chronic Pancreatitits from Different Geographical and Ethnic Background of the World: Implications for etiopathogenesis.
5. To evaluate the pancreatic tissue perfusion and vascular changes and their inflammatory mediators in the pathogenesis of acute necrotizing pancreatitis in humans.
6. Frequency, natural course, and predictors of resolution of acute fluid collections in acute pancreatitis.
7. Familial prevalence amongst first and second-degree relatives of patients with celiac disease.
8. Assessment of compliance to gluten free diet in patients with celiac disease
9. To study the neutrophil function in Acute Liver Failure.
10. Correlation of severity Hepatitis E virus infection in pregnant females with immunological profile.
11. Use of Indocyanine green in assessment of patients with Hepatocellular carcinoma undergoing transarterial chemoembolisation as a predictor of development of liver failure.
12. Immunological changes in pregnancy and their effect on the outcome of HEV induced ALF.
13. Detection, identification and molecular characterization of Intestinal coccidia and Microsporidia in patients with chronic diarrhea and malabsorption syndrome (With Department of Microbiology, PhD thesis).
14. Development of molecular diagnostic probe for the detection of Cryptosporidium species and further characterization of the parasite in patients. (Microbiology, PhD thesis).
15. Detection of Blastocystis hominis in the patients of irritable bowel syndrome and their subtyping (Microbiology, MD thesis).

**Completed**

1. Role of fibroscan in patients with chronic hepatitis B.
2. Correlation of arterial ammonia with sepsis in acute liver failure.
4. Cytokine profile in acute pancreatitis

**Collaborative projects**

**Ongoing**

1. Cellular and humoral immunity studies among patients with acute hepatitis E virus infection.
3. Are there any differences in the genetic mutation profile of patients with pancreatic cancer with or without chronic pancreatitis? (Institute of Cytology and Preventive Oncology, ICMR, Noida).
5. Minimally invasive surgery (VARD) for infected pancreatic necrosis. (GI Surgery).
6. Role of perfusion CT scan in acute pancreatitis and pancreatic cancer. (Radiology).
7. Feasibility and short-term efficacy study of a novel device designed to manage fecal incontinence in hospitalized bed-ridden patients. (Stanford Bio design).
8. A study for the search of biomarker for celiac disease using proteomics. (Biophysics).
9. Basic constitution (Prakriti) analysis of patients with various stages of Non alcoholic fatty liver disease (NAFLD), chronic hepatitis B (CHB) and Celiac disease. Collaboration with Institute of Genomics and Integrative Biology, Delhi.
11. Recovery of intestinal histology changes after gluten free diet in patients with celiac disease (Pathology).
13. A correlation between anti tissue transglutaminase titre and severity of villous abnormalities (Pathology).

**Completed**
1. Role of surface promoter mutations in hepatitis B surface antigen production and secretion in occult hepatitis B virus infection. (Pathology).

**PUBLICATIONS**
Journals: 45  Chapters in books: 1  Book : 1

**PATIENT CARE**

**Special clinics**

<table>
<thead>
<tr>
<th>Name of the clinic</th>
<th>New cases</th>
<th>Old cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>1241</td>
<td>12189</td>
</tr>
<tr>
<td>Pancreas</td>
<td>486</td>
<td>2020</td>
</tr>
<tr>
<td>IBD and Ulcer</td>
<td>696</td>
<td>3570</td>
</tr>
<tr>
<td>Interventional</td>
<td>315</td>
<td>270</td>
</tr>
</tbody>
</table>

**Routine clinic**
New cases: 18,826  Old cases: 29,070

**List of procedures**
- Diagnostic and therapeutic endoscopies: 17100
- Diagnostic and therapeutic colonoscopies: 2050
- Diagnostic sigmoidoscopies: 2550
- EST and EVL: 4120
- Side viewing endoscopies: 600
- Endoscopic retrograde cholangiopancreatography: 2245
- Endoscopic ultrasound (Diagnostic and therapeutic): 600
- Fibroscan: 1850

**List of tests done in the department**
- HBV (Real Time PCR): 5000  HBV Genotyping (PCR): 10
- HBV (PCR): 187 (50 +ve)  HCV RNA Real time PCR: 1288
- HCV RNA (PCR): 117  HCV Genotyping: 25
- HEV RNA (PCR): 89  Lipid peroxidation: 450
- Free radical Antioxidant potential (FRAP): 450
- Vitamin C: 450  Superoxide dismutase: 450
- Total cholesterol: 450  Triglyceride: 450
- HDL: 450  Myeloperoxidase activity: 200
- Endotoxin assay: 45  Serum ceruloplasmin: 782
- Serum copper: 768  24 hour urinary copper: 765
- HCV (ELISA): 192  Tg-IgA (ELISA): 5568
- TNF-α (ELISA): 150  IL-6 (ELISA): 150
- IL 1β (ELISA): 150  SGOT: 4100
- SGPT: 4100  Glucose (RBS): 4100
- Hemoglobin: 4100  Plasma Amino acid (HPLC): 150
- HBsAg (ELISA): 192  HBeAg (ELISA): 192

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HEV (ELISA): 192  Clustrin: 200
D-Xylose: 540  Faecal Chymotrypsin: 150
Faecal Fat: 216  Hydrogen Breath Test: 184
Faecal elastase: 280  TGF-Beta: 80
PDGF-AA: 80  CRP: 80
Serum Trehf oil factor: 160  Urinary isoprostase: 80
Serum Calprotectin: 80  Blood ammonia: 325
Prothrombin time: 8600  IL28b-rs12979860 genotyping: 21
IL28b-rs8099917 genotyping: 21

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor S.K. Acharya awarded J.C. Bose Fellowship by Department of Science and Technology, Govt. of India in 2012.

Professor Umesh Kapil was nominated Member, WHO of the Expert Advisory Panel on Nutrition to give Technical Information and Advice in the Field of Nutrition; Invited to act as a Temporary Advisor, WHO to Provide Technical Assistance to Government of Bhutan. Nominated as Member of the ICMR Taskforce Meeting on Working Group on ‘Operational and Translation Research to Improve the Contents and Delivery of Existing Micronutrient supplementation or Other Programmes based on Existing Knowledge’; Nominated as Member of Committee constituted by Ministry of Women and Child Development, Government of India to Design a Curriculum on Nutrition for School Children; Nominated as Members of the Advisory Panel of National Academy of Medical Sciences (NAM) in the discipline of Nutrition for advising the Credential Committee in the Selection of candidates for Fellowship of the Academy for the year 2012; Nominated as Member of the Advisory Panel of National Academy of Medical Sciences (NAM) in the discipline of Community Medicine/Social and Preventive Medicine for assessing the suitability of candidates for election for Membership of the NAMS for the year 2012.

Dr Pramod Garg is Associate Editor of an international journal ‘Pancreatology’ (5-year impact factor 2.39); Elected Council Member, International Association of Pancreatology 2012; Nominated Editorial Board Member, ‘Pancreapedia’, an online resource website for Pancreas Research.

Dr Vineet Ahuja nominated Member, Asia Pacific Consensus Group on Inflammatory Bowel Disease, Asia Pacific Consensus Group on Celiac Disease, ISG Task Force on IBD, Ethics Committee, THSTI, Ethics committee, RCB, Editorial Board, Journal of Crohn’s and Colitis, Editorial Board, Journal of Gastroenterology and Hepatology, Secretary, Indian Society of Clinical Nutrition, Editor, Tropical Gastroenterology since 2007, Contributing Associate Editors-in-Chief of the World Journal of Gastroenterology (WJG), Corresponding author for Young Investigator Award Paper at Asian IBD meet, Seoul 2012, Young Investigator Award Paper at Asian Pacific Digestive week, Bangkok 2012, two Young Investigator Award Papers at Annual conference of Indian Society of Gastroenterology, Jaipur 2012.

Dr Govind Makharia nominated the Chairman of World Gastroenterology, Organization and Asia Pacific Association of Gastroenterology; Working Party on Celiac Disease; Nominated as Steering Committee Member of the World Digestive Health Day-2012 by World Gastroenterology Organization; Continue to be member of Asia Pacific Working Party on Colorectal cancer and Polyps; Continue to be Core Member of Asia Pacific Working party on Inflammatory Bowel Disease; Invited to be the Chief Editor of a special issue on Celiac Disease by Gastroenterology and Research Practice; Nominated as treasurer of Indian Society of Gastroenterology; Nominated as treasurer of Indian Society of Evidence Based Medicine; Governing Council member of Functional Disease and Motility Disorders of India; Continue to be an Editorial board member of Indian Society of Gastroenterology; Coordinator, Indian Society of Gastroenterology: Young Clinician Program; Coordinator Indian Society of Gastroenterology: Taskforce on Inflammatory Bowel Disease; Invited to participate in the Brain Storming session on Celiac Disease by DBT; Invited for participation in the Brain storming Meeting on Inflammation and Nutrition by DBT, held in Hyderabad; Continue to be member of the ICMR Taskforce on celiac disease; Nominated by DBT to be a Member of DSMB of Cholera vaccine trial; Nominated as member of Drug Selection Committee, AIIMS.

9.14 Gastrointestinal Surgery and Liver Transplantation

Professor and Head
Peush Sahni

Additional Professors
Sujoy Pal
Nihar Ranjan Dash

EDUCATION
The faculty of the department is involved in didactic teaching program for undergraduates, postgraduates and postdoctoral trainees. The department offers 3 year super specialty training leading to an award of MCh in Gastrointestinal Surgery. It also offers short term observeship for a period of one to three months (one year in exceptional circumstances). There are 13 MCh students in the department.

Lectures delivered: 26
Peush Sahni: 12  Sujoy Pal: 8  Nihar Ranjan Dash: 6

RESEARCH
Funded projects
Ongoing
1. Development of low cost device for non-invasive management of incontinence (faecal/urinary), Peush Sahni, DST, 2012-14, Rs 21.6 lakhs.
5. Survey of awareness and beliefs regarding brain death and the role of educational intervention on its acceptance and deceased donation rates, Sujoy Pal, 2012-13, AIIMS, Rs 1.5 lakhs.

Completed

Departmental projects
Ongoing
1. Concurrent versus sequential neoadjuvant chemo-radiotherapy followed by surgery in operable carcinoma gall bladder (up to stage IVA) patients: A pilot study.
2. Preoperative biliary drainage and surgery versus early surgery in obstructive jaundice due to periampullary and pancreatic head tumour: a randomized controlled trial.
4. Outcome following pyloric ring resecting pancreatico-duodenectomy versus classical Whipple’s pancreatico-duodenectomy: A randomized controlled trial.
8. Long term follow up of lienorenal shunt procedure in patients with extra hepatic portal vein obstruction.
9. Prospective evaluation of choledochoscopy for various biliary tract disorders.


12. ‘Duct-to-mucosa’ and ‘dunking’ methods of pancreatico-jejunostomy after pancreatico-duodenectomy: A randomized clinical trial


15. Palliative stenting with radiotherapy versus stenting with chemo-radiotherapy for inoperable oesophageal carcinoma: a randomized controlled trial.

**Completed**

1. Posterior (SMA first) approach vs standard pancreatico-duodenectomy in patients with periampullary carcinoma: a prospective comparison

2. Video assisted retroperitoneal drainage as a therapeutic option in infected pancreatic necrosis: A feasibility study

**Collaborative projects**

**Ongoing**

1. Role of PET/CT in response evaluation following neoadjuvant therapy and assessment of distant metastasis in patients with carcinoma gallbladder (Medical oncology, Radiotherapy and Nuclear Medicine)

2. Role of PET/CT in assessment of metabolic response of neoadjuvant chemo-radiotherapy in patients with carcinoma esophagus (Medical oncology, Radiotherapy and Nuclear medicine).

3. A randomized controlled trial of proximal lienorenal shunt versus sequential endoscopic variceal ligation and endoscopic sclerotherapy for patients with extra-hepatic portal venous obstruction (Gastroenterology).

4. Development of a device for faecal incontinence (Stanford-India Biodesign)

5. Prospective study on the effect of lienorenal shunt on percholedochal collaterals causing portal hypertensive biliopathy (Gastroenterology).

6. A randomized controlled clinical trial of preoperative cholecysto-jejunostomy versus endoscopic stenting in surgical obstructive jaundice due to periampullary carcinoma (Gastroenterology).

7. A randomized controlled trial comparing surgery versus endoscopic treatment for chronic pancreatitis (Gastroenterology).

8. Functional outcome following necrotizing pancreatitis (Gastroenterology).

9. Minimally invasive pancreatic necrosectomy: A prospective study (Gastroenterology).

**PUBLICATIONS**

- Journals: 6
- Books: 1

**PATIENT CARE**

**OPD and specialty clinics**

Total number of new patients seen: 2464  
Total number of old patients seen: 6146  
Department has started a daily clinic for stoma patients.

**Special laboratory facilities**

Anal manometry, oesophageal manometry, 24-hour ambulatory oesophageal pH monitoring, Endotraining lab.

**Inpatients**

**Number of procedures (Special interest areas)**

| Total: 614 |
|---|---|---|
| **Surgical procedures** | **Elective:** 431 | **Emergencies:** 183 |
| Biliary obstruction | 106 | Portal hypertension | 50 |
| Oesophageal cancer | 39 | Carcinoma gall bladder | 77 |
| Ulcerative colitis | 34 | Upper GI haemorrhage | 10 |
Lower GI haemorrhage  17  
Acute pancreatitis  24  
Chronic pancreatitis  16  
Biliary strictures  10  
Pancreateo-duodenectomy  35  
Liver resections  34  

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Peush Sahni is representative of the World Association of Medical Editors (WAME) at the International Committee of Medical Journal Editors (ICMJE). He is Editor of *The National Medical Journal of India* and Associate Editor of G. I. Surgery Annual. Member of Specialty Board (Surgical Gastroenterology), National Board of Examination. Member of the Executive Committee of the Indian Association of Surgical Gastroenterology as the Past Secretary.

Dr Nihar Ranjan Dash was re elected for the fourth time as President, The Ostomy Society, a registered society for welfare of the stoma patients.
9.15 Haematology

**Professor and Head**  
R. Saxena

**Professor**  
H.P. Pati

**Additional Professors**  
S. Tyagi  
M. Mahapatra

**Associate Professors**  
Tulika Seth  
Pravas Mishra

**Scientist – II**  
S. Sazawal

**HIGHLIGHTS**
The Department was involved in utilizing cutting edge technology like real time PCR/PCR/ flowcytometry for the diagnosis and management of hematological disorders. It was also involved in routine diagnosis and management of patients with hematological disorders. Till date the department has completed 140 allogenic blood and marrow transplants for aplastic anemia, thalassemia, leukemias and myelodysplastic syndrome patients. Autologous transplants for myelomas, acute myeloid leukemias, lymphomas and one case of multiple sclerosis were also performed. The outcome of the transplant from the unit has been comparable to the best in the world.

The department along with ICMR organized the first National meet on Langerhans histiocytosis along with the International Histiocyte Society, with a consensus to start a multi-centre collaborative trial on this disease and for the group to participate as a partner country on the new LCH IV international trial under the leadership of Dr Tulika Seth. Faculty members and students have represented AIIMS at various prestigious National and International conferences including the ISHTM, annual API meeting, PEDICON, BTG Singapore.

**EDUCATION**
The Department has DM courses in Clinical Hematology and Hemato-pathology. This year, 4 candidates passed DM Clinical Hematology and 2 passed the DM Hemato-pathology examination. 6 residents are undergoing training for DM Clinical Hematology and 7 for DM Hemato-pathology during the current academic year. Five students are registered for PhD in Hematology, which is ongoing.

The faculty continues to take undergraduate classes for Hematology and Medicine, and Clinical case studies for Department of Paediatrics students. It also continues to train the MD Pathology students in Hematology.

**Short and Long Term Training**
The department provided training in the field of clinical and laboratory hematology to 9 doctors from other institutions for periods varying from 1 to 6 months. 59 MSc students also underwent short-term training in molecular hematology for periods varying from 1 to 6 months during this year.

**Conferences/Seminars/Workshops Organized by department**
1. The department along with support from ICMR organized the first National meeting on Langerhans histiocytosis along with the International Histiocyte Society, with a consensus to start a multi-center collaborative trial on this disease and for the group to participate as a partner country on the new LCH IV international trial.
Lectures delivered
R. Saxena: 10  H.P. Pati: 9  Seema Tyagi: 3  M. Mahapatra: 5
Tulika Seth: 13  Pravas Mishra: 7

RESEARCH
Funded projects
2. Quality assessment in Hemogram. R. Saxena, ISHTM, 2003–13, Rs 1.5 lakhs per year.
3. Molecular characterization of FV in Indian Patients with APCR and FV deficiency. R. Saxena, ICMR, 2010–13, Rs 27.62 lakhs.
4. Modulation of genes to understand the biology of stage progression in chronic myeloid leukemia patients. R. Saxena, ICMR, 2008–12, Rs 8.90 lakhs per year.
5. Phase II clinical study to evaluate the efficacy and safety of NRC-AN-019 in patients with Chronic Myeloid Leukemia who have failed prior standard therapy and are not eligible for alternative therapy. Pravas Mishra, NATCO, Rs 6 lakhs.
6. Detection of molecular changes in the disease progression in chronic myeloid leukemia patients by Microarray. Sudha Sazawal, AIIMS, Rs 10 lakhs.
7. Elucidation of cytokine gene polymorphisms and its correlation with various disease phenotypes in patients of aplastic anemia, Tulika Seth, AIIMS.

Departmental projects
Ongoing
1. Role of Molecular studies in pathogenesis of (MDS) in Indian patients, 2005–2012.
2. Molecular and flow cyto-metric characterization of B lineage acute lymphoblastic leukemia for the evaluation of minimal residual disease.
3. Elucidation of Gleevac resistance in Indian CML patients and evaluation of underlying molecular mechanism.
4. Role of CD66 and CD15 in diagnosis of PNH.
5. Role of invaginations in blasts and their correlation with NPM mutation in AML.

Completed
1. Role of nitric oxide and the enzymes controlling its level, in the development of ischemic stroke in young Indians 2007–12.
2. Molecular abnormalities and their effect on the prognosis of Myelodysplastic syndromes in Indian patients.
3. Phase I clinical study to evaluate the efficacy and safety of NRC-AN-019 in patients with Chronic Myeloid Leukemia who have failed prior standard therapy and are not eligible for alternative therapy.

Collaborative projects
Ongoing
1. Prevalence of thrombotic thrombocytopenic purpura in systemic lupus erythromatosus (Medicine).
2. Role of nitric oxide in peripheral arterial disease (Surgery).
3. Directly observed iron supplementation during pregnancy in a rural population in Haryana: A randomized control trial (Community Medicine).

Completed
1. Evaluation of Platelet Receptor Polymorphism and Thrombogenic Mutation in Patients with coronary Artery Disease (Cardiology).

PUBLICATIONS
Journals: 29 Abstracts: 3 Chapters in books: 9 Books: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS
The following papers were awarded.

Professor Renu Saxena continued to be member of PAC committees of ICMR, DBT and DST. Coordinator of ISHTM – AIIMS EQAP and medical advisor Hemophilic Federation of India.

Professor H.P. Pati became Vice President of ISHTM.

Dr M. Mahapatra became General Secretary of ISHTM.

LABORATORY SERVICES
The department has a full-fledged laboratory and conducted the following tests.

Tests for anemia

<table>
<thead>
<tr>
<th>Test</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPLC</td>
<td>1788</td>
</tr>
<tr>
<td>Sickling</td>
<td>58</td>
</tr>
<tr>
<td>G6PD</td>
<td>877</td>
</tr>
<tr>
<td>S Iron</td>
<td>2244</td>
</tr>
<tr>
<td>Coombs</td>
<td>397</td>
</tr>
<tr>
<td>PNH Gel card CD55/CD59</td>
<td>108</td>
</tr>
<tr>
<td>PNH (Ham’s test)</td>
<td>31</td>
</tr>
<tr>
<td>Plasma Hemoglobin</td>
<td>116</td>
</tr>
<tr>
<td>Urine hemosiderin</td>
<td>102</td>
</tr>
<tr>
<td>Osmotic Fragility/Incubated osmotic fragility</td>
<td>156</td>
</tr>
<tr>
<td>Heinz bodies</td>
<td>07</td>
</tr>
<tr>
<td>Hb electrophoresis</td>
<td>14</td>
</tr>
<tr>
<td>H inclusion</td>
<td>03</td>
</tr>
<tr>
<td>Iron stain</td>
<td>438</td>
</tr>
<tr>
<td>Serum ferritin</td>
<td>1977</td>
</tr>
<tr>
<td>Mathaemoglobin</td>
<td>02</td>
</tr>
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</table>

Hemogram and Biopsy

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemogram</td>
<td>45245</td>
</tr>
<tr>
<td>Reticulocyte count</td>
<td>14890</td>
</tr>
<tr>
<td>Bone marrow aspirate</td>
<td>2586</td>
</tr>
<tr>
<td>Biopsy</td>
<td>2411</td>
</tr>
<tr>
<td>Reticulin special stain</td>
<td>255</td>
</tr>
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</table>

Tests for Haemostasis

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short screening coagulogram</td>
<td>3970</td>
</tr>
<tr>
<td>Factor assay</td>
<td>400</td>
</tr>
<tr>
<td>Inhibitors screening</td>
<td>250</td>
</tr>
<tr>
<td>Factor inhibitors assay</td>
<td>10</td>
</tr>
<tr>
<td>INR</td>
<td>2950</td>
</tr>
<tr>
<td>Lupus anticoagulant</td>
<td>1670</td>
</tr>
<tr>
<td>Platelet Function Test</td>
<td>1200</td>
</tr>
<tr>
<td>D. Dimer</td>
<td>1200</td>
</tr>
<tr>
<td>Fibrinogen</td>
<td>600</td>
</tr>
<tr>
<td>Proglob C</td>
<td>818</td>
</tr>
</tbody>
</table>
Protein C 800  Protein S 800
APCR 850  AT-III 600
β2GP 1400  S. Homocysteine 300
VWD 200  DNA Parental detection 12
DNA : Carrier detection 44  FV Leiden 217
MTHFR 28  Clot solubility test 250
P2010 24  Thalassemia molecular test 52
Hemophilia B 45  αβ thalassemia 06
β thalassemia 02  IV Leiden 217
Prothrombin 24

Tests for Leukemia

<table>
<thead>
<tr>
<th>RT PCR</th>
<th>CML</th>
<th>657</th>
<th>JAK-2</th>
<th>163</th>
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<tbody>
<tr>
<td>APML</td>
<td>65</td>
<td>ALI</td>
<td>62</td>
<td></td>
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<tr>
<td>FLT3</td>
<td>44</td>
<td>Cytochemistry</td>
<td>574</td>
<td></td>
</tr>
<tr>
<td>LAP</td>
<td>291</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Flow cytometry

<table>
<thead>
<tr>
<th>Acute leukemia</th>
<th>CLPD</th>
<th>CD34</th>
<th>PNH</th>
<th>Platelet function disorders</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>325</td>
<td>85</td>
<td>23</td>
<td>288</td>
<td>17</td>
</tr>
</tbody>
</table>

In Patient Treatment

The hematology department has treated an increasing number of patients of leukemias, aplastic anemia, idiopathic thrombocytopenic purpura, lymphomas, myelodysplastic syndrome, hemophilia, multiple myeloma and various other hematological disorders as indoor patients. In the past year, 33 allogeneic transplants were performed successfully. The department also has a Day Care Centre for chemotherapy, procedures and blood product transfusions for hematological patients.

The total number of inpatients admitted under Hematology were 696. (C2/C6/D6 and new emergency ward, new and old private).

Hematology Day Care Centre

<table>
<thead>
<tr>
<th>Month 2012/2013</th>
<th>Admission</th>
<th>Blood Transfusion</th>
<th>Chemo Therapy</th>
<th>IT</th>
<th>Phlebotomy</th>
<th>PRP</th>
<th>FFP</th>
<th>SDP</th>
<th>Cryo</th>
<th>BMBy</th>
<th>Discharge</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>641</td>
<td>260</td>
<td>170</td>
<td>42</td>
<td>04</td>
<td>83</td>
<td>18</td>
<td>07</td>
<td>06</td>
<td>117</td>
<td>641</td>
<td>708</td>
</tr>
<tr>
<td>May</td>
<td>756</td>
<td>367</td>
<td>175</td>
<td>54</td>
<td>15</td>
<td>120</td>
<td>16</td>
<td>03</td>
<td>02</td>
<td>133</td>
<td>756</td>
<td>850</td>
</tr>
<tr>
<td>June</td>
<td>758</td>
<td>300</td>
<td>180</td>
<td>63</td>
<td>29</td>
<td>119</td>
<td>15</td>
<td>04</td>
<td>02</td>
<td>133</td>
<td>758</td>
<td>840</td>
</tr>
<tr>
<td>July</td>
<td>766</td>
<td>305</td>
<td>226</td>
<td>62</td>
<td>20</td>
<td>119</td>
<td>16</td>
<td>05</td>
<td>99</td>
<td>766</td>
<td>874</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>748</td>
<td>269</td>
<td>235</td>
<td>60</td>
<td>08</td>
<td>125</td>
<td>12</td>
<td>04</td>
<td>112</td>
<td>748</td>
<td>835</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>840</td>
<td>298</td>
<td>278</td>
<td>53</td>
<td>11</td>
<td>147</td>
<td>16</td>
<td>03</td>
<td>138</td>
<td>840</td>
<td>945</td>
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<tr>
<td>October</td>
<td>731</td>
<td>163</td>
<td>199</td>
<td>58</td>
<td>10</td>
<td>157</td>
<td>16</td>
<td>04</td>
<td>119</td>
<td>731</td>
<td>834</td>
<td></td>
</tr>
<tr>
<td>November</td>
<td>666</td>
<td>285</td>
<td>177</td>
<td>36</td>
<td>05</td>
<td>122</td>
<td>15</td>
<td>02</td>
<td>05</td>
<td>107</td>
<td>666</td>
<td>778</td>
</tr>
<tr>
<td>December</td>
<td>754</td>
<td>294</td>
<td>215</td>
<td>44</td>
<td>09</td>
<td>147</td>
<td>13</td>
<td>03</td>
<td>07</td>
<td>115</td>
<td>754</td>
<td>837</td>
</tr>
<tr>
<td>January</td>
<td>519</td>
<td>284</td>
<td>173</td>
<td>58</td>
<td>13</td>
<td>110</td>
<td>16</td>
<td>01</td>
<td>04</td>
<td>109</td>
<td>519</td>
<td>778</td>
</tr>
<tr>
<td>February</td>
<td>720</td>
<td>284</td>
<td>204</td>
<td>56</td>
<td>15</td>
<td>115</td>
<td>17</td>
<td>02</td>
<td>04</td>
<td>107</td>
<td>720</td>
<td>804</td>
</tr>
<tr>
<td>March</td>
<td>768</td>
<td>288</td>
<td>263</td>
<td>56</td>
<td>12</td>
<td>112</td>
<td>10</td>
<td>01</td>
<td>03</td>
<td>97</td>
<td>768</td>
<td>868</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7986</td>
<td>3397</td>
<td>2495</td>
<td>652</td>
<td>151</td>
<td>1476</td>
<td>180</td>
<td>26</td>
<td>49</td>
<td>1386</td>
<td>7986</td>
<td>9951</td>
</tr>
</tbody>
</table>

Out Patient Department

The department runs its out patient department on the third floor of the main Amrit Kaur OPD block. Regular Hematology OPD is on Monday/Wednesday/Friday from 9:30 am to 6.00 pm. Oncology patients are seen on
Mondays in the Hemato-oncology clinic (HO). The department conducts specialty care clinics, e.g. Hematopoietic Stem Cell Transplant clinic on Tuesday morning, Hemostasis Clinic (HC) on Thursday morning and a Long Term Leukemia survivor Clinic on Saturday mornings.

### Census of Hematology OPD

<table>
<thead>
<tr>
<th></th>
<th>General Hematology</th>
<th>Special clinics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>Old cases</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14183</td>
<td>6392</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14183</td>
<td>6392</td>
</tr>
<tr>
<td><strong>New Cases</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10599</td>
<td>6400</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### External Hematology Proficiency Testing Programme
The external Quality Assurance Programme is being conducted in the Haematology Department in the basic parameters namely Hb., HCT, WBC, RBC, Retic, MCV, MCH, MCHC and Plt. Along with P.S. Assessment. The number of participating lab stood at about 1100 in April 2012 which has risen to 1250 in the corresponding period in 2013. The said programme has got prominence due to its contribution for maintenance of accuracy and credibility for the participating labs throughout India.

### Community Services
The department of hematology provided consultative services to patients of thalassemia, in coordination with National Thalassemia Welfare Society. Care to hemophilia patients was provided in coordination with Hemophilia Federation of India. Active programme including public lectures for prevention of cancer and early warning signs of cancer. All India NCC Cancer Awareness Competition – 2013, 20 January 2013, at NCC Camp, Safdarjung Enclave, New Delhi.

### VISITING SCIENTISTS
1. Dr Tariq Muzzafar, MD, Assistant Professor, Department of Hematopathology Hematopathologist, University of Texas, MD Anderson Cancer Center, Houston, USA delivered a guest lecture on ‘Diagnosing Myelodysplastic Syndromes: A systematic approach’ in September 2012.
2. Dr Rajat Kumar, Dr Gibson and Dr Johnston from University of Manitoba, Canada visited the department, delivered talks and interacted with DM students.
9.16 Hospital Administration

**Professor and Head**
Shakti Kumar Gupta

**Medical Superintendent, Main Hospital**
D.K. Sharma

**Professor**
Sidhartha Satpathy

**Additional Professors**
I.B. Singh
Sanjay Arya
Aarti Vij

**Assistant Professors**
Nirupam Madaan
Amit Lathwal
Anoop Daga
Mahesh R.

**EDUCATION**
The Department is running a postgraduate degree programme for medical graduates, viz. MHA (Masters in Hospital Administration) which entered its 47th year after inception. This course was started in February 1966, for the first time in India and has since been recognized as a distinct postgraduate discipline. The Residency Programme in Hospital Administration focuses on ‘hands on’ training, where Resident Administrators man the ‘Administrative Control Room’ of hospital, round the clock as ‘Duty Officers’, and coordinate all the hospital activities after duty hours. It is also the nerve centre of the Hospital.

The Department introduced a paradigm shift in the academic programme by launching Integrated Learning Modules for the residents from 1 January 2008. This includes lectures, discussions, problem based learning, case studies, journal club, leaders forum, seminars, etc. Various guest lectures are organized in the Department so as to increase the horizon of teaching.

Faculty members conducted several training programmes for the doctors working in various organizations including Central, State Governments, Paramilitary Forces and in various PSUs such as IICM, Ranchi and also private sector management institutes.

**Short and Long term training**
2. Four students from Sikkim Manipal University, Sikkim, 1 March–31 May 2012.
3. Two MHA students from Department of Hospital Administration, Sher-I-Kashmir Institute of Medical Sciences, Srinagar, 11–20 February 2013.

**Continuing Medical Education**

**Conferences, Seminars and Workshops organized by Department**
1. HxMDP on Best Practices in Hospital Logistics, Inventory and Stores Management, New Delhi, 14–15 September 2012.
3. Special Programme on ‘Hospital Management and Administration’ for Medical Superintendents, GDMOs of Coal India Ltd., Indian Institute of Coal Management (IICM), Ranchi, 4 February 2013, 9 March 2013.
6. One day Training on Hemovigilance Programme of India, 7 May 2013, AIIMS, New Delhi (Mahesh R).

**Lectures delivered**
Shakti Kumar Gupta: 7  D.K. Sharma: 1  S. Satpathy: 12  Aarti Vij: 4
Anoop Daga: 1  Nirupam Madaan: 6  Amit Lathwal: 3  Mahesh R.: 4
RESEARCH

Departmental projects

Completed

1. To study the disinfection and sterilization practices of medical equipment and instruments at AIIMS, New Delhi and suggest measures for improving the system as per standards.
2. To Study the Knowledge, Attitude and Practice regarding Adverse Events related to Medical Devices among healthcare personnel in patient care areas in All India Institute of Medical Sciences Main Hospital.
3. To evaluate the existing Medicine and Paediatric Intensive Care Units at Main Hospital, AIIMS in terms of Structure, Process and Outcome against established standards.
4. To study composition role and functioning of various committees in AIIMS with reference to NABH standards and to propose evaluation model vis-à-vis its functioning.
5. Costing of Healthcare Associated Infections in the Paediatric Intensive Care Units of AIIMS.
6. To study the system of budgetary Allocation and its utilization at AIIMS.

Ongoing

1. Study to determine the prevalence and circumstances of needle stick injury (NSI) among health care workers at AIIMS, New Delhi.
2. Study of medico-legal documentation at JPNATC, AIIMS and to develop a standard template for electronic medico legal documentation.
3. Study on the training needs of nursing personnel at AIIMS and identification of preferred approaches to performance improvement.
4. Study and evaluate the Disaster Management Plan of AIIMS in view of the prevailing risks and vulnerabilities and to suggest a draft comprehensive Disaster Management Plan to include both internal and external Disaster.
5. Assessment of the training needs and developing the template for leadership development programme for health care executives.
6. To critically analyse functioning of Employees Health Scheme in AIIMS, compare it with other similar schemes for employees, identify the gaps and propose a model scheme for AIIMS.
7. To study the Patient Grievance Redressal System in AIIMS and compare it with best national and international practices, identify gaps and propose a model for Grievance Redressal System at AIIMS.
8. Application of Operation Research Techniques in improving patient processes at Dr R.P. Centre, AIIMS

PUBLICATIONS

Journals: 1  Abstracts: 7  Chapters in Books: 1  Books: 1

PATIENT CARE

The Department is closely associated with the provision of administrative support to various departments for delivery of patient care and control of costs in the hospital services. The department has been responsible for bringing quality care standards in patient care services at AIIMS.

The Department has been actively involved in improving patient care services by revamping the support services to aid in provision of a quality clinical service. Extensive renovations and upgradation of support services has also been done.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shakti Kumar Gupta was awarded International Partner of the year 2012 by Institute of Rescue Engineering and Civil Protection, Cologne University of Applied Sciences, Germany; Appointed as Chairman of the Committee for formulation of National Ambulance Code for the country under Ministry of Road Transport and Highways. Draft has been approved and code notified by Ministry of Road Transport and Highways, Govt. of India; Appointed a Member of Board of Advisors of Centre for Health Systems Innovation at Oklahoma, Students University Spears School of Business, Oklahoma, USA; Member of the Expert Advisory Committee on Ophthalmology for six new AIIMS being set up at Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur, and Rishikesh under PMSSY; Honorary Consultant to Govt. of Goa to study Health System in Goa and suggest measures for improvement; Member of the Working Group for development of the National Action Plan for Hospital Safety constituted by National Disaster Management Authority, Govt. of India; Appointed a WHO Consultant for the preparation of Module for implementation of electronic

Dr D.K. Sharma attended selection committee meeting as an Expert for the post of Assistant Professor, Hospital Administration, Indira Gandhi Institute of Medical Sciences, Sheikhpura, Patna, 9 May 2012; Attended selection committee meeting as an Subject Expert for selection of Medical Supdt. for BPS Govt. Medical College for Women, Kanhpur Kalan and Kalpana Chawla Govt. Medical College, Karnal, Pt. B. D. Sharma, University of Health Sciences, Rohtak, Haryana; Attended Academic Advisory Council meet at Institute of Health Management Research (IHMRR), Jaipur; Attended selection committee meeting at Pt. B.D. Sharma, University of Health Sciences, Rohtak, Haryana; Served as Chairman/Member of various intra- as well as extra mural policy making & decision making committees of AIIMS as well as other organizations including Ministry of Health and Family Welfare, Central Pollution Control Board, Govt. of NCT of Delhi, etc.; Served as subject expert and member of selection committees of various organizations including State Public Service Commissions, Public sector undertakings, Medical Institutions, I.I.T. etc., for the interview/selections of various positions like Medical Supdt., Dy. Director (Admn.), Faculty of Hospital Admn., Medical Officers, Nursing and other categories of Group ‘A’ & ‘B’ staff; Nominated as Chairman/Principal Member of various Committees of Bureau of Indian Standards (BIS), India on hospital planning, medical equipments, surgical instruments, disposables and dressings; Permanent special invitee member of the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) of Ministry of Health and Family Welfare to establish six AIIMS like institutions. Attended interview panel to select students for admission to the Programmes offered by Institute of Health Management Research, Jaipur; Attended ‘HORIZON-2012’ National Conference, A Tale of Successful Marketing at Managlore; Attended Conference of HxMDP as Resource Faculty invited by Department of Hospital Administration, AIIMS, Goa; Attended Joint International Conference on Quality Assurance and Patient Safety, Pondicherry; Attended Special Programme on ‘Hospital Management and Administration’ for Medical Supdt., GDMOs of Coal India Ltd., Ranchi, Jharkhand; Attended International Conference on Marketing-Challenging Management (ICOM-2013), Colombo, Sri Lanka.

Professor Sidhartha Satpathy was Editor Journal of Academy of Hospital Administration, published by Academy of Hospital Administration (AHA); Member of Building Committee of National Brain Research Centre-an autonomous institute of Department of Bio-Technology, Ministry of Science and Technology, Government of India; Member of Sectional Committee on BMW (MHD-22) at Bureau of Indian Standards (BIS), New Delhi; Member of Technical Committee of EdCIL for finalization of DPR for establishment of Medical College and Hospital at Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh, in May–June 2012; External Examiner for Quality Management and Accreditation of Healthcare organization (QMAHO) course at AHA in April, 2012; Visited NTPC project hospitals as Expert member of Committee for selection of hospitals for Swarn Shakti Award (Best Healthcare service awards) at National Thermal
Power Corporation (NTPC) during 2012; Expert member of Selection Committee for post of Medical Suprintendent and Faculty of Department of Hospital Administration at various medical colleges in Haryana; Member of Healthcare Sector Skills Council (HSSC) National Curriculum Approval Committee for Development of National Occupational Standards for allied healthcare providers; Chaired plenary session – III on ‘Emergency Medical Services – a system approach’, 25 November 2012, International Congress, CME and Workshop Trauma 2012, New Delhi.

**Dr I.B Singh** was Member Expert Committee, constituted vide Ministry of Health and Family Welfare for Revision of Formulary (proprietary drugs included in Drug formulary for CGHS and MSO, and attended the meetings of the committee, 19 June 2012 and 6 November 2012, under the Chairmanship of Additional Secretary and DG (CGHS), Ministry of Health and Family Welfare and actively involved in developing formulary; Member of the Expert Technical Committee, for granting approval of the Plans for NIPS, Najafgarh, RIPS, Chandigarh and Coimbatore and attended the meeting held on 6 November 2012, Ministry of Health and Family Welfare, Department of Health and Family Welfare; Member of Sectional Committee, MHD 14, Bureau of Indian Standards, for the draft document on ‘Basic Requirements for Hospital Planning Part-I up to 30 bedded Hospital; As nodal officer in ‘workshop to Scale up Provision of Free Medical Care to Economically Weaker Section in Private Hospitals, 5 January 2013’, Department of Health and Family Welfare, Government of Delhi in Delhi Secretariat.

**Dr Aarti Vij** was Independent (Non-Official Part Time) Director on the Board of HLL Lifecare Ltd., Govt. of India Enterprise; Member Advisory Group in National Organ Transplant Programme under the Dt. General of Health Services, Ministry of Health and Family Welfare, Govt. of India; Expert in the Committee for Development of Website for National Organ and Tissue Transplantation Organization, Directorate General of Health Services, Ministry of Health and Family Welfare, Govt. of India; Re-Elected as an Executive Member of Indian Society of Organ Transplantation (ISOT) from 2012–14; Member of Committee for Preparation of Results Framework Documents(RFDs)for AIIMS; Chairperson of the session on ‘Continuous Quality Improvement in Stores’ in the Best Practice in Hospital Logistics, Inventory and Store Management, organized by Department of Hospital Administration in collaboration with Research Foundation of Hospital and Healthcare Administration (RFHHA), 14–15 September 2012, AIIMS.

**Dr Anoop Daga** was PMSSY Project: Member of the Team for up gradation of B.R.D. Medical College, Gorakhpur, (U.P.) under PMSSY, during June 2012; Health Systems Assessment: Member of the Team for assessment of Health Systems at Goa, October 2012.

**Dr Nirupam Madaan** attended CME on ‘HXMDP in Hospital Inventory, Stores and Logistics Management’, organized by the Department of Hospital Administration, AIIMS, IHC, New Delhi; International Conference on Marketing ICOM 2013, Colombo, Sri Lanka, 19–20 February 2013; 4th International Conference on Legal Medicine, Medical Negligence and Litigation in Medical Practice IAMLE 2013, Kovalam, Kerala, 25–27 January 2013 and with Zargar AH authored a document Optimizing Rural Urban Health Care Delivery systems by Efficient Networking and Knowledge Management˚- Technology Vision 2035, Medical Sciences & Healthcare- Sectoral Roadmap by TIFAC, Deptt. of Science & Technology, Govt. of India.


**Dr Mahesh R.** attended 4 International Conference on Legal Medicine, Medical Negligence and Litigation in Medical Practice, 25–27 January 2013, Kovalam, Thiruvananthapuram. India.
HIGHLIGHTS
The Department of Laboratory Medicine remained vibrant as before for its faculty, students and staff regarding service, education and research. The individual achievement can be observed in the respective section of publication, Awards and Honours.

Clinical Biochemistry Division is a complete working set-up engaged in several activities including patient-care, academic and research. This involves a hospital service with routine and specialized patients' investigations (34–35 lakhs per annum), teaching at UG/PG level, conducting research projects and running PhD programme. It also provides training to students coming from outside institutions both in research and analytical procedure. This division has attained a grade in quality work in all areas and is under process of doing several other advances in patient-care, academic and research.

EDUCATION
Short-term training
Ms Sama Mugloo from Jammu and Kashmir University, completed 6 months training and submitted dissertation.

CMEs/Workshops/Symposia/National/International Conferences
Lectures delivered
A.K. Mukhopadhyay: 2

RESEARCH
Funded projects
Ongoing

Completed
Departmental projects

Ongoing
1. Insulin resistance in liver diseases.
2. Epidemiological studies on CRF in Indian Communities.
4. Genotyping of TTV in Indian population.
5. Real time PCR for sero detection of HCV genotypes.
6. Significance of HCV-genotypes in Cirrhosis / HCC.
7. Multiplexing assays for hepatitis viruses.

Collaborative projects
1. Association of cytokines TNF-α, IL-6, IL-10 and IL-18 in acute coronary syndrome (JPNTAC, Cardiology).
2. Correlation between first trimester glucose screening and serum insulin levels with development of gestational diabetes mellitus in pregnancy (Endocrinology and Metabolism).
3. A multicentric study on chronic renal failure (CRF) in Indian population (Nephrology).

PUBLICATIONS
Journals: 10  Abstracts: 5  Chapters in Books: 3  Books: 1

PATIENT CARE
Centralised Blood Collection Facility: 80,76,888

I. Phlebotomy
Total number of phlebotomy and sample: 81,416
(Primary and post-prandial)

II. Distribution of blood samples
To Department of Laboratory Medicine
Clinical Chemistry: 80,734  Clinical Haematology: 57,225
Clinical Microbiology: 710  Others: 404

To Laboratories outside of Department of Laboratory Medicine
Cardiothoracic and neurosciences centre: 8,018
Microbiology: 9,891
Transfusion Medicine: 2,433
Other Laboratories (Psychiatry, HNU, IRCH): 179

III. Investigations performed
Bleeding time, clotting time: 639
Prothrombin time: 3,250
Total: 3,889

Emergency Laboratory Service (Round the clock)

<table>
<thead>
<tr>
<th>Clinical Biochemistry</th>
<th>Haemogram and Body fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>Number</td>
</tr>
<tr>
<td>Glucose</td>
<td>43,932</td>
</tr>
<tr>
<td>Urea</td>
<td>1,12,118</td>
</tr>
<tr>
<td>Creatinine</td>
<td>1,11,627</td>
</tr>
<tr>
<td>Bilirubin (Total)</td>
<td>75,920</td>
</tr>
<tr>
<td>Amylase</td>
<td>43,932</td>
</tr>
<tr>
<td>CSF protein</td>
<td>5,757</td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>
Total: 7,54,059  
PCV: 1,17,865  
RBC: 1,17,865  
Other: 32,500  
Total: 11,09,622  

GRAND TOTAL: 18,63,681

Note: Hb, TLC, MCV, MCHC, PCV AND RBC are measured by single reagent, within the same time frame.

### Clinical Biochemistry Division

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<thead>
<tr>
<th>Test</th>
<th>Blood</th>
<th>Urine</th>
<th>Fluid</th>
</tr>
</thead>
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<tr>
<td>Sugar:</td>
<td>1,37,214</td>
<td>401</td>
<td>1,050</td>
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<tr>
<td>Urea:</td>
<td>2,57,925</td>
<td>320</td>
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<tr>
<td>T. Protein:</td>
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<td>1,050</td>
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<tr>
<td>Albumin:</td>
<td>2,49,591</td>
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<td>1,050</td>
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<tr>
<td>24h Albumin:</td>
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<td>42,115</td>
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<tr>
<td>Bilirubin:</td>
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<td></td>
</tr>
<tr>
<td>Total:</td>
<td>2,46,304</td>
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</tr>
<tr>
<td>Conjugated:</td>
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<tr>
<td>Alk. Phosphatase:</td>
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<tr>
<td>Cholesterol:</td>
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<tr>
<td>Na:</td>
<td>2,44,235</td>
<td>4,100</td>
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<tr>
<td>K:</td>
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<tr>
<td>Calcium:</td>
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<tr>
<td>Phosphate:</td>
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<tr>
<td>Uric acid:</td>
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<td>4,800</td>
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<tr>
<td>Amylase:</td>
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</tr>
<tr>
<td>Creatinine:</td>
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<td>9,302</td>
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</tr>
<tr>
<td>SGOT:</td>
<td>2,48,212</td>
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</tr>
<tr>
<td>SGPT:</td>
<td>2,48,212</td>
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</tr>
<tr>
<td>ABG:</td>
<td>302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pCO₂:</td>
<td>302</td>
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<td></td>
</tr>
<tr>
<td>pH:</td>
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<td></td>
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</tr>
<tr>
<td>pO₂:</td>
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<tr>
<td>HCO₃⁻:</td>
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<td>CO₂⁻:</td>
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<tr>
<td>AsDO₂:</td>
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<tr>
<td>O₂ sat.:</td>
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<td>BE:</td>
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<tr>
<td>Total:</td>
<td>34,06,806</td>
<td>74,738</td>
<td>3,150</td>
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### Other investigations

<table>
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<th>Test</th>
<th>Number</th>
<th>Test</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBsAg:</td>
<td>600</td>
<td>IgM anti HBc:</td>
<td>600</td>
</tr>
<tr>
<td>HBeAg:</td>
<td>600</td>
<td>Anti HCV:</td>
<td>2000</td>
</tr>
<tr>
<td>IgM Anti HEV:</td>
<td>1000</td>
<td>IgM Anti HDV:</td>
<td>100</td>
</tr>
<tr>
<td>IgM Anti HAV:</td>
<td>300</td>
<td>HCV- RNA:</td>
<td>1000</td>
</tr>
<tr>
<td>TTV-DNA:</td>
<td>2000</td>
<td>Superoxide dismutase:</td>
<td>100</td>
</tr>
<tr>
<td>T.Antioxidant:</td>
<td>100</td>
<td>ApoproteinA:</td>
<td>100</td>
</tr>
<tr>
<td>ApoproteinB:</td>
<td>100</td>
<td>Lp(a):</td>
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<td>CK:</td>
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<tr>
<td>LDH:</td>
<td>100</td>
<td>GGT:</td>
<td>100</td>
</tr>
<tr>
<td>TG:</td>
<td>100</td>
<td>LDLC:</td>
<td>200</td>
</tr>
<tr>
<td>HDLC:</td>
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<tr>
<td>TOTAL:</td>
<td>9,500</td>
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</tr>
</tbody>
</table>

GRAND TOTAL: 34, 94, 194

Service from Room No. 18
Adenosine deaminase assay (ADA): 1930  
Neurocysticercosis (NCC): 47
TOTAL: 1977

MISCELLANEOUS
New investigations
Vitamin B12 781 Folate 759
Ferritin 427

Tumour marker
iPTH 362 CEA 354
CA 19-9 296 CA 15-3 300
Total 3279

DIC study
PT 20485 APTT 3916
TT 1218 D. Dimer 760
Total 26379

GRAND TOTAL 31635

Haematology section

<table>
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<tr>
<th>Test</th>
<th>OPD</th>
<th>Ward</th>
<th>OPD</th>
<th>Ward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hb</td>
<td>93684</td>
<td>84117</td>
<td>TLC</td>
<td>93684</td>
</tr>
<tr>
<td>PCV</td>
<td>93684</td>
<td>84117</td>
<td>DLC</td>
<td>93684</td>
</tr>
<tr>
<td>ESR</td>
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<td>23585</td>
<td>D/M</td>
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<tr>
<td>PLT</td>
<td>93684</td>
<td>84117</td>
<td>Retic Count</td>
<td>10831</td>
</tr>
<tr>
<td>Abs Eosinophil Count</td>
<td>93684</td>
<td>84117</td>
<td>MP examination</td>
<td>33028</td>
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<tr>
<td>RDW</td>
<td>93684</td>
<td>84117</td>
<td>MCV</td>
<td>93684</td>
</tr>
<tr>
<td>MCH</td>
<td>93684</td>
<td>84117</td>
<td>MCHC</td>
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</tr>
<tr>
<td>RBC</td>
<td>93684</td>
<td>84117</td>
<td>ANC</td>
<td>93684</td>
</tr>
<tr>
<td>MPV</td>
<td>93684</td>
<td>84117</td>
<td>Others*</td>
<td>35000</td>
</tr>
</tbody>
</table>
Total 1451486 1232003

Grand Total: 26,83,489

* Repeat test, trial test, Quality Control Sample, Internal Q.C., etc.

Note: Hb, TLC, PCV, DLC, Platelet, MCV, MCHC, RBC are measured by single reagent, within the same time frame

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor A.K. Mukhopadhyay chosen member, Nominating Council for 2012 BBVA Foundation Frontiers of Knowledge Awards, Spain; chosen member, Nominating Council for Infosys Science Foundation Award, 2012. The Paper titled, ‘From God Particle to Consciousness: Life-science, Neuroscience and Nonlocal Science hold the Key’ presented in the Science Spiritual Quest, in National Institute of Science, Bangalore drew widespread attention all over the Globe; From 24 September 2012, till today it occupies the topmost position on the first page in Google search; Apollo-14 Astronaut, the 6th man who walked on the moon, Edgar Mitchell personally responded to the event through an e-mail and desired to collaborate for extension of science; Eminent scientists of Edgar Mitchell’s quantrek team, also responded with profuse praise for the new ideas the paper has brought out; Nobel laureates like, Brian Josephson from Cambridge, Werner Arber from Switzerland, responded with positive comments for the paper. The Millennium Bridge, the work of Prof. Mukhopadhyay has been compared with Thomas Campbell’s work My Big TOE by a student of IIT, Kanpur. It is available on the internet. Chaired a session on Diagnostic Dilemma in interpretation of Common Laboratory Tests: Diagnostic riddles in TB, Malaria and Typhoid, in the meeting of Infectious Diseases, Chapter of Indian Academy of Pediatrics (Delhi and NCR), New Delhi, 23 September 2012.

Professor M. Irshad nominated Member, Editorial Board, World Journal of Hepatology (WJH) since March 2013; A compliment of ‘EXCELLENT PAPER’ submitted to Journal of Gastroenterology and Hepatology, by its Editor-in-chief. Grading of review article published in International Reviews of Immunology to be one among 1% best paper of the world.
9.18 Medicine

Professor and Head
S.K. Sharma

Professors
Rita Sood
A. B. Dey

Additional Professors
Naveet Wig
Uma Kumar
Ashutosh Biswas
Sanjeev Sinha

Associate Professors
Naval K. Vikram

Assistant Professors
Manish Soneja
Piyush Ranjan

EDUCATION
The department runs a comprehensive undergraduate and post graduate teaching programme, which includes integrated lectures, seminars, bedside clinical case discussions and journal club. The undergraduate students are assessed regularly at the end of each clinical posting.

Continuing Medical Education
Organized by the department
2. Dr Rita Sood was Organizing Co-Chairperson for South East Asian International and National health professional education conference, SEARAME NCHPE 2012 on the theme, ‘Social Accountability: Responding to Societal Needs through Quality Assurance and Accreditation in Health Professions Education’ at PSG IMSR, Coimbatore, 5–8 September 2012. Organized a series by 14 Pre-conference workshops related to the theme of the Conference.

Short-long-term training
56 postgraduate and undergraduate students from USA, U.K., Singapore, Australia and Germany received training in the Department of Medicine during the current year.

CME/Workshops/Symposia/National and International Conferences
The faculty of the department delivered 35 lectures in the national and international conferences.

RESEARCH
Funded projects

Completed
1. Role of oral vitamin D as an adjunct therapy in Category I Pulmonary Tuberculosis along with assessment of immunological parameters (Double-blind, Randomized, Placebo-Controlled, Clinical Trial). SK Sharma, DBT, 5 years, 2006–12, Rs 90.90 lakhs.
2. Efficacy of oral zinc administration as an adjunct therapy in Category I Pulmonary Tuberculosis along with assessment of immunological parameters (Double-blind, Randomized, Placebo-Controlled, Multicenter Clinical Trial). SK Sharma, DBT, 5 years, 2006–12, Rs 63.38 lakhs.
3. Sustaining research momentum over the coming decades: mentoring the next generation of researchers for tuberculosis. SK Sharma, European Union Frame Programme 7 Work, 3 years, 2008–12, Rs 67.84 lakhs.

Ongoing
1. Effect of continuous positive airways pressure CPAP on biomarkers in patients with obstructive sleep apnea. SK Sharma, DBT, 2012–15, Rs 64.50 lakhs.
2. Immune reconstitution inflammatory syndrome (IRIS) in HIV/AIDS patients with and without tuberculosis co-infection (TB) receiving HAART. SK Sharma, ICMR, 2011–14, Rs 45.48 lakhs.
2. Immune reconstitution inflammatory syndrome (IRIS) in HIV/AIDS patients with and without tuberculosis co-infection (TB) receiving HAART. SK Sharma, ICMR, 2011–14, Rs 45.48 lakhs.
3. Proteomic study of tuberculosis pleural fluid to identify potential biomarker(s) for early and definitive diagnosis of tuberculosis. SK Sharma, ICMR, 2011–12, Rs 35 lakhs.
4. Proficiency testing and accreditation of Intermediate reference laboratory in the Department of Medicine by Central TB Division, Ministry of Health and Family Welfare, Govt of India. No funds.
5. Association of OSA with metabolic syndrome, insulin resistance and TNF-α, IL6 and ACE polymorphism. SK Sharma, ICMR, 2010–13, Rs 46.67 lakhs.
6. Antiretroviral Treatment (ART) Centre for free treatment of HIV/AIDS patients [National AIDS Control Organization (NACO); Ministry of Health and Family Welfare; Govt. of India]. SK Sharma, Delhi State AIDS Control Society, 2005 till date, Rs 4.50 lakhs.

Departmental projects

Completed
1. Diagnostic Utility of F-18 FDG PET/CT in Pyrexia of Unknown Origin (Nuclear Medicine, Radiodiagnosis).
2. Evaluation of various parameters for early detection of ethambutol toxicity to retina and optic nerve (Ophthalmology).
3. Evaluation of An Automated High throughput Flowcytometry based Technique for Diagnosis of Malaria (Microbiology).
4. Study of association of adipocyte size with anthropometric and biochemical parameters.
5. Study of prevalence of metabolic syndrome in patients with COPD.

Ongoing
1. Study of predictors of mortality in severe malaria (Microbiology, Emergency Medicine).
3. Clinical, investigative and therapeutic profile of patients presenting with hemoptysis (Pulmonary Medicine, Radio diagnosis).
4. To study the diagnostic utility of GeneXpert in diagnosis of pleural and lymph node tuberculosis (Laboratory Medicine).
5. Association of nonalcoholic fatty liver disease with obstructive sleep apnoea in Asian Indians.
6. Study of Non Alcoholic fatty liver disease and Coronary Artery disease in Asian Indians.
8. Hepatic left lobe volume as an indicator of adiposity and related metabolic abnormalities in patients with NAFLD.
10. Association of NAFLD with adiposity and bone mineral density.
11. Prevalence of Non-Alcoholic Fatty Liver Disease in an adult population living in a rural community of Haryana (Department of Community Medicine).
12. Proteomic study of tuberculosis pleural fluid to identify potential biomarker(s) for early and definitive diagnosis of tuberculosis.


18. To study the predictors of relapse in patients with sarcoidosis.

19. Effect of continuous positive airway pressure therapy on neurocognitive impairment in patients with moderate to severe OSA.

20. The effect of continuous positive airway pressure therapy on endothelial dysfunction in moderate to severe obstructive sleep apnea syndrome.


22. Outcome implications of implementing sepsis resuscitation bundle in AIIMS medicine department.

23. Assessment of current CPR practices and effects of implementing guideline compliant CPR.

24. Incidence and outcome of acute kidney injury associated with severe malaria.

25. Evaluation of current management practices of chronic obstructive pulmonary disease and the outcome of implementing the current guidelines in a tertiary care centre.


27. Role of MTHFR mutation and serum Vitamin D level in predicting the response of MTX in RA.


30. Expression and modulation of leucocytes complement and receptor1 and CD59 (protection) in relation to Rheumaoid arthritis. (Biochemistry).

31. Expression of leucocyte CR1 and CR2 (Complement receptor! and 2) and its significance in the pathophysiology and clinical disease activity of rheumatoid arthritis. (Biochemistry).

32. Expression and modulation of complement regulatory proteins DAF (CD55) and MCP (CD46) in relation to the pathophysiology and clinical disease activity of rheumatoid arthritis. (Biochemistry).

33. Genetic analysis of psoriasis and psoriatic arthritis in Indian (Dermatology).

34. Role of dual energy computed tomography in diagnosis of gout. (Radiology).

35. To study the role of Th-17 cells in arthritis patients in Indian population. (Anatomy).

36. Preparation and quality control of $^{188}$Re-labelled tin colloid for the treatment of refractory inflammatory arthritis (Nuclear Medicine).

**PUBLICATIONS**

Journals: 45  Chapter in books: 12  Book: 1

**PATIENT CARE**

Infectious Disease Clinic (Monday 2 PM)

<table>
<thead>
<tr>
<th>New cases</th>
<th>Old cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>213</td>
<td>120</td>
</tr>
</tbody>
</table>

Sleep Related Breathing Disorder (SRBD) Clinic (Monday 2 PM)

<table>
<thead>
<tr>
<th>New cases</th>
<th>Old cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>358</td>
<td>329</td>
</tr>
</tbody>
</table>

Chest Clinic (Friday 2 PM)

<table>
<thead>
<tr>
<th>New cases</th>
<th>Old cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>294</td>
<td>770</td>
</tr>
</tbody>
</table>

Antiretroviral centre

Total registered till March 2013 7442  ART started till March 2013 3090

Regular follow up till March 2013 1629  ART started in 2012–13 388

AIIMS DOTS Centre

Total patients on DOTS (April 2012–March 2013) 1710

CAT I 1268  CAT II 442

Rheumatology Clinic (Wednesday 2 PM)

<table>
<thead>
<tr>
<th>New cases registered</th>
<th>Number of follow up visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
<td>6565</td>
</tr>
</tbody>
</table>

**Laboratories**

Sleep laboratory  Sleep studies  254

PFT laboratory

Sleep studies  934  6 minute walk test  150

ADA/ACE laboratory

Adenosine deaminase tests  940  ACE tests  101

RNTCP services

AIIMS 2012-2013/ 122
Sputum investigation performed 2890

**DOTS PLUS**
Drug susceptibility tests including line probe assay, liquid culture 1213

**Clinical Immunology Laboratory**
Number of blood samples received 10558 Number of tests done 27426

<table>
<thead>
<tr>
<th>Test</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF</td>
<td>5696</td>
</tr>
<tr>
<td>Anti-dsDNA</td>
<td>2205</td>
</tr>
<tr>
<td>Serum IgG, IgA and IgM</td>
<td>2620</td>
</tr>
<tr>
<td>ANCA</td>
<td>2640</td>
</tr>
<tr>
<td>Anti-LKM-1</td>
<td>881</td>
</tr>
</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor S.K. Sharma** was awarded prestigious Indian Sleep Disorder Association (ISDA) Philips Respironics Oration 2012. He also received Dr K.J.R. Murthy Oration Award 2012 of Indian Chest Society (ICS) 2012 and prompt Referee Award for the journal Lung India 2012. He received fellowships of National Academy of Medical Sciences (NAMS) New Delhi (India), since 2012 and Indian National Science Academy (INSA), New Delhi, w.e.f. January 2013. He is expert member of New Drug Advisory Committee (NDAC) – Antimicrobial, Antiparasitic and antifungal to advise Drugs Controller General (India) [DCG(I)] in matters for review of applications of New Drugs& clinical trials, w.e.f 2011. He continues to be an expert member of Drugs Technical Advisory Board (DTAB) to examine continued marketing of certain drug formulations reported to be prohibited or restricted in other countries since 2010.

**Professor Rita Sood** was invited as expert for the WHO SEARO regional meeting on ‘Role of medical education to address the current health challenges’, Bangkok, 13 to 15 June 2012. She is nominated member of Academic Council, Medical Council of India in October 2012. She was invited by UPSC as adviser for Combined Medical Services examination; She received travel grant to participate in Rendez Vous 2012 Conference on ‘Community participation in Education, Research and Service’ at Thunder Bay, Ontario, Canada; She participated in the Obama Singh 21st Century Knowledge initiative Project, for the joint development of Master’s Degree in Education for faculty in the USA and India, as project team faculty, t MUHS, Pune; She attended the Consultation meeting for ‘Teaching of Professionalism in health professions education’ at Pramukhswami Medical College, Karamsad, Gujarat, She was invited by Centre for Innovations in Public Systems (CIPS), Hyderabad to deliberate on ‘Linking medical schools to secondary and primary health care systems’ at the Ministry of Administrative reforms in Dec.12 in collaboration with CMC, Vellore.

**Dr Naveet Wig** is a member of member of ICMR Technical Resource Group on HIV/AIDS and member of HIV/AIDS Project review committee (PRC) of ICMR. He is also member of expert Group of ICMR on establishment of Antimicrobial Resistance Surveillance Network; He continues to be a member of IndiaCLEN Programme Evaluation group.

**Dr Uma Kumar** organized a Patient Awareness Programme on Arthritis; Conference Hall, AIIMS, New Delhi. She was awarded Zydus oration 2012 by Indian Rheumatology Association and was awarded Fellowship of Indian Association of Clinical Medicine.

**Dr Naval K. Vikram** was awarded the ‘National Bioscience Award for Career Development 2012’, Department of Biotechnology, Government of India.

**Dr Manish Soneja** received Dr JC Patel and Dr BC Mehta best Papers Award conferred by the Association of Physicians of India for 2nd Prize for Best Case Report entitled ‘Actinomycosis and Nocardiosis Co-infection in Chronic Granulomatous Disease’ Manish Soneja, Atul Batra, Naval K Vikram, Arvind Ahuja, Anant Mohan, Rita Sood, J Assoc Physicians India 2012; 60 (04):66–68.
HIGHLIGHTS
Extensive studies on molecular epidemiology of *Pneumocystis jirovecii* infection (Pneumocystis carinii pneumonia [PCP]), under Dr B.R. Mirdha have been able to establish the molecular detection of *P. jirovecii* in clinical samples for patient care, for the first time in the country. Genotypic analysis has delineated various circulating strains of *P. jirovecii* in India.

The other important research interests of the laboratory under the direct supervision of Dr Mirdha are to study the prevalence of intestinal coccidian pathogens. Recent work in the laboratory has focused on molecular detection of intestinal coccidial (*Cryptosporidium* spp., *Cyclospora cayetanensis* and *Isospora belli*) infection and Microsporidia and further characterization of these isolates. Multilocus sequence analysis of these micro-organisms has shown both anthropoontic and zoonotic transmission of cryptosporidiosis in people residing in the northern part of India.

EDUCATION
1. Dr Urvashi Singh organized a one day symposium (CME), 26 March 2013: entitled ‘Stop Tuberculosis in my lifetime’, AIIMS.
2. Hands-on Workshop on ‘Isolation and antimicrobial susceptibility testing of *Neisseria gonorrhoeae*’, 16–18 August 2012, AIIMS, New Delhi. This was a part of a Task Force project titled ‘Establishment of networking for *Neisseria gonorrhoeae* surveillance in India, funded by Indian Council of Medical Research (ICMR).

Short- and long-term training
MSc training in Microbiology was provided to 15 students

CME/Symposia/ Workshops /National and International Conferences
Lectures delivered
J.C. Samantaray: 1  Rama Chaudhry: 3  Arti Kapil: 8  Lalit Dar: 1
B.R. Mirdha: 2  Seema Sood: 1  Urvashi B. Singh: 1

Papers presented: 10

RESEARCH
Funded projects

Ongoing
1. Analysis of human gastrointestinal microbial diversity by molecular methods and application of metagenomics for isolation of nobal bacteriosis. R. Chaudhry, DBT, 2011–14, Rs 51.72 lakhs.
5. DNA fingerprinting of clinical isolates of cryptococcus collected during recent 5 years in AIIMS. I. Xess, AIIMS, 2011–13, Rs 5 lakhs.
7. Antifungal susceptibility testing and genotyping of cryptococcal isolates from Delhi and other parts of India. I. Xess, DBT, 2012–14, Rs 79.84 lakhs.
8. LAMP as point-of-care test for gonorrhoea. S. Sood, DBT, 2009–12, Rs 44 lakhs.
18. Referral centre for early infant diagnosis of HIV by DNA PCR. L. Dar, NACO, 2012 (continuous), Rs 4.05 lakhs.
19. Apex laboratory for dengue and chikungunya diagnosis for NVBDCP. S. Broor (till 31 January 2013) and L. Dar (1 February 2013), 2011, Rs 1 lakhs.
20. Role of oral vitamin D as an adjunct therapy in category I pulmonary tuberculosis along with assessment of immunological parameters. U.B. Singh, DBT, 2008–12, Rs 50 lakhs.

**Completed**
2. Direct and indirect protection by influenza vaccine given to children in India. S. Broor, CDC, 2008–13, Rs 1036.26 lakhs.


**Departmental projects**

**Ongoing**
1. Cloning and characterization of cytadherence region(s) of *Mycoplasma pneumoniae*.
2. A study on alternate antimicrobial agents against typhoidal *Salmonella*.
3. Early prediction of invasive fungal infections in severe acute and necrotizing pancreatitis: Prospective observational study.
4. The epidemiology and drug resistance of aspergillosis in immunocompromised patients.
5. Molecular characterization of Neisseria gonorrhoeae strains with decreased susceptibility to extended spectrum cephalosporins.

**Completed**
1. A prospective cohort study for the incidence and risk factors for central line associated blood stream infection (CLABS) in pediatric ICU (PICU).
3. Real time PCR for Herpes simplex viruses.
4. Detection and genotyping of human cytomegalovirus from bone marrow transplant recipients.
5. Detection and typing of 37 human papillomavirus types by PCR and reverse hybridization in head and neck cancers.
6. Sequencing and phylogenetic analysis of dengue and chikungunya virus strains from Delhi.

**Collaborative projects**

**Ongoing**
1. Multicenter epidemiological study of Zygomycosis: Identification, classification and molecular typing of Zygomycetes in India (PGIMER, Chandigarh).

**Completed**
4. A study on treatment of genital tuberculosis – randomized controlled trial of either discontinuation at 6 months or continuation till 9 months after initial response to 6 months RNTCP category I treatment (U.B. Singh, Obstetrics and Gynaecology, 2009–12).

**PUBLICATIONS**

Journals: 30  
Chapters in Books: 3

**PATIENT CARE**

**Bacteriology section**

AIIMS 2012-2013/ 126
<table>
<thead>
<tr>
<th>Sample</th>
<th>Total</th>
<th>Positive/Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pus</td>
<td>22,205</td>
<td>11,882</td>
</tr>
<tr>
<td>Urine</td>
<td>35,630</td>
<td>10,250</td>
</tr>
<tr>
<td>Blood</td>
<td>45,899</td>
<td>4920</td>
</tr>
<tr>
<td>Sputum/Throat/Tracheal Swabs</td>
<td>20,015</td>
<td>11,318</td>
</tr>
<tr>
<td>CSF</td>
<td>10,050</td>
<td>300</td>
</tr>
<tr>
<td>Stool</td>
<td>1820</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>1,35,619</td>
<td></td>
</tr>
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</table>

### Serology laboratory

<table>
<thead>
<tr>
<th>Sample</th>
<th>Total</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Widal</td>
<td>4438</td>
<td>1460</td>
</tr>
<tr>
<td>V.D.R.L</td>
<td>7698</td>
<td>36</td>
</tr>
<tr>
<td>T.P.H.A</td>
<td>88</td>
<td>32</td>
</tr>
<tr>
<td>A.S.O.</td>
<td>42</td>
<td>9</td>
</tr>
</tbody>
</table>

### HIC laboratory

Samples 20,151  Water sample 1112  Total 21,263

### Mycology and ICP Laboratory

<table>
<thead>
<tr>
<th>Sample</th>
<th>Total</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAL</td>
<td>2072</td>
<td></td>
</tr>
<tr>
<td>CSF</td>
<td>744</td>
<td></td>
</tr>
<tr>
<td>Swab</td>
<td>227</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1433</td>
<td></td>
</tr>
<tr>
<td>Nail/hair/skin</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>Blood</td>
<td>1854</td>
<td></td>
</tr>
<tr>
<td>Cryptococcus</td>
<td>332</td>
<td></td>
</tr>
<tr>
<td>Histoplasma</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10,769</td>
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</tr>
</tbody>
</table>

### Serological investigations

1. Amoebic serology of anti-amoebic IgG antibodies by ELISA 115
2. Hydatid disease serology by Indirect haemagglutination test 126
3. Toxoplasmosis serology for IgG antibodies by ELISA 018

### Investigations for malaria

1. Fluorescent staining (Acridine Orange) 3923
2. Giemsa staining 3923
3. Quantitative Buffy Coat (QBC) assay 1759
4. HRP-II antigen detection tests 0726

### Investigations for kala-azar

1. Fluorescent staining (Acridine Orange) 0192
2. Giemsa staining 0192
3. Quantitative Buffy Coat (QBC) assay 0192
4. Kala-azar serology (rk-39) 0735
5. Aldehyde test 0073

### Examination of faecal samples for intestinal parasitosis

1. Direct and concentration techniques 3344
2. In-vitro culture 30
3. Modified acid-fast and special staining for intestinal coccidia 3344
4. Tissue specimens (homogenates) 25
Examination of aspirates
1. Sputum, pus and others 76

Investigation for filariasis
1. Direct and concentration 77
2. Acridine Orange 77
3. Thin and thick smear 77

Other investigations
1. Investigation for Pneumocystis jirovecii infection (PCP) 204
2. Cerebrospinal fluid examination for free living amoebae (FLA) 130
Total 19,358

Anaerobic bacteriology
Anaerobic culture 674
Stool culture for Clostridium difficile 294
ELISA for C. difficile - toxin A and toxin B 294
Antibiotic susceptibility testing of anaerobic isolates
Culture for Propionibacterium acnes 129
Antibiotic Susceptibility Testing of Propionibacterium spp. 9
Culture for Bartonella 59
IFA for Bartonella IgM antibodies 59
Culture for Leptospira spp. 189
ELISA for Leptospira IgM antibodies 212
ELISA for Legionella pneumophila IgM antibodies 107
ELISA for Legionella pneumophila IgG antibodies 84
Recombinant ELISA for Salmonella Typhi IgM antibodies 12

Mycoplasma pneumoniae
ELISA for IgM antibodies 221
ELISA for IgG antibodies 164
ELISA for IgA antibodies 111
Ureaplasma urealyticum culture 342
Antibiotic susceptibility
for Mycoplasma hominis 7
for Ureaplasma urealyticum 28
ELISA for Chlamydia pneumoniae
Ig M antibodies 117
IgG antibodies 97
IgA antibodies 111
Polymerase chain reaction
for Mycoplasma pneumonia 128
for Mycoplasma hominis 342
for Ureaplasma urealyticum 342
Total 4702

Sexually transmitted diseases

<table>
<thead>
<tr>
<th>Clinical sample</th>
<th>Total</th>
<th>Antimicrobial susceptibility testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>High vaginal swabs (HVS)</td>
<td>280</td>
<td>62</td>
</tr>
<tr>
<td>Semen</td>
<td>764</td>
<td>73</td>
</tr>
<tr>
<td>Expressed prostatic secretions (EPS)</td>
<td>45</td>
<td>08</td>
</tr>
<tr>
<td>Urethral discharge</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>Vaginal discharge</td>
<td>62</td>
<td>0</td>
</tr>
<tr>
<td>Cervical discharge</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1188</td>
<td>153</td>
</tr>
</tbody>
</table>
**Tuberculosis laboratory**

Samples processed for ZN smear and culture on LJ medium 15,542
Samples inoculated for Rapid Culture on MGIT 960 3,475
Anti-tubercular drug sensitivity done on MGIT 960 585
PCR for Mycobacterium tuberculosis 5,091
Genexpert diagnosis for Mycobacterium tuberculosis and rifampicin drug resistance 1,509
**Total** 26,202

**Viral culture and identification (HSV, dengue, etc.)** 134

**Viral antibody detection**

Measles CFT (serum and CSF) 269  Dengue IgM antibody ELISA 1589
Chikungunya ELISA 148

**Viral antigen detection and qualitative PCR**

Dengue NS1 antigen 221  CMV PCR/pp65 antigen 317
HSV PCR 236  HIV PCR 1329

**Viral Real-time PCR**

Influenza (diagnosis and surveillance, including novel H1N1) 1936
Miscellaneous (Tzanck smear etc.) 34
**Total** 6233

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Rama Chaudhry** was given the Bharat Jyoti Award by India International Friendship Society (IIFS) February 2013; Best poster award for the paper entitled ‘Spectrum and resistance pattern of propionibacterium species in ACNE vulgaris patients at Indian Association of Medical Microbiologists, Delhi Chapter Award, 28 July 2012, BLK super Specialty Hospital, New Delhi; Meghna K Baweja Award for the paper entitled ‘Immunomodulation by Probiotics using non invasive technology’, ‘Pediatrics infectious diseases’, Meghna K Baweja Award, Indian Association of Medical Microbiologists, Delhi; Member of the expert group on Basic Science Research of National institute for Research in Environmental Health (NIREH), Bhopal; Special invitee to attend the 40th Scientific Advisory Committee Meeting (SAC), NICED, Kolkata.

**Professor Arti Kapil** is Editor, Indian Journal of Medical Microbiology; Member of the Core Committee of the National Accreditation Board for Testing and Calibration Laboratories (NABL); Member of Steering Committee Meeting of MoES Project: Drugs from the Sea, CRDI, Lucknow, 17 –18 September 2012; Member of Validation Committee for High Containment Facility, DRDE, Ministry of Defence, Gwalior; Member of the Expert Group on Planning of National Institute for Research in Environmental Health (NIREH), Bhopal, under the Department of Health Research, Govt. of India.

**Professor Lalit Dar** was Member of the HIV Technical Resource Group (Laboratories) of the National AIDS Control Organisation (NACO); Member of the Project Evaluation Committee for the North East Twinning Projects of Department of Biotechnology, Govt. of India; Member of the Core Committee of the National Accreditation Board for Testing and Calibration Laboratories (NABL); Member of the Ethics Committee of the National Brain Research Institute; Member of the Project Review Committee for Virology of the Indian Council of Medical Research (ICMR).

**Professor B.R. Mirdha** was Joint Secretary, Indian Academy of Tropical Parasitology (IATP), 2013–15; Secretary, Indian Association of Medical Microbiologists (IAMM), Delhi and NCR Chapter, 2011–14; Editorial Board member, Indian Journal of Tropical Parasitology (IJTP); Editorial Board member, New Journal of Science (Microbiology), Hindawi Publications (USA).

**Dr Seema Sood** was awarded scholarship to attend the 13th IUSTI World Congress, Melbourne, Australia, October 2012; appointed Assistant Editor, Indian Journal of Medical Microbiology

**Dr Urvashi B. Singh** won the Prof. A N Chakraborty Memorial Prize 2012 for best published paper in mycobacteriology during 2012; awarded gold medal by Indian Association of Medical Microbiologists
(IAMM) at the annual conference at Varanasi; Dr S S Kelkar Memorial Prize 2012, IAMM, Delhi; Dr S R Sengupta, A M Saoji Memorial Prize, 2012, IAMM, Delhi; Junior Best Paper Award, 2012, IAMM, Delhi; Mumbai–Belgaum Award, 2012 IAMM, Delhi Task Force on Female Genital Tract Tuberculosis, ICMR; Expert Screening Committee of the NER Twinning R and D Program (Medical Biotechnology), Department of Biotechnology, 2012; Screening Committee of the R and D Program (Tuberculosis), Department of Biotechnology, 2012; AIIMS Project Review Committee for Intramural Funding; National Expert Committee on Diagnosis and Management of TB under RNTCP, since 2012; RNTCP National Workshop on Standards of TB Care, 2012; National DOTS PLUS Committee, since 2011; National Lab Committee of the Revised National TB Control Program, since 2011; High Level Meeting on Prevention and Management of Drug Resistant TB (DR-TB), 2012; National Committee of NRL/IRL Microbiologists under RNTCP on Laboratory issues, 2012; RNTCP Sub-committee for LED FM Microscopy Specifications; Committee for supporting RNTCP for Programmatic Management of Drug Resistant TB.

VISITING SCIENTISTS
1. Dr Wayne Sullender, Professor, Department of Pediatrics and Infectious Diseases, University of Colorado, USA, on various occasions in 2012-13 for collaborative projects in virology.
2. Dr Suresh Boppana, Professor, Department of Pediatrics and Infectious Diseases, University of Alabama at Birmingham, USA, in 2012–13, for collaborative project in virology.
HIGHLIGHTS
The department has increased capacity of the haemodialysis unit by running round the clock haemodialysis facilities. The department organized AIIMS–Brigham CME in Nephrology in New Delhi on 19-21 October 2012 in association with Brigham and Women Hospital Boston. International faculty from Boston, Mayo Clinic and Cincinnati and many national faculties were actively involved in this CME. We also organized a one day School Health Programme for Prevention of Kidney Disease. The department is now a recognized centre for training physicians for Haemodialysis course of IGNOU. The department completed five funded research projects during this period.

EDUCATION
Long-term training
The department runs a DM Nephrology, 3-year degree course for post-MD (Medicine) candidates, selected by an all India entrance examination. Five candidates were admitted to DM course during this period. Postgraduates in internal medicine are posted on rotational basis for a short period of one to two months. At present the department has three junior residents for 6 months each.

Short-term training
The department provided short term training to the following:
1. Nikita Agarwal, University of Cambridge, elective for 3 weeks, 14 July to 3 August 2012 as part of her university requirement for completing bachelor of medicine degree.
2. Mr Aman Yadav, Ireland, elective for 12 days; 9-20 July 2012.
3. Senior residents enrolled for MCh Urology rotate through the department as part of their curriculum.
4. Residents from Paediatric Nephrology also attend discussions in Nephro-pathology conferences regularly.

CME/Workshops/Symposia/National and International Conference
Organized by Department
• AIIMS–Brigham CME (ABC) in Nephrology in New Delhi on 19–21 October 2012 in association with Brigham and Women Hospital, Boston.
• School Health Program for Prevention of Kidney Disease 24 April 2012.

Lectures delivered

Papers presented: 6

RESEARCH
Funded projects
Completed
2. Tacrolimus as an induction therapy for proliferative lupus nephritis. Sanjay Gupta, AIIMS, 3 years, 2010–12, Rs 1 lakh.
Ongoing
1. A randomized multi-centric, parallel, open label, active controlled, phase-III study to evaluate the clinical efficacy and safety of Kremezin on suppression of progression of Chronic Renal Failure, S.K. Agarwal, LG Life Sciences India, 2010–13, Rs 11.6 lakhs.

Departmental projects
Completed
1. Proteinuria in Renal Transplant Recipient and Histolopathological correlation
2. Tacrolimus as an induction therapy for proliferative lupus nephritis
3. Sleep disorders in ESRD and transplant patients

Ongoing
1. To assess the impact of rifampicin based anti-tubercular therapy on hypertension in patients with CKD
2. To assess the course of chronic kidney disease care in India
3. Clinicopathological correlation of HBV and HCV infection in patients on renal replacement therapy
4. Impact of CsA and Tacrolimus on outcome of living related renal transplantation
5. Comparison of Tacrolimus and Mycophenolate mofetil as induction therapy in proliferative lupus nephritis
6. Role of urinary neutrophil gelatinase associated lipocalin in diagnoses of contrast induced nephropathy
7. A study of ambulatory blood pressure and home based blood pressure measurement in patients before and after renal transplant and its relation with markers of inflammation if any in Indian population.
8. Ambulatory blood pressure and clinic based blood pressure measurement in living kidney donors before and after nephrectomy – A short term follow-up study.
9. Evaluation of progression of carotid artery intimal medial thickness in chronic kidney disease patients not on dialysis and its correlation with endothelial dysfunction and biochemical parameters

Collaborative projects
Completed
1. Early detection of alloreactive T cells among patients undergoing renal transplantation (Transplant Immunology and Immunogenetcs)

Ongoing
1. Estimation of anti-oxidant in blood in renal and liver diseases (Laboratory Medicine).
2. Detection and genotyping of human cytomegalovirus from neonates and renal transplant recipients (Microbiology)
3. Molecular detection and characterization of Pneumocystic jiroveci in respiratory samples from the patients both immunocompromised as well immunocompetent with suspected interstitial pneumonia and other chronic lung diseases (Microbiology)
4. Podocyte epithelial mesenchymal transition in chronic allograft dysfunction associated with proteinuria: A immunohistochemical and electron microscopy study with clinicopathological correlation (Pathology)
5. To study the prevalence of UL 97 gene mutation in gancyclovir non-responders vis-a-vis responders in Indian renal transplant patients (Laboratory Medicine)
6. Prevalence of AKI in critically ill patients (Medicine)

PUBLICATIONS
Journals: 18
## PATIENT CARE

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<thead>
<tr>
<th>S.No.</th>
<th>Area</th>
<th>Sub-heading</th>
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<td>Hemodialysis related</td>
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<td>Emergency HD Patients</td>
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<td>Total hemodialysis</td>
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<td>Plasmapheresis</td>
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<td>Femoral Vein catherisation</td>
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<td></td>
<td></td>
<td>Jugular / Subclavian catherisation</td>
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<td>AV Fistula</td>
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<td>Permacath Insertion</td>
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<td>ICU Related</td>
<td>CRRT/SLED</td>
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<td>Peritoneal Dialysis</td>
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<td>Indoor Related</td>
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<td>Liver Biopsy</td>
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<td>Indoor admission</td>
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<td>Nephrology consultation</td>
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<td>Ultrasound Abdomen</td>
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<td>Day Care Treatment</td>
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<td>IV iron Therapy</td>
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<td>IV Cyclophosphamide Therapy</td>
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<td>Renal Transplant</td>
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<td>Evaluation of Cadaver recipient</td>
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<td></td>
<td>Living RT done</td>
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<td>Cadaver RT done</td>
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<td>7</td>
<td>Renal Lab related</td>
<td>Blood sampling</td>
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<td>Biochemistry (Urea, Cr, Na, K)</td>
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<td></td>
<td>Urine osmolality</td>
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<td>24 hr urine testing</td>
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<td>Hemogram for RT Patients</td>
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<td>CO₂</td>
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<td>Serum iron</td>
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<td>TIBC</td>
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<td>UIBC</td>
<td>8089</td>
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<td>T Saturation</td>
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<td>Serum Ferritin</td>
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<td>8</td>
<td>OPD Related</td>
<td>Renal clinic new patient</td>
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<td></td>
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<td>Renal clinic old patient</td>
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<td></td>
<td>RT counseling clinic (3 days/wk)</td>
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<td></td>
<td>RT new cases</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RT old cases</td>
<td>4535</td>
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### Community Service
1. Community Service Camp, Ramakrishna Mission Sevashrama, Virindavan.
AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor S.K. Agarwal was nominated by Ministry of Health and Family Welfare, Government of India as member of Technical Resource Group-I for Life Style Diseases in the context of Non Communicable Diseases to help formulate Guidelines on Policy and Technical Issues related to Chronic Kidney Disease, Organ and Tissue Transplant. Initiated Chronic Kidney Group Task Force, accepted by International Society of Nephrology to make a document for advocacy for CKD in different countries, including India. Founder member of International Society of Nephrology and –American Nephrologist of Indian Origin Committee for promoting nephrology care in India. Included as subject expert for the Education Website of International Society of Nephrology from Indian subcontinent. Member committee to review and finalize the intramural and extramural research projects under National Institute for Research in Environmental Health (NIREH) received by the NIREH/ICMR, New Delhi. Member of Ad-hoc-Postgraduate Super-Specialty Committee of Medical Council of India as appointed by the Board of Governors. Member of a High Powered Committee constituted under the direction of Hon. Court ‘to consider making the Bhopal Memorial Hospital & Research Centre, Bhopal a teaching institution’. Conferred Nephrology Chair and Balaji Gold Medal at Sri Venkateswara Institute of Medical Sciences, Tirupati.

Dr Sanjay Gupta was elected to be Governing Body Member of Indian Society of Organ Transplantation and Delhi Nephrology Society.

Dr Dipanker M. Bhowmik was elected as Joint Secretary and Treasurer of Delhi Nephrology Society.

VISITING SCIENTISTS

1. Dr Sanjeev Sethi, Senior Consultant and Associate Professor Senior, Mayo Clinic, Department of Lab Medicine and Pathology, Rochester, USA visited the department 19–21 October 2012, and delivered talk and interacted with delegates in AIIMS Birgham course.

2. Esther J Kujvenhoves, dialysis nurse, from Onze Lieve Vrouwe Gasthuis, Amsterdam, The Netherlands, visited the department, on 4 September 2012, for a short exposure to the dialysis facility available in the Institute.

3. Dr Rajiv Saran, Professor of Medicine, Division of Nephrology and Associate Director, University of Michigan Kidney Epidemiology and Cost Centre, visited the department on 4 December 2012, and gave a guest lecture on ‘The importance of observational studies in the era of comparative effectiveness research’

4. A Japanese delegation consisting of Ms. Keiko Muramatsu, Tatsunori Nakashima, Professor Shouichi Fujimoto visited department in reference to the policy oriented research supported by Japan International Cooperation Agency (JICA) on non-communicable diseases (NCDs) with special focus on Dialysis Treatment in India.
**9.21 Nuclear Magnetic Resonance**

**Professor and Head**  
N.R. Jagannathan

**Additional Professor**  
Rama Jayasundar

**Associate Professor**  
S. Senthil Kumaran

**Assistant Professors**  
Uma Sharma  
Virendra Kumar  
Sujeet Kumar Mewar  
Pawan Kumar

**EDUCATION**

**Postgraduate**

The faculty and scientists participated and delivered lectures for the course titled ‘Structural Biology and NMR Technology’ and ‘Molecular Medicine’ of MBiotech programme of the Department of Biotechnology, AIIMS.

The faculty participated in the theory and demonstration of the course on ‘Higher mental functions: Techniques (fMRI) used and methodologies’, for the Post-graduate training programme, Department of Physiology.

**Short/Long Term Training**

Eight persons from medical and science disciplines from various Institutes and Universities from India and Afghanistan and BSc Radiography students, AIIMS, underwent training in MRI, fMRI and MRS techniques.

**Continuing Medical Education**

N.R. Jagannathan as Sectional President of the ‘New Biology’ and organized three day symposium on ‘New Biology’, 100th Indian Science Congress, Kolkata, 3–7 January 2013.  
The faculty participated in and delivered several lectures in continuing medical education programmes, symposia, workshops, and conferences during the year.

**Lectures delivered**

N.R. Jagannathan: 8  
Rama Jayasundar: 5  
S. Senthil Kumaran: 2  
Uma Sharma: 3  
Virendra Kumar: 2

**Symposia/ National and International conferences**

Oral Presentations: 10  
Poster Presentations: 23

**RESEARCH**

**Funded projects**

1. Spectroscopic analysis of medicinal plants, Dr Rama Jayasundar, Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India, 2010–2013, Rs. 96.9 lakhs.
2. Neurocognitive changes associated with perception, spatial orientation, speech and language process in visually challenged subjects, using functional magnetic resonance imaging (fMRI), S. Senthil Kumaran, Department of Science and Technology (Cognitive Science Initiative), 2010–2013, Rs. 22.1 lakhs.
5. 700 MHz NMR Spectrometer for Biomedical Research, N. R. Jagannathan, Department of Science and Technology, 2008–2013, Rs 842.6 lakhs.

**Departmental projects**

**Ongoing**

1. Development of pulse sequence for *in vivo* simultaneous suppression of water and fat in breast cancer patients at 3T.
2. Body composition analysis using MR
3. MR spectroscopic analysis of medicinal plants

**Collaborative projects**

**Ongoing**

1. In-vivo and in-vitro MR spectroscopy studies of tissue extracts of prostate cancers (Urology and Pathology).
2. In-vitro MR spectroscopy of colon tissue in patients of IBD (GI Surgery).
3. In-vivo MR spectroscopy study of human breast carcinoma (Surgery, Radiotherapy and Pathology).
4. MRI for in-vivo tracking of iron oxide labeled embryonal stem cells in a rat model of heart failure (Cardiology, Cardiac-radiology, Physiology and Stem Cell Facility).
5. MRI of iron oxide nanoparticle formulation (Institute of Life Sciences, Bhubaneswar).
6. MRI/MRS studies to evaluate brain metabolism in patients with obsessive compulsive disorders (Psychiatry).
7. In-vitro MR spectroscopy of intestinal mucosa in patients with celiac disease (Gastroenterology and Human Nutrition).
8. MR imaging to evaluate the neuroprotective activity of drugs in the animal model of acute stroke (Pharmacology).
9. MR imaging studies on in evaluation of nanoparticles as contrast agents and targeted drug delivery (IIT, Delhi).
12. Spectroscopic analysis of medicinal plants using NMR, UV and FT-IR (Ocular Pharmacology, Dr RP Centre).
13. Spectroscopic analysis and evaluation of anti-oxidant properties of medicinal plants (Ocular Pharmacology, Dr RP Centre).
15. Mapping neurophysiological, neurochemical and cerebral blood flow changes in attentional processes related to yoga (S-VYASA University, Bangalore, DST–CSI funded).
18. Comparison of constrained induced movement therapy and electrical simulation for patients with chronic stroke measured on disability outcome scales and functional imaging, (Neurology, ICMR funded).
20. MRI/MRS studies to evaluate brain metabolism in patients with obsessive compulsive disorders (Psychiatry).
21. In-vitro MR spectroscopy of intestinal mucosa in patients with celiac disease (Gastroenterology and Human Nutrition).
22. *In vivo* MR spectroscopy study of human breast carcinoma (Surgery).
23. MR imaging to evaluate the neuroprotective activity of drugs in the animal model of acute stroke (Pharmacology).
24. MRS studies of soft tissue sarcoma (Surgical Oncology, IRCH).
25. Stress induced alterations in the metabolic profile of human monocytes (Biotechnology).

PUBLICATIONS
Journals: 22 Chapters in Books: 1

PATIENT CARE
The department has three whole body MRI scanners (two 1.5 Tesla and one 3.0 Tesla) for patient care and research. The department provides more than twelve hours per day of patient care MRI services. The details of the number of patients scanned during April 2012 to March 2013 are:

Clinical MRI scan  6014 patients    Research  563 patients and subjects

Other Experimental Facilities
The department has one 16.4 Tesla High Resolution NMR Spectrometer. More than 1000 samples of serum/plasma/CSF/tissue have been studied.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor N. R. Jagannathan is currently President, Asian Biophysics Association (ABA); Sectional President, ‘New Biology’ section for 100th Indian Science Congress, Kolkata, January 2013; Awarded Achanta Lakshmipathi Oration for outstanding contributions in the field of Magnetic Resonance Imaging of cancer of the National Academy of Medical Sciences, India, October 2012; Member, Editorial Board, following international journals: (i) MAGMA (Magnetic Resonance Materials in Physics, Biology and Medicine); (ii) Magnetic Resonance Insights; (iii) Deputy Editor, Neuroscience Imaging; (iv) NMR Biomedicine; (v) Magnetic Resonance Imaging; (vi) Biomedical Spectroscopy & Imaging; (vii) Biophysical Reviews. Distinguished Reviewer of Journal of Magnetic Resonance Imaging (Wiley International), 2012; elected member, executive council, International Union of Pure and Applied Biophysics (IUPAB) (2008–14); member, steering committee, Asian Biophysics Association (ABA); council member of the International Conference on Magnetic Resonance in Biological Systems (ICMRBS), USA; member of the Programme Advisory Committee (PAC), Section for Biochemistry, Biophysics and Molecular Biology, DST, Government of India; member of the Steering Committee of the Sophisticated Instruments facilities (SAIFs) of DST, Government of India; member, FIST Committee of DST, Government of India; member of the PURSE Committee of DST; coordinator of the expert panel on ‘Biomedical Devices and Bioengineering’, Life Sciences Research Board (LSRB), DRDO; member, INSa committee for International Union of Pure and Applied Biophysics (IUPAB); member, Management Advisory Committee (MAC) of Sophisticated Instruments Facility, CDRI, Lucknow; member, MAC, Sophisticated Instruments Facility (SAIF), Indian Institute of Science, Bangalore; Member, Scientific Advisory Committee, Biosciences and Bioengineering (BSBE) Group, Indian Institute of Technology Indore (IIT), Indore; Member, Research Council (RC), Institute for Nuclear Medicine & Allied Sciences, INMAS, DRDO; Member, Science Advisory Council (SAC), National Brain Research Centre (NBRC), Manesar, Haryana.

Dr Rama Jayasundar was awarded GCIM Oration, Sri Ramachandra Medical University, Chennai, India, 2012; invited to contribute an article to the Plenary Session on ‘Complexity and Analogy in Science’, Pontificia Academia Scientiarum, Vatican, 2012.

Dr Virendra Kumar is a Reviewer for NMR in Biomedicine, and International Journal of Computer Assisted Radiology and Surgery.
9.22 Nuclear Medicine

Professor and Head
A. Malhotra

Professors
C.S. Bal
Rakesh Kumar

Additional Professor
Chetan D Patel (CNC)

Assistant Professors
Madhavi Tripathi
Anil K Pandey

EDUCATION
The faculty of the department participated in and delivered 30 lectures in continuing medical education programme, workshops, symposia and annual conferences during the year.

RESEARCH
Completed

Ongoing

PUBLICATIONS
Journals: 53  Chapters in books: 4

PATIENT CARE
Radionuclide Investigations

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<td>Radioactive Iodine Uptake (RAIU)</td>
<td>3043</td>
<td>Perchlorate Discharge Test</td>
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<tr>
<td>L$^{131}$ Whole Body Scan</td>
<td>250</td>
<td>Dimercaptosuccinic Acid Scans</td>
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<td>Ca-thyroid I$^{131}$ Whole Body Scan</td>
<td>250</td>
<td>Thyrotoxicosis</td>
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<td>DTPA/LLEC $^{99m}$Tc renal dynamic scan</td>
<td>2002</td>
<td>Gastro Esophagus Reflux</td>
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<td>Direct Radionuclide Cystourethrography</td>
<td>333</td>
<td>Golumlar Filtration Rate</td>
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<td>Bone Scan</td>
<td>2327</td>
<td>$^{99m}$Tc HIDA (Hepatobiliary)</td>
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<tr>
<td>Thyroid Scan</td>
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<td>Liver Scan</td>
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<td>Meckel’s Study</td>
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<td>Gastro Intestinal Bleed</td>
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<td>Lymphoscintigraphy</td>
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<td>MIBG (diagnostic and therapeutic)</td>
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<td>$^{153}$Samarium bone pain palliation</td>
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<td>Parathyroid scan</td>
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<td>SPECT-CT/CT</td>
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<td>Sentinel lymph node</td>
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<td>Cardiac Investigation</td>
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<td>Brain SPECT</td>
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<td>PET-CT Whole Body (including Ga)</td>
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<td>Brain Glucopheptonate (GHA)</td>
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<td>Inpatient (New Patient)</td>
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<td>(Total Therapy)</td>
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<td>New investigations started:</td>
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<td>Tc-99m TRODAT scintigraphy</td>
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AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor Rakesh Kumar AIIMS Excellence Award 2012 for research paper titled ‘Role of $^{68}$Ga-DOTATOC PET-CT in the diagnosis and staging of pancreatic neuroendocrine tumours. Eur Radiol. 2011;21:2408–16.’
EDUCATION

Undergraduate, Postgraduate, Paramedical

Delhi Post Graduate Medical Education Forum (Department of Obstetrics and Gynaecology) organizes monthly meetings for postgraduate training since 2001. These are to supplement training of postgraduates in clinical and surgical skills, problem oriented approach to obstetrics and gynaecology, protocols and guidelines, case presentations and discussions. Invited faculty from various academic and teaching institutions of Delhi as well as international faculty contribute towards this programme.

Short term and Long term training

The Department offers short and long term training in various subspecialty areas such as Gynaecological Endoscopy Surgery, High Risk Pregnancy, Gynaecology Oncology Ultrasonography and Infertility. During the year we had trainees in various specialties. These were Dr Apratim Mohan Debbarma and Dr Smita Punia from AGMC, Agartala (1 March to 30 April 2013), Ms Anita Mohan from Pakistan (27 March 2012 to 26 March 2013), Dr Ruchi Tandon (Kapur) for Infertility/IVF (1–28 January 2013), FOGSI Ethicon Travelling Fellowship, Dr Poonam Kumari, New Delhi short term training in Gynaecological Oncology (3 October to 1 November 2012), Lt. Col. Madhusudan Dey long term training in Maternofoetal Medicine (9 April 2012 to 8 April 2013), Dr Anjuman Ara Begum, Bangladesh in Reproductive Medicine and Infertility CVF (ART) and Endoscopy (1 October 2012 to 31 July 2013), Dr Nighat Firdous from Srinagar (3 February to 9 March 2013) in Operative Laparoscopy, Dr Prabir Jyawal in IVF (21 March to 20 April 2012), Dr Swati Agarwal in Gynaecology Oncology (29 Oct–4 Nov 2012), Dr R. S. Das from Delhi in Infertility (2 July to 30 September 2012).

Elective training

1. Ms Manon Jaboyedoff, 1–28 February 2013
2. Mr Isabelle Beuchat, 1–28 February 2013
3. Mr Hai Felix, Medical University of Vienna, Austria, 3–23 December 2012

CME, Workshop and Seminars, National and International Conference Organized

1. Preconference Workshop ‘Conducting and publishing Clinical and Research Trials: Any one can do it’, 1 September 2012, Apollo Hospital, New Delhi.
2. The 18th WHI training course on Minimally Invasive Surgery, Department of Obstetrics and Gynecology, AIIMS, New Delhi.
3. Seven day interactive live workshop at ART centre of AIIMS with team from Bristol Centre of Reproductive Medicine, UK, 29 Oct–4 Nov 2012.
Lectures delivered
Alka Kriplani: 37  Sunesh Kumar: 3  Dipika Deka: 9  Neerja Bhatla: 15
KK Roy: 5  Neena Malhotra: 15  Vatsla Dhadwal: 8  Nutan Agarwal: 2
JB Sharma: 15  Neeta Singh: 3  Garima Kachhawa: 3  P. Vanamail: 1

Papers presented: 30

RESEARCH
Funded projects
Ongoing
1. Role of antitubercular treatment for positive endometrial aspirate DNA PCR on reproductive outcome in infertile patients in Indian setting – a randomized trial. Alka Kriplani, ICMR, 2010–13, Rs. 8.9 lakhs.
2. Phase-IIIB clinical trial on selected strains of probiotic lactobacilli packed as tablet for colonization potential and efficacy against recurrence of bacterial vaginosis. Alka Kriplani, DBT, 2009–13, Rs 11.8 lakhs.
4. A phase III clinical trial to demonstrate the immunogenicity, tolerability, and manufacturing consistency of V503 (A multivalent human papillomavirus [HPV] L1 virus-like particle [VLP] vaccine) in preadolescents and adolescents (9 to 15 year olds), with a comparison to young women (16 to 26 year olds), Neerja Bhatla, MSD Pharmaceuticals, 2010–13, Rs. 8.8 lakhs.
5. Early detection of cervical neoplasia by visual screening and hybrid capture testing by self and physician collection methodology – A community based study in rural area. Neerja Bhatla, Qiagen India, 2010–13, Rs 5,46,327.
6. WHO-AIIMS study for the development of growth standards from fetal life to childhood: the fetal component: Vatsla Dadhwal, WHO.
7. Amniotic fluid oxidative status and functional genomic analysis in normal foetuses and foetuses with congenital anomalies. Vatsla Dadhwal, AIIMS, 1 year, Rs 5 lakhs.
8. Study of treatment of Genital TB: A randomized controlled trial of either discontinuation at 6 month or continuation till 9 months after initial response to 6 months RNTCP Category I treatment. JB Sharma, Central TB Division, Ministry of Health, Govt. of India, 5 years, Rs 4.2 lakhs.
9. Effects of non-ionizing electro-magnetic field (EMF) on human health, ICMR, 5 years, J.B. Sharma, Rs 32.4 lakhs.
10. A randomized open label comparative study of safety and efficacy of metformin and subcutaneous insulin in Asian women with gestational diabetes. Neeta Singh, ICMR, Rs. 29.53 lakhs.
12. Impact of local endometrial trauma on the outcome of IVF in women with previous failed implantation: Exploring the genome wide transcriptomic basis. Neeta Singh, AIIMS, 2 years, Rs 5 lakhs.
13. To study the role of Coenzyme Q10 on oxidative stress markers and proinflammatory markers and its implications on anti-phospholipid mediated/idiopathic recurrent miscarriage. Aparna Sharma, AIIMS, Rs. 10 lakhs.

Completed

Departmental projects
Completed
1. Prediction of preterm delivery by detection of fetal fibronectin in cervicovaginal secretions by quickcheck® FFN test strip and by ELISA technique and comparison of two method.
Ongoing
1. A comparison of outcome of trial of labour after previous two caesarean sections versus previous one caesarean section.
2. Comparison of strength of association of Reid’s Colposcopic Index vs Swede score with histology in colposcopic guided biopsy.
4. Comparison of expulsion and complication rates of IUCD in immediate and interval insertion.
5. The role of amniotic fluid oxidative stress in congenital anomalies.
6. A prospective randomized clinical study to compare the efficacy of Ethinyl Estradiol-Drospirenone combination plus Metformin versus Ethinyl Estradiol-Drospirenone combination plus placebo on Vascular Function in Young Asian-Indian subjects with Polycystic Ovary Syndrome.
8. To study ovarian reserve after Laparoscopic Endometriotic Cystectomy and to Correlate the effect of post cystectomy Ovarian Suppression with Fertility Outcome: A Randomised Controlled Trial.

Collaborative projects
Ongoing
1. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian cancer: A phase 3 randomized study (Medical Oncology, IRCH).
2. Cross-sectional study of cord blood immune markers in term appropriate for gestational age and small for gestation age neonates (Paediatrics)
3. Optimisation of HPV detection by Hybrid Capture-II for use on DNA extracted from cytology smears: A method suitable for developing countries (Pathology).
4. To evaluate the effect of Metformin versus Placebo as an Add-on Therapy in patients with recurrent epithelial ovarian cancer receiving chemotherapy: A double blind randomized controlled clinical trial (Medical Oncology, IRCH).
5. Patterns of care for Cervical Cancers in India (Radiation Oncology, IRCH).
8. Prevention of Type II diabetes in women with gestational diabetes mellitus in urban India: A feasibility study (Endocrinology and Metabolism).

PUBLICATIONS
Journals: 64     Chapter in books: 8     Books: 1

POST-PARTUM PROGRAMME
The Post Partum Programme (PPP) is a mandatory central hospital-based approach to the family welfare programme by providing a package of RCH and family welfare services in the vicinity of the hospital as well as in the field practice areas. It is run as an integrated multidisciplinary exercise where the Department of Obstetrics and Gynaecology coordinates with the Departments of Paediatrics, Community Medicine, Surgery and Anaesthesiology.

Table I. Achievements of different family planning methods, post partum programme

<table>
<thead>
<tr>
<th>Methods</th>
<th>Previous year (2011–12)</th>
<th>Current year (2012–13)</th>
<th>Improvement in performance (%)</th>
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<tbody>
<tr>
<td>CuT</td>
<td>514</td>
<td>587</td>
<td>14</td>
</tr>
<tr>
<td>Oral pills</td>
<td>420 packets</td>
<td>682 pkts</td>
<td>62</td>
</tr>
<tr>
<td>Conventional contraceptives</td>
<td>1,20,000 pieces</td>
<td>1,20,000 pieces</td>
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<tr>
<td>Sterilization</td>
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<tr>
<td>Tubectomy</td>
<td>875</td>
<td>940</td>
<td>7</td>
</tr>
<tr>
<td>Vasectomy</td>
<td>27</td>
<td>14</td>
<td>–</td>
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Table II. Maternal and child health (MCH) performance

<table>
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<tr>
<th>Services</th>
<th>Previous year (2011–12)</th>
<th>Current year (2012–13)</th>
<th>Improvement (%)</th>
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</thead>
<tbody>
<tr>
<td>Pregnant women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TT 1st Dose</td>
<td>2011</td>
<td>1601</td>
<td>-</td>
</tr>
<tr>
<td>TT 2nd Dose</td>
<td>1987</td>
<td>1302</td>
<td>-</td>
</tr>
<tr>
<td>Children (0–1 year) immunization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPT 3rd dose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>584</td>
<td>632</td>
<td>8.2</td>
</tr>
<tr>
<td>Females</td>
<td>471</td>
<td>486</td>
<td>3.2</td>
</tr>
<tr>
<td>Polio 3rd dose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>1470</td>
<td>1565</td>
<td>6.5</td>
</tr>
<tr>
<td>Females</td>
<td>1248</td>
<td>1277</td>
<td>2.3</td>
</tr>
<tr>
<td>Measles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>731</td>
<td>766</td>
<td>4.8</td>
</tr>
<tr>
<td>Females</td>
<td>534</td>
<td>534</td>
<td>–</td>
</tr>
<tr>
<td>DT (&lt;5 years)</td>
<td>Not administered</td>
<td>Not administered</td>
<td>–</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinics</th>
<th>Number of times/week</th>
<th>Patient attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>General OPD</td>
<td>6</td>
<td>33373</td>
</tr>
<tr>
<td>High risk pregnancy</td>
<td>3</td>
<td>2992</td>
</tr>
<tr>
<td>Gynaecological endocrine</td>
<td>3</td>
<td>56</td>
</tr>
<tr>
<td>Gynaecological cancer</td>
<td>2</td>
<td>687</td>
</tr>
<tr>
<td>Post natal</td>
<td>3</td>
<td>Nil</td>
</tr>
<tr>
<td>Medical termination of pregnancy</td>
<td>6</td>
<td>787</td>
</tr>
<tr>
<td>Family welfare</td>
<td>6</td>
<td>8776</td>
</tr>
</tbody>
</table>

List of operations performed

**Gynaecological**

*Major*
- Surgery for benign diseases: 1580
- Infertility: 975
- Endoscopy surgeries:
  - Laparoscopy+Hysteroscopy: 762
  - Plastic surgery: 39

*Minor*
- D&C/EA: 1248
- Diagnostic hysteroscopy: 1315
- Pap’s smear: 4206
- Colposcopy/cryo/LEEP: 274
- MTP: 787
- Cervical biopsies: 320

**Obstetrics**

*Major*
- LSCS: 945

*Minor*
- Forceps deliveries: 126
- Normal vaginal deliveries: 1282

**Foetal Medicine**

- Cordocentesis: 78
- Chorionic villus sampling: 216
- Amniocentesis: 24
- In-utero infusion: 138

**High risk obstetrics**

- Obstetric ultrasound: 3621
- NST: 2746
- BPP: 1500
- Gynae Ultrasound: 8033
Ovarian cyst aspirations

Laboratory investigation

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urine pregnancy test</td>
<td>2992</td>
</tr>
<tr>
<td>Haemoglobin</td>
<td>2992</td>
</tr>
<tr>
<td>Blood groups</td>
<td>2393</td>
</tr>
<tr>
<td>Urine albumin/sugar</td>
<td>2992</td>
</tr>
</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT ACHIEVEMENTS

Professor Alka Kriplani is Director in-charge WHO HRCC and Family Planning, President GESI (Gynecological Endocrine Society of India) 2011–continuing; President AOGD (Association of Obstetricians and Gynaecologists of Delhi) 2013–14; Member Governing Council ICOG (Indian College of Obstetricians and Gynaecologists) 2008 – continuing; Editor, Asian Journal of Obstetrics and Gynaecology practice 1999 – continuing; Chairman Endoscopy Training Programme, AIIMS; Awards to co-authored award to research work: Co-guide for the thesis, Comparison of Glibenclamide (Glyburide) and Insulin for glycemic control, obstetrical and perinatal outcome in diabetes mellitus during pregnancy The postgraduate was awarded Smt. Leelawati Salwan award for the JR for best research in the field of Obstetrics and Gynaecology, 2012 (Dr Rajgopal P. Menon).

Professor Sunesh Kumar attended (i) Live Workshop and CME on ‘Gynae Oncology’, Chandigarh, 18–19 August 2012; (ii) 15th Practical Course and CME in Obstetrics and Gynaecology, New Delhi, 7 October 2012; (iii) Second meeting of ICMR Sub-Committee on Cancer Cervix, Hyderabad, 20 June 2012; (iv) 4th meeting of DSMB in Curcumin Clinical Trial in CaCx Cancer, DBT, New Delhi, 22 June 2012; (v) Selection Committee Meeting for the selection of faculty (Obst/Gynae), University of Health Sciences, Rohtak, 28 August 2012; (vi) Doctor’s Committee meeting of PhD students, Ms Salam Gyanashwori Devi, MAMC, New Delhi, 20 November 2012; (vii) Council Committee meeting, AIIMS, 26 November, 2012; (viii) Fellowship meeting, Division of Nutrition, ICMR Campus, Near Parliament House, New Delhi, 30 November 2012; (ix) Expert, Standing Selection Committee meeting, PGIMER, Chandigarh, 16 December 2012; (x) Selection Committee meeting for 6 New AIIMS under PMSSY at NIHFW, Munirka.


Professor KK Roy chaired a session in 38th Annual Conference of the Bengal Obstetrics and Gynaecology Society, 22–23 December 2012, Kolkata.

Dr Nutan Aggarwal was awarded Leelawati award as chief guide for best thesis candidate (Rajgopal).

Dr J.B. Sharma was Examiner in DGO Exam, Maulana Azad Medical College, New Delhi; Conducted MRCOG Part I and II Examinations; Antenatal Care for general audience, Trade Fair Exhibition, 24 November 2012, New Delhi; Chaired a session on ‘Fetal Medicine’ in CME Program on Women’s Health: The Changing Trends, on 3 November 2012, BL Kapur Hospital New Delhi.

Dr Garima Kachhawa won the DSL Prize for 2012 for the Best Poster Presentation for Gene analysis of POU1F1 and PRO1 and prenatal diagnosis in combined pituitary hormone deficiency. Birla Shweta, Kachhawa Garima, Sharma Arundhati, Jora Rakesh, Khadgawat Rajesh. Annual Conference of Endocrine Society of India (ESICON 2012), 13–15 December 2012, Kolkata, India; Was awarded Senior Fulbright-Nehru Research scholarship 2012, United States-India Educational Foundation for ‘To evaluate the metabolic and hemodynamic status of pregnant diabetics and its relationship to pregnancy outcomes in India and to compare it to that of non-diabetics cohort’.
EDUCATION
Training in ‘Sports Medicine and Arthroscopy’ in the Department of Orthopedics.

CMEs/Workshops/Symposia/National and International Conferences
Organized
2. Complex Primary Hip Workshop, 8 June 2012, Delhi (Rajesh Malhotra).
5. CME – Musculoskeletal Imaging, 5 August 2012, New Delhi (Rajesh Malhotra).
10. 1st AIIMS Arthroplasty Update, 30 December 2012, New Delhi (C.S. Yadav).
11. AIIMS Cadaver Arthroplasty Course on Total Hip Arthroplasty, 31 March and 1 April 2012, New Delhi (C.S. Yadav).

Lectures delivered
P.P. Kotwal: 30  Shishir Rastogi: 16  Arvind Jayaswal: 26  Rajesh Malhotra: 26
Bhavuk Garg: 6

Oral/Poster Presentations: 14

RESEARCH
Funded projects
Completed

Ongoing
7. A multi-centre, prospective, uncontrolled post market clinical follow-up study (PMCFS) to monitor the survival and performance of the Delta Motion Cup System in subjects requiring a total hip replacement. Rajesh Malhotra, Johnson & Johnson Medical, 2012–15, Rs 15.50 lakhs.
8. Prospective randomized trial of efficacy and safety of 6 month vs 9 months DOTS in extra spinal osteoarticular TB, CS Yadav, Ministry of Health, Govt. of India,

Departmental projects

Completed
1. Arthroscopic elbow synovectomy in rheumatoid arthritis- Long term follow up of more than 2 years
2. Role of NMR spectroscopy in recurrent and aggressive GCT- a clinical pathological and radiological correlation

Ongoing
1. Evaluation of femoral footprint and femoral tunnel of ACL
2. Efficacy and safety of Lowsonia intermis, Colchicum luteum, Terminella chebula in experimental model of arthritis.
3. A study of establish the role of T-helper 17 (Th-17) cells in Asian Indian arthritis patients.
4. Efficacy and safety of Gloriosa superb, Berberis aristata, Cissus quadrangularis in experimental models of arthritis rats.

Collaborative projects
1. Biodegradable polymer composite bone scaffolds by microcellular injection mould technique. Shah Alam Khan, DST (with IIT, Delhi)

PUBLICATIONS
Journals: 23  Chapters in books: 26  Books: 3

PATIENT CARE
H.L. Nag
1. ‘Sports Clinic’ is held once a week, on Thursday afternoon, at OPD of Department of Orthopaedics to cater the needs of the injured athletes and sports personnel.
2. Attendsto the athletes and sports personnel once a week on Monday afternoon at Medical Centre, Sports Authority of India, JL Nehru Stadium.

Bhavuk Garg
1. Delivered orthopaedic surgical care to patients during 3-day camp at Lifeline Express train in Shivpuri (MP), 22–25 March 2013.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor P.P. Kotwal was Chairman, Committee for creation of Centre for Emergency Medicine and Acute Care (CEMAC) at AIIMS, 2012; Vidyalaya Management Committee of Kendriya Vidyalaya, INA Colony, New Delhi; Selection Committee, constituted by the Director, National Centre for Antarctic and Ocean Research, Goa, to select Medical Officers for Indian Expedition to Antarctica; Elected Vice President of the Indian Society for Surgery of the Hand; Member, selection committee constituted by Director, Rajendra Institute of Medical Sciences, Ranchi to select faculty for Department of Orthopaedics, and Physical Medicine
Professor Shishir Rastogi was Subject Expert in Selection of faculty in new six AIIMS; MCI assessment carried out at Chhatrapati Sahuji Maharaj Medical College, Lucknow; Member, undergraduate Board of studies at PGIMS, Rohtak; Examiner of PG courses (i) Aligarh Muslim University (ii) Allahabad University (iii) Lucknow Medical College, (iv) Subharti Medical College, Meerut, (v) MGRM University Chennai (vi) CMC Vellore, and (vii) Govt. Medical College, Chennai;

Professor Arvind Jayaswal received Life Time Achievement in Spine Surgery, felicitation by the Spinal Cord Society at New Delhi; President of WENMISS – World Society for Endoscopic, Navigated and Minimally Invasive Spine Surgery (2011–13); Vice-chairman, Spine Section of Asia Pacific Orthopaedics Association (APOA) (2011–13); Visiting Professor Engineering Centre for Orthopaedics Research Excellence (E-core) and Department of Bioengineering and Orthopaedics Surgery, University of Toledo, Ohio, USA; Invited faculty and delivered Guest Lectures at International Spine Conferences, Fukuoka, Japan; Kuala Lumpur, Malaysia; Bandung, Indonesia; Colombo, Sri Lanka; Aichi Japan; Demonstrated Specialized Spine Surgery Live at Bangalore; Bandung, Indonesia; Colombo, Sri Lanka; External Foreign Examiner to the Combined Professional Examination for Master of Medicine (Orthopaedics) for all Universities of Malaysia at Kuala Lumpur, Malaysia; Resource Person for Organization of International Symposium on Management of Idiopathic Scoliosis at 7th Biennial Conference of OASAC 2012 and Annual Academic Sessions of Sri Lanka Orthopaedics Association Colombo, Sri Lanka; Coordinator and Resource Person for Pre Conference Workshop on Posterior Correction of Adolescent Idiopathic Scoliosis, Annual Conference of North East Orthopaedics Surgeons Association (NEOSCON 2013) Dibrugarh, Assam; Extending the Boundaries in Minimally Invasive Spine Surgery, Dr Dinu Bhai Patel Oration 2012 at Annual Conference of Association of Spine Surgeons of Gujarat (ASSG2012), Ahmadabad.

Professor Rajesh Malhotra was Awarded Fellowship of Royal College of Physicians and Surgeons of Glasgow, UK, FRCS (Glas); Visiting Professor, University of Lukas-Krankenhaus Bunde, Germany; K. Saha, Eponymous Lecture on ‘Osteoporotic Hip fractures – Are we heading for a disaster?’, during IOACON 2012, Chennai; International collaboration: MTU (Michigan Technology University) Design of a low cost, energy efficient pneumatic prosthetic knee joint. Design finalized. Ready for use in April 2013; National Collaboration: Involvement of Design of Hip Protector for Prevention of Osteoporotic Hip Fracture in Elderly; Won Third Prize in Hindi Debate during Hindi Week in 2012, AIIMS, New Delhi; Judge for Hindi Kavita Pratiyogita during Hindi Week in September 2013, AIIMS, New Delhi; Co-opted member for Ministry of Health (MOH) Committee for fifth year plan for Musculoskeletal Health at New Delhi; Chairman, Subcommittee to formulate guidelines for Osteosarcoma and Ewing’s sarcoma in task force on Musculoskeletal cancers constituted by Committee successfully drafted guidelines and submitted to ICMR; Expert for Centre of Excellence for Fluorosis Research and Mitigation of the Disease submitted to ICMR by Fluorosis Foundation of India, Centre for Promotion of Nutrition Research and Training, with special focus on North-east, Tribal and Inaccessible population, ICMR, New Delhi; Chairman Government Relations Committee of Indian Orthopedic Association; Chairman, Committee constituted by President IOA to improve orthopedic training during MBBS; Executive member Delhi Orthopaedic Association (DOA); Convenor Orthopaedic Initiative, Indian Society for Bone and Mineral Research; Executive member Indian Orthopaedic Association (IOA); President DOA 2011–12.

Professor H.L. Nag was Member, Selection Committee for recruitment to post of operation theater assistant, AIIMS; Nominated by National Board of Examinations for Mid Term Appraisal for DNB trainees at Deen
Dayal Upadhyay Hospital, New Delhi; Member, Staff Council, 2012–13; Nominated, Member of Medical Board, for 3 years to decide physical fitness of faculty, Gr A, B, C and D staff, AIIMS; Member of International Instrumentational Bio-Design Centre with AIIMS, IIT-D, Translational Health Sciences and Technology Institute (THSTI), Faridabad; AIIMS; Member, Hospital Infection Control Committee; Expert, Selection Committee to fill up the vacant posts of faculty by Pt BD Sharma University of Health Sciences, Rohtak, Haryana; Invited by PMSSY as an Expert, Selection Committee for interview of faculty for 6 new AIIMS; Expert Member for Therapeutic use Exemption Committee for two years by National Anti Doping Agency; Member, Standing Selection Committee for interview of faculty posts at NIGRIMS, Shillong; Member, Meeting of the departmental promotion committee for promotion to the post of Assistant Administrative Officer; Member, Departmental promotion committee for promotion to the post of Pharmacist.

Dr Ravi Mittal did DNB appraisal for students at Sant Parmanand hospital in 2012; Member, organizing team APOACON 2012; State representative for Delhi at IOA in 2013; Internal examiner for MS Orthopaedics examination, AIIMS, December 2012; Chaired Free paper session at CASM at Jaipur.

Dr C.S. Yadav reviewed projects of DST, Govt of India; Judge, PG Gold medal session, UPORTHOCON 2013 at Aligarh; Convenor, Preconference workshop over THA, BOACON – 2013, Muzaffapur, Bihar.

Dr Shah Alam Khan was nominated Joint Secretary, Indian Orthopaedic Association; elected Associate Editor, Indian Journal of Orthopaedics; Elected as Founding member of the Ponseti International Association, Indian Chapter; Elected as Member International Advisory Board, The Bone and Joint Journal (formerly JBJS); Elected as Member International Editorial Board, Journal of Clinical Rehabilitative Tissue Engineering Research (China); Nominated as Member, Indian Council of Medical Research (ICMR) Taskforce on Guidelines in the Management of Sarcomas; Elected as Member Reviewer, Sarcoma; Elected as Member Reviewer, Journal of Orthopaedic Surgery and Research.
HIGHLIGHTS
The Department is among the best in India and has developed expertise in most current subspecialties in the Otorhinolaryngology. The departmental activities have included expanding horizons for use of endoscopes in paranasal sinus and skull base surgery. The department has a navigation system for navigation during skull base and advanced endoscopic sinus surgery. The department faculty has been regularly performing transoral robotic surgery for oral and oropharyngeal cancers. This technique is the first of its kind in India. The department has also established a state-of-the-art temporal bone dissection laboratory to provide facilities for training postgraduates in performing otologic and neuro-otologic procedures. The department has initiated micro-vascular free flap reconstruction for complex head and neck defects.

EDUCATION
The formal lecture schedule for the MBBS students is in the 6th and 8th semesters and consists of 1 hour lectures. Undergraduate students are posted in the OPD and ward for 2 months on rotation. Here they learn basic ENT examination, become familiar with diagnosing common ENT diseases and learning the elementary management, including communication skills.

For postgraduates, the major goals are patient care ability, teaching ability, research ability, and team work, presentation of seminar/paper, research writing, preventive aspect, cognitive knowledge and clinical decision making ability and management expertise. Postgraduate students perform major and minor surgical procedures independently as well as under supervision of a faculty member/a senior resident.

They are trained to perform many major operations independently. During training they are posted in orientation programme including exposure to Audiology Section and Vestibular Laboratory. The department also organizes workshops and conferences for the 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.

CMEs and Conferences organized by department
- 32nd Annual Conference of Neuro-Otologic and Equilibriometric Society of India, 19–21 April 2012, India Habitat Center and AIIMS, New Delhi
- Monthly meeting of Association of Otolaryngologists of India, AOI, Delhi Branch, 23 July 2012, AIIMS, New Delhi
- Cochlear Implant training for audiologists, 3–6 September, 2012, AIIMS, New Delhi
- AIIMS Temporal bone dissection course October 6–7, 2012, AIIMS, New Delhi
- Guest lectures and surgical demonstration of plastic surgical procedures (free flap reconstruction and rhinoplasty) by Dr GS Kalra, Professor and Head, Department of Plastic Surgery, SMS Medical College, Jaipur (visiting consultant from 5–9 February 2013

CMEs, National and International Conferences
Lectures delivered
S.C. Sharma: 5  Alok Thakar: 16  Rakesh Kumar: 5  Kapil Sikka: 8

AIIMS 2012-2013/ 148
Chirom Amit Singh: 4
Oral papers/posters presented: 11

RESEARCH
Funded projects

Ongoing
1. Double Blind, Placebo Controlled, Randomized, Controlled Trial to Evaluate the Efficacy of Adjuvant Treatment with Homeopathic Medication Thuja (Arbor Vitae) in Decreasing Severity and Decreasing, Post-Surgical Recurrence in Recurrent Respiratory Papillomatosis. Alok Thakar, ICMR, 3 years, Rs 50 lakhs approx.
2. Phase II/III Randomized Placebo Controlled Clinical Trial of Curcumin in Resectable Stage III and IV Oral Squamous Cell Cancer. Alok Thakar. DBT, 5 years, 2008–13, Rs 71 lakhs.
3. Effects of non-ionizing electromagnetic field on human health: effects on auditory and vestibular system. Rakesh Kumar. ICMR, 5 years, Rs 50 lakhs.
4. Effect of long term use of low dose macrolide with intranasal corticosteroid spray v/s monotherapy with intranasal corticosteroid spray in patients of chronic rhinosinusitis. Rakesh Kumar. ICMR, 3 years, Rs 25 lakhs.

Departmental projects

Completed
1. RTMS therapy in chronic tinnitus patients
2. Evaluation of voice before and after intracordial injection of autologous fat in patients with unilateral VC paralysis
3. Comparison of outcome of tympanoplasty using titanium and hydroxyl-apatite prosthesis
4. Long term and short term outcome of upper eyelid gold weight implantation in facial paralysis
5. CT measurements of normal and pathological inner ear
6. Assessment of site directed surgical treatment by nasal, oropharyngeal, palatal or retroglossal advancement surgery in the management of OSAS
7. Assessment of clinical and radiological profile and role of sialendoscopy in patients with salivary gland pathology
8. Podoplanin expression in Oral cavity cancer and its clinical significance
9. Evaluation of injury pattern and results of medical And surgical treatment in cases with traumatic and iatrogenic facial nerve palsy

Ongoing
1. Study of serum VEGF and its clinicopathological correlation in oral cavity squamous cell carcinoma
2. Role of image guidance in PNS surgery: A comparative study
3. Normative and pathological ranges of otolith and Semicircular canal function test in normal subjects and patients with complete unilateral vestibular loss
4. Clinicopsychological effects of patients undergoing rhinoplasty
5. Application of transoral robotic surgery in treatment of T1-T3 ca middle one third tongue and oropharynx
7. Audio vestibular effects of transcranial magnetic stimulation
8. To evaluate the association of various risk factors in pre-cancerous lesions and cancer of oral cavity.
9. Effect if IJV ligation during comprehensive neck dissection on intracranial pressure

Collaborative projects

Ongoing
1. Indo US joint project for “Center for excellence for nanomedicine in Head and Neck Cancer 2012 with North Eastern university and Harvard Medical School, USA, CSIR, National Physical Laboratory, Indian Institute Of Toxicology Research, Lucknow and AIIMS, New Delhi: Prof S.C. Sharma.
3. Congenital cytomegalovirus infection and hearing loss in rural Indian population (Microbiology).
4. Translating head and neck cancer markers into diagnostic assays. Indo–Canadian Joint Project (Biochemistry).
5. Deregulated initiation of translation in oral carcinogenesis. (Biochemistry) A Stereological Study of Age Related Morphological and Neurochemical Changes In the Human Cochlear Nucleus. A Thakar, Indian Council of Medical Research

Completed
1. A randomized, double masked, active controlled phase III study of efficacy, safety and tolerability of repeated doses of intra-vitreal VEGF trap-eye in subjects with neovascular age-related macular degeneration (AMD) (Ophthalmology).
2. Extent of thyroidectomy: Total verses near total thyroidectomy in the therapy of differentiated thyroid cancer: A randomized controlled trial (Surgery).

PUBLICATIONS
Journals: 13 Abstract: 1 Chapter in book: 1

PATIENT CARE
In patient care/supportive activities include information regarding: (a) facilities available in the department (including special clinics and/or special laboratory facilities (b) community services/camps, etc.

Number of patients operated
Major cases: 2506 Minor cases: 1681 Minor OT cases: 32,634

Number of patient seen in OPD
New patients: 42,526 Old registration: 44,568

Total number of ward and short admissions: 4588

Special clinics
Vertigo 145 Audiology and Skull base clinic 159
Rhinology 105 Speech and hearing at RUAS 3138 and 2168, respectively
Voice 1738
Tumor clinic (Head and Neck clinic B)
Old cases: 4162 New cases: 1004 Total: 5166

Community service clinics
Twice weekly clinics in Community Hospital, Ballabhgarh.
Weekly clinics in Primary Health Centre, Gurgaon.
Weekly clinics in community hospital in IIT Delhi.

The department is providing daily OPD services at Outreach OPD Jhajjar. To improve services further, faculty has also been posted at Jhajjar and also once a week at Ballabgarh.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor S.C. Sharma delivered the Dr Abir Lal Mukherjee oration, Mid AOICON, Chandan, Nagar, West Bengal; delivered the Sher-e-Kashmir Sheikh Mohammad Abdullah oration award 2011, 1 October 2012, SMS Medical College, Jaipur; delivered the Prof Y.N. Mehra oration, PGIMER Chandigarh, 30 November 2012; External examiner, Institute of medical sciences, Kathmandu, Nepal; Chairperson of surgical treatment guideline formulation of INOSA Guidelines 2013 (Indian Initiative on Obstructive Sleep Apnea Guidelines); Chaired session on ‘Role of endoscopic laser surgery in Head and Neck Cancer’, IFNOS 2012 world tour and FHNOS annual meeting 11–14 October 2012. Ahmedabad.

Dr Alok Thakar delivered the 3rd Lakshmi Prasad Narain Memorial Oration, Annual Meeting, Society of Otolaryngologists of Nepal, and the M.L Bhatia Guest Lecture, UP State Meeting of the Association of Otolaryngologists of India; served as President of the Neuro-otological and Equilibriometric Society of India, 2011–12 and was President at its Annual Meeting in April 2012 in Delhi; elected Hony Treasurer. Skull Base Society of India; serves on the Executive committee, AIMSONIANS; on the editorial board of ENT Master class (UK), The Otorhinolaryngologist (UK), Otorhinolaryngology Clinics – An International Journal,

Dr Rakesh Kumar was Expert member, Committee for indigenous digital hearing aid project of DIT Govt. of India; Co-member of BIS Committee looking after the standards of ENT instruments in India; Reviewer for Journal of Cutaneous and Aesthetic Surgery and Journal of Laryngology and Voice; Organized Temporal bone dissection course and Hands On Cadaveric Rhinoplasty; Dissection Course, AIIMS; Examiner to Punjab University and University of Delhi.

Dr Kapil Sikka is Nodal Officer, AIIMS for National programme for prevention and control of deafness; Assistant Editor, Indian Journal of Otology and Eitorial board member and reviewer for the journal; Reviewer, Indian Journal of Otolaryngology, Head and Neck Surgery; Organizing co-secretary, 32nd Annual Conference of Neuro-Otologic and Equilibriometric Society of India, AIIMS Temporal bone dissection course and AIIMS Hands on Cadaveric Rhinoplasty Dissection Course organized by the department.
### 9.26 Paediatrics

#### Professor and Head
Vinod K. Paul  
(Neonatology)

#### Professors
- M.K. Bhan (Gastroenterology, Hepatology and Nutrition; on deputation)  
- Sushil K. Kabra (Pulmonology, Intensive Care, Tuberculosis and Rheumatology)  
- Ashok K. Deorari (Neonatology)  
- Madhulika Kabra (Genetics)  
- M.K. Bhan (Gastroenterology, Hepatology and Nutrition; on deputation)
- Sushil K. Kabra (Pulmonology, Intensive Care, Tuberculosis and Rheumatology)  
- Ashok K. Deorari (Neonatology)  
- Madhulika Kabra (Genetics)

#### Additional Professors
- Pankaj Hari (Nephrology)  
- Sheffali Gulati (Neurology)  

#### Associate Professors
- Ramesh Aggarwal (Neonatology)  
- Vandana Jain (Endocrinology)  
- Rachna Seth (Oncology)  
- Rakesh Lodha (Pulmonology, Intensive Care, Tuberculosis and Rheumatology)

#### Scientists
- Shinjini Bhatnagar (on deputation)  
- Pratima Ray  
- Madhumita Roy Choudhary  
- Manju Saxena

#### Clinical Psychologist
- Savita Sapra

#### Dietician
- Anuja Agarwala

#### Physiotherapist
- Sumita Gupta

#### Medical Social Service Officer
- D. Yadav

**HIGHLIGHTS**

- Operationalized an 8-bedded High Dependency Unit (HDU) in the ward to cater to children with life-support and other special needs. The nursing staff of the HDU was imparted structured training on the required skills. The HDU has been assigned a designated team of residents.
- Developed an online Learning Program on Newborn Health (OnTop) for doctors and nurses on an interactive platform. A total of 1500 participants took this course in 5 countries.
- Created Apps for smart phones to facilitate management of the sick newborn as a point of care tool for healthcare providers working in small hospitals on iOS system (download from iTunes as SickNewborn) and Android Google play (download as AIIMS WHO CC STPs).
- Continued to host two prestigious collaborating centres of the World Health Organization (WHO), namely, the WHO Collaborating Centre for Training and Research in Newborn Care, and the WHO Collaborating Centre for Clinical and Laboratory Genetics.
- The ICMR Centre for Advanced Research in Newborn Health of the Department has generated a comprehensive profile of antimicrobial resistance.
- Intensified its inter-disciplinary programme in translational research with the launch of new bench-to-bed studies in multiple high priority areas.
- The Rotavirus vaccine developed by the department has completed phase III trials and was found to be an effective preventive intervention against diarrhoea in children.
- An indigenous ELISA based kit for the diagnosis of coeliac disease has reached the stage of being transferred to the industry.
- A Pediatric Science Group comprising PhD scholars and scientists was constituted as a forum for scientific discussions.
• Developed and disseminated patient education materials (booklets, pamphlets) on 12 themes of important childhood disorders.
• Restructured the senior-residency programme along paediatric specialties and streamlined the specialty-based system across outpatient-inpatient continuum with significant improvements in patient care.

EDUCATION

Undergraduate
The department is involved in teaching MBBS students. It runs a practical education programme comprising bedside sessions, tutorials and neonatal resuscitation workshops. Emphasis is laid on child growth, development and feeding. Most of the classroom lectures in neonatology are available as webinars on www.newbornwhoec.org for use at AIIMS, throughout India and the world.

Postgraduate
The Department conducted a comprehensive teaching programme for MD students with daily teaching sessions, bedside teaching, clinic-based teaching, orientation programme for new residents, symposia and mini-workshops. Specialty based teaching sessions are held every week in Nephrology, Neurology, Neonatology, Pulmonology and Intensive Care. Log books are maintained and regular assessment is done each semester. In addition, an assessment in clinical methods with 70% pass marks is carried out for the new batch. The Department conducted the following special symposia this year: ‘Antibiotic therapy in children’, and ‘Cutting-edge advances in pediatric therapeutics’, April 2012.

For postgraduate students, following special teaching events were held: (i) Mini-symposium on ‘Disorders of sexual development’ participation from Endocrine and Pediatric Surgery Departments, (ii) Workshop on ‘Neonatal ventilation’ and (iii) Mini-symposium on ‘Practical issues in paediatric oncology’.

Faculty of the department is involved in the teaching of PhD scholars and MSc students of the Department of Biotechnology.

Paramedical students
The Department conducts regular teaching of BSc and MSc Nursing students. Faculty members are involved in taking lectures and guiding MSc (Paediatric nursing) students in their theses. We conducted a workshop on ‘Infection control’ for nurses.

DM programmes in Paediatric Neurology and Neonatology
Eight DM students are admitted in each year. The DM teaching programmes focus on preparing future leaders in their respective specialities. The DM programme lays emphasis on global standards in clinical care, teaching, research and public health. The students are trained in research methods, clinical epidemiology and teaching experience.

PhD programme
The Department runs one of the most comprehensive PhD programmes at the Institute. This year a total of 22 scholars were enrolled for PhD programmes in different divisions of the department. We run a formal Foundation Course for all PhD scholars alongwith special journal club. A vibrant Paediatric Science Group of scholars and scientists was established this year.

Short-term and Long-term trainees (59)
Neonatology (24), Neurology (3), Genetics (19), Pulmonology (2), Nephrology (6) and Medical students (4)

CME/ WORKSHOPS/ SYMPOSIA/ NATIONAL AND INTERNATIONAL CONFERENCES

Endocrinology
• Biology of Fetal Growth restriction, DBT Meeting on development of a conceptual framework for research in biology of birth: Prematurity, Fetal Growth restriction and Stillbirth, 23 April 2012, National Institute of Immunology, New Delhi.
• DBT/Gates Foundation Translational Research Meeting, Research agenda in the field of fetal growth restriction and its consequences, 24 May 2012, New Delhi.
• Endocrinology and management issues in CAH, Brainstorming Session on Disorders of Sex Development, Indian Society for Pediatric Urology, and Asian Society for Pediatric Urology, 15 December 2012, AIIMS, New Delhi.

Neonatology
• WHO CC AIIMS in partnership with IANN organized Stakeholders Workshop for Sharing Training needs for nursing professionals in the country on 29–30 January 2013 with support of Indo-Canadian Shastri Grant and WHO-SEARO.
• 5th Faculty Development Workshop on Enhancing Research Capacity, Bangalore, 21–24 March 2013 with support of ICMR Advanced Centre for Newborn Health Research.
• Department of Pediatrics introduced two courses and enrolled nearly 1500 students and doctors in different courses in the Essential Newborn Care (ENC) and Sick Newborn Care course with skill learning at participating institutions using an online platform (Accessible at www.onstop-in.org). Courses are administrated to Maldives, Sri Lanka, Bangladesh, Nepal, Pakistan, Mauritius and India.
• Coordinated workshops for NNF Tripura State Branch, Agartala, 21–22 July 2012; NNF West Bengal Branch at Calcutta, 4–5 October 2012.
• CPAP Workshops at Guwahati, Assam, 7 April 2012; 11 May 2012; Bhubaneswar, Odisha; 2 March 2013 Pune.
• Ventilation workshop, Raj Neocon, Jaipur, 4–6 October 2013.

Nephrology
• VI Annual Training Course in Pediatric Nephrology in collaboration with International Society of Nephrology- COMGAN at AIIMS New Delhi, 9–10 February 2013.
• Update on ‘Complement mediated kidney diseases’ on 23 March, 2013.

Pulmonology and Intensive Care
• 5th KC Chaudhary Oration, IJP Competitive Clinical Grand Round and Best Thesis Awards, AIIMS, 9 September 2012.
• Delhi IAP Respiratory Chapter meeting 2 February 2013, AIIMS, New Delhi.
• Sleep disordered breathing symposium, 7 January 2013, AIIMS, New Delhi.

Patient education programmes

Genetics
• Parents meeting for Rett syndrome, 20 October 2012, AIIMS, New Delhi

Neurology
• Autism Awareness campaign, 26 April 2012 for parents, AIIMS, New Delhi.

Nephrology
• Patient and parent education and interaction on ‘Nutrition in Chronic Kidney Disease’ on the occasion of World Kidney Disease, 17 April 2013.

Oncology
• Childhood Cancer awareness meet: Parent Education Program in Childhood Cancer, April 2013. AIIMS.
• Organized Childhood Cancer Day, 10 November 2012 in JLN Auditorium: included Public panel discussion, an exhibition on childhood cancer, services offered, NGO interface and experience sharing and Press conference.

Pulmonology and Intensive Care
• Education Programme for parents of Cystic Fibrosis on 24 February 2013.

Lectures delivered
Madhulika Kabra: 22  Pankaj Hari: 4  Sheffali Gulati: 13  Ramesh Agarwal: 4
Rachna Seth: 3  Vandana Jain: 4  Rakesh Lodha: 12  Madhumita Roy Chowdhury: 1
Neerja Gupta: 10  Rashmi Shukla: 1  Savita Sapra: 2

Oral papers/posters presented: 43

RESEARCH
### Funded projects

#### Ongoing

1. **Glue Grant project**-‘Developing a long term partnership for Translational Health Research in Child Health’. Vinod K Paul, DBT, 2010–15, Rs. 4 crores.
2. **Role of gain in fat mass in early infancy on programming of adiposity and biochemical markers associated with cardiometabolic risk**. Vandana Jain, DBT, 2012–15, Rs 69 lakhs.
3. **Influence of genetic polymorphisms, clinical and biochemical parameters in determining susceptibility to nonalcoholic fatty liver disease in Indian overweight adolescents**. Vandana Jain, ICMR, 2012–15, Rs 48 lakhs.
5. **Hib Meningitis Sentinel Surveillance in North India**. Shinjini Bhatnagar, Johns Hopkins Bloomberg School of Public Health, USA and INCLEN 2008–13, Rs 1.96 crores.
7. **National Hospital Based Rotavirus Surveillance Network at All India Institute of Medical Sciences, New Delhi**. Pratima Ray, ICMR, 2013–17, Rs 1.03 crores.
8. **National Alliance Programme for Biodesign and in-vitro diagnostics between Translational Health Science and Technology Institute and All India Institute of Medical Sciences**. Pratima Ray, DBT, 2010–15, Rs 1.1 crores.
10. **Molecular Characterization of Rotavirus strains infecting neonates born in the hospital and diarrheal children admitted at All India Institute of Medical Sciences**. Pratima Ray, ICMR, 2009–12, Rs 33.7 lakhs.
11. **Newborn screening for congenital Hypothyroidism and congenital Adrenal Hyperplasia – A multicentric study**. Madhulika Kabra, ICMR, 2009–13, Rs 20 lakhs.
13. **Clinical application of array-based Comparative Genomic Hybridization (array CGH) in the genetic evaluation of stillbirths**. Madhulika Kabra, DBT, 2012–14, Rs 85 lakhs.
16. **A comprehensive approach for Mitochondrial encephalomyelopathies in Indian patients**. Madhumita Roychaudhury, AIIMS, 2012–14, Rs 5 lakhs per year.
17. **Study of subtelomeric imbalances in children with idiopathic mental retardation using real time PCR**. Madhumita Roychaudhury, ICMR fellowship for Pankaj Sharma, 2011–13, Salary of student plus Rs 20,000 contingency per year.
18. **To study the mutation profile of Indian patients with common organic acidurias**. Madhulika Kabra, ICMR fellowship for Pawan K. Singh, Salary of student plus Rs 20,000 contingency per year.
19. **Molecular genetic studies in Indian patients with MPSII**. Madhulika Kabra, ICMR fellowship for Gaurav Verma, 2012–14, Salary of student and Rs 20,000 contingency per year.
20. **Effect of MECP2 genotype, X chromosome inactivation pattern and common BDNF polymorphism on the phenotype of classical Rett syndrome patients**. Madhulika Kabra, ICMR fellowship for Rajni Khajuria, Salary of student plus Rs 20,000 contingency per year.
21. **Molecular genetic studies in Indian patients with ectodermal dysplasia**. Madhulika Kabra, ICMR fellowship for Shweta Kushmakar, ICMR, 2012–14, Salary of student plus Rs 20,000 contingency per year.
22. **Centre for Advanced Research in Newborn Health (research and capacity building activities)**. Vinod Paul and Ashok Deorari, ICMR, 2010–15, Rs 9.5 crore.
23. **To carry out analysis of training needs for nursing professionals to contribute to facility-based newborn care in India**. Ashok Deorari, Indo Canadian Shastri Foundation and WHO-SEARO for 3 months, Rs 4 lakhs + Canadian $ 8,000.
24. **Antiproteinuric effect of oral calcitriol in chronic proteinuric nephropathies: a randomized controlled trial**. Pankaj Hari. ICMR, 3 years, 2010–13, Rs 19 lakhs.
26. Randomized double blind placebo controlled trial to compare the efficacy of three months versus six months therapy with prednisolone for the first episode of idiopathic nephrotic syndrome in children. Arvind Bagga, ICMR, 2011–14, Rs. 14 lakhs.
28. Randomized controlled trial to compare the efficacy and safety of mycophenolate mofetil versus levamisole in children with frequently relapsing or steroid dependent nephrotic syndrome. Arvind Bagga, ICMR, 2012–15, Rs. 8 lakhs.
33. Randomized Placebo Controlled Trial of Valproate and levocarnitine in Children with Spinal Muscular Atrophy aged 2–15 years. Sheffali Gulati, AIIMS, 2012–14, Rs. 5 lakhs per year.
36. Zinc supplementation in childhood tuberculosis patients in Delhi, India. SK Kabra, Norwegian Programme for Development, Research and Education (NUFU), 2007–12, Rs. 1.53 crores.
42. To study the effect of highly active antiretroviral therapy on B cell sub-populations in HIV infected children. Rakesh Lodha, ICMR, 2011–14, Rs. 39.87 lakhs.

**Completed**

2. KIGS multinational Growth Survey. Vandana Jain, Pfizer Research Division, 201112, Rs 1.2 lakhs.
3. DBT Programme Support (Core Project). Madhulika Kabra, DBT, 2007–12, Rs 4 crores.
4. Systematic reviews to be used during the meeting to formulate postnatal care guidelines. Vinod K Paul, WHO, 6 months, 2012, Rs 5 lakhs.
7. A prospective randomized controlled trial comparing the efficacy and safety of intravenous cyclophosphamide and alternate day prednisolone versus tacrolimus and alternate day prednisolone for patients with steroid resistant nephrotic syndrome. Arvind Bagga, ICMR, 2009–12, Rs. 25 lakhs.
9. Detection of minimal residual disease (MRD) in B cell lineage acute lymphoblastic leukemia (ALL) at the end of induction by flowcytometry. Rachna Seth, ICMR, 2009–12, Rs. 34.8 lakhs.

**Departmental projects**

**Ongoing**

1. To study the prevalence of genetic polymorphisms of the beta 2 adrenergic receptor and their association with the response to salbutamol in Indian children with acute exacerbation of asthma.
2. Molecular genetics studies in Indian patients with ectodermal dysplasia and Ichthyosis.
3. Non invasive prenatal diagnosis of fetal Rh and Beta Thalassemia.
4. Molecular genetic studies in Indian families with Autosomal recessive non syndromic hearing loss.
6. Mutation analysis and association of biomarkers in patients with mucopolysaccharidosis type I, II and III.
7. Postnatal maturation of amplitude integrated electroencephalography (aEEG) in preterm small for gestational age neonates: a prospective short study.
8. Hepcidin as a marker for iron stores in small for gestational age and appropriate for gestational age neonates born at ≥34 weeks of gestation.
11. Transcutaneous bilirubinometry from a shielded skin patch in neonates receiving phototherapy evaluation of a diagnostic tool.
12. Role of change of position during phototherapy in management of non hemolytic hyperbilirubinemia in late preterm and term infants – randomized controlled trial.
13. Comparison of effectiveness of continuous versus intermittent phototherapy for treatment of non-hemolytic hyperbilirubinemia in late preterm and term infants- an open label randomized controlled trial.
16. Effect of cholecalciferol supplementation on FGF23 levels in vitamin D deficient children with CKD.
17. Randomized open labeled controlled trial to compare the efficacy and safety of mycophenolate mofetil and tacrolimus in maintaining remission in patients with steroid resistant nephrotic syndrome.
22. Estimation of prevalence of sleep problems in Autistic children in comparison to typically developing children.
23. Role of skin biopsy in childhood muscular dystrophies.
24. Clinical spectrum of Psychogenic non epileptic events in children (6–16 years).
25. Comparison of radiological outcome of 7 days versus 28 days albendazole therapy along with steroids in patients with parenchymal neurocysticercosis with lesion (non-calcified) load: a randomized controlled trial.
26. To study the effect of hyperhydration vs hyperhydration and hydroxyurea in management of newly diagnosed hyperleukocytosis of acute childhood leukemia.
27. JAK mutations and role of CRLF2 in outcome of childhood B lineage acute lymphoblastic leukemia.
28. Study the outcome of childhood langerhans cell histiocytosis.
29. Outcome of childhood acute myeloid leukemia.
30. Late effects of childhood cancer survivorship.
31. Invasive fungal infection in febrile neutropenic episodes in childhood cancers.
32. Clinicopathological profile of mediastinal mass in childhood cancers.
33. Extraocular Retinoblastoma; outcome and risk factors for metastasis (RCT).
34. To compare the role of hydroxyurea and hyperhydration versus hyperhydration alone in decreasing total leukocyte count in children with acute lymphoblastic leukemia and hyperleukocytosis: A randomized trial.
35. Cloning and expression of Chikungunya virus genes and evaluation of their role in Chikungunya pathogenesis in children and adults.
37. Pharmacokinetics of antitubercular medications in children.
39. Prevalence of peripheral neuropathy in patients aged 3 to 18 years with cystic fibrosis on vit E (twice the RDA) for 6 months.
40. Prevalence of *Pneumocystis jirovecii* on induced sputum of <15 yr immunocompromised children with pneumonia by Gomori Methenamine silver stain and Polymerase Chain Reaction.
41. Role of FeNO in identification of uncontrolled asthma in children between age group.
42. Serum Vitamin D levels and its association with level of control of childhood asthma.
43. To study the effect of highly active antiretroviral therapy on B cell sub-populations and their co-stimulatory receptors in HIV-1 infected children.
44. Tuberculosis: Evaluation of the diagnostic value of Quantiferon Gold in tube test in Indian children.
46. Etiology of pulmonary exacerbations in children with cystic fibrosis.

**Completed**

1. Catch-up growth in term low birth weight infants.
2. Identification of perceived concerns and awareness levels on health related issues among urban Indian adolescents.
3. Iron stores in term and late preterm small-for-gestational age (SGA) and appropriate-for-gestational age (AGA) neonates. Dr
4. Comparison of automated auditory brainstem responses (AABR) and auditory brainstem responses (ABR) for detecting hearing impairment in High Risk Neonates.
5. Efficacy of Phenobarbitone in Neonates with Rh Hemolytic Disease of Newborn: A randomized double blind, Placebo Controlled Trial.
7. Study of the prevalence of genetic polymorphisms of UGT1A6 and their association with serum valproate levels in children on valproate monotherapy.
9. Neurodevelopmental outcome in children aged one to five years with infantile spasms one or more years after onset – A cross-sectional study.
10. Prevalence of electrophysiologically defined peripheral neuropathy in patients aged 3 to 15 years with cystic fibrosis; a cross sectional study.
11. Study of the prevalence and electrophysiological characteristics of vincristine induced neuropathy in childhood ALL (Acute Lymphoblastic Leukemia) survivors aged 5–18 years who had received vincristine based chemotherapy.
15. Predictors and organism with sensitivity profile in children with episodes of febrile neutropenia.
Collaborative projects

**Ongoing**

1. Vitamin D supplementation in patients with congenital ichthyosis (Dermatology).
2. ICMR Young Diabetics registry (Endocrinology and Metabolism).
3. ICMR Childhood Obesity Task Force (Endocrinology and Metabolism).
4. Psychopathology and body shape concerns in overweight and obese children (Psychiatry).
5. Iodine Status of Pregnant Mothers, School Age Children and Neonatal Thyroid Stimulating hormone concentration in three regions of Himachal Pradesh, India (Human Nutrition Unit).
6. 3D – expansion and Differentiation of Mesenchymal Stem Cell into Osteoblast for Bone Tissue Engineering on Biocomposite Scaffold (Orthopaedics).
7. Development of neonatal health care service delivery model for rural India Faridabad (Community Medicine).
9. Network Co-ordinator and Principal site; Neuro Developmental Disabilities among children in India – An INCLEN Study (INCLEN).
10. Reprogramming of adult cell to develop Duchenne Muscular Dystrophy disease specific pluripotent stem cells (Stem cell facility).
11. Generating trained manpower in the field of Reflexology and hence to validate reflexology in managing epilepsy by carrying out a multi center randomized clinical trial – In collaboration with north eastern state medical colleges (Biophysics)
12. Evaluation of the frequency of pleomorphisms affecting lead and mercury toxicity among children with Cerebral palsy (Pharmacology).
13. Molecular characterisation and development of immunological based diagnostics for Naegleria fowleri (Microbiology).
14. Randomized Controlled Trial of early vs late surgery in childhood intractable epilepsy patients in India (Neurology).
15. Evaluation of reflexology as an adjunctive therapy in children with spastic cerebral palsy (Biophysics).
16. Evaluation of reflexology as an adjunctive therapy in children with intractable epilepsy including West syndrome (Biophysics).
17. Pharmacokinetic and pharmacodynamic interaction of ayurvedic medication with antiepileptic drugs: an experimental and clinical study. (Pharmacology).
18. Health related quality of life in children with epilepsy; child and parental perceptions, knowledge and attitudes (College of Nursing).
20. A study to find out the prevalence of depression in mothers of children with autism spectrum disorders. (College of Nursing).
22. Organism profile and sensitivity pattern of febrile neutropenic episodes in childhood cancers (Microbiology).
23. Role of PET CT vs CECT in staging and treatment response assessment in childhood Hodgkin lymphoma (Radiodiagnosis and Nuclear Medicine).
25. NOTCH signaling pathway:role in Leukemogenesis,mutation analysis and gene expression profiling in childhood acute lymphoblastic leukemia (Laboratory oncology and Institute of Genomics and Integrative Biology).
27. A prospective study on nosocomial infections in a Pediatric high risk unit with special reference to device associated infections (Microbiology).
28. A randomized controlled trial to compare the effectiveness of deep inhalation over tidal breathing during metered dose inhaler use in pediatric asthmatics (College of Nursing).
29. A study on alternate antimicrobial agents against typhodal salmonellae (Microbiology).
30. A survey of musculoskeletal and pulmonary function abnormalities after thoracotomy in pediatric patients (Paediatric Surgery).
31. Antigenic and molecular characterization of Influenza virus strains from acute respiratory infection (Microbiology).
32. Characterization of genetic diversity and neutralizing antibody response in HIV-1 infected Indian children (Biochemistry).
33. Detection of mycobacteremia in patients with extra pulmonary tuberculosis (Laboratory Medicine).
34. Development of tagman based real timer quantitative polymerase chain reaction assay for detection of pneumocystis carinii/jerovacci pneumonia (Microbiology).
35. Enhanced Surveillance for Pandemic H1N1 (PH1N1) of swine origin lineage: A multi-centre study, India Supplemental project for ‘Developing sustainable Influenza Surveillance Network in India (Microbiology).
36. Evolution of the HIV-1 clade C envelope in chronically infected Indian pediatric patients (Biochemistry).
37. Immune network in the pathogenesis of pediatric HIV 1 infection (Biochemistry).
38. Immunological characterization of HIV 1 infection in children in India (Biochemistry).
39. Immunopathogenesis of pediatric HIV 1 infection and generation of human monoclonal antibodies against the viral envelop (Biochemistry).
40. Ocular manifestations in children with HIV infection (Ophthalmology, RP Centre).
41. Pediatric Population: Expediting the diagnosis of intrathoracic tuberculosis and drug resistant tuberculosis (Microbiology).
42. To study prevalence of uveitis in juvenile rheumatoid arthritis (Ophthalmology, RP Centre).
43. Molecular characterization of isolates of invasive and commensal streptococcus pneumonia. (Microbiology).

**Completed**

1. Efficacy and safety of single dose 6 lac IU Arachitol in treatment of rickets in children (Endocrinology and Metabolism).
2. Profile of Indian patients with Fanconi’s anemia (Haematology).
3. Isolation and genetic characteristic of circulating cell free fetal DNA for non-invasive prenatal diagnosis of hemoglobinopathies and monitoring of pre-eclampsia (Obstetrics and Gynaecology).
5. VCR neuropathy in childhood acute lymphoblastic leukemia survivors (Medical Oncology).

**PUBLICATIONS**

**Journals:** 96  
**Abstracts:** 11  
**Chapter in books:** 34  
**Books:** 10

**PATIENT CARE**

**Outpatient services**

The department provides general OPD services daily in Paediatrics OPD. Over 1 lakh outpatient consultations took place in this year. There are 15 superspeciality clinics run by the Department.

<table>
<thead>
<tr>
<th>Name of Service</th>
<th>New Cases</th>
<th>Old Cases</th>
<th>Total Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>General OPD</td>
<td>39501</td>
<td>40740</td>
<td>80241</td>
</tr>
<tr>
<td>Neurology Clinic</td>
<td>970</td>
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<tr>
<td>Myopathy Clinic</td>
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<td>1315</td>
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<tr>
<td>Gastroenterology Hepatology and Nutrition</td>
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<td>High Risk Neonatology Clinic</td>
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<tr>
<td>Nephrology Clinic</td>
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<tr>
<td>Chest Clinic</td>
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<td>Tuberculosis Clinic</td>
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<td>Rheumatology Clinic</td>
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<td>Genetics and Birth Defects Clinic</td>
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<tr>
<td>Cancer Survivors’ Clinic</td>
<td>65</td>
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<td>734</td>
</tr>
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</table>
In addition, Cystic fibrosis and Paediatric HIV services were provided in Paediatric Chest Clinic. Physiotherapy Services were provided to the patients in Neurology Clinic, Myopathy clinic Genetics clinics, High risk, Endocrinology, Development clinic, Pediatric Chest Clinic, Rheumatology clinic and OPD services. Total physiotherapy sessions provided during 2012–13 were approximately 5000.

**Indoor services**

- Indoor services include admission facilities in general wards, day care facility, neonatal units (NICUs A and B), Kangaroo Mother Care unit and Pediatric Intensive care facility.
- The Department operationalized an 8-bedded High Dependency Unit in children ward to cater to child patients with life-support and other special needs. A special training program for the nurses of the HDU was held.
- Children requiring short procedures or interventions are admitted for a day in the Day Care Unit situated in the C5 ward.

**Total indoor admissions** 12,326

- Long admissions in Paediatric wards 1,715
- Admission in day care facility 10,611
- Patient admitted in PICU 300
- Mechanical Ventilation 235

**Number of neonates delivered** 2439

**Neonates admitted in NICUs** 716

**Extramural admissions** 65

**Laboratory services**

Various laboratories of the department provide over 50 unique diagnostic tests, many of them for rare disorders not readily available in the country.

**Central laboratory**

- CD serology
- Biocard 580
- tTg ELISA 1208
- IFA (AEA) for diagnosis of Celiac disease 1208

**Micronutrient Assays**

- Serum Zinc 1587
- Copper 1591

**Endocrinology**

- Water deprivation test 10
- Vasopressin challenge test 10
- ACTH stimulation test 20
- HCG stimulation test 30
- GnRH stimulation test 30
- Dexamethasone suppression test 10
- GH stimulation test 100
- Ambulatory BP recording 05

**Nephrology**

- Complement factor ‘H’ 121

**Gastroenterology, Hepatology and Nutrition**

- Upper Gastrointestinal Endoscopy AND
- Colonoscopy 995

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<td>Endocrine and Metabolism Clinic</td>
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<tr>
<td>Autism Clinic</td>
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<tr>
<td>Grand Total</td>
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</tr>
</tbody>
</table>

17 hydroxyprogesterone assay 50
17-OHP 40
Growth hormone 375

HbA1c (point of care testing) 275
Continuous Blood Glucose monitoring 02
Urinary microalbumin (point of care testing) 107
HbA1C 275
Stricture Dilatation       33
EVL                        198

**Genetics**

*Molecular Genetics*

- Beta Thalassemia (β Thal) mutation analysis: 136 families
- Prenatal diagnosis for β Thal: 116 families
- Spinal muscular atrophy (SMA) mutation analysis: 105 cases
- Prenatal diagnosis for SMA: 19 families
- Albinism mutation analysis: 6 cases
- Duchenne Muscular dystrophy (DMD) mutation analysis: 437 families
- Prenatal diagnosis for DMD: 16 families
- Hemophilia A Linkage analysis: 8
- Prenatal diagnosis for Hemophilia A: 1
- Hemophilia B Linkage analysis: 4
- Prenatal diagnosis for Hemophilia B offered to Fragile X screening: 163 families
- Rett syndrome (MECP2) mutation analysis: 20 cases
- Prenatal diagnosis for Rett syndrome: 4 families
- Achondroplasia mutation analysis: 12 cases
- Hypochondroplasia mutation analysis: 3 cases
- Non-syndromic hearing loss (Connexin 26) screening: 56 cases

*Tests carried out on research basis*

- Ectodermal dysplasia mutation analysis: 7 families
- Lamellar Ichthyosis mutation analysis: 6 families
- Prenatal diagnosis for Lamellar Ichthyosis: 1 family
- Ichthyosis Vulgaris mutation analysis: 3 families
- Glutaric acidemia type 1 mutation analysis: 10 cases
- Methylmalonic acidemia (MMA) mutation analysis: 4 cases
- Biotinidase deficiency mutation analysis: 3 cases
- Screening for Intellectual disability: 109 cases
- Screening for Intellectual disability: 3 families
- Screening for small micro-deletion syndromes: 85 cases
- Megalencephalic leukoencephalopathy (MLC) mutation analysis: 7 cases
- Prenatal diagnosis for MLC: 2 families
- MECP2 testing in cases with Global developmental delay (GDD): 25
- Autistic spectrum disorder (ASD) and with Epilepsy: 25 cases
- Gaucher syndrome mutation analysis: 18 cases
- Congenital adrenal hyperplasia (CAH) mutation analysis: 24 families
- Prenatal diagnosis for CAH: 3 families

**Biochemical laboratory**

- Triple Marker: 1729 (Urine Spot test): 38
- MSAFP alone: 61 Homocysteinuria test: 55
- β hCG alone: 12 Reducing substances in urine: 178
- E-3: 01 DNPH: 337
- TLC for disorders of amino acid metabolism: 228 FecI3: 341
- Dual Marker test: 526 Urine Porphyria: 33
- Disorder of Muco polysaccharidosis: 37
- Blood Ammonia: 667

**Enzyme assays for inborn of metabolism**

- Patients for enzyme assays: 529
- No. with single enzyme assays: 281
- No. with multiple enzyme assays: 248
- Arylsulfate A: 76
- β – Glucosodase: 55
- α- Iduronidase: 36
- Iduronate sulphate: 26
- β- Galactosidase: 56
- Galactose-6-sulphate sulphatase: 16
- Arysufatase B: 11
- β-glucuronidase: 13
- Hexosamionidase A: 50
<table>
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<td>Plasma – ASA</td>
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<tr>
<td>Chitotriosidase (Plasma)</td>
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<tr>
<td>β-Galacrocerebrosidase (Krabbes)</td>
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<td>Palmiloyl-protein-thioesterase (INCL)</td>
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<td>Plasma - Hexosaminidase A</td>
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<td>Plasma – ASA</td>
<td></td>
</tr>
<tr>
<td>Chitotriosidase (Plasma)</td>
<td></td>
</tr>
<tr>
<td>β-Galacrocerebrosidase (Krabbes)</td>
<td></td>
</tr>
<tr>
<td>Palmiloyl-protein-thioesterase (INCL)</td>
<td></td>
</tr>
</tbody>
</table>

**Cytophenogenics lab**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amniotic fluid cultures</td>
<td>373</td>
</tr>
<tr>
<td>Peripheral blood cultures</td>
<td>646</td>
</tr>
<tr>
<td>Cord blood samples + KBT</td>
<td>40</td>
</tr>
</tbody>
</table>

**Paediatric oncology**

Immunophenotype characterization and minimal residual disease estimation of acute lymphoblastic leukemia: 200

**Nephrology**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemodialysis</td>
<td>1362</td>
</tr>
<tr>
<td>Acute peritoneal dialysis (including automated peritoneal dialysis)</td>
<td>135</td>
</tr>
<tr>
<td>Continuous ambulatory peritoneal dialysis</td>
<td>28</td>
</tr>
<tr>
<td>Plasmapheresis sessions</td>
<td>405</td>
</tr>
</tbody>
</table>

**Neurology**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS Lab: NCV</td>
<td>216</td>
</tr>
<tr>
<td>EMG</td>
<td>55</td>
</tr>
<tr>
<td>RNST</td>
<td>8</td>
</tr>
<tr>
<td>Routine EEG</td>
<td>1968</td>
</tr>
<tr>
<td>Ambulatory EEG</td>
<td>87</td>
</tr>
<tr>
<td>Video EEG</td>
<td>162</td>
</tr>
<tr>
<td>Muscle biopsies</td>
<td>169</td>
</tr>
</tbody>
</table>

**Pulmonology and Intensive Care**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweat Chloride estimation</td>
<td>456</td>
</tr>
<tr>
<td>Fibre Optic bronchoscopy</td>
<td>196</td>
</tr>
<tr>
<td>Spirometry</td>
<td>2450</td>
</tr>
<tr>
<td>Impulse Oscillometry</td>
<td>1340</td>
</tr>
<tr>
<td>Infant PFTs</td>
<td>432</td>
</tr>
</tbody>
</table>

**Counselling services**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental and behavioural evaluation and intervention</td>
<td></td>
</tr>
<tr>
<td>Attention Deficit Hyperactivity Disorder</td>
<td>45</td>
</tr>
<tr>
<td>DQ/IQ assessment</td>
<td>943</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>62</td>
</tr>
<tr>
<td>Behavioural problems</td>
<td>245</td>
</tr>
<tr>
<td>Pseudo seizures, Conversion reactions</td>
<td>64</td>
</tr>
<tr>
<td>Autism</td>
<td>154</td>
</tr>
<tr>
<td>Ward Consultation</td>
<td>55</td>
</tr>
<tr>
<td>Functional problems</td>
<td>412</td>
</tr>
</tbody>
</table>

**Medical Social services**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and guidance given to patients</td>
<td>3500</td>
</tr>
<tr>
<td>Financial assistance to poor patients</td>
<td>700</td>
</tr>
<tr>
<td>Counselling and psychotherapy</td>
<td>2100</td>
</tr>
<tr>
<td>Rehabilitation of unknown babies</td>
<td>7</td>
</tr>
<tr>
<td>Issuing railway concessions</td>
<td>1500</td>
</tr>
<tr>
<td>of unwed mothers.</td>
<td></td>
</tr>
<tr>
<td>Helping in accommodation</td>
<td>250</td>
</tr>
<tr>
<td>Supervision of social work trainees</td>
<td>4</td>
</tr>
<tr>
<td>Exemption of charges for</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous needs</td>
<td>6</td>
</tr>
</tbody>
</table>

**Child cancer patient support**

- Financial support to these patients through the Rashtriya Arogya Nidhi, Prime Ministers relief fund, by providing medications with the help of NGOs like CANKIDS and CPAA: 48
A support group for pediatric oncology by the name of ‘Sambhav’ has been formulated. Email help line: 3csambhav@gmail.com Numbers 1/month 15–20 parents (First week of every month).

Patient education programme. Such meets are organized every 3–4 months where doctors, social worker, dietician, parents of children undergoing treatment and representatives from the NGO participate (150–250 parents/sessions (3)).

AWARDS, HONOURS AND SIGNIFICANT EVENTS

- The Department is a major collaborator for the fellowship program of the Stanford India Biodesign Program. It provided clinical mentorship to the fellows and interns in the programme.
- The Department organized as many as 7 patient education and parents meetings this year.
- The Department continued to run an inter-disciplinary program in Translational Research in Child Health sponsored by the Department of Biotechnology (DBT).
- The Department won the Indian Journal Pediatrics gold medal for best Clinical Grand Round, 2012 for an endocrinology case, presented under guidance by Dr Vandana Jain.
- An indigenous ELISA kit ‘Celiac Microlisa’ for screening children with suspected Celiac disease has been developed in March 2012 as part of the DBT sponsored project on ‘Development of a rapid diagnostic kit for the diagnosis of Celiac Disease’. The clone developed by the biology partner ICGEB is ready for transfer to the industry partner as per the protocol from DBT.

Neonatology

- NNF Gold Medal for the Best Research Paper ‘Vitamin D Supplementation with 800 IU vs. 400 IU per day in Preterm Infants of 28 to 34 weeks’ gestation: Randomized Double Blind Trial’. N Chandra Kumar, M Jeeva Sankar, Ramesh Agarwal. NNF annual meeting, December 2012, New Delhi.
- Ms Geetha George (ANS, C3 NICU) and Ms Veena Bahri (Nursing Incharge, NICU-B) were felicitated by Rotary Club, Delhi, for their outstanding contribution by a cash reward.
- Developed an online Learning Program on Newborn Health (OnTop) for doctors and nurses on an interactive platform. A total of 1500 participants took this course in 5 countries.
- Created Apps for smart phones on the management of sick newborn as a point of care tool for healthcare providers working in small hospitals on iOS system and Android Google play.
- ICMR Advanced Centre for Newborn Health Research was approved by ICMR, New Delhi for the 3rd year.
- WHO CC created webinars on Equipments for healthcare professionals can be accessed from www.newbornwhocc.org
- Division of Neonatology in collaboration with PGI Chandigarh and SGPGI Lucknow has operationalised regular tele-education for DM neonatology fellows on a regular basis every two week.
- Developed a teaching learning package for newborn care for online Learning on interactive platform. The program is available free from the web to educate health professionals at distant places with skill learning at partner institutions.
- Apps on smart phone for management of sick newborn as point of care tool for healthcare providers working in small hospitals are developed on iOS system and Android Google play.
- Developed 12 Webinars on sick newborn care. These are available on the website www.newbornwhocc.org
- Assisted Nepal and Bangladesh in setting up newborn health and birth defects database networks
- The Neonatology Division continues to service two websites www.newbornwhocc.org (has had more than 1,60,000 hits) and www.kmcindia.org for Kangaroo Mother Care

Professor Vinod Paul was awarded the Vocation Excellence Award by the Rotary International, Delhi District; Delivered Dr Puneet Sharma Oration of NNF Rajasthan; Delivered the Ambica Memorial Oration, 16th Nepalese Congress of Pediatrics, Nepal; Invited to global high level meet on Child Survival: Call to Action hosted by the US Government in Washington DC; WHO Technical Advisor for global initiatives on: i. Home visiting for newborn care, ii. Sick child treatment, and iii. Newborn health research priorities; Invited by the Government of Indonesia and USAID to provided technical support to Indonesia on newborn health; Member, International Data Safety Monitoring Board, Neonatal vitamin A study in Africa and Asia;
Chairman, Medical Council of India (MCI) Committee on B.Sc. Community Health (previously Bachelor of Rural Health Care) 2011-13. Developed curriculum for this new mid-level public health professionals whose graduates would be appointed as Community Health Officers, at sub centres; Technical Resource Group on Child Health, Ministry of Health and FW; Committee on Child Health Strategy, Govt. of Punjab; India Child Health LiST Group (2012–13); DGHS Committee on investigating high mortality of children at Kalawati Saran Children’s Hospital; ICMR Project Review Committee on preterm birth research; DSBM of the DBT-WHO study on Severe Acute Malnutrition; Ethics Committee, Futures Group; Selection Committee for the post of Program Director CDSA, THSTI (DBT); Coordinator AIIMS node of the National Biodesign Alliance (DBT); Co-Chair, Neonatal Service Action Group, Ministry of Health and FW; Technical support partner for RMNCH+A Strategy, Ministry of Health and Family Welfare. Member, Speciality Advisory Board (SAB) for Public Health, National Board of Examinations; Scientific Advisory Group, Harvard-WHO BetterBirth program study; Committee on Codex of the Ministry of Women and Child Development, Committee on Food Fortification of the Ministry of Women and Child Development; Task Force on Health, Punjab Governance Reforms Commission, Govt of Punjab; Working Group on Maternal and Child Health under the Indo-US Health Initiative; Central Supervisory Board (PC&PNDT Act, Ministry of Health and Family Welfare; New Drug Advisory Committee (NDAC) on vaccines, CDSCO, DCGI, Ministry of Health and FW; National Technical Advisory Group on Immunization (NTAGI), Ministry of Health and Family Welfare; Medical Council of India Committee on Deploying Medical Graduates in Rural Areas; Indo-US Joint Working Group on research on maternal and child health (GoI-ICMR/NICHD); ICMR Steering Committee of the Pneumonia etiology stud; DST Expert Group on health hazards of cellphone/tower radiation; High Powered Committee on Independent Evaluation of Performance of ICMR; Selection Committees of Director of Centre for Desert Medicine and Director of National Institute of Nutrition; and selection of senior scientists; DBT Expert Group on Developmental and Disease Biology related to Pregnancy, Foetal life, Neonatal and Early years, and Ageing; DBT Committee on for women and health, hygiene nutrition programmes; ICMR Technical Advisory Group on Surveillance of Neonatal Infection; ICMR, Scientific Advisory Committee on Bhopal gas tragedy; Institutional Ethics Committee, Public Health Foundation of India; Partner, Inter-institutional Research Program on Preterm Birth (DBT); Scientific Advisory Committee of National Institute for Research in Environmental Health, Bhopal; Lead Speaker at the Call to Action – Child Survival Meeting Chennai; Apperead on multiple shows on child health on Lok Sabha TV, DD National and DD News.

Professor A.K. Deorari invited to the Asia-Pacific Leadership and Policy Dialogue for Women’s and Children’s Health Meeting at Manila, Philippines, where the newborncare e Learning package was released, November 2012; Visiting Professor, Faculty of Medicine, University of Gadjah Mada, Yogyakarta, Indonesia, December 2012; Oration for the state NNF Karnataka for Bangalore Neonatology Trust at Bangalore, September 2012; Faculty for NOTE (Neonatal Online Training in Europe) e learning programme for neonologist 2012–13; Member, Expert group Neonatal Action Group, Government of India; External reviewer, Global Alliance for Helping Babies Survive and Helping Babies Born Soon programme for developing countries 2012–13; Member, Technical specifications for equipment under NHRSC, NRHM, Government of India 2013.

Professor Arvind Bagga was Chair, Scientific Committee of 17th Congress of the International Pediatric Nephrology Association being held at Rio de Janeiro, 2016; Chief of Naval Staff Award for best research paper in 2012; Associate Editor of Indian Pediatrics and on the Editorial Board of Indian J Pediatrics, Current Pediatrics and World Journal of Pediatrics.

Professor S.K. Kabra was Editor Indian Journal of Pediatrics, Editorial Board of World Journal of Pediatrics; Nominated to ‘Apex Technical Committee for Vaccine Grand Challenge Programme’ of Government of India implemented by Department of Biotechnology; Member, National Technical Working Group on Paediatric tuberculosis; Judge in evaluation of Dr Pohowala and Dr Srivastava awards for papers presented in conference. In Annual Conference of MP Indian Academy of Pediatrics (MP PPEDICON 2012), organized by Indian Academy of Pediatrics MP Branch in Indore from 3–4 November 2012; Chaired Plenary session on Strategies to reduce under five child mortality. In Annual Conference of MP Indian Academy of Pediatrics (MP PPEDICON 2012), organized by Indian Academy of Pediatrics MP Branch in Indore from 3–4 November 2012; Chaired sessions on Nasal ventilation, bronchiectasis, sleep disorders in children. 24th Annual Conference of Respiratory Chapter of Indian Academy of Pediatrics (RESPICON 2012), 26–28 October 2012, Chandigarh.
Dr Pankaj Hari was awarded Chief of Naval Staff Award for best research paper in 2012; Reviewer for Pediatric Nephrology, Journal of International Pediatric nephrology Association.

Dr Sheffali Gulati was Selected as a Fellow of the Indian Academy of Pediatrics, FIAP (June 2012); Involved in the development of a screening tool for neurodevelopmental assessment for 10 disorders in the community under an INCLEn program. The tools has been adapted for use in the ‘Rashtriya Bal Swasthya Karyakram under the National Rural Health Mission; Selected as an Expert for the development of National Epilepsy Control Programme; Member, Technical Committee on school health program (Ministry of Health and Family Welfare); Member, Expert Group to develop operational guidelines on Developmental Screening and Early intervention for children with disability and developmental disorders (Ministry of Health and Family Welfare); Member, National Expert Group on Autism of the National Trust; Faculty for six monthly EEG workshops of Indian Epilepsy Society; Member, Expert Group for Epilepsy Conclaves- An advanced level Epilepsy teaching programme of the Indian Epilepsy Society; Faculty for Epilepsy Training session at NIPCCD (National Institute of Public Cooperation and Child Development) for students of regular Advanced Diploma in Child Guidance and Counseling; Expert for Master Trainers programme in Early Intervention conducted by the National Trust; Selected as commentator for Evidence-based Mental Health, an International digest which is published by the British Psychological Society, the Royal College of Psychiatrists and the BMJ publishing group; Review Editor for Frontiers in Child and Neurodevelopmental psychiatry (2011 onwards); Lead Guest Editor for a special issue of International Journal of Pediatrics: Neurodevelopmental disorders; Editorial Board Member: Journal of Special Education and Rehabilitation (2013 on wards); International Journal of Epilepsy School Section Editor: Pediatric Epilepsy (2013 onwards); Journal of Pediatric Neuroscience (2013 onwards); Expert for National Programme on Educational Neuroscience (September 2012), Ministry of Science and Technology); Member, Technical Committee on school health program (Ministry of Health and Family Welfare) (October 2012); Expert for Master Trainers program in Early Intervention conducted by the National Trust; Selected as Expert in the South Asian Autism Network and attended both the conferences in this regard in Dhaka as well as in Delhi ( Ministry of Health and Family Welfare); Member, Committee to draft the 5th Edition of National Formulary of India, Govt of India, Ministry of Health amd Family Welfare; Faculty, Epilepsy Teaching Programme (ETP) of the Indian Epilepsy Society; Reviewer for research projects submitted to ICMR, National Trust, DBT and DST; Examiner for University of South Campus, Delhi; PGI Chandigarh; B P Koirala Institute of Health Sciences, Dharan, Nepal; and Chhatrapati Shahiuj Medical University (SGPGI), Lucknow.

Dr Rakesh Lodha was Associate Editor, Indian Pediatrics; Section Editor, Indian Journal of Pediatrics; Member, Technical Advisory Group, Inter-Ministerial Alliance for Medical Management of Children Suffering From Severe Acute Malnutrition (SAM); Member, Technical Reference Group on Pediatric Anti-retroviral therapy, NACO; Chairperson, Ethics Committee, Translational Health Sciences ad Technology Institute.

Dr Rachna Seth was awarded International Histiocyte Society Scholarship for paper entitled ‘Langerhans Cell Histiocytosis: A versatile mimicker’ in London; Awarded St Jude Viva Forum Fellowship for work entitled ‘Risk Organ Involvement and late sequelae of Langerhans’ cell Histiocytosis: A retrospective study of LCH survivors at a tertiary care hospital in India; nominated to Advisory board of Indian Cancer Congress.

Dr Vandana Jain was AIIMS representative and Chairperson of the NOC committee of Central Adoption Resource Agency (CARA), an autonomous body under the Ministry of Women and Child Development, Government of India; Member, Teaching Schedule and Curriculum Committee, AIIMS; Section Editor (Endocrinology, metabolism, growth and development), Indian Journal of Pediatrics, January–December 2012; Guest Editor, Special issue on Fetal Growth Restriction, ‘Reviews in Endocrine and Metabolic Disorders’ (June 2012 issue); Reviewer, Journal of Pediatric Endocrinology and Metabolism, Asia Pacific Journal of Clinical Nutrition, Indian Journal of Medical Research, Indian Pediatrics, and Indian Journal of Pediatrics; Reviewer for applications for research grants for the ICMR and the Council of Science and Technology.

Dr Ramesh Agarwal delivered a talk on Rh Isoimmunization on the Radio for general public.
**Dr Pratima Ray** was invited as an expert in the meeting for monitoring and mentoring of the on-going Twinning (MAP and Drug Development) projects by Department of Biotechnology Ministry of Science and Technology Government of India; Chaired ‘Vaccine’ session in 5th Congress of the Federation of Immunological Societies of Asia Oceania.


**VISITING SCIENTISTS**

1. Chitra Prasad, Associate Professor, Genetics, Metabolism and Pediatrics, London.
2. Ciara O'Sullivan, ICREA Research Professor, Nanobiotecnology and Bioanalysis Group, Department of Chemical Engineering, Universitat Rovira i Virgili, Avinguda Països, Catalans, Spain.
3. Rashmi Gopal-Srivastava, Ph.D., Director, Extramural Research Programme, Programme Director for Rare Diseases Clinical Research Network (RDCRN), Office of Rare Diseases Research (ORDR), National center for Advancing Translational Sciences (NCATS), NIH, USA.
4. Dr Joe Sniezek, MD, MPH, Chief, Prevention Research Branch, Captain, USPHS, Division of Birth Defects and Developmental Disabilities, National Center for Birth Defects and Developmental Disabilities, CDC.
5. Dr Sarojini Budden, Developmental Pediatrician and Emeritus Professor of Community Health Systems and Family Nursing, Oregon Health and Sciences University, Oregon, USA.
6. Prof. Julio Frenk, Dean, Harvard School of Public Health, Cambridge, USA.
7. Prof. Doug McMillan, University of Calgary, Canada.
8. Prof. Nalini Singhal, University of Calgary, Canada.
9. Dr Marsha Campbell-Yeo, University of Calgary, Canada.
11. Ms. Deborah Aylward, Ottawa, Canada.
12. Prof. Vinod Bhutani, Stanford University, USA.
13. Prof. Trinad Chakraborty, CMMV, Germany.
14. Dr Marie Agnes Dragon Durey, Senior Lecturer in Immunology, Descartes University Faculty of Medicine, Paris.
15. Dr Umakanth Khatwa, Director, Sleep Laboratories, Boston Children’s Hospital, Center for Pediatric Sleep Disorders, and Instructor in Pediatrics, Harvard Medical School, USA.
9.27 Pediatric Surgery

Professor and Head
V. Bhatnagar

Professors
D. K. Gupta (on lien)
M. Bajpai

Additional Professor
S. Agarwala
M. Srinivas

HIGHLIGHTS
In addition to the MCh course, the Department has become a prominent destination for short term training for Indian and overseas paediatric surgeons. The Department organized 3 conferences and the faculty delivered 40 guest lectures and performed live operative demonstrations in different parts of the country. A total of 44 scientific papers were read by the Faculty and Residents in various National and International Conferences. The Faculty is involved in 55 research projects and has generated Rs 1.8 crores through extramural grants. The publications have included 16 papers and 6 abstracts in peer reviewed and indexed journals and 3 book chapters. Patient care facilities have registered a qualitative and quantitative gain in almost all areas in which the Department has been engaged. The Faculty has been adequately honoured for its outstanding work and expertise.

EDUCATION
a. Special classes have been initiated for the DM candidates in Neonatology.
b. The following candidates underwent short term training in pediatric surgery:
   1. Dr Monica Bhagat, R and R Army Hospital New Delhi
   2. Dr Bahubali G, Bangalore Medical College, Bangalore
   3. Dr Mamta B, Bangalore Medical College, Bangalore
   4. Dr Paritosha Thakar, Bangalore Medical College, Bangalore
   5. Ms. Sheen Bhatt, University of Melbourne, Australia

CMEs/Workshops/Symposia/National and International Conferences Organised by the Department
1. Hospital Care Associated Infections in Pediatric Surgery, 28 May 2012.
2. Inaugural Annual Conference of the Delhi Chapter of Indian Association of Pediatric Surgeons, 8–9 September 2012.
3. Brain storming session on ‘Disorders of sex Development in Children”, 12 December 2012, under the aegis of Indian and Asian Societies for Paediatric Urology at Ramalingaswami Hall, AIIMS.

Lectures delivered
V. Bhatnagar: 13  M. Bajpai: 10  S. Agarwala: 8  M. Srinivas: 9

Oral papers/posters presented: 44

RESEARCH
Funded projects
Ongoing
3. A study on aeitiopathogenesis of craniosynostosis with respect to phenotypic characterization, imaging and sutural histomorphology. Indian Council of Medical Research (ICMR), 2010–13, Rs 28 lakhs.

Departmental projects
**Ongoing**
1. Long term follow up of patients operated for primary vesicoureteric reflux.
2. Various orchidopexy techniques and its effect on testicular histology and antisperm antibody production in neonatal rats.
3. Study of biosynthetic paracrine and endocrine defects as determinants of testicular dysfunction with respect to severity of cryptorchidism with hypospasias.
4. To study the clinical profile and aetiopathogenesis of disorders of sex development (dsd).
5. To study the alterations in TGF-β1 and TGF-β1 mRNA in rat urine as an early, non-invasive, marker of renal injury after experimentally induced unilateral partial ureteric obstruction and the effect of renin-angiotensin blockade on renal recovery (RAS blockade induced by AT-II blocker, ACE inhibitor and anti-renin drug, Aliskiren).
6. To study the clinical profile of patients during the first year after undergoing surgery for esophageal atresia-tracheoesophageal fistula.
7. Penile length–for–age nomogram for prepubertal Indian boys and comparison of penile length in boys with hypospadias vis-a-vis the nomogram.
8. Long term functional outcome and quality of life in operated cases of Hirschprung’s disease

**Completed**
1. Long term outcome of two stage repair for hypospadias.
2. Role of aminoguanidine to prevent deleterious effects of ischemic /reperfusion injury on healing of colonic anastomosis in rats.

**Collaborative projects**

**Ongoing**
1. Genotypic and phenotypic studies in craniosynostosis and its characterization in Asian Indian children (Nuclear Medicine).
2. Analysis of bile in various hepatobiliary disease states: A Pilot Study (Laboratory Medicine, Gastroenterology).
3. To correlate intracystic pressure with biochemical changes in bile, histopathological changes in liver, length of common channel and volume in cases of choledochal cyst (Radiodiagnosis, Pathology).
5. Changes in enteric nervous system and interstitial cells of Cajal in distal loop of colon after diversion colostomy in rat (Anatomy).
7. To evaluate the incidence of portal hypertension in patients of choledochal cyst and to correlate serum nitric oxide levels in the peripheral blood with portal hypertension and liver histology (Biochemistry, Pathology).
8. GDNF and GFR-α1 in children with Hirschsprung’s disease (Anatomy, Pathology).
9. To evaluate the incidence of portal hypertension in EHBA patients and monitor its progress after Kasai’s portoenterostomy by measuring serum nitric oxide levels in peripheral blood (Biochemistry, Pathology).
10. Study of prognostic significance of antenatal ultrasonography and renin angiotensin system activation in predicting disease severity in posterior urethral valves (Obstetrics and Gynecology, Pediatrics, Nuclear Medicine).
11. To correlate hepatic duplex sonography in patients of biliary atresia with portal pressure, serum nitric oxide levels and liver histopathology (Radiodiagnosis, Biochemistry, Pathology).
12. Randomized controlled trial comparing long term DJ stent and short term external ureteric trans-anastomotic stent and a nephrostomy in children undergoing pyeloplasty for pelviureteric junction obstruction (PUJO) (Radiodiagnosis, Nuclear Medicine).
15. To study hyperglycaemic response in neonates after surgery with and without infiltration of local anaesthesia (Endocrinology, Anesthesiology).
16. Primary definitive procedure versus conventional three-staged procedure for management of low anorectal malformations in females: A randomized controlled trial (Biostatistics).
17. Bladder Exstrophy - Epispadias complex: A study on the histomorphology of detrusor with respect to bladder growth as related to upper and lower urinary tract outcomes (Pathology).
18. Renal reserve in different grades of vesicoureteric reflux (Nuclear Medicine).
19. Evaluation of role of DNA Ploidy in predicting prognosis in hepatoblastoma patients (Pathology).
20. Evaluation of neurobehavioral outcome in congenital diaphragmatic hernia patients (Psychiatry).
21. To study the frequency of CTNNB1 gene mutations in hepatoblastoma and to correlate this with the overall clinical outcome of the patients (Pathology).
22. Assessment of the efficacy of laparoscopic approach for appendicectomy and orchiopexy across the pediatric age and size spectrum (Anesthesiology, Radiology).
23. Defining the role of T-regulatory cells and cytokines in the tumour microenvironment in Wilms tumour (Pathology).
24. A comparative correlation of serological markers of autoimmune inflammation with the immunohistochemistry of the liver in biliary atresia (Pathology, Biochemistry).
27. Assessment of regulatory T cell kinetics in patients of neuroblastoma and PNET – a prospective study. (Medical Oncology).
28. Evaluation of clinic-pathological characteristics, prognostic factors and treatment outcomes of patients with Ewing’s sarcoma/PNET (Medical Oncology).

Completed
1. To study the changes in liver histology after surgery for choledochal cyst (Radiodiagnosis, Pathology).
2. To study the effect of stem cells in rat model of upper ureteric obstruction (Pathology, Stem Cell Facility).
3. Assessment of fine needle aspiration cytology for molecular genetic analysis in neuroblastoma (Pathology, Anatomy).
4. A study on profibrotic cytokines TGF-β1, TNF-alpha and IL6 in urine for monitoring therapy in posterior urethral valves (Radiodiagnosis, Nuclear Medicine).
5. A survey of musculoskeletal and pulmonary function abnormalities after thoracotomy in pediatric patients (Radiodiagnosis, Orthopedics, Pediatrics).
6. Study of human Cytomegalovirus DNA in liver tissue of patients with extrahepatic biliary cholestasis (Microbiology, Pathology).
7. Evaluation of growth and nutritional status with particular reference to vitamin D and trace elements in patients of biliary atresia (Pediatrics, Endocrinology, Pathology).
8. To study the association of the MTHFR polymorphism C677T in the bladder exstrophy–epispadias complex (Obstetrics and Gynecology).
10. To study the effect of ipsilateral ureteric obstruction on contralateral kidney and the role of renin angiotensin system blockade on renal recovery in experimentally induced unilateral ureteric obstruction – a morphometric analysis (Pathology).
11. To study the role of renin angiotensin system blockade on renal recovery in experimentally induced unilateral ureteric obstruction – a morphometric analysis (Pathology).

PUBLICATIONS
Journals: 17  Abstracts: 6  Chapters in books: 3

PATIENT CARE
Facilities available
- Intensive care unit for neonatal surgical patients
- High dependency area for patients operated under Pediatric Surgery department
- Computer based urodynamic study
- Computer based anorectal manometry
- Computer based esophageal manometry
- 24 hours pH monitoring for gastroesophageal reflux

Special clinics
- Hydrocephalus Clinic
- Craniosynostosis Clinic
- Pediatric Urology Clinic
• Intersex Clinic
• Pediatric Solid Tumor Clinic

**Laboratories**
• Departmental Research Laboratory
• Laboratory for urodynamics, esophageal and anorectal manometry

**Community services**
• Weekly outpatient clinic and operative session at CRHSP, Ballabhgarh

**Attendance in OPD and Speciality Clinics**

<table>
<thead>
<tr>
<th></th>
<th>New cases</th>
<th>Old cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General OPD</td>
<td>5769</td>
<td>13394</td>
<td>19163</td>
</tr>
<tr>
<td>Hydrocephaulus clinic</td>
<td>19</td>
<td>119</td>
<td>138</td>
</tr>
<tr>
<td>Craniosynostosis clinic</td>
<td>02</td>
<td>02</td>
<td>04</td>
</tr>
<tr>
<td>Pediatric Urology clinic</td>
<td>572</td>
<td>2873</td>
<td>3445</td>
</tr>
<tr>
<td>Inter sex clinic</td>
<td>0</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>Pediatric solid tumor clinic</td>
<td>148</td>
<td>1641</td>
<td>1789</td>
</tr>
<tr>
<td>CRHSP Ballabhgarh OPD</td>
<td>–</td>
<td>–</td>
<td>1628</td>
</tr>
</tbody>
</table>

**Admissions**

- AB5 Ward: 1308
- AB5 ICU: 173

**Surgical procedures**

- Total: 2103
- Major: 1578
- Minor: 525

**Special investigations**

- Urodynamic evaluation: 463
- Uroflowmetry: 715
- Oesophageal manometry: 1
- Anorectal manometry: 103

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**


**Professor V. Bhatnagar** was Member Board of Studies for the newly created Department of Pediatric Surgery, Sanjay Gandhi Post-Graduate Institute of Medical Sciences, Lucknow since February 2011; Governing Council Member, Chacha Nehru Bal Chikitsalaya, New Delhi since 2012; Selection Committee Member for Pediatric Surgery, ESI Hospitals, 2012; Selection Committee Member for Pediatric Surgery, UPSC, 2013; Selection Committee Member for Pediatric Surgery, Pt BD Sharma University, Rohtak, 2013; Selection Committee Member for Pediatric Surgery, Sanjay Gandhi Post-Graduate Institute of Medical Sciences, Lucknow 2013.

**Professor M. Bajpai** was awarded MSR Oration of the Indian Association of Paediatric Surgeons, held at the annual conference of the IAPS in Bhopal, November 2012; Technical Expert appointed by Director General ICMR, on the subject of Disorders of Sex Development in Nirman Bhawan in reviewing court cases; Technical Expert committee member – Ministry of Sports: Medical examinations of athletes.

**Dr S. Agarwala** was nominated Executive Board Member for the Asian Association of Pediatric Surgeons; Nominated the Executive Board Member of the International Society of Pediatric Surgical Oncology (IPSO); Section Editor for the Indian Journal of Pediatrics; Course Instructor for 4th regional congress of cancer and blood diseases of childhood and pediatric surgical oncology master classes, 7 –9 November 2012, Amman, Jordan. Course Instructor for pediatric surgical oncology master classes conducted during 13th Congress of EUPSA and 59th Congress of BAPS, 13–16 June 2012, Rome, Italy.

**VISITING SCIENTISTS**

1. Dr Ghulam Mustafa Zemaray, Chief of Pediatric Surgery, Indira Gandhi Institute of Child Health, Kabul, Afghanistan.
2. Dr Habib-ur-Rehman Qasim, Consultant Pediatric Surgeon, Indira Gandhi Institute of Child Health, Kabul, Afghanistan.
3. Dr Fayza Haider, Consultant Pediatric Surgeon, Salmaniya Medical Complex, Kingdom of Bahrain.
## 9.28 Pathology

### Professor and Head
Subrat K. Panda

### Professors
- Chitra Sarkar
- Manoj K. Singh
- S. Datta Gupta
- Rajni Safaya
- Ruma Ray
- A.K. Karak
- A.K. Dinda

### Additional Professors
- M.C. Sharma
- Venkateswaran K. Iyer

### Associate Professors
- Sandeep R. Mathur
- Vaishali Suri

### Assistant Professors
- Sudheer Arava
- Deepali Jain
- Geetika Singh
- Asit Ranjan Mridha
- A.K. Karak
- A.K. Dinda

### Group A Officer
- Bharat Bhushan Khurana
- Himender Singh Tomar

### EDUCATION

#### Postgraduate
Senior Residents: 18; MD students: 22; PhD students: 11

#### Short-term training
1. Five trainees from BPKIHS, Dharan, for one month from 1 to 31 March 2013.
2. Drs Ranjana Solanki and Deepika Hemrajani for three weeks, from 19 November 2012 to 9 December 2012 in Renal and Transplant Pathology.
3. Dr Syed Besira Yasin for 8 weeks from 18 June 2012 to 12 August 2012.
4. Two students from KIIT University for 6 months from 3 August 2012 to 2 February 2013.
5. Ms Nazat Mubarak Al Dairi from Oman for 3 months in Pathology from December 2012 to February 2013.
6. Dr Prakash Pandey from Steel Authority of India for 1 month from 5 April 2012 to 4 May 2012 in Histopathology and Cytopathology.
7. Professor Chanda Datta for 1 week from 10 to 15 December 2012 in Renal Pathology.

#### Long-term training
1. Major Richa Ranjon for 2 years from 4 June 2012 to 3 June 2014.

#### Continuing Medical Education

**Organized by the department**
1. Organized Annual Meeting of DAPCON-2013, Delhi Chapter of Indian Association of Pathologists and Microbiologists (IAPM), 23–24 February 2013.
2. Expert Committee Meeting and Brain Storming on Application of Nanotechnology in Cancer Therapy, 3–4 March 2013, Conference Hall, AIIMS.

### Lectures delivered
- S.K. Panda: 1
- C. Sarkar: 12
- S. Datta Gupta: 13
- A.K. Dinda: 6
- M.C. Sharma: 7
- V.K. Iyer: 4
- Sandeep Mathur: 3
- V. Suri: 7
- Sudheer Arava: 3
- Geetika Singh: 4
- A.R. Mirdha: 3
- D. Jain: 5
- Prasenjit Das: 1

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Oral posters/papers presented: 37

RESEARCH

Funded projects

Completed

1. Angiogenesis in astrocytic tumors of the brain: A clinicopathological study with special reference to expression of vascular endothelial growth factor (VEGF), and hypoxia inducible factor (HIF) – 1 alpha and correlation with vascular morphometric parameters and tumor infiltrating inflammatory cells. Chitra Sarkar, ICMR, 2009–12, Rs 21 lakhs.

2. Hypoxia and p53-HIC1 axis in stemness of glial tumors and cell lines. Chitra Sarkar, DBT, 2009–12, Rs 50.5 lakhs.


Ongoing


18. ICMR Taskforce study on female genital tuberculosis: Evaluation of molecular methods (PCR, immunohistochemistry) against conventional methods (histopathology, culture, AFB staining in endometrial samples) and laparoscopy in detection of genital tuberculosis in infertile women. V.K. Iyer (Immunohistochemistry reference lab), ICMR, 2012–15, Rs 35.24 lakhs.


**Departmental projects**

**Completed**

1. Clinicopathological study of CNS AT/RT.
2. Clinicopathological study of pineal tumors.
4. CD5+B cell lymphomas: A morphologic and immunohistochemical study.
5. CD68 expression status in non-Hodgkin lymphoma and its clinical relevance in terms of therapeutic response and prognosis.
7. Analysis of chemotherapy induced morphologic alterations and expression of prognostic markers in post-neoadjuvant chemotherapy advanced stage ovarian serous cystadenocarcinomas.

**Ongoing**

1. Subtyping of medulloblastomas by immunohistochemistry.
2. MGMT methylation in hemangiopericytomas.
3. Expression of histone markers in gliomas.
4. MGMT methylation in gliosarcoma.
5. Study of Limb Girdle Muscular Dystrophy (LGMD) Patients in Indian Population Using Calpain-3, Dysferlin and Sarcoglycan Protein Analysis.
7. Study of Tuberous Sclerosis Complex and Upregulation of WNT pathway in Subependymal Giant Cell Astrocytomas and Cortical Dysplasia.
8. Study of Human Telomerase Reverse Transcriptase (hTERT) and Stem Cell Markers Expression in Ependymomas -Correlation with Apoptotic and Proliferative markers.
10. Analysis of genetic alterations in meningiomas.
11. Study of endocytosis and fate of calcium phosphate based and gold nanoparticle.
12. Nanoparticle mediated antigen presentation and modulation of antigen processing by macrophage.
15. Lymph node harvesting in resected gastrointestinal specimens: A comparative study among different techniques.
17. Intestinal Neuronal Dysplasia: Pathologist’s take on a rarely reported entity.
18 Histopathology of patients presented with Non Cirrhotic portal hypertension Objective Scoring of extent of steatosis and fibrosis using Computer Assisted Image Analysis system in liver biopsy of NASH patients.
19 Histopathological spectrum of Non cirrhotic portal fibrosis versus extra-hepatic portal fibrosis—what make us to reach diagnosis?
20 Histopathology of Hepatic Venous Outflow Tract Obstruction Revisited: An analysis of 143 cases.
21 Comparative study of virtual and conventional autopsy in the phenotypic characterization of stillbirths.
22 Pathological analysis of dilated cardiomyopathy with special reference to histological and morphometric analysis of fibrosis, capillary density, arteriolar density and pattern of collagen IV distribution—a study on endomyocardial biopsies and explanted native hearts.
23 Histopathological analysis of light microscopical and ultrastructural features of surgically excised left atrial appendage in patients with atrial fibrillation due to rheumatic heart disease.
24 Endothelial injury and other histopathological changes after papavarine injections in radial and left internal mammary arteries used as conduit for coronary artery bypass.
25 Histopathological and biochemical analysis of Atherosclerotic plaque in coronary atherosclerosis in comparison with Dual energy technique of CT scanner.
26 Immunohistochemical expression of jak-p, stat-3 and bcl-2 in oral squamous cell carcinoma with and without lymph node metastasis and verrucous carcinoma.
27 Immunohistochemical study of e-cadherin, β-catenin and vimentin in oral squamous cell carcinoma, verrucous carcinoma in comparison with that of a metastatic squamous cell carcinoma in a cervical lymph node.
28 A Clinico morphological study of cutaneous tuberculosis with special emphasis on immunohistochemistry.
29 Histopathological evaluation of aortic aneurysms in patients with bicuspid aortic valve.
30 Study of Hormone and HER-2/neu Receptor Status before and after Neoadjuvant Chemotherapy in Locally Advanced Breast Carcinoma.

Collaborative project

Completed
1. Oxygen concentration, p53 axis and stemness characteristics of glial tumor cell lines (Biochemistry)
2. Expression of Notch signaling molecules, Epithelial Mesenchymal Transition (EMT) markers and HIF-1alpha in Glioblastoma Multiforme. (Biochemistry).
4. Role of macrophage and oxidative stress in airway remodeling (IGIB, Delhi).
5. Development of hydrogel based wound dressing and study of its efficacy in experimental model. (Center for Biomedical Engineering, IIT, Delhi).
6. Posterior approach Vs standard pancreaticoduodenectomy in patients with periampullary carcinoma: a prospective comparison (Gastroenterology)
8. Clinicopathological study of antral mucosal changes in patients with ethmoidal polypi. (ENT)
9. Role of computerized tomography in the staging and management of carcinoma cervix. (Radiodiagnosis)
10. Evaluation of efficacy of human placental extract and lycopene in clearing inflammatory cervical smears. (Obstetrics and Gynaecology)
11. Evaluation of transrectal ultrasound elastography and contrast enhanced sonography for detection of prostatic cancer. (Radiodiagnosis).
12. Sentinel lymph node biopsy in malignant eyelid tumours (Ophthalmology, RP Centre)
13. Role of dynamic contrast enhanced and diffuse weighted 3T-MRI in preoperative evaluation of endometrial cancer (Radiodiagnosis).

Ongoing
1. Methylation profiling of pediatric GBMs (Indian Institute of Science, Bangalore).
2. CHIP-Seqencing in Gliomas. (IGIB, Delhi).
3. Effect of blocking of HIF1α gene expression on macrophage endocytosis and generation of ROS. (JNU, Delhi).

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5. Histopathological analysis of light microscopical and ultrastructural features of surgically excised left atrial appendage in patients with atrial fibrillation due to rheumatic heart disease.
7. Endothelial injury and other histopathological changes after papavarine injections in radial and left internal mammary arteries used as conduit for coronary artery bypass.
8. Histopathological and biochemical analysis of Atherosclerotic plaque in coronary atherosclerosis in comparison with Dual energy technique of CT scanner (Medical Physics).
9. Urological evaluation of dermatology patients on cyclophosphamide therapy (Dermatology).
10. A randomized controlled trial comparing modified gemcitabine+oxaliplatin (mGEMOX) to gemcitabine+cisplatin in management of unresectable gall bladder cancer (Medical Oncology).
11. Role of bone marrow mononuclear cells and renal stem cells in renal preservation in obstructive renopathy – An experimental study in mice (Paediatric Surgery, Trauma Centre).
12. Preoperative prediction of tumor angiogenesis by DW MRI and perfusion CT in renal cell carcinoma and using these biomarkers to predict tumor grade in advanced renal cell carcinoma (Radiology).
13. Collaborative project with department of radiology for morphological and computer assisted image analysis assessment of hepatic fibrosis and their comparison with upcoming radiological assessment techniques.
14. Study of placenta for oxidative stress status in pregnant women on daily versus weekly iron supplementation: An ICMR Task Force Study.
15. Safety and efficacy of 2 versus 3 dose HPV vaccine in adolescent girls aged 10-18 years (Gynaecology and Obstetrics).
16. Multicenter epidemiological study of zygomycosis; Identification, classification and molecular typing of zygomycetes in India (Microbiology, ENT).
18. Evaluation of The Potential of Two Monoclonal Antibodies For Treatment of Androgen-independent Prostatic Carcinomas (Talwar Research Foundation).
19. Evaluation of efficacy and anti-inflammatory action of Placentrex™ in women with inflammatory Pap smears (Gynaecology and Obstetrics).
20. Long term effects of RISUG ® as an implant in fallopian tube of rabbits. (Biomedical Engineering)

PUBLICATIONS
Journals: 85    Chapter in books: 2

Patent Filed

PATIENT CARE
Laboratory services
Surgical Pathology Laboratory
Specimens processed 40546 Special stains 30477

Cytopathology Laboratory
Total specimens 20918 FNAC (outpatient) 8774
Exfoliatives routine 8124 Cervical smears(PAP smears) 4020

Autopsies performed 14
Electron microscopy Specimens processed 982
Immunohistochemistry Laboratory
Diagnostic 32622 Research 6309

Neuropathology services
Neuropathology surgical specimens 2356 Frozen sections 243
Immunohistochemistry 6472
Muscle biopsies:

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Total number received 374  Muscle enzyme histochemistry 1266
Muscle immunohistochemistry 2281  Diagnostic FISH 180

Tissue Culture Lab
H and E Staining 3435  Special Stains 180
Immunohistochemistry 500  Frozen Sections 900
Unstained 1188  Coated slices 10401

Renal pathology services
Urine sediment analysis 6392  Immunofluorescence of kidney biopsy 678
Electron microscopy of kidney biopsy 681

Cardiac Pathology Services
Specimens
Routine 288  Research 101
Slides Coated
APES 28547
Others works
Immunohistochemistry 124  Special stains 205
Manual processing: post cardiac transplant biopsies 3
Skin Biopsy cutting 135  Kidney biopsy cutting 721
Coated slides 4800

AWARDS, HONOURS AND SIGNIFICANT ACHIEVEMENTS
Professor S.K. Panda was nominated for mentoring INSPIRE Internship Programme, DST, Govt. of India, Bhubaneswar, 25–26 April 2012; 8–9 July 2012; nominated to re-schedule DST INSPIRE Programme, DST, Govt. of India, Bhubaneswar, 29–30 July 2012; examiner to examine PhD thesis entitled, ‘Identification of Novel Virulence Gene and Development of Safe Liver Attenuated Salmonella Typhimurium Vaccine’, Bhubaneswar, 4 September 2012.

Professor Chitra Sarkar won AIIMS Excellence Award for notable contribution in research, for the paper entitled ‘Molecular profile of oligodendrogliomas in young patients. Neuro Oncol 2011;13:1099-106’; delivered Presidential Oration in the Annual Conference of the Asian Society of Neuro-Oncology; Dr Subhadra Dayananda Rao Oration, Unraveling the Genomic Complexity of Pediatric Gliomas, NIMHANS, Bangalore, 28 March 2013; nominated Member, Council of the Indian Academy of Sciences for the triennium 2013–15; Member, Review committee of the journal Current Science; Member, Selection committee, NIMHANS, Bangalore; Symposium Coordinator for Neuro-oncology symposium in IACR; Symposium Coordinator for Neuropathology symposium in ASNO

Professor A.K. Dinda was Nominated as a member of Expert Committee of Indian Council of Medical Research (ICMR) for developing Guideline for Nano-Safety Regulation in India; Nominated as a member of Research and Academic Advisory Council of Insitute of Nano-Sciences and Technology (INST), Mohali (An Autonomous Institute of Department of Sciences and Technology, Govt. of India)

Dr Prasenjit Das received the ‘Prof K C Basu Mallick award’ for best research paper presentation at Annual conference of India Society of Pathologists and Microbiologists, December 2012. Jamnagar, Gujarat; Received Award of ‘Winner of Online National Pathology Quiz 2013’, organized by IAPM through a series of online quizzes for national and international participants.

9.29 Pharmacology

Professor and Head
Y.K. Gupta

Professors
V.L. Kumar
N.R. Biswas

Kamal Kishore
S.K. Maulik

Additional Professors
D.S. Arya

Jatinder Katyal

Associate Professors
Surender Singh
Kh Reeta

Jagriti Bhatia

Scientists
Sharda S. Peshin
Thomas Kaleekal

Amita Srivastava

Sunder Singh Samuel
Madhuri Gupta

EDUCATION
The department is engaged in the teaching programme of MBBS (3rd, 4th and 5th semesters), BSc Nursing (Hons), MSc, MD, PhD and DM (Clinical Pharmacology) courses. The department also imparted training to fifteen short term trainees.

CMEs/Workshops/Symposia/National and International Conferences
Organized by the department
An Expert Group Meeting on Mercury Free Healthcare was organized on 23 June 2012, AIIMS, New Delhi. Around 19 experts from IITR, Lucknow; NIOH, Ahmedabad; PGIMER, Chandigarh; AIIMS, New Delhi; Central Pollution Control Board, New Delhi; Jamia Hamdard, Delhi and NGOs participated. The recommendations of the experts led to the publication of a Booklet (Awareness Tool Kit) entitled ‘Mercury free Healthcare, Why and How?’ (Print vision, New Delhi, 2012), and two posters entitled ‘Know about Mercury’ and ‘Parae Se Sawdhan’ for public awareness. The booklet and posters have been sent to various hospitals in India for dissemination of information.

Lectures delivered
Y.K. Gupta: 9
Kamal Kishore: 2
N.R. Biswas: 4
S.K. Maulik: 4
Jagriti Bhatia: 1

Oral papers/posters presented: 11

RESEARCH
Funded projects
Ongoing
1. Quantitative detection of heavy metals and phthalates in toys. YK Gupta, ICMR, 2009–13, Rs 19.6 lakhs.
3. Effect of traditionally used Ayurvedic rasa aushadhies on renal and hepatic functions: Clinical and experimental study. YK Gupta, AYUSH, 2009–13, Rs 9.8 lakhs.
4. Pharmacological evaluation of five ayurvedic formulations used in the management of migraine. YK Gupta, Ipca Laboratories, Mumbai, 2010–13, Rs 29.6 lakhs.
8. Establishment of clinical research centre (CRRC) for pharmacovigilance. YK Gupta, PATH/One, WHO, Rs 59.8 lakhs.
11. Double-blind, randomized placebo controlled clinical trial to study the add-on efficacy of a standardized preparation of the water extract of *Terminalia arjuna* in patients with left ventricular dysfunction, already receiving standard drug regimen. SK Maulik, DBT, 2010–13, Rs 50 lakhs.

**Completed**
2. Scientific study to determine the quality of medicines being sold at jan aushadhi drug stores. YK Gupta, Ministry of Chemical and Fertilizers, 2010–13, Rs 13.6 lakhs.
5. Role of NMDA and GABA-ergic mechanisms in the antiepileptic effect of tianeptine in experimental models of epilepsy. Kh Reeta, AIIMS, 2011–12, Rs 1 lakh.

**Departmental projects**

**Ongoing**
1. Pharmacokinetics and pharmacodynamic interaction of an ayurvedic medicine with antiepileptic drug: An experimental and clinical study.
2. Expression profile of microRNAs in patients at various stages of chronic myeloid leukemia and their correlation with imatinib therapy response.
3. Treatment response to imatinib in chronic myeloid leukemia: The role of P-glycoprotein.
6. Evaluation of interaction profile of selected medicinal plants with conventional antiepileptic and oral hypoglycemic agents.
7. Pharmacokinetics based optimization of phototherapy in the infants undergoing treatment for hyperbilirubinemia.
8. Studies on the phytotherapeutic potential of *Calotropis procera* latex fractions in arthritis.
10. Studies on the anti-inflammatory and anti-arthritic properties of root proteins of *Calotropis procera*.
11. Studies on the safety and efficacy of artemisin in experimental model of colorectal cancer.

**Completed**
1. Evaluation of anti epileptic property of selected Indian medicinal plants and their mechanism of action.
2. Evaluation of *Clitoria ternatea* and *Evolvulus alsinoides* extracts for cognitive impairment in rats.
3. Effect of traditionally used Ayurvedic rasa aushadhis on renal and hepatic functions: Clinical and experimental study.
4. Study of immunosuppressive agents (mycophenolate mofetil and rapamycin) on transient focal cerebral ischemia in rats.
5. Effect of antiepileptic drug therapy on bone mineral density and vitamin D status in children with epilepsy.
7. Effect of antiepileptic therapies on trace elements status in Indian population in a tertiary care hospital.
8. Interaction of zinc with sodium valproate and phenytoin in animal models of seizure.
9. Leaching of metal ions from orthodontic wires in different soft drinks.
10. Studies on the anti-pyretic and anti-inflammatory properties of protein fraction of *Calotropis procera* latex.
11. Studies on the anti-inflammatory properties of *Calotropis procera* latex fractions.

**Collaborative projects**

**Ongoing**
1. Efficacy and safety of concomitant use of nevirapine and rifampicin in patients co-infected with HIV and Tuberculosis in India (Medicine).
2. Development of nanoparticulate anti-TB drug delivery system for macrophage receptor specific targeting through oral and respiratory route: Phase I (Pathology).
3. Once daily dose of nevirapine (400 mg) versus twice daily dose (200 mg) of nevirapine-based highly active antiretroviral therapy regimens in antiretroviral-naïve patients with HIV and tuberculosis infection in India (Medicine).
4. Development of multifunctional metallic nanoparticles for cancer targeting (Pathology).
6. Effect of rifampicin as a part of antitubercular therapy on antihypertensive drug requirement in patients of renal disease (Nephrology)

**Completed**
1. To assess whether serum and saliva free anti-epileptic drug levels are equivalent (Neurology).
2. Anti-cataract activity of Itone and other herbal isolates (Ocular Pharmacology, RP Centre and Dey’s Medical).

**PUBLICATIONS**

Journals: 15 Abstracts: 12 Chapters in books: 11 Book: 1

**PATIENT CARE**

Clinical Pharmacology facility
The facility is equipped to conduct a range of studies on healthy volunteers. The department is involved in the estimation of a number metals such as heavy metals and trace metals/micronutrients in biological samples for various collaborative studies.

Therapeutic Drug Monitoring facility
This facility carries out estimations for drug levels in patient samples. Commonly estimated drugs include antiepileptic drugs (Phenytoin, Phenobarbitone, Carbamazepine and Sodium valproate), anti-cancer/anti-rheumatic drug (Methotrexate) and immunosuppressant (Mycophenolic acid), etc.

National Poison Information Centre (Toll Free No. 1800116117)
The National Poisons Information Centre (NPIC) provides information on management of various poisonings. It provides round-the-clock (365 days) updated, precise and concise information on management of poisoning to medical professionals, healthcare personnel and instructions on first-aid to general public. Queries from various government and non-government organizations on different aspects of toxins are also answered. The data received by the centre is compiled and analyzed. New Toll Free No. 1800116117 is now available for inquiries related to poisoning information.
Calls received by National Poisons Information Centre (April 2012–March 2013)

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<td>Poisoning Calls</td>
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**Sex**

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**Categories**

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<td>Industrial chemicals</td>
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<tr>
<td>Agricultural pesticides</td>
<td>277</td>
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<tr>
<td>Drugs</td>
<td>422</td>
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<tr>
<td>Bites and stings</td>
<td>69</td>
<td>3.6</td>
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<td>Plants</td>
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</tbody>
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**Pharmacovigilance programme of India**

The Adverse Drug Reaction Monitoring Centre forwards the adverse drug reaction (ADR) data to the National Adverse Drug Reaction Monitoring Centre. The following projects are being conducted by the ADR Monitoring Centre.

- Prescription trend analysis of various prescriptions originating in outpatient departments of AIIMS: A cross sectional observational study.
- Analysis of handwriting in OPD prescriptions in AIIMS and the assessment of possible fallout of poorly legible prescriptions.
- Focused pharmacovigilance of rituximab in AIIMS.
- To study the effect of levetiracetam with other AED on sleep, mood and behavior in patients with epilepsy at AIIMS.

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Kamal Kishore** is a member of the National Advisory Editorial Board of International Journal of Physiology.

**Professor N.R. Biswas** delivered the 24th Chunilal Memorial Oration at the Institute of Postgraduate Medical Education and Research and Seth Sukhlal Karnani Memorial Hospital, Kolkata (13 April 2012); and the BN Ghosh Oration at 45th Annual Conference of Indian Pharmacological Society and International Conference on Navigating Pharmacology towards Safe and Effective Therapy (Nagpur; 5–7 January 2013).

**Professor S.K. Maulik** is a member of the Scientific Advisory Board of Central Council for Research in Ayurvedic Sciences, Department of AYUSH, MoH&FW, GOI.

**Dr Surender Singh** is an Inspector for the National GLP Monitoring Compliance Authority, DST, GOI; member of Pharmacopeia’s Committee (Unani) and Project Evaluation Committee, CCRUM, Department of AYUSH, MoH&FW, GOI; member of Board of Research Studies, GGS Indraprastha University, Jamia Hamdard and Uttar Pradesh Technical University; and Programme Expert Committee, IGNOU, New Delhi.
## 9.30 Physical Medicine and Rehabilitation

### Professor and Head
U. Singh

### Professor
Sanjay Wadhwa

### Additional Professors
- S.L. Yadav
- Gita Handa

### Chief MSSO
Kiran Bala Singh

### Chief Physiotherapist
Avinash Dhargave

### Senior Physiotherapist
O.P. Yadav

### Senior Occupational Therapist
Raman Kumar Singh

### Senior Technical Officer
Ajay Babbar

### HIGHLIGHTS
The department is actively engaged in guiding the development of rehabilitation services in India and developing collaborative linkages with national and international centers of repute for the same. The faculty has guided research resulting in presentation of more than 30 papers in conferences at the national and international levels, that led to one national and two international awards. Collaborations with institutions like IITs, other Engineering Institutions, Stanford India Biodesign and CISO, etc., has resulted in development of better technological options to improve the quality of life of persons with disabilities. The department is also engaged in constantly upgrading the patient care, education and research capacities in the area of Physical Medicine and Rehabilitation.

### EDUCATION

#### UG teaching
Set of 8 lectures/seminars were taken. Clinical demonstration in the department to the interns and students was provided as and when required.

#### PG training
MD (PMR) 10 students were being trained during this period.
- MD (Community Medicine, Paediatrics, Medicine, Geriatrics), MS (Orthopaedics), DM (Neurology and Pediatric Neurology), MHA, and postgraduate Nursing students have been posted in our department from time to time and have received training.
- One long-term trainee (2 years) from Armed Forces is undergoing training at the department w.e.f. 10 April 2012.

#### CMEs/Workshops/Symposia/National and International conferences

**Organized by the department**
- Clinical Meeting of Indraprastha Association of Rehabilitation Medicine, AIIMS, New Delhi, 17 November 2012.

**Lectures delivered**
- U Singh: 6
- Sanjay Wadhwa: 4
- Gita Handa: 5
Papers presented by Residents/Staff: 17

RESEARCH

Departmental projects

Ongoing
1. Prolotherapy versus corticosteroid injections for the treatment of plantar fasciitis: A randomized controlled trial
2. Relationship between stump length, gait parameter and dynamic balance in unilateral transtibial amputee
3. Prolotherapy versus corticosteroid injections for the treatment of lateral epicondylosis: a randomized controlled trial
4. A study of the upper gastrointestinal disorders in patients with spinal cord injury under rehabilitation care
5. Study of comparison of various disability scales in conservatively treated patients of acute prolapsed intervertebral disc
6. Cross sectional study for assessment of autonomic dysfunctions following spinal cord injury
7. Effect of magnetic field on osteoporosis induced by spinal cord injury in rat
8. Industrial design and ergonomic studies of a school bag

Completed
1. Contra lateral limb controlled prosthetic knee joint
2. Effect of lateral wedging insole in shoes on radiological analysis and foot pressures in patients of osteoarthritis knee
3. Comparative study of anterior support ankle foot orthosis and posterior ankle foot orthosis in foot drop patients
5. Prevalence of ‘work-related neck pain’ in desk job worker at AIIMS

Collaborative projects

Ongoing
1. Design of smart functional electrical stimulator for physically challenged persons (Biomedical Engineering, CRUST Murthal, Sonipat)

Completed
1. Skeletal muscle strength including its energy metabolism, bone mineral homeostasis and Th1/Th2 cytokines expression in Asian Indians with chronic hypo-vitaminosis D before and after oral cholecalciferol supplementation (Endocrinology and Metabolism).

PUBLICATIONS

Journals: 1  Abstracts: 4  Chapters in books: 4

Patent filed as a team member
- U Singh - Filing of Complete Specification: Contralateral Limb Controlled Prosthetic Knee Joint
- Gita Handa – Provisional Patent: A device aiding elderly people or patients for sitting or rising from sitting

PATIENT CARE

<table>
<thead>
<tr>
<th>Cases</th>
<th>Patient care area</th>
<th>No. of patients</th>
</tr>
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<tbody>
<tr>
<td>New Cases</td>
<td>OPD</td>
<td>14533</td>
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<td></td>
<td>Prosthetic &amp; Orthotic</td>
<td>5159</td>
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<td>Ballabgarh PMR OPD</td>
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Community Services/Camps
Faculty and residents of the department participated in a series of camps for rehabilitation of persons with disability, Mathura and Agra.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
The paper by Ranjini P, Wadhwa S, Singh U, Kumar U, Pandey RM. Effect of home based exercise therapy on spinal mobility, disease activity, functional capacity, fatigue and quality of life in patients with ankylosing spondylitis (Preliminary study) received a Special mention by the Jury of the UEMS section and Board of the Physical and Rehabilitation Medicine during the 18th Congress of the European Society of Physical Medicine and Rehabilitation, Thessaloniki, Greece, 28 May–1 June 2012.

Professor U. Singh is chairman of the Academic Committee of the Indian Association of Physical Medicine and Rehabilitation and a member of the Sub-Committee on Locomotor, Leprosy Cured, etc., of the Rehabilitation Council of India, Ministry of Social Justice and Empowerment; Research Committee, Guru Nanak Dev University, Amritsar; Academic Committee, National Institute for the Orthopaedically Handicapped, Kolkata; BIS, Rehabilitation Appliances and Equipment for Disabled Sectional Committee (MHD 10); Member, Prevention Committee for Spinal Cord Injuries, International Spinal Cord Society; and Sub-committee on E-learning tool on ‘Early and Late Complications of Spinal Cord Injury’ for the e-learning tool development of the Comprehensive Management of Spinal Cord Injury under the aegis of International Spinal Cord Society; Emeritus Editor of the Indian Journal of Physical Medicine and Rehabilitation (2011 onwards); Consulting Editor for Journal of Rehabilitation Council of India Locomotor and Associated Disabilities and Editorial Board Member for Indian Journal of Physiotherapy and Occupations Therapy and International Journal of BioSciences and Technology; and as a peer-reviewer for Annals of Indian Academy of Neurology, Journal of American Academy of Physical Medicine and Rehabilitation; chairman for scientific sessions in the pre-conference workshop on Stroke and Rehabilitation, during Annual National Conference of Indian Association of Physical Medicine & Rehabilitation (Bengaluru, 31 January 2013); contributed to the work of Scientist Neellesh Kumar from CSIO, Chandigarh on a Myoelectric Prosthesis that led to a national award for best applied research/innovation/product development aimed at improving the life of persons with disability; Public lectures delivered: Disability and life, Phone-in program: Total Health, DD News, 2 December 2012; backache, Phone-in program: Total Health, DD News, 10 February 2013.

Professor Sanjay Wadhwa is the Honorary Secretary of the National Academy of Medical Sciences (India) and the Editor of the Annals of National Academy of Medical Sciences (India) and the Associate Editor of the Indian Journal of Physical Medicine and Rehabilitation (IJPMR); served as President of the Indraprastha Association of Rehabilitation Medicine (IPARM); member of the Speciality Advisory Board of PMR, National Board of Examinations, Sub-Committee under Medical Council of India (to discuss and decide admission of students with disabilities in Medical courses); Research and Ethics Committee, Mother Teresa Saket College of Physiotherapy (Chandimandir, Panchkula, Haryana); South Asian Autism Network (SAAN) (New Delhi, 11 February 2013); Committee to frame guidelines for aids and appliances for CGHS beneficiaries (Spl. DGHS, GOI); Committee on Establishment of National Institute of Paramedical Sciences (NIPS) and Regional Institutes of Paramedical Sciences (RIPS) (DDG (M) GOI); examiner for many national universities; chaired the meeting of the BIS Group on Aids and Appliances (Bureau of Indian Standards, New Delhi, 11 December 2012); and sessions in the Indian Association of Physical Medicine & Rehabilitation Mid-term CME programme (Hyderabad, 8 September 2012); NAMS-PGI Symposium (Chandigarh, 10 March 2013); Annual Conference of Indraprastha Association of Rehabilitation Medicine (New Delhi, 17 March 2013); and delivered the key note address in the international conference on ‘The Colours of Career Development’ (Manav Rachna International University, Faridabad, 29 March, 2013).

Dr Gita Handa served as an executive committee member of the Indian Association of Physical Medicine and Rehabilitation; as a peer reviewer for the Indian Journal for Physiology and Pharmacology; and chaired sessions at the Indian Association of Physical Medicine and Rehabilitation (Bengaluru, 31 January–3 February 2013) and the Spinal Cord Society Gold Medal Award for Best Paper Presenter session (12th Annual Scientific Meeting of Spinal Cord Society, New Delhi, 12–14 October 2012).

VISITING SCIENTISTS
The Department hosted a team from University of Sydney, Australia for exploration of areas of collaborative work in Musculoskeletal & Pain Rehabilitation. The team interacted with the Dean and Director and initiated the dialogue for signing of MOU between University of Sydney and AIIMS.
HIGHLIGHTS
The Department of Physiology has been involved in undergraduate and postgraduate teaching in addition to the doctoral programme. The faculty also undertook to train manpower for undergraduate, postgraduate teaching and research techniques in house by holding workshops and symposiums at AIIMS and other institutions. The faculty undertook 24 extramural and intramural research projects in various areas including neurophysiology (including autonomic nervous system), nutrition, vascular physiology, reproduction, respiration and yoga. The research outcomes were presented in both national/international scientific forums and published in indexed journals. On the basis of its original research, the department has provided significant support in patient care by utilizing cutting-edge technologies in autonomic and vascular function assessments, pain management, intraoperative monitoring during corrective surgery, and yogic intervention. Several awards and honours have been received by faculty members and the students of the department in appreciation of their innovative contributions in physiology research and medical education.

EDUCATION
Undergraduate, Postgraduate and Paramedical
The department provided about 400 hours of teaching to the first year MBBS students and about 60 hours of teaching to students of BSc Nursing and allied courses. The department also conducted MD and MSc courses in Physiology and PhD programme. A total of 5 students completed PhD, 7 completed MD and 3 completed MSc course.

Short term training
The Autonomic Function laboratory provided short-term training to 2 PhD students from the Department of Instrumentation & Control Engineering, Dr B.R. Ambedkar NIT, Jalandhar (16-28 April 2013); 2 Assistant Professors from Department of Physiology, Sawai Mansingh Medical University, Jaipur (1-30 September 2012); 1 Assistant Professor from Department of Physiology, VMMC (16 July-16 September 2012); and 1 Assistant Professor from Department of Physiology, Chennai Medical College Hospital and Research Center, Trichy (8-20 October 2012). One MSc student from Department of Biochemistry, University College of Medical Sciences, New Delhi, came for training in molecular biology techniques (26 June-10 July 2012).

CMEs/Workshops/Symposia/Conferences
Organized by the Department

3. First Sleep Technician Workshop (Convenor: HN Mallick). National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore; 9 December 2012.


Lectures delivered

Oral/posters presented: 3

RESEARCH
Funded projects

Ongoing
1. To study the effect of repeated magnetic stimulation on sensory motor recovery in spinal cord injured patients. R Mathur, AIIMS Research Grant, 4 years, 2008-12, Rs 20 lakhs.

2. Role of magnetic fields in the spinal cord injury induced osteoporosis. Kaushiki Mukherjee (Mentor: R. Mathur), DST, 3 years, 2012-15, Rs. 25 lakhs.


7. A study of quantitative EEG changes, cognitive function and stress in mild cognitive impairment and Alzheimer’s disease, Ratna Sharma, DST, 3 years, May 2010-April 2013, Rs 82 lakhs.

8. Quantitative EEG correlates of cognitive deficits in Parkinson Disease. Ratna Sharma, DBT, 3 years, 2011-14, Rs 22 lakhs.

9. Functional development of the visual cortex following prenatal repetitive auditory stimulation in chicks (Gallus domesticus): role of noradrenaline. Suman Jain, DST, 3 years, 2011-14, Rs 23 lakhs.

10. Motor and cognitive behaviour in 6-hydroxydopamine (6-OHDA) adult rat model of Parkinson’s disease following magnetic field exposure and implantation of ferromagnetic nanoparticles. Suman Jain, DST, 3 years, 2009-12, Rs 26 lakhs.

11. Prospective study to evaluate the impact of bariatric surgery on glucose metabolism using biomarkers in obese patients. Raj Kumar Yadav, ICMR, 3 years, 2012-15, Rs 29 lakhs.

12. Efficacy of Yoga and dietary management in sedentary overweight subjects with regards to markers of endothelial dysfunction, obesity and diabetes. Raj Kumar Yadav, CCYRN, MoH&FW, 3 years, 2009-12, Rs 23 lakhs.

13. Adipokine mediated inflammation, angiogenesis and proteomic approach in pathophysiology of pelvic endometriosis. Raj Kumar Yadav, AIIMS Research Grant, 1 year, 2012-13, Rs 5 lakhs.


**Completed**

1. Assessment of cerebral auto regulation and cerebral vascular reactivity in patients of orthostatic hypotension. KK Deepak, AIIMS Research Grant, 2 years, 2010-12, Rs 2 lakhs.
2. Role of human chorionic gonadotropin endometrial receptivity for pregnancy establishment. Debabrata Ghosh, DST, 4 years, 2008-12, Rs 34 lakhs.
4. Effect of prenatal chronic auditory stimulation on expression of synaptic proteins in the visual wulst of domestic chicks (*Gallus domesticus*). Suman Jain, AIIMS Research Grant, 1 year, 2011-12, Rs 1 lakh.
5. Psychoneuroimmune effects of meditation: an evaluation by PET and biochemical markers. Raj Kumar Yadav, DBT, 3 years, 2008-11, Rs 14 lakhs.
6. Modulation of the activity of barosensitive and chemosensitive neurons in nucleus tractus solitarius by medial preoptic area stimulation in rats. A.K. Jaryal, DST, 3 years, 2009-12, Rs 35 lakhs.
7. To study endothelial function in patients with overlap syndrome of chronic obstructive pulmonary diseases and obstructive sleep apnea. Anjana Talwar, AIIMS Research Grant, 1 year, 2011-12, Rs 1 lakh.

**Departmental projects**

**Ongoing**

1. Effect of transcranial magnetic stimulation on pain modulation status in fibromyalgia patients.
2. Sensorimotor assessment in spinalised rats following electromagnetic stimulation and bone marrow stromal cells transplantation.
3. Influence of complete spinal cord injury on ventromedial hypothalamic function: role of magnetic field.
4. Effect of magnetic field on behavioral, electrophysiological and neurochemical correlates of pain in rats exposed to 3G frequency band.
5. Effect of magnetic field on oxidative stress in rat Parkinson’s model.
6. Effect of magnetic field on microglia induced secondary injury of spinal cord in rats.
7. A comparative study of cardiovascular responses to orthostasis in Parkinson’s disease and MSA-P.
8. Role of the preoptic area thermo TRPV channels in thermoregulation of rat.
9. The mechanism of thermogenesis induced by glutamate in the gut and in the preoptic area.
10. Electrophysiological characterization of ‘yoga nidra’ and its role in primary insomnia patients.
11. Interrelationship between body, muscle and brain temperature during sleep.
12. Efficacy of yoga based lifestyle intervention as compared to dietary intervention on metabolic syndrome: A randomized controlled trial.
14. Leptin and ghrelin in peritoneal fluid of patients with endometriosis: correlation with VEGF and IL6.
15. To study the effect of short term meditation on stress induced changes in cognitive functions in overweight / obese subjects: neuropsychological and biochemical evidences.
17. Quantitative EEG correlates of emotion induced changes in cognitive performance in healthy volunteers.

**Completed**

1. Characterization of photoplethysmographic peripheral pulse waveform changes during Valsalva maneuver.
2. Respiratory modulation of cardiac and vascular oscillations using patterned breathing maneuvers based on pranayama.
3. Effect of deep brain stimulation of the subthalamic nucleus on Bereitschafts potentials in Parkinson’s disease.
6. A RCT to determine a gluten threshold for paediatric patients with celiac disease.
8. Quantitative EEG correlates of cognitive deficits in Parkinson disease.
9. Effect of working memory load on visuospatial task performance as assessed by quantitative EEG.
10. Respiratory modulation of cardiac and vascular oscillation using patterned breathing maneuvers based on pranayama.
11. Effect of selective and automatic attention on prepulse modulation of startle reflex.
13. Neural correlates of priming in face word stroop task using functional imaging.

Collaborative projects

Ongoing
1. Prenatal auditory sound stimulation: effect on spatial memory and expression of synaptic proteins in chick hippocampus (Anatomy).
2. Implantation of human retinal pigment epithelial (HRPE) cells in the 6-OHDA lesioned rat model of Parkinson’s disease (Neurology).
4. Evaluation of vascular endothelial function by biochemical and biophysical markers in women with preclampsia versus normal healthy pregnancies (Obstetrics & Gynecology).
5. Postural variation of diffusing capacity in Type 2 diabetes mellitus: marker of lung microangiopathy (Endocrinology).
7. Exhaled breath temperature as a marker of airway inflammation in cystic fibrosis patients aged 6-18 years (Pediatrics).
8. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and insulin resistance in adult Indian obese patients (Surgical Disciplines).
9. Impact of nutritional and lifestyle modification in subjects with BMI 25-29.9kg/m² vs 30-34.9 kg/m² and to assess the effect of bariatric surgery in BMI ≥35kg/m² (Surgical Disciplines).
10. Assessment of systemic vascular autonomic tone, structural and functional outcome in central serous chorioretinopathy (RP Centre for Ophthalmic Sciences).
11. Multimodal intraoperative monitoring of spinal cord function in patients under corrective surgery of spine (Orthopaedics).
12. Longitudinal changes in masseter and temporalis muscles before and after TMJ ankylosis surgery: An EMG study (Centre for Dental Education and Research).
13. Evaluation of facial nerve morbidity in patients undergoing temporomandibular joint surgeries via preauricular extended temporal incision (Centre for Dental Education and Research).

Completed
1. Comparison of exercise testing parameters between patients who undergone total cavo pulmonary connection and/or superior cavopulmonary anastomosis with open antegrade flow (CTVS).
2. Assessment of modified BODE index in chronic obstructive pulmonary disease and its correlation with inflammatory markers (Pulmonary Medicine & Sleep Disorders).
3. Assessment of endothelial function in patients with overlap syndrome of chronic obstructive pulmonary diseases and obstructive sleep apnea (Pulmonary Medicine & Sleep Disorders).
4. Psychoneuroimmune effects of meditation: an evaluation by PET and biochemical markers (Nuclear Medicine).
5. Evaluation of masseter and temporalis muscle EMG activity in a group of children having midface deficiency during maxillary protraction therapy (Orthodontics, Centre for Dental Education and Research).
6. Prospective study to evaluate the impact of laproscopic sleeve gastrectomy on type 2 diabetes mellitus (Surgical Disciplines).
7. Evaluation of dehydroepiandrosterone (DHEA) therapy as an adjunct to gonadotrophins for ovulation induction in premature ageing (Obstetrics & Gynecology).
10. Study of serial changes in heart rate variability in children between 2 to 15 years of age presenting with Guillain Barre syndrome (Paediatrics).
11. Assessment of vascular functions before and after renal transplantation (Nephrology).
13. Assessment of arterial stiffness indices in women with polycystic ovarian disease (Obstetrics & Gynaecology).
14. To study the effect of repeated magnetic stimulation on sensorimotor recovery in spinal cord injured patients (Stem Cell Facility & Ocular Pharmacology).

PUBLICATIONS
Journals: 21  Abstracts: 16  Chapters in books: 2  Books: 1

PATIENT CARE
Neurophysiology Research Laboratory offered objective assessment of pain and pain modulation status by a battery of electrophysiological and biochemical tests for select, referred patients of chronic pain. 40 patients (fibromyalgia) were assessed during the year. Relief in pain was successfully provided by transcranial magneto therapy.

Autonomic Function Laboratory and Vascular Function Laboratory provide diagnostic facilities for referred patients. These laboratories provide routine test of autonomic reactivity along with autonomic tone quantification and non-invasive recording of gastric motility (electrogastrography). A total number of 797 humans have been tested for autonomic function test this year, which included 745 patients.

The Department provided multimodal intraoperative monitoring of spinal cord function in patients under corrective surgery of spine (Department of Orthopedics, AIIMS, New Delhi). During orthopedic surgery on spine, somatomotor responses are checked by recording evoked responses. A total of 47 subjects were given neurophysiological monitoring support.

Integral Health Clinic (IHC) is a centre of mind-body medicine. IHC is an outpatient facility which is used for therapeutic gains as well as developing health consciousness. As a de-stressor centre it is helpful to de-stress AIIMS employees including faculty, students, residents and staff. A total of 222 (two hundred and twenty two) subjects were given yogic intervention at IHC during the year. This included patients of chronic diseases like diabetes, obesity, chronic depression, etc. referred from various departments of AIIMS.

The Department provides central facilities for:
(i) Autonomic function and vascular function
(ii) Biochemical analysis
(iii) Confocal microscopy
(iv) Integral health clinic
(v) Molecular biology
(vi) Pain modulation status, and Transcranial magneto therapy for chronic pain patients

AWARDS, HONOURS AND SIGNIFICANT EVENTS


Professor R. Mathur served as subject expert for the XII FVP Programme, Defence Institute of Physiology and Allied Sciences, Delhi; Member, Board of Studies in Physiology, for Pt. B.D. Sharma University of
Health Sciences (Rohtak) and Banaras Hindu University, (Varanasi); expert for faculty selection/promotion for Chhatrapati Shahuji Maharaj Medical University (Lucknow); Revision of Standard Assessment for Postgraduate Course in Physiology for Medical Council of India (New Delhi).

**Professor K.K. Deepak** was awarded the Dr. B. K. Anand Oration (2011-12) by National Academy of Medical Sciences; member, Education Committee, International Union of Physiological Sciences; chairperson for ‘Brain Storming Session - National Portal on Heart Rate Variability (HRV) Analysis’, Department of Electronics and Information Technology, New Delhi (27 July 2012); and peer review committee for research proposal with reference to Kyrgyz-Indian Mountain Biomedical Research Centre; convenor of Equivalence Sub-Committee of MCI (New Delhi) and member of following MCI committees: Adhoc Undergraduate Assessment Screening Committee, Discontinuation of Dissection and Animal Experimentation in the Teaching of Medical Courses and Development of Alternatives Committee, Sub-committee of the Academic Council on Minimum Standards Requirements; co-convenor for workshop on ‘Curriculum Implementation Support Programme’ for faculty of the Regional Centers in MCI; member, Advisory committee, All India Pre-Medical/Pre-Dental Entrance Examination (CBSE); examiner, King George’s Medical University (Lucknow) and Vallabhbhai Patel Chest Institute and the Department of Environmental Studies, Delhi University; member, expert committee for setting up of Physiology Laboratory in Morarji Desai National Institute of Yoga; Research Advisory Committee of Swami Vivekananda Yoga Anusandhana Samsthana University (Bangalore); and the Advisory Board of the Physiological Society of Nepal; nodal officer in National Knowledge Network (NKN), GOI; Executive Editor, Indian Journal of Physiology and Pharmacology (IJPP), member, advisory/editorial boards of the following journals: Health Renaissance, and Al-Amin Journal of Medical Sciences. He is also a peer-reviewer for the following journals: Indian Journal of Medical Research, Journal of Postgraduate Medicine, and International journal of Yoga; member, advisory board for International Conference on Biomedical Engineering and Assistive Technologies, Jallandhar (6-7 December 2012) and chaired 2 sessions during 58th Annual National Conference of APPI, Meerut (17-20 December 2012).

**Professor H.N. Mallick** was awarded the SL Bhatia oration on ‘Importance of Sleep’ during the 58th Annual Conference of APPI, Meerut (17-20 December 2012); selected as President of Asian Sleep Research Society (2013-16), and is serving as President of the Indian Society for Sleep Research; Finance Secretary for APPI; chaired a symposium titled, ‘Factors that affect Sleep’ during 7th ASRS Congress at Taipei, Taiwan (1 December 2012) and was Course Director for the National Sleep Medicine Course 2012, NIMHANS, Bangalore (10-11 December 2012).

**Professor D. Ghosh** is core committee member for ICMR workshops on Advancement of Physiological Sciences (ICAPS).

**Professor S.C. Mahapatra** served as examiner for MBBS, Delhi University; Guest of Honour at National Seminar on Health Fitness & Sports Technologies, Punjabi University, Patiala (12 October 2012); and 26th Annual Conference of Physiology, Hi-Tech Medical College, Bhubaneswar (9 December 2012); chaired 2 sessions during 58th Annual National Conference of APPI, Meerut (17-20 December 2012); and 1 session during ‘Workshop on UG & PG Curriculum in Medical Physiology’ at AIIMS, Jodhpur (26 February 2013); member, National Advisory Board of International Journal of Physiology.

**Dr Ratna Sharma** is member, Organizing Committee, 27th Annual Meeting of Society for Neurochemistry & International Conference on Recent Advances in Molecular Mechanisms of Neurological Disorders, AIIMS, New Delhi, 21-23 February 2013.

**Dr Nalin Mehta** is Chairman of ethics committee of Metro Hospital & Heart Institute (Noida); member of various ethics committees of Dr. Ram Manohar Lohia Hospital & PGIMER (New Delhi); International Clinical Epidemiology Network (New Delhi); Pratham Education Foundation - Annual Status of Education Report (PEF-ASER) Centre (New Delhi); member Board of Studies of School of Medicine and Paramedical Health Sciences, Guru Gobind Singh Indraprastha University (New Delhi); and Amity Institute of Physiology and Allied Sciences, Amity University (Noida); served as resource person for training technicians of Micronutrient Initiative Salt Iodization Estimation Laboratories regarding quality control on behalf of International Council for Control of Iodine Deficiency Disorders (ICCIDD).
Dr R.K. Yadav served as chief co-ordinator for AIIMS Medical Quiz; invited as expert for meeting on Curriculum Development for Physiology at AIIMS, Jodhpur (25-26 February 2012); member, editorial board, proceedings of 2nd International Symposium on Medicinal and Nutraceutical Plants (published by Acta Horticulturae, 2013).

Dr Anjana Talwar was awarded Short-term Research Training Fellowship for three months by European Respiratory Society at National Heart & Lung Institute, Imperial College London, (1 September-30 November 2012).

Social Contribution
- The Department (Drs Asmita Patil, K.P. Kochhar and residents of the department) organized a Hindi play on ‘Importance of Physiology and Nutrition for Healthy Diet and Lifestyle related Disease Prevention,’ Health Exhibition held on Institute Day, 25-26 September 2012.
- The Department (Drs K.P. Kochhar, Vivekanand and other residents) organized ‘Cognitive Physiology based Interactive Online Psychometric Personality Assessment,’ Health Exhibition held on Institute Day, 25-26 September 2012.

VISITING SCIENTISTS
1. Dr Rajeev Yadav, PhD, Research Scientist, Canada delivered a talk on ‘Model based signal processing in Epilepsy: Neuro-physiological Implications’, 28 August 2012.
## 9.32 Psychiatry

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<tr>
<th>Professor and Head</th>
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<tr>
<td><strong>Professors</strong></td>
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<tr>
<td>S.K. Khandelwal</td>
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<td>R.K. Chadda</td>
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<td><strong>Additional Professor</strong></td>
<td>Rajesh Sagar</td>
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<td>Mamta Sood</td>
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<td>Sujata Satapathy</td>
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### HIGHLIGHTS

The department has been in the forefront of providing mental health services in a general hospital setting. It provides multidisciplinary services in the field of general adult psychiatry, child and adolescent psychiatry, consultation liaison psychiatry and community services. The department runs a daily walk-in clinic, weekly child and adolescent and dual-diagnosis clinics and provides round the clock emergency services. From January 2013 onwards, the department has started four new weekly specialty clinics, Psychosomatic Clinic on Monday, Common Mental Disorders Clinic on Thursday, and Severe Mental Disorders Clinic and RTMS (Repeated Transcranial Magnetic Stimulation) Clinic on Friday. The Department has also expanded its community outreach services to 6 days a week at Ballabhgarh, including one day each at the Primary Health Centre at Dayalpur and Chhainsa. The Department has also started a weekly clinic at AIIMS Campus at Jhajjar. Both pharmacological and non-pharmacological treatments are used. Treatment is conducted by a multidisciplinary team consisting of psychiatrists, clinical psychologists, social workers and psychiatric nurses. Psychological treatments like supportive psychotherapy, psycho education, cognitive behaviour therapy, behaviour therapy and eclectic approaches are used. Modified electro convulsive therapy is given twice a week. Consultation liaison services are run by a team consisting of two consultants, one senior resident and two junior residents.

### EDUCATION

#### Undergraduate teaching

- 3rd semester: 24 hours
- 6th semester: 14 hours
- 8th semester: 6 hours

#### Clinical posting

- 4–5 semester: 20 days
- 6–8 semester: 40 days

#### Undergraduate teaching in CRHSP Ballabgarh.

- 7 semester: 10 hours (Community psychiatry)

#### BSc Nursing

- 38 hours in 2 semesters

#### PhD and Postgraduate teaching

- Journal discussion once every week
- Thesis protocol, midterm presentation once a week
- Tutorial twice a week
- Seminar once every week
- Case Conference once every week
- Staff seminar once every week
- Psychotherapy supervision for postgraduate psychiatry and doctoral level clinical psychology students
- Supervision of Consultation-liaison training for junior residents in psychiatry.
- Faculty/Staff presentation once every week besides CCR and CGR in every semester
CMEs/Workshops/Symposia/National and International conferences Organized by the Department

- Symposium on ‘Depression’ for college students on the occasion of the World Mental Health Day, 10 October 2012 (Coordinator: Rakesh Chadda).
- Workshop on ‘International Personality Disorder Examination.’ Government College and Hospital, Chandigarh, 24 March 2013 (Coordinator: Pratap Sharan).

Lectures delivered

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<td>S.K. Khandelwal</td>
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<td>Pratap Sharan</td>
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RESEARCH

Funded projects

Ongoing

Completed

Departmental projects

1. High risk behaviour in patients with alcohol dependence and opioid dependent IDUs: relationship with personality.
2. The use of Draw-a-Person Test in the assessment of psychopathology in children.
3. Marital quality and coping strategies in patients with depression.
5. Sleep disturbances in children with attention deficit hyperactivity disorder.
8. Computer assisted cognitive behaviour therapy for adolescents with depression.
9. Efficacy of individual versus group transdiagnostic cognitive behaviour therapy in adolescents with anxiety and headache.
10. Self-help manual approach in the treatment of OCD.
12. Cost assessment in patients suffering from dementia disorders.

Collaborative projects
1. Short term impact of hematopoietic stem cell transplantation on psychiatric morbidity and quality of life in hematological malignancies in adults (Medical Oncology)
2. H1-MRS study of OCD patients and their first degree relatives (Nuclear Magnetic Resonance)
3. A case control MRI study of structural and volumetric analysis of the anterior cingulate cortex in patients with bipolar disorder and normal healthy controls (Neuroradiology)
4. A study to assess the knowledge and attitude of nursing personnel regarding suicidal client, with a view to develop a training module (College of Nursing)
5. REM Sleep behavior disorder among patients with major depression on anti-depressants: a randomized controlled open-labelled comparison study of escitalopram versus bupropion (Neurology)
6. Study on depression among elderly persons in rural area of Ballabgarh, Haryana (Centre for Community Medicine)
7. Assessment of cognitive functioning & quality of life in patients with hypoparathyroidism (Endocrinology)
8. Multi-centric project on pharmacogenetics of schizophrenia (Neurochemistry)
9. To study pre-attentive and attentive processing of phonemes and tones in dyslexic children using prepulse inhibition paradigm, mismatch negativity and long latency event related evoked potentials (Physiology)
10. The role of neurotrophin, cytokines, and genetic polymorphisms in clinical manifestation of depression in adolescents (Laboratory Medicine)
11. A randomized controlled trial comparing chronic groin pain and quality of life in light weight vs heavyweight mesh in laparoscopic inguinal hernia repair (Surgery)
12. Effect of lifestyle factor and psychological stress on telomere length and DNA quality (Anatomy)

PUBLICATIONS
Journals: 37  Abstracts: 4  Chapters in books: 4  Books: 3

PATIENT CARE

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Total admission: 293  Total discharges: 314

Laboratory Investigations for Patient Care
Total Number of Serum Lithium levels: 1204

New services
From January 2013 onwards, the Department has started four new weekly specialty clinics, Psychosomatic Clinic on Monday, Common Mental Disorders Clinic on Thursday, and Severe Mental Disorders Clinic and RTMS (Repeated Transcranial Magnetic Stimulation) Clinic on Friday. The Department has also expanded its community outreach services to 6 days a week, including one day each at the Primary Health Centre at Dayalpur and Chhainsa. The Department has also started a weekly clinic at AIIMS Campus at Jhajjar.
AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Manju Mehta served as an external expert for faculty selection at PGIMER, Chandigarh and 6 new AIIMS, and NCAOR, Goa; inspector for M Phil (Clinical Psychology) training institutions on behalf of RCI; served as a member of the Advisory Committee of the Centre of Behavioural and Cognitive Sciences, University of Allahabad; Planning and Monitoring Board of NIMHANS, Bangalore; and Academic Council of Patna University.

Professor S.K. Khandelal supervised the making a documentary film, ‘Mind at the Seventh Continent’ for the Public Service Broadcasting Trust.

Professor R.K. Chadda was elected Fellow of the Royal College of Psychiatrists of UK. He also served as Member of the Editorial Board of International Psychiatry (2011-14); President of the Indian Association for Social Psychiatry (Nov 2011 onwards) and delivered the Presidential Address ‘Challenges for Social Psychiatry in the Contemporary Indian Society’ in XIX National Conference of the Indian Association for Social Psychiatry, Chandigarh (23–25 November 2012; served as the Co-Chairperson (2012–13) and then as the Chairperson (2013–14) of the Indian Psychiatric Society Task Force on Undergraduate Medical Education; member of the Expert Group of the Medical Council of India for revising Minimum Standard Requirements and Standard Assessment Form for conducting MCI Inspections in various broad specialties; member of Expert Group to advise the Department of Women and Child Health, Government of Delhi for running mental health units in institutional complexes; and Member of Board of Research Studies on Psychiatry, BD Sharma University of Health Sciences, Rohtak.

Professor Pratap Sharan is a member of the International Advisory Group for the Revision of ICD-10 Mental and Behavioural Disorders. He is the President (2011–13) of the Indian Association for Child and Adolescent Mental Health; Executive Committee Member and the Chairperson of the Taskforce on Research of the Indian Association for Social Psychiatry; member of the Project Review Committee of the Indian Council of Medical Research; reviewer for projects under ICMR sub-committee on Psychiatry, Clinical Psychology and Neurosciences of the Centre for Advance Research at NIMHANS, Bangalore; member of the Editorial Board/Working Committee of the Journal for Eating Disorders, the National Medical Journal of India, the Indian Journal of Social Psychiatry; and the Journal of Mental Health and Human Behaviour. He is a member of the Task Force to suggest remedial measures of occurrences of suicides amongst students of Indian Institute of Technology and other Centrally funded Technical Institutions; Organizing Co-Chair for the 7th Congress of Asian Society for Child and Adolescent Psychiatry and Allied Professions and 12th Biennial Conference of Indian Association for Child and Adolescent Mental Health; served as a member of the International Advisory Board for the Conference on Patient Reported Outcomes and Person Centered Care in Mental Health; served as a peer reviewer for the following journals during the year: BMC Psychiatry, BMC Public Health, Bulletin of the World Health Organization, Comprehensive Psychiatry, Emotion, Indian Journal of Medical Research, Indian Journal of Palliative Care, Indian Journal of Psychiatry, International Journal of Social Psychiatry, International Journal of Journal of Psychiatry in Clinical Practice, International Psychiatry, Journal of Affective Disorders, Journal of Eating Disorder, Journal of Postgraduate Medicine, Education and Research, Lancet, National Medical Journal of India, and PLoS Medicine; served as an examiner for MD level examinations in Psychiatry for various universities/boards; chaired the prestigious Balint Award session at the 19th National Conference of the Indian Association for Social Psychiatry and the Guest Lecture by Prof. Gordon Claridge (Oxford University, UK) at the 39th National Annual Conference of Indian Association of Clinical Psychologists.

Dr Rajesh Sagar received 4 awards for best paper as co-authors (AIMS excellence research award; 13th Congress of ASEAN Federation of Psychiatry and Mental Health, Singapore; 1st Indo-European Symposium on Coercio, Mysore; and the CNS summit award; Secretary of Central Mental Health Authority, GOI, expert member (DGHS nominee) of the Mental Health Policy Group, MoH&FW, and honorary advisor to National Mental Health Programme for DGHS; Chief Editor of Journal of Mental Health and Human Behaviour; and the convener of Specialty Advisory Board in Psychiatry for National Board of Examination, and the Parliamentary Committee of Indian Psychiatry Society. He served as an expert member to the committee on international adoption for Central Adoption Regulatory Authority, Ministry of Women and Child, GOI; Ethics Committee of Central Council of Homeopathy Research, Ministry of AYUSH, GOI; Institutional Human Ethics Committee of National Brain Research Centre, Gurgaon; Committee to develop guidelines for prevention of child abuse by Delhi Commission of Protection of Child Rights (DCPCR).
Committee for development of Indian initiative on obstructive sleep apnea national guidelines for MoH&FW. He is the chairman of the technical committee on Community Mental Health Development Project for DGHS, and an advisor to the SLD Project for DST, GOI. He is also an advisor on mental health to the New Delhi Birth Cohort study group. He also served as an expert member on the Central Coordinating Team and Technical Advisory Group for multi-centric research project on Neurodevelopment Disability in Children (Autism speaks, INCLEN, MoSJ&E); Expert Committee for screening cum mentoring of concept notes received under Cognitive Science Research Initiative (CSI) by DST (Hyderabad, 10-12 October 2012); Project Evaluation Committee of the Central Council of Homeopathy Research; and ICMR Expert group for addressing psychiatric issues in CRPF personnel. He was invited as an expert on the occasion of launch of BMJ-India (New Delhi, 4 February 2013); and attended the 6th meeting of the Task Force on Cognitive Science Research Initiative (CSI) (New Delhi, 6-7 February 2013). He was invited as an expert to the ‘Roundtable on Prevention of Ill-Treatment, Cruel, Inhuman & Degrading Treatment of Persons with Disability’ organized by The Equal Rights Trust (ERT), UK and Human Rights Law Network (New Delhi, 25 February 2013). He is a reviewer for various journals and research projects on psychiatry/mental health. He conducted a workshop on psychosocial issues for resident doctors of RP Centre, AIIMS, New Delhi.

Dr Sujata Satapathy is a member of the National Review Working committee to finalize the Minimum Initial Service Package Facilitator Manual: Adaptation to Indian Context for United Nations Population Fund and National Disaster Management Authority. She was invited by UNICEF-IASC as a country representative to a master trainers programmes on Emergency Psychosocial Support and Mental Health services for SAARC and East Asia region (Kathmandu, Nepal; 18-22 March 2013).
9.33 Pulmonary Medicine and Sleep Disorders

Professor and Head
Randeep Guleria

Professor
G. C. Khilnani

Associate Professor
Anant Mohan

Assistant Professors
Vijay Hadda Karan Madan

EDUCATION
The department runs a comprehensive undergraduate and postgraduate teaching programme, which includes integrated lectures, seminars, bedside clinical case discussions and journal clubs. The undergraduate students are assessed regularly at the end of each clinical posting.

CMEs/WORKSHOPS
2. AIIMS-ACCP Pulmonary and Critical Care Ultrasound Workshop, AIIMS, New Delhi; 12–14 December 2012 (Convener: R Guleria).
4. AIIMS PG Pulmonary Update, AIIMS, New Delhi; September 2012 (Convenor: A Mohan).
5. 26th Annual Pulmonary and Critical Care Update. PGIMER, Chandigarh. 14 October 2012 (Convener: K Madan).

NATIONAL AND INTERNATIONAL CONFERENCES
Lectures delivered
Randeep Guleria: 11 G.C. Khilnani: 19 Anant Mohan: 4 Karan Madan: 1

RESEARCH
Funded projects
Ongoing
1. To study the genetic polymorphisms and correlations with cytokine and hormone levels of macrophage migration inhibitory factor (MIF), peroxisome proliferator – activated receptor-y (PPARy), interleukin -6 (IL-6), C-reactive protein (CRP), insulin receptor substrate (IRS) insulin receptor substrate (IRS) 1, and leptin receptor genes in obstructive sleep apnea syndrome (OSAS) and non-alcoholic fatty liver disease (NAFLD). Randeep Guleria, till 2015.

AIIMS 2012-2013/ 197


**Completed**


**Departmental projects**

**Ongoing**

1. Nutritional status in lung cancer

2. Lactate dehydrogenase and alkaline phosphates levels in bronchoalveolar lavage fluid of patients with sarcoidosis

3. Assessment of quality of life in COPD

4. Smoking habits among medical students

5. Nutritional status of stable COPD patients and assessment of quality of life

6. Assessment of quality of life in Asthma patients

7. Role of serial endotracheal aspirate in predicting the causative organism of ventilator associated pneumonia

8. Acquired electrophysiological abnormalities in patient with severe sepsis and their impact on outcome: a prospective study

**Completed**


2. Smoking habits in urban slums of Delhi.

3. Predictors of mortality and morbidity in patients admitted with acute exacerbation of COPD.

4. To study vitamin D status and bone mineral density (BMD) and its relation to severity of COPD: a case control study

**PUBLICATIONS**

**Journals:** 25  **Abstracts:** 5  **Chapters in books:** 12  **Books:** 1

**PATIENT CARE**

**Pulmonary Medicine OPD**

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<td>Old Cases</td>
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<td>Injections</td>
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**Lung Cancer Clinic**

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<td>New Cases</td>
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<td>Old Cases</td>
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<td>279</td>
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AIIMS 2012-2013/ 198
## Sleep Disorder Clinic

New Cases | 36 | Old Cases | 99

## Laboratories

### Respiratory laboratory

<table>
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### Bronchoscopy Laboratory

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### Sleep laboratory

<table>
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</thead>
<tbody>
<tr>
<td>Polysomnography studies</td>
<td>363</td>
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</tbody>
</table>

## AWARDS AND HONOURS

Professor Randeep Guleria has been appointed the External Examiner for DM (Pulmonary and Critical Care) PGIMER, Chandigarh. He was nominated by the Government of India to attend a meeting of expert group for the H1N1 Flu outbreak in Chennai, 27 April 2012, called by the Govt. of Tamil Nadu; appointed the External examiner for MD (Medicine) examination, Shere-I-Kashmir Institute of Medical Sciences, Srinagar, J&K. He has been the member of the Project Review Committee on ‘Tuberculosis, Leprosy and other Chest Diseases of the ICMR; has been nominated a member of the Program Advisory Committee (PAC) of the DST in the area of Health Sciences and he has been also nominated as member of the Core Group for the Asian Regional Training Course on Medication Management in Hospitals: Role of Drugs and Therapeutics Committees, New Delhi; appointed External Examiner for the MD (Internal Medicine) National Academy of Medical Sciences, Bir Hospital Kathmandu, Nepal. nominated a member of the Editorial Board of the Indian Journal of Chest Diseases and Allied Sciences. appointed a member of the Expert Committee for developing Curriculum and Training Module on High Altitude Mountain Medicine by the DGHS; delivered a talk at the International Conference on Radiation Protection in Medicine: Setting the Scene for the Next Decade, held at Bonn, Germany. nominated a member of the Scientific Advisory Group of Experts (SAGE) working group on Influenza Vaccine and Immunization of WHO. He has attended their meetings regularly.

Professor G.C. Khilnani has been appointed President 2012–13 in National College of Chest Physicians (India); elected as Chairman Credential Committee of Indian Society of Critical Care Medicine 2012–13; appointed as Governor (Northern India) in Council of Governors & Regents, American College of Chest Physicians 2012–13; appointed Member, Executive Council of North Eastern Hill University, Shillong, Meghalaya; nominated member of the National Task Force for involvement of Corporate Hospitals and Institutions offering DNB under RNTCP, Ministry of Health and Family Welfare, Directorate General of Health Services, Government of India (Central TB Division); appointed Member, Board of Studies in the Tuberculosis and Chest Diseases for 2 years April 12 to March 14, Banaras Hindu University; appointed Member Executive Committee of Influenza Foundation of India for 2012; received Presidential Citation Award 2012–14, Indian Society of Critical Care Medicine.
9.34 Radiodiagnosis

**Professor and Head**
Arun Kumar Gupta

**Professors**
Deep Narayan Srivastava
Raju Sharma

**Professors**
Sanjay Thulka (IRCH)
Sanjay Sharma (RPC)
Ashu Seith Bhalla

**Additional Professors**
Smriti Hari
Shivanand Gamanagatti (Trauma Centre)
Atin Kumar (Trauma Centre)

**Associate Professors**
Chandan J Das
Shivanand Gamanagatti (Trauma Centre)
Atin Kumar (Trauma Centre)

**Assistant Professors**
Surabhi Vyas
Manisha Jana (IRCH)
Devasenathipathy Kandasamy (IRCH)

**Scientist-IV**
Shashi B. Paul

**HIGHLIGHTS**
The department was actively engaged in patient care, education and research. We organized two CMEs and delivered about 45 lectures in various CME. We also delivered over 20 lectures in various national and international conferences. Around 25 posters and oral presentations were accepted in various conferences all over the world. We were involved in a multi-centre project funded by National Knowledge Network and two intramural funded research projects. Besides, we were involved in over 100 completed and ongoing departmental and collaborative projects as well. Our faculties were actively involved in research and had published more than 60 papers in various indexed national and international journals. We had contributed 8 chapters in various books and edited a textbook.

**EDUCATION**

**Undergraduate**
The department faculty was actively involved in teaching of undergraduate students. There were a total of 55 lectures taken by the faculty for them in this period.

**Postgraduate**
MD: There were a total of 28 junior residents. Academic activities for post graduate students included around 35 seminars, 35 journal clubs, 70 case discussions, 70 interesting film sessions and 80 lecture classes.

The department provided short term training to a total of 6 radiologists from all over the country during this period and to two internees from Singapore.

**BSc (Hons) Medical technology in radiography (MTR)**
A batch of 9 students was admitted to this course in 2012–13. This course is of three years duration. A total of 26 students were enrolled in this course.

**CMEs/Workshops/Symposia/National and International conferences**
**Organized by department**

AIIMS 2012-2013/ 200
RESEARCH

Funded projects

Ongoing
1. NKN Model Project: Network Enabled Medical Diagnosis and Education in Skeletal Imaging Using X-rays. Funded by National Knowledge Network. AK Gupta, Rs 50 lakhs.
2. Correlation of CT findings with clinical symptoms and pulmonary functions in patients with sequelae of pulmonary tuberculosis. Ashu Seith Bhalla, AIIMS.
3. Role of contrast-enhanced ultrasound, sonoelastography and MRI (Contrast enhanced, DWI and BOLD) in the evaluation of indeterminate renal masses on CT scan—a prospective study. Chandan J Das, AIIMS, 2012–13, Rs. 5 lakhs.

Departmental projects

Completed
2. Role of percutaneous radiological intervention in discogenic low back Pain.
3. Role of perfusion CT in predicting outcome in mild head injury.
4. MDCT evaluation of solid retroperitoneal organ injuries in blunt abdominal trauma with limited MRI correlation.
6. Role of Dynamic contrast enhanced and Diffusion weighted MRI in preoperative staging of endometrial cancer.

Ongoing
1. Role of Diffusion Weighted MRI in imaging of retinoblastoma.
2. Role of MDCT in Evaluation of Traumatic Liver Injuries.
5. Role of dual energy computed tomography in diagnosis of gout.
6. Pre-operative Embolization of Bone Tumors.
7. US and MR evaluation of peripheral neuropathies of upper extremity.
8. Role of perfusion CT in pancreatic pathology.
9. MRI evaluation of chronic hip pain.
10. Role of Digital Breast Tomosynthesis as an adjunct to Full Field Digital Mammography (FFDM) in the evaluation of breast lesions
12. To ascertain the role of shear wave elastography as an adjunct to B-mode ultrasonography in characterisation of breast masses.

Collaborative projects

Completed
1. Evaluation of coronary atherosclerotic plaque. (Medical Physics)
2. Clinical correlation of imaging findings in congenital neuropathic strabismus. (Ophthalmology)
3. Role of imaging modalities in patients of locally advanced breast cancer undergoing neo-adjuvant chemotherapy (Surgery).
4. Use of CT as an adjunct to pre-operative planning and monitoring for osteo-odonto-keratoprosthesis in patients with end-stage Steven Johnson syndrome. (Ophthalmology)
5. MRCP in patients with portoenterostomy for biliary atresia (Paediatric Surgery).
7. Cognitive dysfunction in hypoparathyroidism (Endocrinology).
8. Prospective and retrospective evaluation of duration of anti-tubercular treatment in spinal tuberculosis – A clinic-radiological study (Orthopaedics).
10. Lipomodelling of breast. (Surgery)
11. Study of duration of anticoagulation in patients with deep venous thrombosis based on compression ultrasound. (Clinical Haematology)
13. Comparative Prospective and retrospective study of clinical and Radiological outcomes in Arthrodesis of knee versus Arthroplasty following excision of malignant and aggressive bone tumors. (Orthopaedics)
14. Prospective Randomized controlled study of role of thromboprophylaxis with low molecular weight heparin versus aspirin plus intermittent compression device in Indian patients undergoing total hip and knee Arthroplasty. (Orthopaedics)
15. Evaluation of serum VEGF and Diffusion Weighted MRI in locally advanced cervical carcinoma treated with neoadjuvant chemotherapy followed by chemoradiation. (Obstetrics and Gynaecology)
16. A study on clinical, biochemical and radiological markers to describe the outcomes in preterm infants less than 35 weeks gestation born with abnormal antenatal umbilical artery Doppler flow(A/REDF). (Obstetrics and Gynaecology)
17. Assessment of dry weight by monitoring changes in blood volume and inferior vena cava diameter during hemodialysis. (Nephrology)
18. A prospective randomized controlled trial comparing laparoscopic and endoscopic drainage of pseudocyst of pancreas (Surgery)
19. Evaluation of injury pattern and results of medical and surgical treatment in cases with traumatic and iatrogenic facial nerve injury (Otorhinolaryngology)
20. Clinico-pathological study of antral mucosal changes in patients with ethmoidal polypi (Otorhinolaryngology)
22. A clinical study to evaluate structural and functional respiratory parameters after distraction osteogenesis in retrognathic TMJ ankylosis patients with obstructive sleep apnoea syndrome (Dental Surgery).
23. Assessment of clinical, radiological profile and role of sialendoscopy in patients with salivary gland obstructive pathology (Otorhinolaryngology).
24. To estimate the prevalence of metabolic syndrome in patients with COPD. (Medicine)
25. Diagnostic utility of FDG-PET/CT in Pyrexia of unknown origin. (Medicine)
27. Assessment of site directed surgical treatment by nasal, oropharyngeal, palatal, or retroglossal advancement surgery in the management of obstructive sleep apnea syndrome (Otorhinolaryngology)
28. Computed tomography measurements of normal and pathological inner ear. (Otorhinolaryngology)

Ongoing
1. Utility of neoadjuvant chemotherapy in carcinoma rectum. (Surgery)
2. Assessment of lower segment caesarian scar using transvaginal ultrasound and MRI (Gynaecology).
3. Early and Mid-term urological and sexual dysfunction following surgery for rectal cancer: a prospective and observational study. (Surgery)
4. Dermatological manifestations of chronic reactive arthritis. (Dermatology)
5. Prediction of leak after pancreaticojejunostomy based on delayed CT. (Gastrointestinal Surgery)
6. Role of CT oesophagography in the evaluation of carcinoma oesophagus. (Gastrointestinal Surgery)
7. Correlation of remnant volume of pancreas after Whipple’s surgery with development of Diabetes Mellitus. (Gastrointestinal Surgery)
8. Evaluation of fatty liver by ultrasonography in patients with end-stage renal disease. (Medicine)
9. Correlation of epicardial fat, fatty liver and abdominal fat using MRI with ECHO and body-mass index in obese patients. (Medicine)
10. MDCT in acetabular Fractures (Orthopaedics)
11. MDCT in ACL reconstruction (Orthopaedics)
12. Comparison of single stage versus two stage treatment of patients with common bile duct stones and gall stones – a randomized controlled study. (Surgery)
13. Retrospective and prospective evaluation of magnitude, severity and outcome of traumatic hepatobiliary and pancreatic injuries in a level 1 trauma centre. (Surgery, JPNATC)
14. Effect of N-Acetylcysteine on Oxidative stress, endothelial dysfunction and carotid intimal media thickness in chronic peritoneal dialysis patients – An open labeled randomized trial (Nephrology)
15. Evaluation of progression of carotid artery intimal media thickness in chronic kidney disease patients not on dialysis and its correlation with endothelial dysfunction and biochemical parameters (Nephrology)
16. A cross-sectional study to know the prevalence of upper gastrointestinal disorders in spinal cord injury patients (Physical Medicine and Rehabilitation)
17. Study of association of adipocyte size with anthropometric and biochemical parameters (Medicine).
18. Role of Image guided navigation in Endoscopic surgery of Paranasal sinuses: A Comparative study. (Otorhinolaryngology)
19. Pre-post intervention study of quantitative and qualitative evaluation of bone formed in sinus augmentation with the use of bioactive synthetic bone graft putty.(Dental Surgery)
20. Ultrasound guided localization of internal jugular vein with reference to carotid artery in infants ,children and adolescents (Anaesthesia).
21. Association of Non-alcoholic Fatty Liver Disease (NAFLD) with Obstructive sleep apnea (OSA) in Asian Indians.(Medicine)
22. Clinical, investigative and therapeutic profile of patients presenting with haemoptysis. (Medicine)
23. Study on genotype–phenotype correlation in Asian Indian subjects with childhood onset of growth hormone deficiency. (Endocrinology)
24. Diagnosis and differential diagnosis of patients with Cushing’s syndrome. (Endocrinology)
25. Comparative study of human and non-human long bones by anatomical and radiological methods. (Forensic Medicine)
26. Effect of IJV ligation during comprehensive neck dissection on intracranial pressure. (Otorhinolaryngology)
27. Association of nonalcoholic fatty liver disease with bone mineral density and adiposity. (Medicine)
28. Bone height measurement of postcanine maxilla from alveolar ridge to sinus floor using CT scans. (Anatomy)
29. Voriconazole in the treatment of fungal orbital infections. (Ophthalmology)
31. Evaluation of cortical brain activation and visual pathway in cases of acute optic neuritis by functional MRI and DTI. (Ophthalmology)
32. Evaluation of role of Injection Bupivacaine in Strabismus. (Ophthalmology)
33. Role of Magnetic Resonance Imaging and spectroscopic methods in the evaluation of early prostate cancer. (NMR)
34. Effect of progressive resistance exercise training on hepatic fat in Asian Indians with Non-alcoholic Fatty Liver Disease (NAFLD) (Medicine).
35. Hepatic left lobe liver volume as an indicator of adiposity and related metabolic abnormality in patients with NAFLD MD (Medicine).
37. Role of PET CT in evaluation of lacrimal gland neoplasms (Ophthalmology).
38. Accuracy of sonographically measured splenic volume compared to splenectomy specimen (Surgery)
39. A clinical, imaging, endoscopic and laboratory evaluation of female genital tuberculosis. (Obstetrics and Gynaecology)
40. Measurement of depth of terminal ductolobular unit preoperatively by breast ultrasound and by histological assessment postoperatively. (Surgery)
41. Evaluation of PET scan in preoperative assessment of cases of endometrial carcinoma. (Obstetrics and Gynaecology)
42. Correlation of stage and imaging of endometriosis with fertility outcome. (Obstetrics and Gynaecology)
43. Role of cholecalciferol in steroid resistant nephritic syndrome. (Paediatrics)
44. Randomized controlled trial of radiofrequency ablation versus percutaneous acetic acid therapy for the treatment of small hepatocellular carcinoma. (Gastroenterology)
45. Randomized control trial of transarterial chemoembolisation (TACE) versus TACE plus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma. (Gastroenterology)
46. Randomized control trial of transarterial chemotherapy (TAC) versus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma. (Gastroenterology)
47. Randomized control trial of N-acetylcysteine in prevention of renal failure in hepatocellular carcinoma patients undergoing transarterial chemotherapy and transarterial chemoembolisation. (Gastroenterology)
48. Randomized control trial of oral chemotherapy versus supportive therapy in the treatment of unresectable hepatocellular carcinoma. (Gastroenterology)
49. Evaluation of the properties of renal stones (Urology and Medical Physics)
50. Hepatic left lobe liver volume as an indicator of adiposity and related metabolic abnormalities in patients with NAFLD (Medicine)
51. Comparison of DWI MRI with background suppression (DWIBS) and fluoride PET for the evaluation of skeletal metastasis in carcinoma prostate (Nuclear Medicine)
52. Non-invasive estimation of central venous pressure in mechanically ventilated patients using bedside ultrasonography: A comparison of two techniques (Anaesthesiology)
53. Impact of nutritional supplementation, early and late rehabilitation in pre-frail patient in geriatrics department of a tertiary care hospital of India (Geriatric Medicine)
54. Evaluation of diagnostic scoring systems in patients with suspected acute appendicitis (Emergency Medicine)
55. Role of contrast enhanced ultrasound in the diagnosis and for assessment of the therapeutic response in patients of hepatocellular carcinoma. (Gastroenterology)
56. Assessment of response of hepatocellular carcinoma to transarterial chemoembolisation by using magnetic resonance imaging. (Gastroenterology)
57. Safety and efficacy of autologous stem cells in prevention of amputation in patients with chronic critical limb ischemia. (Surgery)
58. Blunt chest trauma: prospective and retrospective review. (Surgery)
59. Contrast enhanced ultrasound for the assessment of therapeutic response following locoregional therapy in patients of hepatocellular carcinoma. (Gastroenterology)
60. Surveillance of patients of cirrhosis for detection of hepatocellular carcinoma – a cohort study (Gastroenterology).

PUBLICATIONS
Journals: 56 Chapters in books: 9 Books: 1

PATIENT CARE
The department is equipped with all state of art facilities for imaging. We currently have seven digital radiography units, eight digital portal radiography units, four conventional portable radiography units, two digital fluoroscopy units, two conventional fluoroscopy units, one flat panel DSA lab, thirteen ultrasound scanners with color Doppler, four portable ultrasound units, three CT scanners of which one is a dual energy scanner, one 1.5 Tesla MR scanner, one full field digital mammography unit, and a DEXA unit for bone densitometry. The department performs a vast multitude of diagnostic and interventional radiology procedures and caters to all clinical departments in the main hospital. It provides 24 hour coverage for emergency diagnostic and interventional procedures. More than twenty clinic-radiological conferences are held during the week where all imaging investigations are discussed with clinical colleagues. We are making a concerted effort to switch to electronic reporting and archiving to increase efficiency and reduce the turnaround time. During the period under review following equipment were purchased by the department: two mobile radiography units, one 1.5 Tesla MR scanner, one digital flat panel radiography system, one digital mobile radiography system and two high end ultrasound systems. The details of the procedures for the period 1st April 2012 to 31st March 2013 are given below in a tabular form:
### Investigations

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<th>Name of Investigation/Special procedures</th>
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<td>Intravenous pyelography</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>20,221</strong></td>
</tr>
<tr>
<td><strong>Vascular studies</strong></td>
<td></td>
</tr>
<tr>
<td>Digital subtraction angiography (DSA)</td>
<td>2,432</td>
</tr>
<tr>
<td>Venography</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,438</strong></td>
</tr>
<tr>
<td><strong>MRI</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4,072</td>
</tr>
<tr>
<td><strong>Interventional procedures</strong></td>
<td></td>
</tr>
<tr>
<td>Ultrasound guided</td>
<td>3,161</td>
</tr>
<tr>
<td>CT guided</td>
<td>631</td>
</tr>
<tr>
<td>Mammography biopsy/FNAC</td>
<td>49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,841</strong></td>
</tr>
<tr>
<td><strong>Total special investigations</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>89,061</td>
</tr>
<tr>
<td><strong>Grand Total (Routine +Special)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>2,99,395</strong></td>
</tr>
</tbody>
</table>

### AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor Arun Kumar Gupta** was elected Fellow, National Academy of Medical Sciences (India).

**Professor Deep N. Srivastava** was elected, Fellow, National Academy of Medical Sciences (India).

**Dr Sanjay Sharma** was elected Vice President of the Delhi Chapter of IRIA, 2012; elected Treasurer, Indian Society of Vascular and Interventional Radiology (ISVIR), November 2011–February 2013.

**Dr Ashu Seith Bhalla** was elected Joint secretary Indian Society of Vascular and Interventional Radiology 2012–13.

**Dr Chandan J. Das** received ECR Invest in youth award 2013 during European Conference of Radiology 2013, Vienna, Austria. 7–11 March 2013.
9.35 Reproductive Biology

Professor and Head
Anand Kumar

Additional Professor
Ashutosh Halder

Associate Professor
P.K. Chaturvedi

HIGHLIGHTS
Professor Anand Kumar was appointed member Advisory Committee of the UGC-SAP programme in Zoology of M.L. Sukhadia University, Udaipur. He was appointed member editorial board for The Open Andrology Journal (Bentham). He was also appointed reviewer for various international and national journals. He was nominated as a member (reproductive biologist) to discuss the draft protocols for in-depth studies on endocrine disruption of monocrotophos Ministry of Agriculture, Department of Agriculture and Cooperation, Directorate of Plant Protection Quarantine and Storage, NHIV, Faridabad (resigned later). He was also appointed member of the Institutional Review Board (IRB) of NIHFW and Member, Selection Committee of NIHFW, New Delhi. Dr Ashutosh Halder was elected a Fellow of the National Academy of Medical Sciences in 2012. He was selected as expert member of various institutional committees and expert groups including Stem Cell Research and Therapy (IC-SCRT) at National Institute of Immunology, Delhi in 2012; NABL (National Accreditation Board for Testing and Calibration Laboratories) on Genetics and Cytogenetics (since 2011); DBT Expert Group on ‘Reproductive Health & Biology’ (in 2012); Committee of Endocrine disruptors of Ministry of Agriculture (in 2013); assessment Board for promotion of ICMR scientists (in 2013). He also served as editorial board member and reviewer for various international nd national journals. Dr P.K. Chaturvedi was appointed reviewer of projects of Department of Biotechnology (DBT) and member Selection Committee for projects ICMR.

EDUCATION
PhD: 4 students, 1 post doctoral
MD: MD Laboratory Medicine and Biochemistry Students in Central RIA Facility
Co-supervisor MD/MS: Seven DM: Two
Short term training: Provided to 1 trainee (1 month)

CME/Workshops/Symposia/National and International conferences
Organized

Lectures delivered
Anand Kumar: 2 Ashutosh Halder: 1

Oral papers/posters presented: 3

RESEARCH
Funded projects
Ongoing
1. Mediatory role of hypoxia inducible factor 1 alpha on vascular endothelial growth factor expression in an immortalized mouse Leydig cell line. Anand Kumar, DST, 3 years, Rs 17.69 lakhs approx.
2. An investigation for sub-microscopic chromosomal imbalances and uniparental disomy by array comparative genomic hybridization (aCGH) in FISH negative clinically suspected 22q11.2 microdeletion syndromes. Ashutosh Halder, ICMR, 3 years, 2011–14, Rs 39 lakhs.
3. Testicular germ cell arrest (maturation arrest): An Investigation of Phenotype–Genotype Correlation, AIIMS, 2 years, Rs 10 lakhs.

**Completed**


**Departmental projects**

**Ongoing**

1. Analysis of differential expression of proteins in motile and non motile spermatozoa.
2. Understanding Dynamics of Sex Ratio
3. Testicular Germ cell arrest (maturation arrest): An Investigation of Phenotype-Genotype Correlation

**Completed**

1. Genetic and Endocrine Study on Primary Testicular Failure

**Collaborative projects**

**Ongoing**

1. Serum alpha-fetoprotein and albumin level in fanconi anemia (Clinical Hematology).
2. Prospective randomized comparison of testicular function, sexual function and quality of life following laparoscopic tep and tap inguinal hernia repair (Surgery).
3. Randomized clinical trial to assess the efficacy of myoinositol with metformin on clinical, metabolic and hormonal parameters of polycystic ove3ary syndrome (Obstetrics and Gynecology).
4. Effect of continuous positive airway pressure therapy on neurocognitive impairment in patients with moderate to severe obstructive sleep apnea (Medicine).
6. Study the molecular biology of multiple myeloma (Medical Oncology).
7. Study proteomics of endometriosis (Physiology).
8. Tacrolimus as induction therapy for proliferative lupus nephritis (Nephrology).

**Completed**


**PUBLICATIONS**

Journals: 5    Chapters in books: 3    Books: 2

**PATIENT CARE**

Central RIA Facility (CRIA, Room No 5010)
Routine assays for LH, FSH, Prolactin, T3, T4, TSH, Testosterone, Estradiol, Progesterone, alpha Feto-Protein, Prostate Specific Antigen (PSA), Beta hCG, CA-125 and cortisol in the blood samples of in and out patients were carried out in the facility.
<table>
<thead>
<tr>
<th>Name of assay</th>
<th>Number</th>
<th>Name of assay</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSH</td>
<td>4560</td>
<td>LH</td>
<td>4253</td>
</tr>
<tr>
<td>Prolactin</td>
<td>3799</td>
<td>DHEAS</td>
<td>136</td>
</tr>
<tr>
<td>T3</td>
<td>10292</td>
<td>T4</td>
<td>12041</td>
</tr>
<tr>
<td>TSH</td>
<td>20951</td>
<td>Testosterone</td>
<td>1577</td>
</tr>
<tr>
<td>Oestradiol</td>
<td>1069</td>
<td>Progesterone</td>
<td>314</td>
</tr>
<tr>
<td>AFP</td>
<td>4363</td>
<td>PSA</td>
<td>1989</td>
</tr>
<tr>
<td>Beta hCG</td>
<td>1147</td>
<td>CA-125</td>
<td>1955</td>
</tr>
<tr>
<td>Cortisol</td>
<td>373</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>68819</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The number of tests performed has increased from 54272 last year to 68819 this year.

**Andrological Examinations:** Semen Examination: 332, Seminal Fructose 332
Not as part of standard outpatient service however, over 50 cases were referred from various hospitals of Delhi/India for Counselling/Advice and related to Reproductive Genetics in particular Male Primary Hypogonadism and Congenital Malformation.

Also email consultation on infertility, medical andrology, malformation, microdeletion syndrome, etc

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Anand Kumar** delivered the Subhash Mukherjee Memorial Oration of the Endocrine Society of India for the year 2012, Kolkatta, 13–15 December 2012.

**Dr Ashutosh Halder** was elected Fellow, National Academy of Medical Sciences (in 2012).

**Dr P.K. Chaturvedi** was elected Member, National Academy of Medical Sciences (in 2012).
### 9.36 Surgical Disciplines

<table>
<thead>
<tr>
<th>Professor and Head</th>
<th>M.C. Misra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td></td>
</tr>
<tr>
<td>Anurag Srivastava</td>
<td>Sunil Chumber</td>
</tr>
<tr>
<td>Rajinder Parshad</td>
<td></td>
</tr>
<tr>
<td>V. Seenu</td>
<td>Sandeep Aggarwal</td>
</tr>
<tr>
<td>Virinder Kumar Bansal</td>
<td></td>
</tr>
<tr>
<td>Professors</td>
<td></td>
</tr>
<tr>
<td>Anita Dhar</td>
<td>Amit Gupta</td>
</tr>
<tr>
<td>Maneesh Singhal</td>
<td>Subodh Kumar</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Biplab Misra</td>
</tr>
<tr>
<td>Sushma Sagar</td>
<td></td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>Rehan Nabi Khan (on contract)</td>
</tr>
</tbody>
</table>

**EDUCATION**

**Short term training**

1. Dr Nitin Agarwal, w.e.f. 20 March 2012 to 19 April 2012 (one month)
2. Cpl. Rakesh Kumar, w.e.f. 1 August 2012 to 31 August 2012 (1 month)
3. Mr Shailesh Kumar, w.e.f 1 September 2012 to 28 February 2013 (6 months)

**Elective Training**

1. Dr Song Ung Kang from DPR Korea, w.e.f 9 April 2012 to 1 June 2012 (8 weeks)
2. Dr Yong Jin Kim from DPR Korea, w.e.f 9 April 2012 to 1 June 2012
3. Dr Sun Gil Kim from DPR Korea, w.e.f 9 April 2012 to 1 June 2012
4. Ms. Moskovehuk Alexandra from Austria, w.e.f. 1 February to 30 April 2012 (3 months)
5. Mr Lehmann Lukas from Austria, w.e.f. 5 March 2012 to 27 April 2012 (4 weeks)
6. Ms. Viktoria Rieder of Austria, w.e.f. 5 March 2012 to 27 April 2012 (4 weeks)
7. Ms. Lee Wen from Singapore, w.e.f 21 May 2012 to 1 June 2012 (2 weeks)
8. Mohammad Khalid from Afghanistan, w.e.f 5 May 2012 to 5 August 2012 (3 months)
9. Ms Divya Arya from Hungary, w.e.f 21 February 2013 to 20 March 2013
10. Mohammad Nasir from Afghanistan, w.e.f 8 June 2012 to 7 September 2012
11. Mr Tim Wei Lun from Singapore, w.e.f 21 May 2012 to 1 June 2012
12. Mr Ang Dun Yong from Singapore, w.e.f 21 May 2012 to 1 June 2012
13. Ms. Sanjana Sharma from Australia, w.e.f. 17 to 30 December 2012 (2 weeks)
14. Mr Poh You Kai from Singapore, w.e.f 9 June 2012 to 15 June 2012 (1 week)
15. Mr Tan Shin Wuii from Malaysia, w.e.f 8 September 2012 to 20 September 2012
16. Ms. Jolyn Ching from Malaysia, w.e.f 8 September 2012 to 23 September 2012
17. Ms. Sarah Esther Wulff from Germany, w.e.f. 18 February 2013 to 17 April 2013 (2 months)
18. Ms Hanna Minker from Germany, w.e.f. 20 August 2012 to 4 October 2012 (6 weeks)
19. Ms. Nidhi Mahajan from Australia, w.e.f 28 January 2013 to 22 February 2013 (4 weeks)
20. Ms Beuchat isabelle from Switzerland, w.e.f. 1 March 2013 to 31 March 2013 (one month)
21. Ms Mary Garland from USA, w.e.f. 4 February 2013 to 1 March 2013 (4 weeks)
22. Ms. Anisha Kshetrapal from USA w.e.f 04.02.13 to 01.03.13 (4 weeks)
23. Dr Jasneet Singh Bhuwall from USA, w.e.f 1 October 2012 to 31 October 2012
24. Ms Manon Jaboyedoff from Switzerland, w.e.f 1 March 2013 to 31 March 2013 (1 month)
25. Ms. Alexandra moskovchuk from Vienna, w.e.f 11 February 2013 to 6 April 2013
26. Mr Leong Kok Keong from Malaysia, w.e.f 4 March 2013 to 29 March 2013 (4 weeks)
27. Ms. Asha J Shah from USA, w.e.f. 1 March 2013 to 31 March 2013 (one month)
28. Dr Yong Sik So from DPR Korea, w.e.f 22 April 2013 to 14 June 2013
29. Dr Myong Min Hwang from DPR Korea, w.e.f 22 April 2013 to 14 June 2013 (8 weeks)
30. Dr Kwang Chol Jo from DPR Korea, w.e.f 22 April 2013 to 14 June 2013 (8 weeks)
31. Dr Chol Hyon Om From DPR Korea, w.e.f 22 April 2013 to 14 June 2013 (8 weeks)
32. Ms Aminath Shanaaz from Maldives, w.e.f 28 April 2013 to 28 July 2013 (3 months)
33. Ms. Shoo ra Fathimath from Maldives, w.e.f 28 April 2013 to 28 July 2013 (3 months)
34. Mr David Thomson from UK, w.e.f 25 March 2013 to 18 April 2013

Observership
1. Dr Turki Atia Al-Qurashi from Saudi, w.e.f. 1 January 2012 to 31 December 2012 (1 year)
2. Dr Kuldeep Singh Rawat from USA, w.e.f. 12 December 2011 to 11 March 2012 (12 weeks)
3. Dr Chittaranjan Das from Bangladesh, w.e.f. 1 March 2012 to 30 September 2012 (6 months)
4. Dr Lauren Smithson from Canada, w.e.f 1 to 31 December 2012 (One month)
5. Dr Rishi Nayyar from RML Hospital, w.e.f. 1 February 2013 to 30 June 2013 (6 months)

CMEs/Workshops/Symposia/National and International Conferences Organized by The Department
3. Advanced Oncoplastic meeting, AIIMS, 9–10 October 2012.

M.C. Misra
4. Programme and Course Director, Inaugural Advanced Trauma Life Support (ATLS) Course, LTM Medical College and Sion Hospital, Mumbai, 11–13 October 2012.

Anurag Srivastava
1. Breast and Endocrine surgical workshop, 15 March 2012, AIIMS
2. Advanced Oncoplastic meeting, 9–10 October 2012, AIIMS

Rajinder Prasad

V K Bansal
2. Organizing Secretary, Two day Live Operative Workshop on Laparoscopic Donor Nephrectomy, AIIMS, New Delhi, 17–18 December 2012.
3. Course Co-ordinator for 10 Training courses in ‘Operative Laparoscopy – Basic and Advanced’
4. Training courses in ‘Laparoscopic Suturing Skills’
5. Training courses in ‘Laparoscopic Colorectal Surgery’
6. Training courses in ‘Laparoscopic Hernia Surgery’

Anita Dhar

Sushma Sagar
1. Course Director DEMEX (Delhi Emergency Management Exercise) for Delhi Govt doctors at JPNATC, AIIMS, 29 November–1 December 2012.

Subodh Kumar

Biplab Mishra
1. Part of organizing team for Wound Evaluation and treatment skills (WETS) course, 2–3 April 2012, JPNATC, AIIMS, New Delhi.
2. Organizer and Course Director, ‘Management of Acute Wounds in ED (MAWE)’, workshop on 19 April 2012, JPNATC, AIIMS, New Delhi.
4. Organizer and Course Director ‘Management of Acute Wounds in ED (MAWE)’, workshop, 4 May 2012, JPNATC, AIIMS, New Delhi.

Maneesh Singhal

Amit Gupta

Lectures delivered
M.C. Misra: 41  Anurag Srivastava: 4  Rajinder Parshad: 6  V. Seenu: 9
Sandeep Aggarwal: 9  V.K. Bansal: 25  Anita Dhar: 2  Sushma Sagar: 13
Subodh Kumar: 11  Biplab Mishra: 1  Amit Gupta: 8

Oral papers/posters presented: 22

RESEARCH
Funded projects
Ongoing
1. Adjuvant tamoxifen longer against shorter (ATLAS) for breast cancer patients, Anurag Srivastava, Oxford University, UK.
2. Phase III Clinical trial with intravasal injectable male contraceptive – RISUG. Multicentre study, V Seenu. ICMR.
5. A prospective study of correlation of effect of tacrolimus blood levels on graft function and its impact on overall quality of life in post renal transplant patients, Virinder Kumar Bansal, Institute Research Grant, January 2013 onwards, Rs 2.50 lakhs.
6. Safety and efficacy of autologous stem cells in prevention of amputation in patients with chronic critical limb ischemia, Anita Dhar, Multi-centric Project, DBT, Rs. 1 crore.
7. A Non-randomized, open label multicentric, dose ranging, phase II study assessing the efficacy and safety of intramuscular administration of stempeucel-CLI (ex vivo cultured adult bone marrow derived allogeneic mesenchymal stem cells) in patients with critical limb ischemia due to buerger’s disease, Anita Dhar, A Srivastava, Multi-centric Project, Stempeutics Research Pvt. Ltd., Rs 70 lakhs.
8. To compare the effectiveness of VAC (Vacuum Assisted Closure) therapy to conventional treatment of Amputation stump, Sushma Sagar, M Singh, A Gupta, AIIMS, Rs.1 crore.
9. Sericin based value added finishes for Medical garments and Sportswear in collaboration with Department of Textiles, IIT Delhi, Sushma Sagar, M Singhal, DST.
11. Development of Wound Registry at Trauma Centre, AIIMS. Manish Singhal, S Sagar, S Kumar, B Mishra, A Gupta, AIIMS, Rs 1 crore.
12. Retrospective and prospective Evaluation of Epidemiology and Magnitude, severity, Outcomes of Complicated Soft Tissue Injuries in a Level 1 Trauma Centre, S Sagar, M Singhal, S Kumar, B Mishra, A Gupta.

Ongoing
1. Study of human breast cancer by magnetic resonance imaging techniques, Department of NMR, V Seenu.
2. Prospective study to evaluate the impact of bariatric surgery on glucose metabolism using biomarkers in obese patients, RajKumar Yadav, Sandeep Aggarwal, ICMR, 3 years, 2012–15, Rs 29 lakhs.
3. Induction of therapeutic angiogenesis in limb ischemia by intra-arterial delivery of autologous bone marrow derived stem cells. Sanjeev Sharma, Virender Kumar Bansal, Sujata, Balram Bhargava, Gurpreet Singh, DBT, Rs 30 lakhs.
5. Coronary CT angiography to predict vascular events in non-cardiac surgery, G Karthik, Anita Dhar.

7. Prospective, randomized comparison of efficacy and safety of thoracic epidural analgesia with bupivacaine and opioid in two different concentrations versus intravenous two drug analgesia in thoracic trauma. M Singhal, S Sagar, S Kumar, B Mishra, A Gupta, in collaboration with Department of Anaesthesia.

8. Development and Implementation of an Automated Electronic Surveillance System for Hospital Acquired Infections at a Tertiary Care Hospital of India, Amit Gupta, Subodh Kumar, ICMR, Rs. 16 lakhs.

9. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis, Amit Gupta, DBT.


11. Collaborative Head Injury and Adherence to Guidelines Study (CHIRAG), Amit Gupta, DBT, in collaboration with Harborview Injury Prevention and Research Center (HIPRC), University of Washington.


13. To study the safety and efficacy of intravenous estrogen as therapeutic adjunct for treatment of hemorrhagic shock patient presenting to the emergency department of a level 1 Trauma Centre. S Kumar, ICMR, 2012, Rs 36.36 lakhs.

14. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis, Amit Gupta, Subodh Kumar, DBT.


16. Proposal for the establishment of a cadaveric dissection facility at the Jai Prakash Narayan Apex Trauma Centre, AIIMS, New Delhi, India, Amit Gupta, Subodh Kumar, ICMR, 2012, Rs 5.36 crores.

17. Role of MDCT in Evaluation of Traumatic Liver Injuries, S Kumar.


**Completed**

1. Cost Effectiveness Analysis and Comparison of Single Stage Vs Two Stage Management of Patients with Concomitant Gall Stone Disease and Common Bile Duct Stones – A Randomized Controlled Trial. Virinder Kumar Bansal, SAGES Research Award, 2009–12.


**Departmental and Collaborative Research**

**Ongoing**

1. A Prospective Study to Compare the Outcomes after Primary Laparoscopic Exploration Of Common Bile Duct nd Laparoscopic Exploration following ailed Endoscopic Stone Extraction In Patients with Concomitant Gall Stones and Common Bile Duct Stones’, (Community Medicine, Radiology and Gastroenterology).

2. To study the expression of Interleukin 10 in patients with breast cancer and its correlation with stage, histological grading and hormone receptor status (Pathology).

3. A prospective study of quality of life and correlation of blood levels of tacrolimus to graft function and adverse effects of tacrolimus in post renal transplant patients (Nephrology and Psychiatry).

4. Retrospective and prospective evaluation of magnitude, severity and outcome of complicated soft tissue injuries in a Level I trauma center.

5. Prospective randomized control study to compare long term outcome, chronic pain, quality of life and cost effectiveness following two techniques of mesh fixation – Non absorbable tackers versus absorbable tackers for laparoscopic mesh repair of incisiona land ventral hernias (Anaesthesia and Psychiatry).
6. A prospective randomized control trial comparing the outcome of the two modalities of treatment of gall stone disease viz. single incision laparoscopic cholecystectomy with standard 4 port laparoscopic cholecystectomy (Anaesthesia and Radiology).

7. A prospective randomized comparison study of sexual function, testicular function and quality of life following laparoscopic totally extraperitoneal repair (TEP) and transabdominal preperitoneal (TAPP) inguinal hernia repair’ (Radiology, Psychiatry and Reproductive Medicine).

8. A Prospective Study Comparing Outcomes and Quality of Life after Laparoscopic Donor Nephrectomy versus Open Donor Nephrectomy (Radiology, Psychiatry and Nephrology).

9. Comparison of quality of life after single stage vs two stage management of patients with concomitant gall stones and common bile duct stones – A prospective randomized control trial (Radiology, Gastroenterology, Psychiatry and Community Medicine).

10. Retrospective and prospective study to evaluate the role of laparoscopy in patients with abdominal trauma at Level I Trauma Centre

11. To study the complications of splenectomy in patients undergoing early splenic artery ligation.

12. Retrospective and prospective Evaluation of Epidemiology and Magnitude, severity, Outcomes of Complicated Soft Tissue Injuries in a Level 1 Trauma Centre.

13. To study Magnitude, severity, Outcomes of Peripheral Vascular Injuries in a Level 1 Trauma Centre.


15. Study to evaluate the effect of training program involving animal models/tissues on operative room performance of general surgery residents.

16. Analgesic efficacy of transversus abdominis plane block for laparoscopic inguinal hernia repair in adult patients: a randomized controlled trial (Anaesthesia).

17. Imaging and intervention in arteriovenous fistulas for hemodialysis (Radiology and Nephrology).

18. To Study the outcome of AV fistula creation in CKD patients in a tertiary care hospital in North India: An Observational Prospective Cohort Study’ (Nephrology and Radiology).

19. Role of Cilastozole in treatment of chronic ischemia of the lower limb.

20. To study the pattern of peripheral arterial disease in tertiary care surgical practice: Indian scenario.

21. Radical duct excision for nipple discharge (benign breast disease) – its long term follow up.

22. Role of anti reflux procedure in achalasia cardia following laparoscopic cardiomyotomy.


24. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and insulin resistance in adult Indian obese patients.

25. Role of \(^{18}\)FDG PET-CT in predicting early response to neo adjuvant chemotherapy in breast cancer.

26. To evaluate the impact of a supervised program of nutritional counseling and lifestyle modification on weight loss in patients with BMI 26-29.9 kg/m\(^2\) as compared to BMI \(\geq 30-34.9\) kg/m\(^2\) over a period of one year and to assess the effect of bariatric surgery in BMI \(\geq 35\)kg/m\(^2\) as compared to non-surgical intervention over a period of one year.

27. Nutritional management and Bone Health in Morbid Obese Patients Undergoing Laparoscopic Sleeve Gastrectomy.


29. Prospective Study to Evaluate the Impact of Bariatric Surgery on Obstructive Sleep Apnea.

30. Retrospective and prospective analysis of magnitude severity in outcome of pelvic fracture at level 1 trauma centre.


32. Multiparamatric approach to the study of breast cancer and its correlation with molecular markers’ (Departments of NMR, Radio-diagnosis, Radiotherapy, Biotechnology and Biotechnology).

33. Studies on synuclein in various pathological conditions (Biophysics, Biotechnology and Ocular Pharmacology).

34. A Prospective Study To Compare The Outcomes After Primary Laparoscopic Exploration Of Common Bile Duct And Laparoscopic Exploration Following Failed Endoscopic Stone Extraction In Patients With Concomitant Gall Stones And Common Bile Duct Stones (Community Medicine, Radiology and Gastroenterology).
35. To study the expression of Interleukin 10 in patients with breast cancer and its correlation with stage, histological grading and hormone receptor status (Pathology).
36. A prospective study of quality of life and correlation of blood levels of tacrolimus to graft function and adverse effects of tacrolimus in post renal transplant patients (Nephrology and Psychiatry).
37. Retrospective and Prospective evaluation of magnitude, severity and outcome of complicated soft tissue injuries in a Level I Trauma Centre.
38. Prospective randomized control study to compare long term outcome, chronic pain, quality of life and cost effectiveness of two techniques of mesh fixation – Non absorbable tackers versus absorbable tackers for laparoscopic mesh repair of incisional and ventral hernias (Anaesthesia and Psychiatry).
39. A prospective randomized control trial comparing the outcome of the two modalities of treatment of gall stone disease viz. single incision laparoscopic cholecystectomy with standard 4 port laparoscopic cholecystectomy (Anaesthesia and Radiology).
40. A prospective randomized comparison study of sexual function, testicular function and quality of life following laparoscopic totally extraperitoneal repair (TEP) and transabdominal preperitoneal (TAPP) inguinal hernia repair (Radiology, Psychiatry and Reproductive Medicine).
41. A Prospective Study Comparing Outcomes and Quality of life after Laparoscopic Donor Nephrectomy versus Open Donor Nephrectomy (Radiology, Psychiatry and Nephrology).
42. Comparison of quality of life after single stage vs two stage management of patients with concomitant gall stones and common bile duct stones – A prospective randomized control trial (Radiology, Gastroenterology, Psychiatry and Community Medicine).
43. Retrospective and prospective study to evaluate the role of laparoscopy in patients with abdominal trauma at Level I Trauma Center
44. To study the complications of splenectomy in patients undergoing early splenic artery ligation.
45. Clinical Relevance of Immune Associated Molecules in Live Related Donor Renal Transplantation (Nephrology and Transplant Immunology).
46. Study to evaluate the effect of training program involving animal models/tissues on operative room performance of general surgery residents.
47. Imaging and intervention in arteriovenous fistulas for hemodialysis (Radiology and Nephrology).
48. To Study the outcome of AV fistula creation in CKD patients in a tertiary care hospital in North India: An Observational Prospective Cohort Study (Nephrology and Radiology).
49. The causes and pathologic features of traumatic deaths.
50. The role of virtopsy (Postmortem CT scan) in predicting the cause of death in trauma patients by comparing the findings of postmortem CT scan and conventional autopsy.
52. Retrospective and prospective analysis of magnitude and severity and outcome of pelvic fracture at a Level I Trauma Centre.
53. Study to evaluate the impact of bench training involving animal tissues/model on operative room performance of General Surgery residents.
54. Retrospective and prospective evaluation of epidemiology and magnitude, severity, outcomes of complicated soft tissue injuries in a Level I Trauma Centre.
55. Evaluation of magnitude, severity and outcome of Chest Trauma in a Level I Trauma Centre.
56. Multidetector CT scan evaluation of retroperitoneal solid organ injury with limited MRI correlation.

**Completed**
1. Prospective randomised controlled blinded study to evaluate the effect of short term focused training program in laparoscopy on operative room performance of surgery residents
2. A Prospective Randomized Controlled Trial of Laparoscopic vs Endoscopic Drainage of Pseudocyst of Pancreas (Radiology and Gastroenterology).
3. Retrospective and Prospective analysis of magnitude, severity and outcome of chest trauma at a Level I Trauma Centre
4. Comparison of USG Elastography, Sonography and Mammography in breast masses.
5. Comparing the role of MRI and gray scale and Doppler ultrasound in evaluating neoadjuvant chemotherapy response in locally advanced breast cancer (Radiology, Medicine and Nuclear Magnetic Resonance).
6. Randomized controlled trial to compare the short term morbidity following sentinel lymph node biopsy alone v/s axillary lymph node dissection in clinically node negative breast cancer’ (Radiotherapy, Nuclear Medicine, Pathology, and PMR).
7. To assess the feasibility and oncological outcome of minimal invasive colorectal surgery (Radiodiagnosis, Pathology and Gastroenterology).
9. A detailed ultra structural study of major ducts in women with periductal mastitis/mammary duct ectasia.
11. Lipomodelling of breast following breast conservative surgery.
12. Study of human breast cancer by magnetic resonance techniques (NMR and MRI Facility).
13. Prospective Study to Evaluate the Impact of laparoscopic sleeve gastrectomy on type 2 diabetes mellitus in patients with BMI 30-35 kg/m².
15. Prospective Study to Evaluate the Impact of Bariatric Surgery on Glucose Metabolism – Comparison of Laparoscopic Roux En Y Gastric Bypass and Laparoscopic Sleeve Gastrectomy.
16. Impact of Renal Transplantation on Quality of Life and anxiety – depression in End-Stage Renal Disease patients on Dialysis.
17. Evaluation of Efficacy of analgesic regimens in patients undergoing laparoscopic Cholecystectomy.
18. Study to evaluate the IRS-1 gene variants and its role if any, in morbid obesity and insulin resistance in Asian Indians (Biochemistry).
19. Retrospective and prospective study of magnitude, severity, and outcome of traumatic hepatobiliary and pancreatic injury in a level I trauma centre (Gastroenterology and Radiology).
21. Costing of CSSD and Laundry services at JPNA Trauma Centre (Hospital Administration).
22. Multi-detector CT scan evaluation of retroperitoneal solid organ injury with limited MRI correlation.
23. A Prospective study to compare the outcomes after primary laparoscopic exploratlon of common bile duct and laparoscopic exploration following failed endoscopic stone extraction in patients with concomitant gall stones and common bile duct stones (Gastroenterology).
24. Costing of OT services at JPNA Trauma Centre (Hospital Administration).
25. Study to evaluate the IRS-I gene variants and its role if any, in morbid obesity and insulin resistance in Asian Indians (Biochemistry).

PUBLICATIONS
Journals: 43 Abstracts: 44 Chapters in books: 2

PATIENT CARE AND COMMUNITY/ PUBLIC SERVICE
M.C. Misra
1. Invited by ‘Doordarshan News to participate as an Expert for the programme at Doordarshan Bhawan, New Delhi, 8 January 2013 for a Discussion on ‘Road Accidents’, Live Phone in programme ‘Total Health’.
2. Invited by ‘Doordarshan News’ New Delhi to participate as an Expert for the programme at Doordarshan Bhawan, New Delhi, 30 December 2012, for a Discussion on ‘Delhi Gang Rape and issues related to Safety of womem’ during a Live News program ‘.
3. Invited by the ‘Lok Sabha TV’ New Delhi to participate as a Guest Expert for the Live programme entitled ‘Lok Manch’, ‘Lok Sabha TV studios’, New Delhi, 29 December 2012 for a Discussion on ‘Safety and dignity of women’.
4. Invited by ‘Doordarshan News’ New Delhi, to participate as an Expert for the programme at Doordarshan Bhawan, New Delhi, 27 December 2012, for a Discussion on ‘Delhi Gang Rape Victim’s Health’ during a Live News programme.
5. Invited by the ‘Doordarshan National’ New Delhi to participate as an Expert for Live discussion on Swasth Bharat (Healthy India), ‘Gallbladder stones’, Doordarshan Bhawan, New Delhi, 8 November 2012.
6. Invited by the ‘Doordarshan News’ New Delhi, to participate as an Expert for the programme at Doordarshan Bhawan, New Delhi, 21 October 2012, for a Discussion on ‘Breast cancer’ during a Live Phone in programme ‘Total Health’.

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8. Invited by the ‘Lok Sabha TV’ New Delhi to participate as a Guest Expert for the programme entitled ‘Insight’, ‘Lok Sabha TV studios’, New Delhi, 9 October 2012, for a Discussion on ‘Healthcare for all, Clinical Trials, Healthcare Resources, Regulation on Private Hospital for displaying rates of various procedures and cost in response to a litigation and observation by supreme court’. Program was telecast on 9 October 2012.

9. Invited by the INDIA NEWS (Hindi) as Guest Expert to discuss the problem of ‘SNORING (खराटे)’ during a Live Telecast, 30 September 2012.

10. Invited by the ‘DoorDarshan National’ New Delhi to participate as an Expert for discussion on’57th Institute Day’ for discussion about ‘Akhil Bhartiya Ayurvedyan Sansthan’s (AIIMS’s) Role in the country to fulfill the aspirations of the public at Doordarshan Bhawan, Mandi House, New Delhi on 25thSeptember 2012 at 9:30 PM during Live National News.

11. Invited by the ‘DoorDarshan National’ New Delhi to participate as an Expert for discussion on ‘Swasth Bharat’ ‘Medical Aids in Accidents’ at Doordarshan Bhawan, New Delhi, 18 August 2012.

12. Invited by the ‘Lok Sabha TV’ New Delhi to participate as an Expert for the Live Phone, In programme entitled ‘Gender Discourse’, ‘Lok Sabha TV studios’, New Delhi, for a Discussion on ‘Blood Donation by Women in India’. Programme was telecast on 14 June 2012.

13. Invited by the ‘DoorDarshan News’ New Delhi to participate as an Expert for the programme at Doordarshan Bhawan, New Delhi, 10 June 2012 for a Discussion on ‘Increasing Road Injuries’ during a Live Phone in programme ‘Total Health’.

14. Invited by the ‘Lok Sabha TV’ New Delhi to participate as a Guest Expert for the programme entitled ‘Insight’ at ‘Lok Sabha TV studios’, New Delhi, 22 April 2012, for a Discussion on ‘One Year Compulsory Rural Posting of Young Medical Graduates’. Programme was telecast on 22 April 2012.

15. Invited by the ‘Lok Sabha TV’ New Delhi to participate as a Guest Expert for the Live programme entitled ‘Lok Manch’ at ‘Lok Sabha TV studios’, New Delhi, 27 April 2012, for a Discussion on ‘Grameen Swasthya (RURAL Health)’.

Anurag Srivastava
1. Public lecture on cancer awareness, Dehradun, 14 April 2012.

Rajinder Prasad
1. Incharge of Special Breast Cancer Clinic, every Saturday, including follow up of old cases, chemotherapy, and registration of new cases.
2. Follow UP Clinic, Friday.

Sandeep Aggarwal
1. Bariatric Surgery for Obesity
2. Renal Transplantation

Anita Dhar
1. Breast health awareness programme organized by Rotary Club of Delhi, Safdarjung, for the teachers and other professionals of Apeejay School, delivered a speech on 25 August 2012.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor M.C. Misra was Chairman, Surgical Dressings and Disposable Products Sectional Committee MHD16, Bureau of Indian Standards. Meeting held on 17 January 2013, New Delhi; Chairman, Panel of Examiners for the MBBS Surgery Examination in December 2012 in Surgery at the All India Institute of Medical Sciences, New Delhi, Clinical Examination held on 16–17 December 2012; Chairman, Panel of Examiners for the MS Surgery Examination in December 2012 in Surgery at the All India Institute of Medical Sciences, New Delhi, Clinical Examination held on 10–11 December 2012; Appointed External Examiner by the Postgraduate Institute of Medical Education and Research, Chandigarh for the MS Surgery Examination of December 2012; Nominated by Director, PGIMER, Chandigarh to a Committee to look in to the death of a patient at PGIMER, Chandigarh following crush injury on 17 July 2012; patient died after 6 days with gas gangrene; Chairman, Authorization Committee for unrelated Kidney transplantation; Visiting Professor (National) to ‘The Tamil Nadu Dr M G R Medical University, Chennai from October 2012; Chairman,
Departmental Promotion Committee (DPC) constituted by the Director, AIIMS. Chairman, Selection Committee, constituted by the Director, AIIMS; Invited as a Guest of Honour during Inaugural Function of CME on ‘Connected with Trauma: Response, Recovery and Research’ King George Medical University, Lucknow, 4 August, 2012; Invited a Guest of Honour, Installation ceremony of the President of Rotary Club Safdarjung, Delhi, 20 July 2012, India International Centre Annexe; External Examiner, University of Kashmir, Srinagar, J&K., MS Surgery Examination, July 2012; Visiting Professor, University of Michigan, June 24–27 2012; External Examiner, Aligarh Muslim University to conduct the MS Surgery Clinical and practical Examination of May 2012; External Examiner, Dayanand Medical College, Ludhiana (Baba Farid Medical University) to conduct the MS Surgery Clinical and practical Examination of May 2012. Examination was held on 26 May 2012; Chairman, Panel of Examiners for the MS Surgery Examination in May 2012 in Surgery, All India Institute of Medical Sciences, New Delhi; External Examiner, Postgraduate Institute of Medical Education and Research, Chandigarh, for the MS Surgery Examination of May 2012; Guest of Honour, Inaugural Ceremony of the Live Workshops, JPN Apex Trauma Centre, 15 April 2012, in association with Indian Society of Cutaneous Surgery, International Society of Dermatologic Surgery; Chief Guest by the Association of Surgeons of India, Ghaziabad Branch, CME, 15 April 2012, Ghaziabad. Delivered a talk on ‘I always do TEP repair’; Chief Guest, Inaugural Function, First National CME and Hands-on Workshop on ‘Intracranial Pressure Monitoring’, Division of Neurosurgery, JPN Apex Trauma Centre, 15 April 2012; External Examiner, Sher-I-Kashmir Institute of Medical Sciences, Srinagar, J& K, for the MS Surgery Examination of April 2012; Nominated for Membership Advisory Panel in the discipline of Surgery for advising the Credentials Committee, National Academy of Medical Sciences, New Delhi in the selection of candidates for Membership of the Academy for the year 2012; Chief Guest, Association of Surgeons of India, Nagpur Chapter, Installation Ceremony 2012–13, and CME, 8 April 2012; Member of Selection Committee as an Internal Expert Panel for the Selection of Assistant Professor of Surgery at AIIMS; Guest of Honour, Inaugural Function, 4th Cadaveric Workshop on Hip Arthroplasty, Department of Orthopaedics, AIIMS, 31 March–1 April 2012.

Dr Rajinder Parshad was Nominated an Expert in the Panel to conduct the interviews for 6 new AIIMS, 5–7 February and 12 February 2013, New Delhi; Chairman, Committee for Disposable items for the Department of Surgical Disciplines; Member, Patient Care Sub-Committee, for preparation of Result Framework Documents (RFDs) for AIIMS; Member in Staff Council Committee; Member, Committee for Negotiation of the equipment for the Department of Surgical Disciplines; Member, Committee for Computer and Peripherals Procurement for the Department of Surgical Disciplines; Member, Departmental Committee, to interview for Senior Resident in Surgery; Member of Medical Board; Member of Anti-Ragging Committee; Member of Doctoral Committee of PhD Students; Member of Specification Committee of Machinery and Equipment (Plan).

Dr V. Seenu was Involved in training visiting surgeons in breast cancer; imparting training to governmental institution trainees in kidney transplantation and vascular access procedures; Reviewer for Tropical Gastroenterology, National Medical Journal of India, and Oman Medical Journal; Reviewer for Cochrane Hepatobiliary Group.

Dr Sandeep Aggarwal was Co-Chairman of the Surgical Committee to develop the National Guidelines (Indian Initiative) on Obstructive Sleep Apnea – INOSA Guidelines 2013 under the auspices of Department of Health Research, Ministry of Health and Family Welfare, Govt. of India.

Dr V K Bansal received AIIMS Excellence award for published research work in year 2011–12; Awarded Fellowship of International College of Laparoscopic Surgeons; European Association of Endoscopic Surgeons (EAES) Travel Fellowship 2012; Honorary Secretary Indian Hernia Society; Honorary Secretary Society of Endoscopic and Laparoscopic Surgeons of India; Honorary Secretary International College of Laparoscopic Surgeons; External Examiner, National Board of Examinations (Fellowship in Minimal Access Surgery); Editor IHS/SELSI Newsletter. Ad hoc Reviewer for Surgical Laparoscopic and Endoscopy and Percutaneous Techniques (SLEPT); Reviewer for Indian Journal of Surgery, Tropical Gastroenterology, Indian Journal of Gastroenterology, British Journal of Surgery, Surgical Endoscopy and Saudi Journal of Surgery.

Dr Anita Dhar Won Second prize for the poster competition in VISICON2012 at Jaipur. ‘Saga of a rare Pseudoaneurysm’; Appointed External Examiner for the M.S. (Surgery) Examination conducted by University of Kashmir; Awarded Fellowship of College of Laparoscopic Surgeons Society (FCLS) 2012; Member of the
DOTS committee of the AIIMS group; Member of various Medical Boards; Member of the committee for procurement of disinfectants and antisepsis; Member of the Bureau of Standards and Measurements.

Dr Sushma Sagar was Awarded Fellowship of American College of Surgeons, USA (FACS) 2012; Awarded Fellowship of College of Laparoscopic Surgeons Society (FCLS) 2012; Awarded Woman of Substance Award on International Women’s Day, 8 March 2013 by Farvatiya Sanskritik Sansthan, Delhi; awarded the DST Travel Fellowship to present papers at SAWC Fall 2012 (Symposium on Advancement of Wound Care, Baltimore, USA, 12–14 September 2012); Awarded with Research Poster Review and Critique at Symposium on Advanced Wound Care Fall 2012, Baltimore September 2012, for the poster; Does involvement of wound care nurse improve patient satisfaction and wound healing: An experience from level 1 trauma centre, India; Executive Member, Indian Society of Peripheral Nerve Surgery; Member, core teaching faculty group of National Institute of Disaster Management(NIDM); Member, Committee for formulating First Responder Guidelines for National School Safety Programme, NIDM 2012.

Dr Subodh was Awarded Fellowship of American College of Surgeons, USA (FACS) 2012; Awarded Fellowship of College of Laparoscopic Surgeons Society (FCLS) 2012; Member of core group for preparing National Guidelines for Pre-Hospital Trauma Care and Management of Trauma Victims — Developed under World Health Organization and Government of India; Technical expert, nominated by HSCC, Ministry of Health, Govt. of India for up-gradation of Hospitals in Myanmar. 2012; Technical expert, nominated by HSCC, Ministry of Health, Govt. of India for upcoming Trauma Centre at Kathmandu, Nepal, as an initiative of Bharat-Nepal Maitry. 2012; Member, Core Committee (Training): To train newly recruited paramedics of Centralized Accident and Trauma Services (CATS) Government of National Capital Territory (NCT) of Delhi in Pre-Hospital Trauma Life Support Course. 2012–13.

Dr Maneesh Singhal Received Dr S Radha Krishnan Medical Teachers Award, 5 September, for contribution in field of teaching; Awarded Fellowship of College of Laparoscopic Surgeons Society (FCLS) 2012; Fellowship: Selected for Indian Council Medical Research (ICMR): International Fellowship for Young Bio-Medical Scientists for the year 2012–13 to do fellowship at Michigan, USA; To study advanced wound care practices with use of skin substitutes, tissue engineering and regenerative medicine techniques; Received the Fellowship of the International College of Laparoscopic Surgeons (FCLS). March 2012; Memberships of Professional Bodies: Founder Member and Joint Secretary, Indian Society of Peripheral Nerve Surgery; Member and Treasurer, Indian Society of Trauma and Acute Care (ISTAC); Membership of Editorial boards of indexed international journals: Advances in Wound Care; Reviewer: Journal of Cutaneous and Aesthetic Surgery; Review Committees at national bodies and institutions: national board of examinations, under MOHFW, regularly organized courses and conducted exams for various medical professionals; was involved in various activities of the medical board which include: setting up of question papers, appraisal of examiners conducting the National Board of Medical Examination in various cities, inspection of new centres for approval of various courses and validation of old centres; External Examiner for Mid Term Examination of DNB Candidates.

Dr Amit Gupta was Awarded the Dr Kini Memorial Oration – 2012 of the Indian Association of Traumatology and Critical Care (A section of Association of Surgeons India); Awarded the FACS – Fellowship of American College of Surgeons, USA. September 2012; Awarded the Short Term Visiting Fellowship from University of Michigan, Ann Arbor, MI, USA for advancements in trauma care as collaborative between University of Michigan Medical School and JPN Apex Trauma Centre, AIIMS, June–July 2012; Awarded the Fellowship of the International College of Laparoscopic Surgeons (FCLS) 2012; Member Board of Studies, Department of Simulation Medicine, SRM University, Tamil Nadu, 2012; Member, World Association of Disaster and Emergency Medicine (WADEM) 2012–13; Executive Member, Academic Council for Emergency and Trauma (ACET). Indo–US Emergency and Trauma Collaborative. A collaborative between Division of Emergency Medicine, AIIMS; Division of Emergency Medicine, USF, USA and State University of New York Downstate, New York, USA, 2010–15.

VISITING SCIENTIST
1. Dr Mal Fobi, Past President of International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) and Medical Director, Center for Surgical Treatment of Obesity, Los Angeles, USA
HIGHLIGHTS
The Department continued its activities in teaching, research and hospital services related to a range of laboratory investigations. Solid phase assays (SPA) including the Luminex system have been established for both HLA matching as well as for providing crucial information on donor specific antibodies (DSA) and virtual cross match for patients referred to the Department for donor selection for renal transplantation. The AIIMS laboratory acts as a national referral centre for SPA based DSA determination and post transplant antibody monitoring for other transplant centres in the country. Further, a national level Quality Control and Quality Assurance (QC/QA) service is offered for DNA HLA typing and antibody determination assay systems. Services are also offered for the detection of non-HLA antibodies, particularly those directed to MHC class I related Antigen (MICA) system on endothelial cells in specific cases. Similarly using SNP based system genetic polymorphism in several cytokines and chemokine genes is done in select cases. A Major thrust is to keep pace with the ever expanding field through establishment of high throughput DNA based technologies for HLA matching.

The focus of the research activities of the department is into several areas that include: (i) clinical relevance of HLA and non-HLA specific antibodies in renal transplantation, (ii) genetics of type 1 diabetes and other autoimmune diseases – development of robust biomarkers, (iii) genetic architecture of HIV infection: implications in vaccine design and therapy, (iv) marrow unrelated donor transplantation: challenges for a developing nation towards donor registries, (v) genomic diversity of HLA region genes in diverse ethnic groups, (vi) understanding MHC peptide interactions with the long term goal of developing MHC targeted vaccines, (vii) understanding the immunological basis of infectious diseases like tuberculosis, leishmaniasis, HIV, etc., (viii) Immune predictors of graft rejection, post transplant monitoring as well as Chimerism studies, (ix) Immunophenotyping of patients with leukaemia and development of novel immunological tools, and (x) clinical significance of HLA-G in haematopoietic stem cell transplantation.

EDUCATION
Training in Techniques in Immunology and Immunogenetics
Short term training: More than 25 students from various universities and institutions as well as doctors from hospitals in and around Delhi received short term training for laboratory techniques in HLA testing and other immunological investigations. In addition, 3 MBBS students were trained under the Kishore Vigyanic Protsahan Yojna (KVPY) of the Indian Council of Medical Research (ICMR).

Training to MD/DM students: Several MD/DM students from the Departments of Pathology (4), Medical Oncology (2), Laboratory Medicine (1), and Haematology (5) of AIIMS and Department of Nephrology, Maulana Azad Medical College, Delhi (2) undertook training in the Department and learnt techniques in HLA testing and other immunological investigations. The Department continued to provide training to under graduate and post graduates students, both from within the institute and to those coming from other universities and research centres.

CMEs/Workshops/Symposia/National and International conferences:
Organized by the department
1. NABL Accreditation Awareness Seminar for Technical staff of the AIIMS, 26 November 2012 (Convenor: Prof. N.K. Mehra).
2. Ranbaxy Science Foundation Symposium on ‘Gains of Genomic Research in Biology and Medicine’, February 2013 (Chair Prof. N.K. Mehra). Prof. Dhavendra Kumar, University of New Castle upon Type, UK, delivered the keynote address and Prof. Samir Brahmchari, Director General, Council of Scientific and Industrial Research was the main Guest Speaker.

Lectures delivered
N.K. Mehra: 25     D.K. Mitra: 4     Uma Kanga: 3     Gurvinder Kaur: 1

RESEARCH
Funded projects
Completed
3. Immunotherapy of drugs in refractory leukemias and lymphomas expressing hcg or subunits by a highly specific recombinant chimeric antibody against Bhcg linked to curcumin or other drugs. N.K. Mehra DBT, 2007–cont, Rs 8.10 lakhs.
5. Genetic basis for HIV-1 transmission, resistance and disease progression: polymorphism in MHC, chemokine/cytokine and their receptor genes. N.K. Mehra, DBT and ICMR, 3 years, 2008–11, Rs 89.8 lakhs.

Ongoing
4. Implications of the interferon system and immunogenetic basis of resistance to HIV-1 infection and disease progression. N.K. Mehra and Gurvinder Kaur, ICMR, 2010–14, Rs 58.62 lakhs.
5. Establishment of Centre for Molecular Medicine (CEMM), AIIMS, N.K. Mehra, Gurvinder Kaur, Uma Kanga, ICMR, 2012–17, Rs. 2.19 crores.
11. A Comprehensive Understanding of the Nasopharyngeal Carcinoma (NPC) in the North-Eastern Region of India. N.K. Mehra, Sanjeev Goswami, DBT, 2011–14, Rs. 64.0 lakhs.
Departmental projects

**Completed**
1. Immunoregulatory role of costimulatory molecules in tuberculosis (Amar Singh).

**Ongoing**
1. Clinical relevance of HLA, MICA and NKG2D receptor molecules in renal transplantation (Deepali Krishan).
2. Polarized Immunity in Human Leprosy: Role of effector and Regulatory T cell subsets in shaping host immune response (Soumi Sadhu).
3. Genomic diversity of HLA genes in Indian population (Abhishweta Saxena).
4. Clinical significance of HLA-G in Hematopoietic Stem Cell Transplantation (Manish Mourya).
5. Analysis of the antiviral response of Type 1 interferon system against HIV-1 infection (Mrinali Hakim).
7. Studies on Immunoregulatory mechanisms for host T cell response in human tuberculosis (Divya Kamboj).
8. Studies of distinct T cell subsets in the pathogenesis of rheumatoid arthritis (Kaustav Chowdhury).
9. Phenotypic and functional characterization of various T cell subsets in sarcoidosis (Rinkee Kumari).
11. Immunogenetic Analysis of Nasopharyngeal Carcinoma in the North-Eastern Indian population (Student: Reni Nelson).

Collaborative projects
2. Role of FoxP3+ regulatory T cells in polarized immunity in leprosy patients. – Indian Council of Medical Research (ICMR), (Dermatology and Venereology, AIIMS and Central JALMA Institute for Leprosy and other Mycobacterial Diseases, Taj Ganj, Agra).
3. CD26 mediated chemokine activation: role in suppression of immunity among visceral Leishmaniasis patients. Department of Biotechnology, Government of India. (Balaji Uththan Sansthan Fraser Road, Patna)
4. Impact of FoxP3+ Treg cells on the host immune response among HIV-TB co-infected patients: relevance in multidrug resistance tuberculosis (MDR-TB). Indian Council of Medical Research (ICMR). (Dr B C Roy Post-graduate Institute of Basic Medical Sciences (IPGME&R), 244B, AJC Bose Road, Kolkata.
5. Impact of Regulatory T cells on host Immunity among older pulmonary tuberculosis patients. Indian Council of Medical Research (ICMR) (Medicine).
6. To enumerate the in-vitro frequency and effector function of allospecific T cells in patients undergoing allogeneic peripheral blood stem cell transplant and its correlation with graft vs. host disease (Haematology).

PUBLICATIONS
**Journals:** 18  
**Chapters in books:** 3

**PATIENT CARE**
Free of cost service provided for Leukemia phenotyping and phenotyping for primary immunodeficiency diseases.
**TRANSPLANTATION**

**HLA matching**

<table>
<thead>
<tr>
<th>Disease</th>
<th>Recipients</th>
<th>Donors</th>
<th>Total</th>
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<tbody>
<tr>
<td>Hematopoietic Stem Cell Transplantation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aplastic anaemia</td>
<td>86</td>
<td>260</td>
<td>346</td>
</tr>
<tr>
<td>Acute myeloid leukaemia</td>
<td>22</td>
<td>58</td>
<td>80</td>
</tr>
<tr>
<td>Acute lymphocytic leukaemia</td>
<td>20</td>
<td>55</td>
<td>75</td>
</tr>
<tr>
<td>Thalassaemia</td>
<td>30</td>
<td>60</td>
<td>90</td>
</tr>
<tr>
<td>Others</td>
<td>42</td>
<td>130</td>
<td>172</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
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<td>763</td>
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</tbody>
</table>

**DIAGNOSTICS**

Spondyloarthropathies, HLA-B27 screening: 535
Other diseases (Behcets’ disease/Narcolepsy/Celiac disease): 25
Unrelated donor search for BMT: 198

During the year, a total of 198 requests for search of unrelated HLA matched donor from the ‘Asian Indian Donor Marrow Registry’ for bone marrow transplantation (BMT) were received. These included 77 from USA, 51 from Europe, 45 from various Asian countries and 25 from India.

**Patient Service Data for Renal Transplant Recipients**

1. HLA tests done: 611
2. CDC cross-matches: 858
3. Flowcytometry cross-matches: 225
4. PRA tests: 546
5. Cadaveric donors: 4
6. Cadaveric recipients tested: 55

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

Professor N.K. Mehra delivered the Dr. H.M. Bhatia Memorial Oration awarded by the National Institute of Immunohaematology (NIIH), Mumbai, 27 February 2013; nominated member, International Selection Board for Else Kroner Fresenius International Immunology Award; member, teaching faculty of EFIS sponsored South Eastern European Immunology School, Sarajevo, Bosnia (September 2012); Member, Research Advisory Committee of the Central University of Punjab, Bhatinda; Member, Research Advisory Committee of the King George’s Medical University, Lucknow (UP); Elected Member, Executive Committee of the Indian Society of Primary Immuno-deficiency diseases; successfully qualified the Laboratory Assessors Course of the National Accreditation Board for Testing and Calibration Laboratories (NABL), December 2012; President of the Asia Pacific Histocompatibility and Immunogenetic Association (APHIA); Co-chair of the International Union of Immunological Societies (UIIS) committee on Gender Equality and Career Development.

Chairman, of the following committees: (i) Institutional Committee for Stem Cell Research and Therapy, National Institute of Pathology, Delhi; (ii) DBT-NER Committee on Twinning Research Projects; (iii) ICMR Committee for Research projects of National Institute of Research in Environmental Health (NIREH), Bhopal; (iv) ICMR Expert Group for Establishment of Rural Centres of Genome Research to provide comprehensive diagnostic services; (v) Jodhpur Scientific Conclave, Desert Medical Research Centre, Jodhpur; (vi) Chairman, ICMR Committee for providing infrastructure and equipment at NIREH, Bhopal; (vii) ICMR Expert Group for Developing Centres of Advanced Research on Primary Immunodeficiency diseases in India; (viii) ICMR Negotiation Committee for high-end equipments for various institutes; (ix) Selection Committee of National AIDS Research Institute, Pune; (x) Pre-SAC of National JALMA Institute for Leprosy and other Mycobacterial Diseases, Agra; (xi) Project Mentoring and Monitoring Committee (PMC) of the Department of Biotechnology, Govt. of India. (x) Medical Sciences Research Committee of the CSIR; (xi) DBT Expert Group for the Maintenance and operation of TB Aerosal Challenges facility at ICGEB; (xii) Scientific Advisory Committee of the National Institute of Immunohaematology, Mumbai; and (xiii) Scientific Advisory Committee of the Desert Medical Research Centre, Jodhpur.

Member of the following committees: (a) Scientific Advisory Committee of the National Institute of Pathology, Delhi; (b) Scientific Advisory Committee of the National JALMA Institute for Leprosy and other
Myobacterial Diseases, Agra; (c) Research Council of the Institute of Microbial Technology (CSIR), Chandigarh; (d) Scientific Advisory Committee of the Institute of Cytology and Preventive Oncology, Noida; (e) DBT-NER Committee for Research Projects in Medical Sciences; (f) DBT Expert Group for Indo-ISTP (Canada) and DBT-Holland Research projects; (g) CSIR NMILTI Monitoring Committee to develop therapeutic moabs.; (h) DBT Committee for National Research Associateships; (i) Trustee, Immunology Foundation of India; (j) Special Invitee to Executive Committee of Indian Immunology Society; (k) ICMR Expert Group on Congenital deafness in Doda District of Jammu; (l) ICMR-DBT drafting Committee for stem cell guidelines, New Delhi; (m) CSIR Travel Grant Committee; (n) ICMR Task Force on Immunology; (o) CSIR NMITLI Advisory and Monitoring Committee to develop new diagnostic systems for affordable testing to manage HIV and TB; (p) ICMR Project Research Group on Diabetes; (q) DBT Expert group on Research in TB; (r) DCGI Committee on Stem Cell Therapy projects; (s) Selection Committee of National Institute of Immunology; (t) Scientific Advisory Committee of National Institute of Cholera and Enteric Diseases, Kolkata; (u) DGHS Committee on Draft Transplantation of Human Organs Rules, 2012; (v) NAC-SCRT of ICMR; (w) Scientific Advisory Group of Division of Non-communicable diseases, ICMR; (x) ICMR Project Research Committee on Physiology and Organ Transplantation, (y) Screening Committee for AIIMS Research Awards; and (z) Research Council of Institute of Life Sciences, Bhubaneswar.

Extramural Examiner for B.P. Koirala Institute of Medical Sciences, Dharan, Nepal; Member of the Jury to select Ranbaxy Science Foundation awards; Member, Editorial Board of the Proceedings of Indian National Sciences Academy. During the year, he delivered guest/invited lectures at the (a) Vienna Medical Academy, Austria, (b) Hôpital St.Louis, Paris under the ICMR-INSERM programme (October 2012), (c) Annual scientific meeting of the Asian Pacific Histocompatibility and Immunogenetics Association (APHIA), Adelaide, Australia (November 2012), (d) Symposium organized by the Indian Science Congress Association, (e) DBT symposium on ‘Accelerating India’s response to research for a preventive HIV vaccine’, (f) Guru Nanak Dev University, Amritsar, (g) Postgraduate Institute of Medical Education and Research, Chandigarh, (h) International Conference on Primary immunodeficiency diseases, Mumbai, (i) INSA-INSPIRE programme for high school students in rural area, Amritsar, (j) J.N. Medical College, Sawangi, Maharashtra, (k) Lecture series for science students at Miranda House, New Delhi, (l) Indo-US workshop on innovative approaches and technologies for diabetes management, New Delhi, (m) annual scientific conference of the Indian Immunology Society, Varanasi, (n) international symposium on Gastrointestinal Immunology, Gurgaon, (o) World TB day organized at National JALMA Institute of Leprosy and other Mycobacterial Diseases, Agra, (p) Probiotic symposium at Bangalore and a few others.

Dr Uma Kanga is a Councillor for the Asia Pacific Histocompatibility and Immunogenetics Association (APHIA); Member of the DBT Task Force on ‘Chronic Disease Biology’.

Dr Gurvinder Kaur, Secretary of the Asia-Pacific Histocompatibility and Immunogenetics (APHIA) and Co-Editor of its Newsletter.

VISITING SCIENTISTS
1. Dr Vijay Kuchroo, Professor of Neurology, Center for Neurologic Diseases. Brigham and Women's Hospital, Boston, USA visited our department and delivered a lecture on ‘Role of Th17 cells in the induction of Tissue Inflammation and Autoimmunity’, 12 July 2012.
2. Dr Maninder Kahlon, PhD, Deputy Director and CIO, Clinical and Translational Science, Institute (CTSI), University of California, San Francisco, USA visited our department and delivered a lecture on, ‘Accelerating Biomedical Research to improve health – the U.S. approach and Indo-US collaboration’, 17 December 2012.
3. Dr Aisha N. Hasan, MD, Assistant Professor of Paediatrics, Pediatric Bone Marrow Transplantation Service, Memorial Sloan-Kettering Cancer Center, NY Presbyterian Hospital, Weill Cornell Medical College, New York, NY visited our department and delivered a lecture on, ‘Adoptive immunotherapy for Targeted Eradication of Viral Infections and Relapsed Hematological Malignancies in Recipients of Hematopoietic Stem Cell Transplants (HSCT), 21 January 2013.
**EDUCATION**

The faculty of the department participated in and delivered lectures in continuing medical education programmes, symposia, national and International conferences during the year.

The Department imparted lectures for the undergraduates and nursing students. The department trains 11 postgraduates for the degree of MCh in Urology over a three year period.

The department had observers, fellows and visiting faculty from various Indian/Foreign Medical Universities to observe and learn Robotics, Endourology, Laparoscopy, Open surgery and Microsurgery in Urology.

The faculty of the department continues to be examiners for NBE and MCh Urology in various universities and Inspector for the Medical Council of India and National Board for recognition of standard of teaching and training and facilities for Urology postgraduate courses.

The faculty of the department took active part in restructuring and reframing the curriculum for MCh and DNB training courses in Urology.

**CMEs/Workshops/Symposia/National and International conferences**

**Organized by Department**


**Lectures delivered**

P.N. Dogra: 10  Rajeev Kumar: 24  Prabhjot Singh: 2  Ashish Kumar Saini: 2

**Oral papers/posters presented:** 17

**RESEARCH**

**Funded projects**

**Completed**


**Ongoing**

1. Evaluation of the significance of positive semen PCR for tuberculosis in asymptomatic men undergoing infertility evaluation.
2. Preparation and management of pheochromocytomas and paragangliomas.
5. Comparison of perioperative outcomes following open versus robot assisted laparoscopic radical cystectomy.
7. Role of narrow band imaging in diagnosis and treatment of non muscle invasive bladder cancer in comparison to standard white light cystoscopy.
8. Role of screening and treatment for tuberculosis in infertile azoospermic men with obstructive azoospermia.
9. Etiopathogenesis, Demographic profile, Erectile function, Socioeconomic Impact and Quality of life patients with pelvic fracture urethral distraction defects.
10. Outcome evaluation of various types of surgeries in management of stricture of anterior urethral stricture.
11. Long term outcomes of holmium laser core through in pelvic fracture urethral distraction defects.
12. ESWL in management of Paediatric nephrolithiasis.
13. Outcome analysis of robotic radical prostatectomy.
15. Robotic ureterolithotomy for ureteric calculus.

Collaborative projects

Ongoing
1. Comparison of whole body diffusion weighted magnetic resonance imaging with whole body 18F-NaF PET-CT imaging in prostate cancer (Nuclear Medicine).
2. Telomere status and DNA repair mechanisms in idiopathic male infertility (Anatomy).
3. Mitochondrial genes and Y chromosome deletions in male infertility (Anatomy).
4. 3 dimensional chemical shift imaging and diffusion weighted imaging using proton MRS in the diagnosis of carcinoma prostate. (Nuclear Magnetic Resonance)
5. Study of sperm molecular factors in idiopathic recurrent spontaneous abortions (Anatomy).
7. Comparison of whole body diffusion weighted MRI with whole body 18F-NaF PET-CT imaging in prostate cancer (Nuclear Medicine).
8. Haemodynamic changes during steep Trendelenburg position in robotic procedures (Anaesthesia).
9. To evaluate the efficacy of obturator nerve block in controlling adductor muscle spasm during transurethral resection of bladder tumors involving lateral wall- Nerve stimulator guided vs ultrasound guided approach (Anaesthesia).

Completed
1. EMT in treatment of urinary incontinence.
2. Outcome analysis of patients with testicular tumours and undescended testes.
3. Pediatric PCNL: outcome analysis.
4. Paravertebral block during PCNLs (Anaesthesia).

PUBLICATIONS

Journals: 25 Abstracts: 12 Chapters in books: 1

PATIENT CARE

Main OT surgical procedures 1809

<table>
<thead>
<tr>
<th>Open surgery</th>
<th>Major 264</th>
<th>Minor 127</th>
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<tbody>
<tr>
<td>Radical cystectomy</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Simple nephrectomy</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>E-E urethroplasty</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Anterior lay open</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Transpubic urethroplasty</td>
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<td>2</td>
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<tr>
<td>Augmentation cystoplasty</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Adrenalectomy</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Ureteric reimplantation</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>VVF repair</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Radical nephrectomy          | 11        | 41        |
Partial nephrectomy           |           | 11        |
Graft urethroplasty           |           | 14        |
Second stage closure          |           | 8         |
Pyeloplasty                   |           | 11        |
 Continent catheterisable pouch |         | 2         |
Boari flap                    |           | 5         |
Radical nephroureterectomy    |           | 3         |
Total penectomy               |           | 4         |
<table>
<thead>
<tr>
<th>Procedure</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Orchiopexy</td>
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<tr>
<td>AUS implantation</td>
<td>2</td>
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<td>Cystolithotomy</td>
<td>4</td>
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<tr>
<td>Hypospadias repair</td>
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<td>Ilioinguinal LN dissection</td>
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<td>Others</td>
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### Endourology 1135

<table>
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<th>Procedure</th>
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<tr>
<td><strong>Upper tract</strong></td>
<td><strong>342</strong></td>
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<tr>
<td>PCNL</td>
<td>204</td>
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<tr>
<td>URBS</td>
<td>121</td>
</tr>
<tr>
<td>RIRS</td>
<td>17</td>
</tr>
<tr>
<td>CPE (LA+ GA)</td>
<td>65</td>
</tr>
<tr>
<td>Clot evacuation</td>
<td>5</td>
</tr>
<tr>
<td>Endoscopic evaluation</td>
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<tr>
<td><strong>Lower tract</strong></td>
<td><strong>798</strong></td>
</tr>
<tr>
<td>URS</td>
<td>82</td>
</tr>
<tr>
<td>TURBT</td>
<td>211</td>
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<tr>
<td>PVP</td>
<td>18</td>
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<tr>
<td>HoLAP</td>
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<td>HoLCT</td>
<td>10</td>
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<tr>
<td>Endodilatation</td>
<td>32</td>
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<tr>
<td>Ureterocoe incision</td>
<td>3</td>
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<tr>
<td>Laser welding</td>
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<td><strong>Others</strong></td>
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### Laparoscopic surgery 125

<table>
<thead>
<tr>
<th>Procedure</th>
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<tbody>
<tr>
<td>Radical nephrectomy</td>
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<td>Partial nephrectomy</td>
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<tr>
<td>Simple nephrectomy</td>
<td>46</td>
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<tr>
<td>Adrenalectomy</td>
<td>16</td>
</tr>
<tr>
<td>Pyeloplasty</td>
<td>9</td>
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<tr>
<td>Radical cystectomy</td>
<td>3</td>
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<tr>
<td>Diagnostic lap</td>
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<tr>
<td>Others</td>
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### Robotic surgery 102

<table>
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<tbody>
<tr>
<td>Radical prostatectomy</td>
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<tr>
<td>Radical cystectomy</td>
<td>5</td>
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<tr>
<td>Pyeloplasty</td>
<td>44</td>
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<tr>
<td>Ureterolithotomy</td>
<td>10</td>
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<tr>
<td>VVF repair</td>
<td>4</td>
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<tr>
<td>Radical nephrectomy</td>
<td>4</td>
</tr>
<tr>
<td>Simple nephrectomy</td>
<td>2</td>
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<tr>
<td>Partial nephrectomy</td>
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<tr>
<td>Pyelolithotomy</td>
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### Microsurgery 51

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<tr>
<td>VEA</td>
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<td>VVA</td>
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<td>MVL</td>
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<td>Scrotal exploration</td>
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### Minor OT

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<th>Procedure</th>
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<tbody>
<tr>
<td>Cystoscopy, DJ stent removal, OIU</td>
<td>2097</td>
</tr>
<tr>
<td>Open cases (Orchidectomy, circumcision)</td>
<td>72</td>
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<tr>
<td>Minor cases (Catheter change, etc.)</td>
<td>4523</td>
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### Extracorporeal shock wave lithotripsy (ESWL)

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<th>Procedure</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>New cases</td>
<td>318</td>
</tr>
<tr>
<td>Re-do cases</td>
<td>863</td>
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### Urodynamic procedures

<table>
<thead>
<tr>
<th>Procedure</th>
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<tbody>
<tr>
<td>Uroflowmetry</td>
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<tr>
<td>Cystometrogram (CMG)</td>
<td>244</td>
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### Ultrasound procedures 250

<table>
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<tr>
<th>Procedure</th>
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<tbody>
<tr>
<td>TRUS/ Prostate biopsies</td>
<td>180</td>
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<td>SPC</td>
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<td>PCN</td>
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<td>Ultrasound KUB</td>
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### Stone analysis 311

<table>
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<tr>
<th>Procedure</th>
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<tbody>
<tr>
<td>EMT (Electromagnetic therapy)</td>
<td>218</td>
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### AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor P.N. Dogra** delivered the Marudhara Jodhpur Trust Oration: Preperitoneal robotic assisted radical prostatectomy, 22nd NZUSICON, Jammu, 16–18 November 2012; did liver surgery demonstrations at (a) Live operative transpubic urethroplasty in PFUDD in Mid Term CUE on Reconstructive Urology organized by Department of Urology, SMS Medical College, Jaipur, 28 –29 April 2012; (b) Live operative Robotic extraperitoneal robotic prostatectomy in the Urologic Surgery Workshop on Current and Future Trend of Robotic Surgery. 4 July 2012, AIIMS; (c) Live Laparoscopic Transperitoneal nephrectomy, SELSICON-2012, 2–4 November 2012, PGI, Chandigarh; (d) Laser Prostatectomy by Green Light Laser: 9 October 2012,
Government Medical College and Hospital, Chandigarh; (e) Laser Prostectomy by Green Light Laser: Invited as a Faculty, 27 September 2012, ESI Hospital, Basai Darapur, New Delhi; (f) Artificial Urinary Sphincter and Sling Surgery for Urinary Incontinence: Chairperson, 25 August 2012, organized by CIPLA, New Delhi; Chairperson at In Pursuit of Excellence-Laparo Urology Surgery: Keynote Address CME & Workshop on Advanced Laparoscopy in Urology-13–14 October 2012. Organized by Department of Urology, Army Hospital (Research & Referral), Delhi Cant; Chairperson, Live Laparoscopic Renal Transplantation Surgery in CME & Workshop on Advanced Laparoscopy, 13–14 October 2012, Department of Urology, Army Hospital (Research & Referral), Delhi Cant; Advisory Board Meeting regarding the scope of Mirabegron in India: Expert faculty, 24 June 2012, organized by Astellas Pharma (India) Private Limited, New Delhi.

Dr Rajeev Kumar delivered the Dr Roy Chally Oration: Magnetic Resonance Methods–a new tool in prostate cancer diagnosis. Annual meeting of the Urological Association of Kerela, 26–28 October 2012, Kannur; Organized a full day workshop on Medical Writing, 11th Asian Congress of Urology, 22–26 August 2012, Pattaya, Thailand; Organized a 3-hour workshop: Chairing a scientific session. Annual meeting of Urological Society of India, 17–20 January 2013, Pune; Conducted a solo 6 hour workshop: Biostatistics and Andrology. Bengal Urological Association, 29 March 29 2013, Kolkata; Faculty for CMET–NMJI workshop on scientific writing for Residents and Researchers. 9–10 February 2013, AIIMS; demonstrated live laparoscopic adrenalectomy. 8th International meeting of BAUS, 14–16 February 2013, Dhaka, Bangladesh; PCNL (5 cases) and Transperitoneal laparoscopic pyeloplasty with pyelolithotomy. SLAUS Mentorship program on PCNL, 1–4 December 2012, Colombo, Sri Lanka; Laparoscopic adrenalectomy. 22nd Annual Conference of North Zone Chapter of Urological Society of India, 16–18 November 2012, Jammu.

Dr Prabhajot Singh chaired the session Psychosexual Counseling for HIV Couples, Joint Andrology Workshop, April 2012, PGIMER, RML Hospital, New Delhi.

Dr Ashish Kumar Saini was Member, Organizing Committee of Trauma 2012, 23–24 November 2012, AIIMS, New Delhi; was awarded Chandigarh best video (second prize) for Robot assisted inguinal lymph node dissection at USICON 2013, Pune; Chaired the session Sexual Health – Ancient Concept, Joint Andrology Workshop, April 2012, PGIMER, RML Hospital, New Delhi.
10.1 Cardiothoracic Sciences Centre

Chief
Balram Airan

CARDIOTHORACIC AND VASCULAR SURGERY

Professor and Head
Balram Airan

Professors
U.K. Chowdhury
S.K. Choudhary
A.K. Bisoi

Additional Professors
Milind Hote
Sachin Talwar
V. Devagourou

Assistant Professors
P. Rajashekar
Manoj Kumar Sahu

CARDIOLOGY

Professor and Head
V.K. Bahl

Professors
Anita Saxena
K.C. Goswami
S.S. Kothari
R. Juneja
Balram Bhargava
R. Narang

Additional Professors
S. Mishra
N. Naik
S. Seth
G. Karthikeyan
Rakesh Yadav
Gautam Sharma
S. Singh

Associate Professors
Ambuj Roy
S. Ramakrishnan

Assistant Professors
Saurabh K. Gupta
Sunil K. Verma

CARDIAC ANAESTHESIA

Professor and Head
Usha Kiran

Professor
Sandeep Chauhan

Additional Professors
Neeti Makhija
Poonam Malhotra Kapoor
Minati Choudhury

Associate Professors
Shambhu Nath
Das Parag Gharde
Vishwas Malik

Assistant Professors
Suruchi Hazija
Arindam Choudhury
<table>
<thead>
<tr>
<th>Department</th>
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<tr>
<td>CARDIAC RADIOLOGY</td>
<td>Professor and Head</td>
<td>Sanjiv Sharma</td>
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<tr>
<td></td>
<td>Associate Professor</td>
<td>Priya Jagia</td>
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<td></td>
<td>Additional Professor</td>
<td>Gurpreet Singh Gulati</td>
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<tr>
<td>NUCLEAR MEDICINE</td>
<td>Additional Professor</td>
<td>Chetan D. Patel</td>
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<td>STEM CELL FACILITY</td>
<td>Additional Professor</td>
<td>Sujata Mohanty</td>
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<tr>
<td>CARDIAC PATHOLOGY</td>
<td>Professor</td>
<td>Ruma Ray</td>
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<td>Assistant Professor</td>
<td>Sudheer Arava</td>
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<td>R. Lakshmy</td>
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<tr>
<td>ORGAN RETRIEVAL BANKING ORGANIZATION (ORBO)</td>
<td>Additional Professor</td>
<td>Aarti Vij</td>
</tr>
<tr>
<td>HOSPITAL ADMINISTRATION</td>
<td>Additional Professor</td>
<td>Aarti Vij</td>
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<tr>
<td>BLOOD TRANSFUSION SERVICES</td>
<td>Chief Medical Officer</td>
<td>Anjali Hazarika</td>
</tr>
<tr>
<td></td>
<td>Additional Professor</td>
<td>R. Lakshmy</td>
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</table>
HIGHLIGHTS
The department of CTVS was in the forefront in the field of patient care, teaching and research. Besides catering to a large number of patients with all types of congenital and acquired cardiovascular diseases, the department is actively engaged in research and collaboration at national and international levels in the field of research and publication. The faculty of the department delivered lectures and presented important research papers at national and international conferences. This year Professor Airan published 25 research articles and has been appointed as an external examiner for conducting CTVS examination at Koirala Institute, Kathmandu, Nepal. He has been nominated member in various selection committees like UPPSC for selection of lecturer CTVS, selection of candidates for the award of Commonwealth Fellowship Plan, 2013 by the government of UK, Interview Board of ICMR for selection of faculty at Bhopal Memorial Hospital and Research, Bhopal, policy matter with respect to cardiothoracic discipline by the Union Health Ministry/DGHS, Government of India.
Under his headship the department performed around 4191 operations this year. Nearly 42,000 patients have been observed and treated at the OPD section.
Cardiology department has developed excellent facilities for clinical care and has fully developed facilities for adult and pediatric interventions. Laboratory testing facilities include treadmill testing, Holter recording, echocardiography, etc. The department has done pioneering work in the field of rheumatic fever and rheumatic heart disease. The department has organized conferences and the faculties have delivered many lectures in national and international conferences and published 51 research articles.
Cardiac Anaesthesia has a total of 19 publications and 62 talks and research papers were presented by the faculty and residents of the Department of Cardiac Anaesthesia. Four papers were awarded ‘Best presentation award’ at various conferences and workshops.
Cardiac Radiology is involved in research projects apart from routine clinical care programmes. The faculty have been members of various committees and delivered lectures in national and international conferences. Many research papers have been published based on the many research projects being done.
Nuclear Medicine (CTC) is a specialized nuclear cardiology unit in the Centre where diagnostic nuclear cardiology procedures are performed. It is also a unit where nuclear medicine students and technologists are trained on rotational basis in nuclear cardiology techniques.
Stem Cell Facility is committed to basic, preclinical and clinical stem cell research. The Facility has more than 25 running projects funded by various funding agencies like DBT, ICMR, UGC, etc. The facility imparts training to postgraduates and professionals from different institutions in India and abroad. The facility is continuously publishing research papers in peer-reviewed journals of national and international repute.
In the Cardiac Pathology department 124 cases of immunohistochemistry, 3 cases of H and E staining and other manual processing like 3 post-cardiac transplant biopsies have been done.
The department of Cardiac Biochemistry is involved in research based on telomere biology, endothelial function, genetic predisposition for CAD in Indians, biological mechanism behind developmental origin of adult chronic diseases. The various tests being carried out in Cardiac Biochemistry Lab for patients include routine chemistry, routine hematology, coagulation, etc.
ORBO has contributed in framing Transplantation of Human Organs Rules 2012. The department has procured 157 organs and tissues for transplantation. 15 whole bodies were also donated through ORBO to facilitate medical education in the last one year and 1480 persons pledged for organ donation on motivation of ORBO. Total number of registry till date is more than 17500.
Hospital administration is involved in management and administration of cardiothoracic and neurosciences centre – 411 bedded super specialty centre. Supervision of nursing, sanitation, security, administration, stores and other support staff for blood bank, labs, manifold, reception, laundry, CSSD, etc. Various patient care areas were also renovated. Renovated and Upgraded Cafeteria of C.N. Centre.
The blood transfusion services of CN Centre caters round the clock transfusion needs of patients admitted in CN Centre of AIIMS by collecting, processing and providing safe and quality blood and blood components. The activities include both in house and outdoor blood collection, blood donor motivation and pre-donation and post-donation counseling, blood component preparation and various serological tests. Every unit of blood collected is tested for transfusion transmissible infections like Hepatitis B, Hepatitis C, HIV-1 and 2, syphilis, Malaria. In addition, test for CMV is carried out for heart transplant cases.

The Department of Dietetics provides dietetics services in CN Centre and CN Tower, private wards. The department is actively involved as an integral part in the patient care services of the hospital. The department is involved with Medical Nutrition Therapy, Administration and Dietary Services, Teaching and Research.

EDUCATION

CARDIO-THORACIC VASCULAR SURGERY

CMES/Workshops/Symposia/National and International Conferences

2. Workshop on mitral and aortic valve repair conducted by V. Devagourou, VS Hospital Ahmedabad, May 2012.

Lectures delivered
Balram Airan: 5  S.K. Choudhary: 16  Sachin Talwar: 17  V. Devagourou: 4
Milind Hote: 1  Manoj Sahu: 1

Oral papers/posters presented: 7

CARDIOLOGY

CMES/Workshops/Symposia/National and International Conferences

Organized by the department

CARDIAC ANAESTHESIA

9 DM candidates including three Lt. Col. sponsored by the Army and 8 other MD Junior resident doctors from Anesthesia department have undergone superspeciality training in CardiacThoracic-Anesthesia. Ten MD candidates from Lady Harding Medical College were imparted short term training in the specialty of Cardiac-Anesthesia. Short term training imparted to two DM candidates from Shree Chitra Tirunal Institute.

CMEs/Workshops/Symposia/National and International Conferences

Organized
1. Sandeep Chauhan organized the 1st AIIMS ECMO workshop, 29 September 2012 at AIIMS.

Lectures delivered
Usha Kiran: 24  Neeti Makhija: 2  Poonam Malhotra: 13  Minati Choudhury: 5
Parag Gharde: 1  Vishwas Malik: 1  Arindam Choudhury: 1
Oral papers/posters presented: 11

CARDIAC RADIOLOGY
CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered
Sanjiv Sharma: 8   Gurpreet S. Gulati: 10   Priya Jagia: 6

NUCLEAR MEDICINE
Postgraduate students: 10 (training of Nuclear Medicine, MD students on rotational basis in Nuclear Cardiology)
Thesis/research papers completed: 5 (Four thesis and One MCh research paper)
Moderator in Journal Club/Seminars: 6
New thesis started: 4

Oral papers/posters presented: 3

STEM CELL FACILITY
Undergraduate, post graduate, paramedical
The department participates in PhD, DM and MD programmes: 15

Short and Long term training
One graduate student and four WHO fellows from Korea received short term training.

CMEs/Workshops/Symposia/National and International Conferences
Organized

Lectures delivered
Sujata Mohanty: 8

CARDIAC BIOCHEMISTRY
Two students (Tarik Mohammad and Vineet Shah) pursuing PhD in the department.
Two students (Kranthi Kumar Vemparala and Ransi Ann Abraham) were awarded doctorate degree.
Co-guide for one student (Arpita Sharma) from NDDTC

CMEs/Workshops/Symposia/National and International Conferences
Oral/poster presentations: 2

ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)
CMEs/Workshops/Symposia/National and International Conferences
Organized
1. National Consultation to develop guidelines for tissue donor screening, tissue retrieval and tissue tracking, 18 August 2012, Dr Ramalingaswami Board Room, AIIMS, New Delhi.
2. Nurses Training Programme on Cadaver Organ Donation Process, 11–15 March 2013, CMET, AIIMS. 280 Nurses of AIIMS were trained.

Lectures delivered
Aarti Vij: 4
Oral papers/posters presented: 3
RESEARCH
CARDIO-THORACIC VASCULAR SURGERY
1. CORONARY – 5 year follow up on pump vs off pump CABG (International Multicentric trial)
2. Serum Osteopontin – A marker for severity of coronary artery disease.
3. A prospective randomized study to evaluate the effects of Levosimendan in patients with coronary artery disease with diastolic dysfunction.
4. Completed DBT funded project – Role of mesenchymal stem cells in surgical treatment of ischemic heart disease.
5. Study of DAPI labelled mesenchymal stem cells in a rat model of myocardial infarction and heart failure.
6. SIRS Trial – Steroids In Cardiac Surgery: A randomised trial to study effectiveness of steroids in open cardiac surgery.
7. REMOTE IMPACT – Remote Ischemic preconditioning in cardiac surgery.
8. Study of Doppler gradients in femoral artery following patch repair of cannulation site.
9. Sternal bone scan to determine differences in outcome following LIMA harvesting – skeletonised vs pedicled LIMA harvesting technique.
11. Hemodynamic outcomes following unidirectional valved patch closure of ventricular septal defects.
12. Del-Nido versus cold blood cardioplegia for myocardial protection.
13. Pericardial patch versus PTFE patch for RVOT reconstruction.
14. Off pump TCPC versus TCPC on cardiopulmonary bypass.
15. Extent of Degenerative Changes in Ascending Aorta of Patients with Bicuspid Aortic Valve (BAV).
16. Comparison of clinical and angiographic outcome in patients undergoing on pump CABG with radial artery graft pretreated with phenoxybenzamine Vs. papaverine.
17. Histopathology of the ascending aorta and the risk factors related to histopathological conditions and aortic dilatation in patients undergoing corrective surgery for Cyanotic Congenital Heart Diseases.
18. Specific issues after pericardietomy for chronic constrictive pericarditis: Actuarial survival, fate of preoperative mitral and tricuspid regurgitation, ventricular function, freedom from reoperation and other events.
21. Does postoperative right-to-left ventricular pressures ratio in the absence of residual correctible surgical lesion determine the postoperative outcome following intra-cardiac repair of tetralogy of Fallot.
22. Dopper tissue imaging evaluation of right ventricular function and its relationship to histopathology of the right ventricular outflow tract in patients undergoing intra-cardiac repair of tetralogy of Fallot.
23. The impact of myocardial histopathology on right ventricular function after repair of tetralogy of Fallot.
24. Dopper tissue imaging evaluation of right ventricular function at rest and during dobutamine infusion in patients after repair of tetralogy of Fallot.
25. Histopathologic comparison of phenoxybenzamine vs papaverine use for radial artery conduit during coronary artery bypass grafting.

CARDIOLOGY
Funded projects
Ongoing
1. CVD Biomarker profiling in Acute coronary events by antibodies and antigen array. VK Bahl, ICMR.
4. Intravascular Ultrasound for severe pulmonary artery hypertension in congenital heart diseases. R Juneja, DST.
5. Stem cell therapy in dilated cardiomyopathy. Sandeep Seth, DBT
6. Global Rheumatic Heart Disease Registry (REMEDY). G. Karthikeyan, Canadian Institutes of Health Research through CANNeCTIN (Canadian Network of Clinical Trials Internationally).
7. Prevalence of gene polymorphisms affecting VKA metabolism in patients with mechanical heart valves, Intramural grant, AIIMS.
8. Assessment of myocardial perfusion in the territory of the left anterior descending artery proximal to left internal mammary graft insertion, Intramural grant, AIIMS.
9. Endothelial microparticles and EPC in predicting thromboembolism in patients with IE. AIIMS Intramural Grant.

Completed
2. Morphology and function of platelets in idiopathic pulmonary artery hypertension. DST.

Departmental projects

Ongoing
1. Incidence of stroke and systemic embolism in patients of rheumatic MS in sinus rhythm.
2. Rhythm control in patients with rheumatic MS with atrial fibrillation following PTMC.
3. Chronic low grade inflammation and risk of AF in rheumatic MS.
4. CT angiography findings during an episode of hemoptysis in Eisenmenger syndrome.
5. 3D echo predictors of success of AVBD.
6. A study of effort limitation in Eisenmenger syndrome.
7. Effect of tobacco chewing on coronary microvasculature and hemodynamics.
8. 2D versus 3D echo in predicting acute outcome of PTMC.
9. Prospective evaluation of children with NSAA.
10. Thiamine levels in heart failure patients on high dose diuretics.
11. Incidence of new onset AF in post rheumatic heart valve surgery patients.

Completed
1. MRI during acute rheumatic fever.
2. Comparison of 3D echo and MRI parameters in Ebstein’s anomaly.
3. Pacemaker lead placement in RVOT versus RV apex – a validation by CT.
4. Anti streptococcal antibodies as predictor of success of prosthetic heart valve thrombosis.
5. Indication and efficacy of vascular plug in congenital heart disease interventions.

Collaborative projects
1. RED HF study – A double blind randomized placebo-controlled, multicentre study to assess the efficacy and safety of Darbepoetinalfa treatment on mortality and morbidity in Heart failure (HF) subjects with symptomatic left ventricular systolic dysfunction and Anemia.V K Bahl, Amgen Technology Pvt. Ltd.
3. Remote Ischemic Preconditioning pilot trial (Remote IMPACT), G Karthikeyan, Canadian Institutes of Health Research.
4. Global PI and Coordinator of the Rest-stress MIBI-SPECT compared to Coronary CT Angiography in the Assessment of Patients at Intermediate Risk of Coronary Events – A Pilot Randomized Controlled Trial, G Karthikeyan, IAEA.
5. VISION Registry-International registry of patients undergoing non-cardiac surgery which is looking at the incidence and predictors of perioperative ischemic cardiac events in the first 30 days after surgery. The registry has participants from over 10 countries around the world.
6. UKIERI Project – A collaboration of Imperial college London and Department of Cardiology AIIMS – Inflammatory and novel biomarkers in untreated heart failureFunded by UKIERI initiative.
CARDIAC ANAESTHESIA

Funded projects

Ongoing

Completed

Departmental projects

Ongoing
1. Comparison of the haemodynamic effects of the induction agents etomidate, ketamine and sevoflurane using the model of electrical velocimetry based cardiac output monitoring.
2. Comparison of the effect isoflurane, sevoflurane, and desflurane on myocardial protection in paediatric patients undergoing cardiac surgery.
3. Comparison of induction with etomidate and propofol on adrencortical suppression in patients undergoing coronary artery bypass graft surgery.
4. Comparison of induction with etomidate and ketamine on adrencortical suppression in patients undergoing Tetralogy of Fallot.
6. Role of SCVO2 in TOF patients.
8. The effect of angiotensin converting enzyme inhibitors when administered early after CABG.

Completed
1. Comparison of different doses of epsilon aminocaproic acid in patients undergoing corrective surgery in Tetralogy of Fallot.
2. Effect of phenoxybenzamine in patients undergoing arterial switch operation during cardiopulmonary bypass.
3. Haemodynamic effect of intranasal dexmedetomidine in comparison to dexmedetomidine plus ketamine or midazolam in congenital heart disease paediatric patients undergoing cardiac catheterization.
4. Effect of intranasal dexmedetomidine on premedication, sedation and haemodynamics of intubation in Tetralogy of Fallot patients.

Collaborative projects

Ongoing
1. Comparison of off pump versus on pump fontan operation (CTVS).
2. Comparison of Del-nido versus custodial cardioplegia solution in paediatric patients undergoing Tetralogy of Fallot surgery (CTVS).
3. A prospective randomized study to compare systemic emboli in computer assisted navigation as conventional surgical technique for knee replacement (Orthopaedics).
1. Neurological outcome in aortic arch replacement surgeries without hypothermic circulatory arrest (CTVS).
2. Histopathological study of degenerative changes in ascending aorta of patients with bicuspid aortic valve (CTVS).
3. Desflurane and TIVA in shunt procedures for cyanotic congenital heart disease (University of Florida).

**CARDIAC RADIOLOGY**

**Funded projects**

**Ongoing**

1. Induction of therapeutic angiogenesis in critical limb ischemia by intraarterial delivery of autologous bone marrow derived stem cell. Sanjiv Sharma, DBT, 2009–14, Rs 60 lakhs.
2. Dual energy, dual source CT in the comprehensive cardiac assessment of patients at intermediate risk of coronary artery disease (CAD). Gurpreet S Gulati, AIIMS Research Grant, 1 year 6 months, 2012–23, Rs 4 lakhs.

**Completed**


**Departmental projects**

**Ongoing**

1. To evaluate the feasibility, safety and efficiency of cell base therapy for the treatment of diabetes mellitus by local intra-arterial delivery of autologous bone marrow derived adult stem cells in the pancreas.

**Completed**

1. Volumetric analysis and dynamic assessment of aorticaneurysm size with Gated CT angiography
2. MRI for assessment of cardiac morphological changes in patients with acute rheumatic fever.

**Collaborative projects**

**Ongoing**

1. Coronary CT angiography to predict vascular events in non-cardiac surgery patients cohort evaluation study (Coronary CTA VISION) (Cardiology).

**NUCLEAR MEDICINE**

**Collaborative projects**

1. Use of autologous bone marrow stem cells for myocardium regeneration.
2. Labeling of stem cells with Technetium-99m hexamethylenepropylene amineoxine (Tc99m HMPAO) and to detect the homing of stem cells in the myocardium after intra-coronary injection.
3. Efficacy of stem cells in improvement of left ventricular function in patients with acute myocardial infarction.
4. Role of SECT-MPI and CT angiography in the assessment of Patients at intermediate risk of coronary events – A pilot randomized controlled trial.
5. Dual Energy, Dual source Computed Tomography (DEDSCT) in the comprehensive cardiac assessment of patients at intermediate risk for coronary artery disease.
6. Role of stem cell after late opening of infarct related artery (COAT trial).

**Departmental projects**

**Completed**

1. Detection of perfusion abnormalities in patients with pacemakers on stress-rest Tc99m tetrofosmin myocardial perfusion SPECT: Comparison between right ventricular outflow tract septum vs apical pacing.
2. Role of phase analysis on equilibrium radionuclide angiocardiology in assessment of ventricular dysynchrony in patients of dilated cardiomyopathy. Comparison with echocardiography.
3. PET–CT in treatment response evaluation in patients with primary NSC lung cancer.
4. PET-CT in treatment evaluation of recurrent cervical cancer.
5. Skeletonized vs. pedicled harvest of left internal thoracic artery in patients undergoing CABG: Effect on postoperative sterna vascularity, pain and dysesthesia – a prospective randomized study.

**Ongoing**

1. Assessment of cardiac dyssynchrony in patients with non-ischemic dilated cardiomyopathy undergoing Cardiac Resynchronization therapy using Tc- 99m MIBI myocardial perfusion imaging. Comparison with Radionuclide ventriculography.
2. Imaging and molecular characterization of differentiated thyroid cancer.
3. Cytokeratin fragment 19 a dedifferentiation marker of advanced thyroid cancer.

**STEM CELL FACILITY**

**Funded projects**

**Ongoing**

1. To study the association of cardiac specific genes towards generation of functionally active cardiomyocytes derived from human bone marrow Mesenchymal stem cell, Sujata Mohanty, ICMR, 3 years, Rs 49.9 lakhs.
2. Transplantation of mesenchymal stem cell in animal models of myocardial infarction and Parkinson’s disorder, Sujata Mohanty, DBT, 5 years, Rs 45 lakhs.
3. Role of mouse embryonic fibroblasts and human foreskin fibroblast feeder cells in maintaining self renewal of embryonic stem cells: Role of TGF-β and IGF-II, Sujata Mohanty, UGC, 2 years, Rs 4.95 lakhs.
4. 3D Expansion and differentiation of mesenchymal stem cell into osteoblast for bone tissue engineering on biocomposite scaffold, Sujata Mohanty, ICMR, 3 years, Rs 24.83 lakhs.

**Completed**

1. Isolation and expansion of Mesenchymal Stem Cells (MSC) from human BM (BM)/ umbilical cord blood (UCB) and evaluation of its cardiomyogenic and neurogenic differentiation potential, Sujata Mohanty, ICMR, 3 years, Rs 29.33 lakhs.
2. Designing a biobank for biological samples collected from a mega study of acute coronary events in India, Sujata Mohanty, DBT, 1 year, Rs 5.35 lakhs.

**Departmental projects**

**Ongoing**

1. To optimize the differentiation potential of BM-MSC into cardiomyocytes using a novel inducer-TGF-β1.

**Completed**

1. Comparative analysis of expansion and differentiation potential of MSC derived from dental pulp and bone marrow.
2. Expression status of HLA molecules on undifferentiated and differentiated mesenchymal stem cells (MSC) an in vitro study.
3. Establishment of Melanocyte Culture in a serum free system for transplantation in vitiligo patients.
4. To optimize the differentiation potential of BMSC into cardiomyocytes using a novel inducer.

**Collaborative projects**

**Ongoing**

1. DBT Centre of Excellence for Stem Cell Research: Basic and Transplantation (IIT, Delhi).
2. Induction of therapeutic angiogenesis in critical limb ischemia by intra-arterial delivery of autologous bone marrow derived stem cells (Surgery).

**Completed**

1. Use of autologous bone marrow stem cells for myocardium regeneration (CTVS).
2. Efficacy of stem cell in improvement of left ventricular function in patients with acute myocardial infarction (Cardiology).
3. Culture of limbal stem cell for ocular surface reconstruction in stem cell deficiency disorder (Dr R.P. Centre).
4. Use of autologous bone marrow derived stem cells for rehabilitation of patients with dry age related macular degeneration and retinitis pigmentosa: A phase-I clinical trial (Dr R.P. Centre).
5. Safety and Efficacy of Autologous Stem Cell in prevention of amputation in patients with chronic critical limb ischemia (Surgery).
6. MRI from in-vivo tracking of iron oxide labeled mesenchymal stem cells in a rat model of heart failure (Cardiac Radiology).
8. Exploring the role of MHC and co-stimulatory molecules in the immune evasion mechanism of glioma stem cells (Neurobiochemistry).

CARDIAC PATHOLOGY
Collaborative projects
1. Pathological evaluation of dilated cardiomyopathy with special reference to histological an morphometric analysis of fibrosis, capillary density, arteriolar density and pattern of collagen IV distribution-a study on endomyocardial biopsies and explanted native hearts.
2. Histopathological analysis of light microscopical and ultrastructural features of surgically excised left atrial appendage in patients with atrial fibrillation due to rheumatic heart disease
3. Endothelial injury and other histopathological changes after papavarine injections in radial and left internal mammary arteries used as conduit for coronary artery bypass.
4. Histopathological and biochemical analysis of Atherosclerotic plaque in coronary atherosclerosis in comparison with Dual energy technique of CT scanner.
5. The virtual medical classroom an emerging tool for teaching medicine and science (funded by national knowledge commission).
6. Immunohistochemical expression of jak-p, stat-3 and bcl-2 in oral squamous cell carcinoma with and without lymph node metastasis and verrucous carcinoma.
7. Immunohistochemical study of e-cadherin, β-catenin and vimentin in oral squamous cell carcinoma, verrucous carcinoma in comparison with that of a metastatic squamous cell carcinoma in a cervical lymph node.
8. A clinico morphological study of cutaneous tuberculosis with special emphasis on immunohistochemistry.

CARDIAC BIOCHEMISTRY
Funded projects
Ongoing

Completed
2. Effect of trans fatty acids on expression of transcription factors, PPAR γ and SREBP1c. Institute funded. R. Lakshmy, Intramural, 2011–12, Rs 1.80 lakhs.
3. Estimation of trans fatty acid content in selected common Indian fast food items. R. Lakshmy, SRF fellowship funded by ICMR, 2009–12.

Departmental projects
Ongoing
1. Relationship of birth size, infant and childhood catchup growth on telomere length and oxidative stress markers in adulthood.
2. Association of vitamin D deficiency with circulating endothelial progenitor cell number and telomere length in patients with ischemic or diluted cardiomyopathy.
**Completed**
1. Circulating endothelial progenitor cells (EPC) in the patients of CAD: Role of telomere length and telomerase activity in EPC senescence.
2. Development and validation of a simple method for measurement of trans fatty acid intake and to study the association between trans fatty acids and CAD.

**Collaborative projects**

**Ongoing**
1. Effect of antioxidant supplementation on pancreatic function and markers of fibrosis in chronic pancreatitis: A randomized controlled double blind trial (Gastroenterology).
2. Nutritional status in pediatric acute leukemia patients on follow up with Dr Sameer (IRCH).
3. A case control study of global and MTHFR gene specific methylation vs a vis pregnancy complications in North Indian population (Delhi University).
4. Assessment of prevalence of Vitamin D deficiency and associated factors amongst children in the age group of 6-18 yrs. from three high altitude regions (1000 meter and above) of Himachal Pradesh, India (Human Nutrition Unit).
5. Assessment of Nutritional Status, diet related morbidity and utilization of health care facilities in the elderly population aged 60 years and above (Human Nutrition Unit).
6. Influence of geneticpolymorphisms, clinical and biochemical parameters in determining susceptibility to nonalcoholic fatty liver disease in Indianoverweight adolescents (Paediatrics).
7. Neuroendocrine stress response in robotic urological strategy: Dexmedetomidine based versus fentanyl based total intravenous anesthesia (Cardiac Anaesthesia).
8. Re-establishment of normal reference range of radioiodine uptake values (RAIU) in the era of universal salt iodination (Nuclear Medicine).
9. Prevention of type 2 diabetes in women with prediabetes using vitamin D supplementation and lifestyle intervention in North India (PREVENT-WIN Study) (Community Medicine).
10. Genetic determinants of birth weight and growth trajectory and influence of parental genotype on these anthropometric indicators (Endocrinology).
11. Understanding the inter-generational programming of health and disease in Indians (Endocrinology).
12. Childhood obesity in India: A multi-centre study on its measurement and determinants (Endocrinology).

**Completed**
1. Oxidative stress, Carotidintima media thickness and endothelial dysfunction in renal transplant recipients and effect of therapy with N-Acetyl cystiene (Nephrology).
2. Adiponectin, C-reactive protein and interleukin-6 in overweight children and adolescents and their relationship with dyslipidemia and insulin resistance (Pediatrics).
4. Prevalence of coronary heart disease and its risk factors in residents of urban and rural areas of NCR-A repeat survey (Community Medicine).
5. Effect of atorvastatin in hyperlipidemia and progression of carotid intima media thickness in steroid resistant nephroticsyndrome (Pediatrics).

**ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)**

**Departmental projects**
1. Study of awareness about organ donation in a rural community of Haryana.
2. Study of factors affecting tissue and organ donation in medico-legal cases at a tertiary care hospital.

**Collaborative projects**
1. Intravenous autologous bone marrow mononuclear cells (BMMC) for patients with acute ischemic stroke (Neurology).
2. Intravenous autologous bone marrow mononuclear cells (BMMC) for patients with acute ischemic stroke: Multicentric study (Neurology).
3. Impact of grief counsellors vs. trained nurses in improving and sustaining eye donation in institutional setting and operational research (Dr R.P. Centre).
4. Survey of the awareness and belief regarding brain death and the role of educational intervention on its acceptance and deceased donation rates (G.I. Surgery).
HOSPITAL ADMINISTRATION (CTC)

Departmental projects
1. Study of the system of involvement of the patient/relatives in decision making before any surgical intervention in the CN Centre and the Main hospital at AIIMS, Delhi.
2. Study of the System of issue of medical certificates in AIIMS, identify gaps and develop SOP (Protocol) for issue of medical certificates.
3. Study to investigate the Prevalence and Circumstances of Needle Stick Injury (NSI) among Healthcare Workers at AIIMS and to ascertain the effectiveness of the existing control measures and standard precautions.
4. Study of the Policies and Procedures for issue of Birth and Death Certificate in AIIMS, identify the gaps and suggest a SOP for the same.
5. Study of Quality and efficacy of HVAC system in OTs and ICUs in AIIMS.

BLOOD TRANSFUSION SERVICES

Collaborative projects
Ongoing
1. Safety and efficacy of autologous stem cell in preventing amputation in patients with chronic critical limb ischaemia (Surgery).
2. Generation and characterization of single chain variable region (ScFv) antibody against envelope gp120 of HIV-1 Clade C (Biochemistry).
3. Production and characterization of site selected human monoclonal antibodies against the envelope glycoprotein of HIV-I (clade-C) (Biochemistry).
4. SDF-1 and DC-SIGNR polymorphism and expression in HIV-I infection (Biochemistry).
5. Immunological characterization of HIV-1 infection in children (Biochemistry).
6. Functional characterization of Dendritic cells in HIV-I infection (Biochemistry).
7. Dendritic cell count and cytokine levels in HIV-I infection (Biochemistry).
8. Establishing normal reference range of serum Free light chairs in healthy Indian adults (Laboratory oncology)
9. Generation and characterization of Pseudoviruses forHIV-1 in Indian infected patients (Biochemistry)
10. Evolution of HIV-1 clade C envelope in chronically infected Indian paediatric patients (Biochemistry)

PUBLICATIONS

CARDIO-THORACIC VASCULAR SURGERY Journals: 34
CARDIAC ANAESTHESIA Journals: 15 Abstracts: 3
Chapters in book: 2 Books: 1

CARDIAC NUCLEAR MEDICINE Journals: 2
CARDIAC PATHOLOGY Journals: 4 Chapters in books: 2

CARDIOLOGY Journals: 51
CARDIAC RADIOLOGY Journals: 10 Abstracts: 2
CARDIAC BIOCHEMISTRY Journals: 8 Abstracts: 3

STEM CELL FACILITY Journals: 8 Abstracts: 5

BLOOD TRANSFUSION SERVICES
Journals: 2

PATIENT CARE

CARDIO-THORACIC VASCULAR SURGERY
Total operations performed 4191 Open Heart Surgery 3206 Closed Heart Surgery 985
Outpatient attendance: 41923 patients

CARDIOLOGY
New OPD cases 30, 820 Old cardiology cases 78,746
Patient services

TMT 2,229 Holter 2,813
Echocardiography 34,270 Fetal echocardiography 378
TEE 48 ECG (Indoor) 34,796
ECG (OPD) 34,676 Ambulatory BP 45
Event Recorder 21 Head up tilt test 94

Cath Lab Services

Diagnostic
Coronary angio and Cath 1489 + 1426

Interventions
Coronary Interventions 1098 Mitral Valve Dilatations 454
Device closures 120 Pacemakers 166
ICD/BiV/Combo 74 EPS/RFA 41
Other interventions 210

CARDIAC ANAESTHESIA
Faculty and Residents of the Department of Cardiac-Anesthesia are involved in providing anesthesia care in 8 operation theater, 5 catheterization labs, CT angiography and MRI Cardiac-Anesthesia department is also involved in resuscitation and ventilatory care in CTVS-ICU-A and B, ICCU, all the general wards and C.N. Tower.

Stress Management clinic is looked after by the department for Cardio-Neuro patients care and staff of AIIMS.

CARDIAC RADIOLOGY

Investigations done
Cine Fluoroscopy 73671 X-ray 8400
DSA 930 MRI 377
CT 2840 US/Doppler 3668
Catheter procedures 6071

NUCLEAR MEDICINE

Nuclear Cardiology unit is equipped with a dual head SPECT-CT Gamma Camera. The nuclear cardiology unit caters to patients referred for cardiac studies from CN centre and other departments of the hospital. The department also performs MUGA studies for assessment of left ventricular function in CAD patients referred from the centre and from IRCH for cardiac evaluation in patients receiving chemotherapy and evaluation of patients on pacemaker. We also perform cardiac PET imaging with N-13 NH3 perfusion and F-18 FDG glucose metabolic studies for assessment of myocardial viability.

Total number of studies performed 2578
Myocardial perfusion study 1629 MUGA study 864
Cardiac PET 43 Misc.(V/Q scan,1st pass) 42

STEM CELL FACILITY

Stem cell transplantations under various clinical trials: 100

Corneal Surface Reconstruction
Limbal Stem Cell transplantation 5 Oral mucosal transplantation 12

Cryopreservation
Cord blood stem cell 8 Bone marrow stem 12

Facilities available
Mononuclear cell separation, Stem Cell enumerations by Flow Cytometer, Cryopreservation of stem cells

CARDIAC PATHOLOGY

Specimens
Routine 288 cases Research 101 cases

Slides coated APES: 28,547 slides
Other work
Immunohistochemistry 124   H and E slides: 3
Manual processing (post cardiac transplant biopsies) 3   Frozen sections 2

CARDIAC BIOCHEMISTRY
Investigation
Routine chemistry: plasma glucose, urea, creatinine, uric acid, Calcium, phosphorus, total protein, albumin, SGOT, SGPT, alkaline phosphatase, amylase, electrolytes.
Routine hematology: hemoglobin, WBC, differential counts, platelets and ESR.
Coagulation: PT, APTT, FDP, Fibrinogen.
Cardiac Markers: CK, CK-MB, LDH, Troponin I and BNP.
Lipids: Cholesterol-total, Cholesterol-HDL, Cholesterol-LDL, Cholesterol-VLDL, Triglycerides, Lipoprotein (a), Apo(a), Apo(b).
Drugs: Digoxin, cyclosporine.
Thyroid hormones : T3, T4, TSH.
ASLO, CRP, Homocysteine, Vitamin B12 and Folate, RA factor, Catecholamine (plasma and urine), VMA, Glycosylated hemoglobin, Insulin.

ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)
- Initiated Registration of AIIMS for Lungs and Heart-Lung Transplantation.
- Contributed in framing Transplantation of Human Organs Rules 2012.
- Designed and Updated real time and vibrant ORBO Website (www.orbo.org.in) with a facility to download the organ donor form.
- 137 organs and tissues were procured for transplantation.
- 15 whole bodies were also donated through ORBO to facilitate medical education in last one year.
- Donor Registry: 1480 persons pledged for organ donation on motivation of ORBO. Total number of Registry till dated is more than 17500.
- Collaboration with various NGOs to promote the noble cause of organ and tissue donation.

Community Services/Camps
- IEC activity on Organ Donation at India International Centre, 5 December 2012. Mrs. Brinda Karat, CPI-M Leader Pledged for Organ Donation with ORBO.
- Organized IEC activity on organ donation, 25–27 September 2012. Photographs were clicked and given on the spot to those who supported the cause of organ and tissue donation.
- Poster competition on organ donation for medical graduates of different medical colleges of the country was organized in 26 September 2012.
- Awareness Camp on Organ Donation at American Express, Gurgaon, 25–27 September 2012. More than 500 Person pledged for organ donation with ORBO.
- Designed and Displayed Big Hoarding of ORBO in prominent places of AIIMS and Trauma Centre (First time in public sector).
- Designed and Displayed Electronic Boards of ORBO in prominent places of AIIMS and Trauma Centre (First time in public sector).
- IEC activity at India International Trade Fair 2012, Pragati Maidan in the Stall organized by Ministry of Health and Family Welfare, Govt. of India.
- Awareness Camp on Organ Donation at Bhagat Hospitals Pvt. Ltd., Janakpuri, New Delhi, 2 October 2012.
- IEC activity at Old Age Home at Nazafgarh on organ donation, 18 October 2012.
- Awareness camp on Organ Donation at Dr Mukherjee Nagar, Delhi, 12 January 2013.
- Awareness Camp on Organ Donation at Bosco Public School, Paschim Vihar, New Delhi, 23 February 2013.
- IEC activity at Ram Lal Anand College, University of Delhi, Dhaula Kuna, New Delhi, 24 February 2013.
- Awareness Camp on Organ Donation at Mayur Vihar Phase-III, Delhi, 3 March 2013.
HOSPITAL ADMINISTRATION (CTC)
- Management and Administration of Cardio Thoracic and Neuro Sciences Centre – 411 Bedded Super Specialty Centre. Having 15 Operation Theatres including Intra-op MRI Facility, 107 ICU beds, 7 Cath Labs along with state-of-the art Gamma Knife facility.
- Human Resource Management, Integration and co-ordination of patient care, clinical, diagnostic and support services.
- Supervision of nursing, sanitation, security, administration, stores and other support staff for blood bank, labs, manifold, reception, laundry, CSSD etc.
- Patient grievances and redressal.
- Hospital supplies and procurement.
- Various patient care areas were renovated. (NS-5 Neurology Ward, CT-3 Cardiology Ward, Paediatric Cardiology Ward, ORBO, Intra-operative MRI, Neurosurgery Operation Theatre).
- Renovated and Upgraded Cafeteria of C.N. Centre.
- Implemented Prepaid Cash Card Systems in CN Centre first time in any government hospital.
- Implemented CCTV Surveillances and monitoring system as well as MIS for CN Centre.
- Paediatric Cardiology Ward received the award for Best Maintained Ward in AIIMS.
- Computerization of Blood Bank, OPD and Stores of CN Centre was done.
- LED System for patient call in CN Centre OPD was installed.
- Co-ordination for VVIP care at C.N. Centre.

BLOOD TRANSFUSION SERVICES

**Blood units collected**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary donors in the department</td>
<td>259</td>
</tr>
<tr>
<td>Voluntary donors through blood mobiles</td>
<td>186</td>
</tr>
<tr>
<td>Blood received from Blood Bank, AIIMS</td>
<td>225</td>
</tr>
<tr>
<td>Blood received from other hospitals</td>
<td>365</td>
</tr>
<tr>
<td>Total number of blood units collected</td>
<td>22231</td>
</tr>
<tr>
<td>Replacement donors</td>
<td>12774</td>
</tr>
<tr>
<td>Blood received from IRCS</td>
<td>28</td>
</tr>
<tr>
<td>Family voluntary donor</td>
<td>8393</td>
</tr>
<tr>
<td>Autologous</td>
<td>1</td>
</tr>
</tbody>
</table>

**Blood Units issued**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>To CTVS/NS</td>
<td>26163</td>
</tr>
<tr>
<td>To JPNATC</td>
<td>326</td>
</tr>
<tr>
<td>To other hospitals</td>
<td>1350</td>
</tr>
<tr>
<td>Total number of blood units issued</td>
<td>30045</td>
</tr>
<tr>
<td>To Blood Bank, AIIMS</td>
<td>1626</td>
</tr>
<tr>
<td>To IRCS</td>
<td>29</td>
</tr>
<tr>
<td>HIV/HBV/HCV/VDRL reaction units discarded</td>
<td>551</td>
</tr>
</tbody>
</table>

**Laboratory procedures**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total blood grouping (ABO/Rh)</td>
<td>89553</td>
</tr>
<tr>
<td>Total crossmatching done</td>
<td>106964</td>
</tr>
</tbody>
</table>

**Infection markers**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV</td>
<td>26482</td>
</tr>
<tr>
<td>HBV</td>
<td>26345</td>
</tr>
<tr>
<td>HCV</td>
<td>26128</td>
</tr>
<tr>
<td>VDRL</td>
<td>23170</td>
</tr>
<tr>
<td>MP</td>
<td>24170</td>
</tr>
<tr>
<td>CMV</td>
<td>112</td>
</tr>
<tr>
<td>Total</td>
<td>126407</td>
</tr>
</tbody>
</table>

**Total number of blood components**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh frozen plasma (FFP)</td>
<td>17418</td>
</tr>
<tr>
<td>Platelet concentrate</td>
<td>18753</td>
</tr>
<tr>
<td>Recovered plasma</td>
<td>1367</td>
</tr>
<tr>
<td>Cryoprecipitate</td>
<td>1261</td>
</tr>
<tr>
<td>Packed red blood cells</td>
<td>20245</td>
</tr>
<tr>
<td>Total</td>
<td>59044</td>
</tr>
</tbody>
</table>

**Special procedures**

Single donor plateletpheresis

**DIETETICS**

The total number of patients seen in general and private wards and the therapeutic diets given:

A. Diets in general wards:

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal diet</td>
<td>77400</td>
</tr>
<tr>
<td>Khichdi /semisolid diet</td>
<td>10590</td>
</tr>
</tbody>
</table>

AIIMS 2012-2013/ 244
Feeds 12960

B. Therapeutic diets in general wards
- Diabetic diets 4000
- Renal diets 740
- High protein diets 22000
- High carbohydrate diet 2200
- Bland diets 360
Total 30,000

C. Therapeutic feeds
- Special feeds 4000
- Modified feeds 7000
- Diabetic feeds 5600
- Curd feeds 5000
- Chart feeds 400
- Moong daal/Hepatic feeds 400
Total 22800

D. Diets in in tower private ward
E. Number of diet counseling given to indoor and outdoor patients

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<td>September</td>
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<td><strong>Total</strong></td>
<td><strong>3255</strong></td>
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AWARDS, HONOURS AND SIGNIFICANT EVENTS

CARDIO-THORACIC VASCULAR SURGERY

Professor Balram Airan was appointed chairperson of the team for inspection by DGHS to carry out the inspection at PGIMER, Chandigarh on account of suitability of the hospital for registration to perform Heart, Lung and Heart-Lung Transplantation in terms of THOA, 1994; appointed chairperson of the team for inspection by DGHS to carry out the inspection of Sir Ganga Ram Hospital, New Delhi for renewal of registration to perform Heart and Lung Transplantation in terms of THOA, 1994; External Examiner for MCh CTVS examination at Koirala Institute, Kathmandu, Nepal; participated in 3rd International Conference on Stem Cells and Cancer (ICSCC-2012): Proliferation, Differentiation and Apoptosis, PGIMER, Dr Ram Manohar Lohia Hospital, New Delhi; appointed Member of High Powered Committee constituted by ICMR for making the Bhopal Memorial Hospital and Research Centre, Bhopal a teaching institution; appointed to select candidates for award of Commonwealth Scholarship/ Fellowship Plan, 2013 by Govt. of United Kingdom in Cardiology by Ministry of HRD; Member, Interview Board by ICMR for selection of Faculty at Bhopal Memorial Hospital and Research Section, Bhopal; appointed Expert/Member in various committees of policy matters with respect to Cardio Thoracic discipline by Union Health Ministry/DGHS, Govt. of India; appointed Member (Consultant) of Selection Committee, Allahabad by UP Public Service Commission for selection of Lecturer of CTVS in UP medical education department; participated in First meeting of ‘Advanced Heart Failure and Mechanical Assist Meet-2013’, Chennai; 14th Annual Conference of the Pediatric Cardiac Society of India, Chennai, 4–7 October 2012, and Faculty at the Conference and chaired a session on ‘Invited Guest Lectures’ delivered by Dr V.M. Reddy, Stanford University, USA and Dr P. Krishnan, Mayo Clinic, USA. Also member of the Panel of Judges on Session on ‘Innovations in Pediatric Cardiac Surgery/ Anaesthesia/ ICU Management’.

Professor S.K. Choudhary was appointed External Examiner for MCh (CTVS) examination at PGIMER, Chandigarh; External Examiner for final examination to Diploma Certificate Course in Perfusion Technology, Safdarjung Hospital, New Delhi; expert to assist Rajasthan Public Service Commission (Ajmer) Rajasthan to select the candidates for post of Assistant Professor; nominated member Expert Group for ‘National Consultation to develop Guidelines for Tissue Donor Screening, Tissue Retrieval and Tissue Tracking; appointed external examiner to conduct MCh (CTVS) practical examination, at PGIMER, Chandigarh; Expert for selection of Professor in Department of CTVS of Dr Ram Manohar Lohia Institute, Lucknow; appointed expert for selection of Professor in Department of CTVS, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow; nominated member, Expert Committee on Heart Valves for ‘National Consultation to
develop Guidelines for Tissue Donor Screening, Tissue Retrieval and Tissue Tracking; nominated a member of National Rheumatic Heart Consortium (NRHC).

**CARDIOLOGY**

Professor V.K. Bahl delivered prestigious Dr VV Shah (NSPHERE) oration 2012 during CSI annual meeting; Associate Editor of Heart Asia, a publication of BMJ group.

Professor Anita Saxena was Member World heart federation workgroup for echocardiography in rheumatic heart disease; best poster award ACC (American College of Cardiology) 2013; Visiting professor of Pediatric Cardiology, Variety Children’s heart centre Winnipeg.

Professor S.S. Kothari was President, Pediatric Cardiac Society of India; Editor, Annals of Pediatric Cardiology.

Professor Balram Bhargava: Wellcome Trust, DBT initiative on R & D for Affordable Health Care for India.

Professor K.C. Goswami was Secretary, Cardiological Society of India, Delhi branch.

Dr S. Mishra was Chairman National interventional council, Cardiological society of India; Elected Member Executive Committee, Cardiological Society of India.

Dr S. Ramakrishnan, Best paper award APPCS 12 (Asia Pacific Pediatric cardiac society), Taiwan; Assistant editor of Annals of pediatric cardiology; treasurer of Pediatric cardiac society of India.

Dr Saurabh K Gupta won Best interventional case award, PCSI 2012, Chennai; Sujoy B Roy award 2013, Best paper Delhi CSI.

**CARDIAC ANAESTHESIA**


Professor Usha Kiran was conferred Fellow of Indian College of Anaesthosiology; Review Board Member of Journal of Transesophageal echocardiography; honoured to release 1st issue at PGI; President of ‘PRAN’; Review Board Member, International Journal of Biosciences.

Dr Neeti Makhija was awarded first prize for presenting in free paper session on paper ‘Comparison of Epsilon Aminocaproic Acid and Tranexamic Acid in Thoracic Aortic Surgery: Clinical efficacy and Safety’. Makhija N, Sarupria A, Choudhary SK, Das SN, Lakshmy R, Kiran U in 51st Annual Conference of anaesthesiologists, Delhi Branch; was Elected as Member of executive council of Indian Association of Cardiac and Thoracic Anaesthesia (IACTA); Member Editorial Board of ‘Open Journal of anaesthesiology’; Member Editorial of J of Perioperative Echocardiography (Official J of Society of Transesophageal Echocardiography); Member Reviewer Board in J of anaesthesiology Clinical Pharmacology (pubmed indexed journal). Invited reviews from J of Clinical Anaesthesia (international indexed journal) and many other journals.

Dr Poonam Malhotra Kapoor was Member, Education Committee, Indian Association of Cardiac Anaesthesiologists which is a 7 membered panel for 10 years; Member Sub Committee for Revision of FIACTA syllabus of Indian Association of Cardiac Anaesthesiologists, 2011–12; Appointment as ‘Adjudent Professor’ in department of Anaesthesiology at the University of Central Florida College of Medicine’ USA for Research Collaboration; Member of ‘International Society of Cardiovascular Ultrasound’ in Albama, USA; Coordinator of examination for the IACTA perioperative TEE Examination; Coordinator of Examination of the 6th FIACTA Examination, Medanta, Medicity, Gurgaon; Elected President of the ECMO Society of India for the third year, 2012–13; Continuing on the Advisory Board of (a) Sonoclot Coagulation Testing at Institute of Liver and Biliary Sciences (ILBS), (b) Perioperative TEE workshop of Narayana Hrudayalaya at Bangalore; Editorial Board of (a) Annals of Cardiac Anaesthesia (ACA), (b) Journal of Anaesthesiology and Clinical Pharmacology (JOCAP); Review Committee of: ( a) Indian Association of Cardiothoracic and Vascular Anaesthesiologists (IACTA), (b) Research Society of Anaesthesiology and Clinical Pharmacology (RSACP), (c) Journal of Clinical Anaesthesiologists (JCA), (d) Indian Journal of Cardiovascular and Thoracic Surgery (IJCSTS), (e) Nominated Executive Member of Delhi Branch Indian Academy of Echocardiography (IAE).
Dr Minati Choudhury was Editorial board member, Annals of Cardiac Anesthesia; Review board member: (a) Indian Journal of Anesthesia, and (b) Journal of Anesthesiology and clinical pharmacology.

Dr Vishwas Malik was Nominated as Member Editorial Board of ‘Annals of Cardiac Anaesthesia’; Nominated Member ‘Executive Committee of Indian Association of Cardiothoracic Anaesthesiologists (20011–13).

Dr Arundam Choudhury received ‘best paper awarded’ in ‘Who’s the best’ interesting paper section in Annual perioperative TEE workshop held at PGIMER, Chandigarh.

CARDIAC RADIOLOGY
Professor Sanjiv Sharma was Chairman, AORTA 2013 (Aortic Open and Endovascular Repair, Techniques, Outcomes and Analysis; Examiner, for post graduate examination in Radiology, B.P. Koirala Institute of Health Sciences, Dharan, Nepal; External Expert, meeting of the committee constituted by DPGI for the purchase of PACS and RIS system for the department of Radiodiagnosis and rest of the hospital, PGIMER, Chandigarh; Expert, technical review and assessment of the TIFAC-Centre of Relevance and Excellence in Interventional Radiology’ in JNCM, Wardha by TIFAC, Department of Sciences and Technology; Editorial board meeting of Cardiovascular and Interventional Radiology (official journal of the European Society; (chaired a session on embolotherapy) and deliver a lecture on the current status of gene and stem cell therapy for below knee critical limb ischemia; Adviser: Technical committee meeting of International Atomic Agency (IAEA) on Needs for Interventional Radiology in the Emerging World, IAEA’s Headquarters in Vienna; External examiner: MD (Radio-Diagnosis) – PGI, Chandigarh, December 12–13 2012. External Expert:, assisting the standing selection committee for faculty selection meeting, PGIMER, Chandigarh; National faculty, Extending the proximal neck in thoracic aneurysm, ISVIR – Aortic Summit, January 11–12, 2013, Chennai.

Dr Gurpreet S Gulati was Organizing Secretary, AORTA 2013 (Aortic Open and Endovascular Repair, Techniques, Outcomes and Analysis); Inducted as Section Editor, Imaging, Indian Heart Journal 2012. Inducted as member of the Editorial Board: Journal of Cardiovascular Magnetic Resonance, 2013.

Dr Priya Jagia was co-organizing Secretary, AORTA 2013 (Aortic Open and Endovascular Repair-Techniques, Outcomes and Analysis.

STEM CELL FACILITY
Dr Sujata Mohanty received AIIMS Excellence Award 2012 in Recognition of Notable Published Research Work; Attended 5th Congress of the Federation of Immunological Societies of Asia-Oceania (FIMSA), New Delhi, 14–17 March 2012; Third Meeting of the Biotechnology Career Advancement and Re-orientation Programme, DBT, New Delhi, 26 April 2012; 10th Annual Meeting of International Society for Stem Cell Research, Yokohama, Japan, 13–16 June 2012; 20th Annual Meeting of Indian Eye Research Group – ARVO, India Chapter, Hyderabad, 27–29 July 2012; Fourth meeting of the Expert Committee of the ‘Biotechnology Career Advancement and Re-orientation’ programme for the Women Scientists (Bio-CARE), DBT, New Delhi, 9 August 2012; Fifth meeting of the Expert Committee on ‘Biotechnology Career Advancement and Re-Oriention’, Programme for the Women Scientists (Bio-CARE), DBT, New Delhi, 20 February 2013; Research Advisory Council Meeting, AIIMS, 4 March 2013; One day training cum awareness programme – Indexing of Indian Medical Journals and Hosting of full text articles of Indexed Indian Medical Journals, NIC, HQ, CGO Complex, 5 April 2013; Chairperson, Indo German Workshop on Regenerative Medicine in Liver Disease – Bone Marrow Stem Cell Therapy in liver regeneration, ILBS, New Delhi, 15 February 2013.

CARDIAC BIOCHEMISTRY
Dr R. Lakshmy Member, Project Review committee of ICMR in the area of gastroenterology; Member, Project Review committee of ICMR in the area of obesity and metabolic syndrome; Reviewed abstracts for World Congress of Cardiology (WCC 2012).
Mr Mukesh Kumar, MSSO, ORBO, was Editorial Board Member of ‘Journal of Advances in Medicine’ – an International Peer Reviewed Journal; Member, Working Group on Education on Organ Donation and Transplantation for Schools (EODTS) under The Transplantation Society, an organization in official relation with WHO.

BLOOD TRANSFUSION SERVICES
Seven technologists attended the seminar on NABL, AIIMS, 26 November 2012. Ms. Lucy Joseph, Sister grade II and Mrs. Rupa Debnath, Sr Grade I, attended training in Blood Safety organized by NACO at RML Hospital, PGI, 14 –16 February 2013.

Dr Anjali Hazarika was External examiner for practical and viva voce of MLT course 4th semester at Vardhman Mahavir Medical College, Delhi; Resource person during Blood Safety training programme held for blood bank medical officers, technicians and nurses by NACO at RML Hospital PGI , Delhi; Technical expert for upgradation of Indian Red Cross Society HQ Blood Bank; External examiner for practical and viva voce of MLT course 5th semester, Vardhman Mahavir Medical College, Delhi; Participated In the Following Workshop; attended Workshop on ‘Implementation of Quality Management system in Blood Banks’, organized by National AIDS Control Organisation, Govt of India, 22 – 25 May 2012; Workshop on Management, Procurement and Purchase, CMET, AIIMS, 29 November 2012; Workshop on ‘Pathogen Reduction System’, by State. Blood Transfusion Council in Delhi, 18 January 2013; Workshop on Animation in Powerpoint, at CMET AIIMS on 1 February 2013.

B. Majhi, Sr Technical Officer, gave a presentation on ‘Component Preparation – Lapses in BTS’, a technologist’s perspective, 22 February 2013.

G. Chauhan gave a presentation on ‘Transfusion transmissible infection testing – Lapses in BTS’, a technologist’s perspective, 22 February 2013.


HOSPITAL ADMINISTRATION
Dr Aarti Vij was External Examiner for the evaluation of Thesis ‘Perception of Healthcare Providers Regarding Hospital Bed Utilization at Nehru Hospital, PGIMER, Chandigarh’ Vikrant Kanwar, PGI Chandigarh.

VISITING SCIENTISTS
CARDIO-THORACIC VASCULAR SURGERY
The following Cardiac Surgeons, Physiotherapist, Nurses, have undergone short term training at CTVS Department.
1. Dr James Njoroge Karithi from Kenya.
2. Dr Mohd Lateef Mani and Dr Babar Rashid Zargar from J and K, Srinagar.
3. Dr Haifuzullah Lone and Dr Farooq Ahamad Gaine from J and K Srinagar.
4. Dr Il Chol Jang, Dr Kyong SOK and Dr In Su Jo from Kenya.
5. Dr Tong Chol Choe, Dr IL Son Jong and Dr Hak Se Om and Dr Kwang Bin Kang CTVS Stem Cell Facility from Kenya.
10.2 Centre for Dental Education and Research

Chief
Naseem Shah

Professors
O.P. Kharbanda  Ritu Duggal

Additional Professors
Ajoy Roychoudhury  Veena Jain  Ongkila Bhutia

Associate Professors
Vijay Prakash Mathur  Ajay Logani

EDUCATION

Undergraduate
The Centre conducted the teaching programme of MBBS undergraduate students during their clinical posting.

Postgraduate
The Centre conducts postgraduate programmes in four specialties namely, Orthodontics, Prosthodontics, Conservative Dentistry and Endodontics, and Oral and Maxillofacial Surgery. Apart from this, PhD candidates were admitted to Orthodontics, Conservative Dentistry and Endodontics, and Oral and Maxillofacial Surgery.

Paramedical teaching
The Centre conducts teaching programme for nursing students in the form of lectures and orientation programmes.

Short term training
The Centre provided 2 to 8 weeks short training programmes for armed forces doctors from Delhi as well as Government employees from India. During this year a total of 40 dental professionals were trained as short term trainees at the centre.

Continuing Medical Education
Organized by the Department
1. WHO Curriculum guide on ‘Patients’ safety’; Four workshops were conducted for Senior and Junior residents of the Centre in August 2012.
2. A Continuing Dental Education programme in Conservative Dentistry and Endodontics for postgraduates and faculty from nearby dental institutes, New Delhi, 31 March 2013.
3. One day workshop ‘Teachers Training Programme’ (TTP), organized in collaboration with KL Wig CMET and International College of Dentists (ICD) India and Sri Lanka, New Delhi, 15 September 2012.
4. ‘Reality Check’ One day, CDE, organized in collaboration with Orthodontic Study Group of Delhi, New Delhi, 4 October 2012.
5. CME on Cleft, Lip and Palate through Tele Conference held between Ramachandra Medical College and AIIMS, New Delhi, 3 December 2012.
6. Digital Technologies in Orthodontic Practice and Different Ways to Treat Class II Malocclusions with Clear aligners, CME, CDER, New Delhi, 11 January 2013. Dr Morris Rapaport from Department of Orthodontics, University of Sydney, Australia, was the guest speaker.
7. Continuing Dental Education Programme with special emphasis on tobacco cessation counseling for Dental Professionals in collaboration with Indian Dental Association, New Delhi, 15 April 2012 and 9 June 2012.
8. Lecture cum Hands-on Programme for Dental Professionals on use of Stainless Steel Crowns in Pediatric Patients for Dental Professionals, New Delhi, 29 September 2012.
10. Pre-conference course (Didactic cum Hands-on) during 10th Pedo PG Convention in New Delhi, on ‘Use of Soft Tissue Laser in Pediatric Dentistry’, New Delhi, 13 March 2013.

11. Continuing Education Programme by Prof. Nigel King, University of Hong Kong on ‘Early childhood caries and MTA’ through Telemedicine being conducted at Sri Ramachandra Dental College, Chennai, 18 September 2012. New Delhi

Lectures delivered
Naseem Shah: 8    O.P. Kharbanda: 20    Ritu Duggal: 2    Veena Jain: 2
Ongkila Bhutia: 2    Vijay Prakash Mathur: 6    Ajay Logani: 7

Oral/poster presentations: 8

RESEARCH
Funded projects
Ongoing
2. Cleft Lip and Palate anomaly in India: Clinical Profile, Risk factors and current status of Treatment – A Hospital based study, Task force project (pilot phase), O.P. Kharbanda, ICMR, 2012–14, Rs 22.38 lakhs.

Completed
1. A dynamic calibrated fixed dentofacial corrector to treat class II malocclusions. O.P. Kharbanda, ICMR, 2010–12, Rs 3.32 lakhs.
2. Finite Element study to analyze the stress distribution in Human mandible following Twin Block Therapy. Ritu Duggal Raju Sharma, ICMR, 2.5 years, Rs 23 lakhs.

PUBLICATIONS
Journals: 24    Abstracts : 3    Chapter in book: 1    Book: 1

PATIENT CARE
The Centre provides comprehensive dental treatment for the patients visiting the Dental Centre. The treatments being provided are Oral Diagnosis, Dental Extraction, Management of cyst, tumor and other pathology, trauma to oro-facial region and TM joints, Restoration of teeth, Root Canal Treatment, Crowns, Removable and fixed dentures, Implants, Orthodontic Treatment, Cleft lip and palate management, dental care in children, etc. The centre also has latest state of the art facilities for patientcare like Micro surgery, Soft Tissue lasers, computerized cephalometry and radiovisiography, etc. It also has functional fixed and removable prosthodontic labs and orthodontic lab. The centre supports a community out- reach activity of the Institute by providing dental care at AIIMS Rotary Mid Town Hospital, Trilokpuri.

OPD/SURGERY/SPECIALITY CLINIC DATA

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<td>Combine Cleft Palate</td>
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Total operations 11084  Major 488 Minor 10596

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Naseem Shah** was President, Indian Endodontic Society (2012–13), President–Elect, Indian Society for Dental Research (2013–15), Co-coordinator for WHO Programme on ‘Patient Safety’, Nominated Chairperson of Data Safety Monitoring Board at PGIMER, Dr Ram Manohar Lohia Hospital, New Delhi; Member, National Workshop on Curriculum Reforms in MDS Course Regulations, 2007 of Dental Council of India at Government Dental College and Hospital, Mumbai, October 2012; Member, Medical Device Advisory Committee (MDAC) to advice Drugs Controller General (India) in matter for review of application of new medical devices and clinical trials; Nominated Member of Technical Resource Group (TRG) I on Lifestyle Disease, Ministry of Health and Family Welfare (NCD division) Government of India; Project evaluator for NRDC, ICMR, DBT, etc; On Editorial board of JCD, JFO, Case Reports in Dentistry, Gerodontology, etc; Member, selection committee for faculty positions at Pt. B.D. Sharma University of Health Sciences, Rohtak; Invited as the Guest of Honor at a workshop on ‘Laser and ultrasonic in endodontic with magnification’, at ITS Dental College, Hospital and Research Centre, Greater NOIDA, 24 January 2013; Expert for University affiliation of MDS course at Sardar Patel Post Graduate Institute of Dental and Medical Sciences, 29 January 2013.

**Professor O.P. Kharbanda** was invited as Visiting Professor to deliver module on Cleft Lip and Palate to Postgraduates at the University of Western Australia Perth and University of Sydney, Sydney Australia; Expert member of committee set up by the Ministry of Health and Family Welfare to review recommendations of Dental Council of India; Expert to ICMR to review the research projects in the field of Oral Health and as an advisory Committee to the postgraduate research grants; Expert member of Selection Committee at Dental Colleges of Panjab University, Chandigarh, University College of Medical Sciences, University of Delhi, and Chancellors Nominee to Jamia Millia Islamia, New Delhi; Served as a ‘Technical Subject Expert’ to Selection Committee meeting of NDMC. He also served as PG Examiner at University of Delhi and Maulana Azad Institute of Dental Sciences (New Delhi); Chaired session, ‘Sleep Disordered breathing basics’, ‘SLEEPCON 2013’, New Delhi, 29–31 March 2013; Invited by Director-General of India–Taipei Association to visit Taipei Medical University (TMU) to explore possibilities of education and research cooperation with concerned departments in TMU, Taipei, Taiwan, 19–21 April 2012.

**Professor Ritu Duggal** was appointed by the Dental Council Inspector for approval of MDS courses at various Dental Colleges; Appointed Expert by the P.G. Board of Studies Dental College, Rohtak; Appointed Implementation Coordinator for ‘Evaluation of the WHO Patient Safety Curriculum Guide’ where CDER was one of the pilot site.

**Dr Veena Jain** was appointed DCI inspector, to evaluate the Infrastructure and other facilities to start the MDS in Prosthodontics and standards of institution that are running the MDS in Prosthodontics; received ‘Fellowship of International College of Dentists’; Appointed as Honorary Member of the PG Board of Studies in Dental Sciences at Pt. B. D. Sharma University of Health Sciences, Rohtak.

**Dr Ongkila Bhutia** was Appointed as member of Staff Council, AIIMS for the year 2012–13.

**Dr Vijay Prakash Mathur** was Co-opted Member of Board of Studies of the Department of Pedodontics, Aligarh Muslim University for two years (2012–14); Elected Representative to Continuing Dental Education of Indian Dental Association–South Delhi Branch, 2012–13; Elected Executive Member of Indian Dental Association, Delhi State Branch, 2012–13.

**Visiting Scientists**

Dr Morris Rapaport, Lecturer in Orthodontics, University of Sydney, Australia

Dr Jacques Verre a Volunteer Dental Surgeon, France settled in Auroville
# 10.3 Dr B.R. Ambedkar Institute Rotary Cancer Hospital

**Chief**  
G.K. Rath  
(Radiation Oncology)

**Professors**  
N.K. Shukla  
(Surgical Oncology)  
Subhash Chander  
(Radiation Oncology)

P.K. Julka  
(Radiation Oncology)  
Lalit Kumar  
(Medical Oncology)  
Sidhartha Satpathy  
(Hospital Administration)

Rajive Kumar  
(Laboratory Oncology)  
Rajive Kumar  
(Medical Oncology)

S.V.S. Deo  
(Surgical Oncology)  
Sanjay Thulka  
(Radiation Oncology)

Atul Sharma  
(Radiodiagnosis)  
Sameer Bakhshi  
(Surgical Oncology)

Pratik Kumar  
(Medical Oncology)  
D. N. Sharma  
(Radiation Oncology)

Additional Professors  
Ritu Gupta  
(Laboratory Oncology)

**Associate Professors**  
Sushmita Pathy  
(Radiation Oncology)

Haresh K.P.  
(Radiation Oncology)  
Manisha Jana  
(Radiodiagnosis)  
Devesenathipathy K  
(Radiodiagnosis)

Chandrashekhara S.H.  
(Radiodiagnosis)  
Anita Chopra  
(Laboratory Oncology)  
Subhash Gupta  
(Radiation Oncology)

Pranay Tanwar  
(Laboratory Oncology)  
Sanjeev Kumar Gupta  
(Laboratory Oncology)  
Amar Ranjan Singh  
(Laboratory Oncology)

Sunil Kumar  
(Surgical Oncology)  
M.D. Ray  
(Surgical Oncology)  
Durgatosh Pandey  
(Surgical Oncology)

Sachidanand Jee Bharti  
(Anaesthesiology)  
Vinod Kumar  
(Anaesthesiology)  
Rakesh Garg  
(Anaesthesiology)

Nishkarsh Gupta  
(Anaesthesiology)

**Assistant Professors**

**Associate Professors**

**Senior Medical Physicist**  
V. Subramani

**Scientist-I**

N. Manoharan  
Sunil Kumar Verma

M.A. Laviraj  
Medical Physicist  
Kumari Seema Sharma  
Ashish Binjola

Rajendran M.  
Chief Technical Officer  
Silas George

Shri Gopal
HIGHLIGHTS

Delhi Cancer Registry

The Delhi Cancer Registry is a Population Based Cancer Registry which collects cancer patient’s data from more than 167 government and/or private hospitals/centres and 250 nursing homes and vital statistics division of MCD and NDMC and reports the incidence of various cancers among Delhi urban residents. A total of 15244 incidence of cancer cases were registered for the year 2009 with 8122 males and 7122 females. The crude incidence rates of cancer among males and females are 80.4 and 86.5 per 100,000, respectively. The common sites of cancer among males are lung, prostate, tongue, mouth, and larynx while in females it was breast, cervix, gallbladder, ovary and corpus uteri. The registry sent the data for publication in the ‘International Incidence of Childhood Cancer, Vol. III’, International Agency for Research on Cancer, Lyon, France. The reports on cancer incidence and mortality prepared by registry are being widely used by researchers, government organizations, etc.

Laboratory Oncology

The advanced diagnostic work-up of leukaemia that this laboratory provides for IRCH as well as several main departments of AIIMS, is undergoing expansion.

Medical Oncology

Medical Oncology has a thriving teaching programme with regular DM and PhD and training programme. More than 50 papers were published in various international and national medical journals, and 30 lectures were delivered in international and national meetings. Medical oncology faculty was invited in number of universities in India as examiners for DM and PhD. Department has a very active research programme as well; more than 20 research projects are being run at present funded by various international, national govt and non government agencies. Department also has a regular lab service for patients’ care; these include cytogenetics and PCR facilities for CML patients, CD 34 enumeration and cryopreservation facilities for stem cell recipients. In addition, 85 patients underwent stem cell transplant (28 allogeneic and 57 autologous). All this was possible with hard work, and sincere efforts put up all the members of the department.

Medical Physics

The department has been looking after radiation safety, radiation dose measurement, radiation dose optimization, quality assessment of radiological equipment, medical images, imaging procedures and radiation education. Its services encompass Dr BRA IRCH, C.N. Centre, Dental Centre, Dr R.P. Centre for Ophthalmic Sciences, Departments of Radiology, Orthopaedics, Urology, Anaesthesia, Trauma Centre and Neurosurgery. We did 3901 measurements, tests, experiments, exposures and blood bag irradiation during 2012–13. The faculty and staff were frequently invited by other departments and hospitals to provide expert advice and for academic presentations on radiation-related skills. We imparted training to professionals from other hospitals and also have a PhD course in Medical Physics.

Radiodiagnosis

Three new faculty members and four radiology technologists have joined the department. Round the clock X-ray service, including portable X-rays, has started. The various interventional procedures such as image-guided biopsies, percutaneous catheter drainages, percutaneous nephrostomy, biliary stenting, RF Ablation have increased significantly in the last one year.

Surgical Oncology

All faculty members of the department participated in undergraduate and postgraduate teaching and structured training of 12 Senior Residents. The department started MCh course in Surgical Oncology from July 2012. Till now 5 students have joined the MCh course and the departmental faculty is involved in teaching and training. The faculty acted as co-guide in thesis work of various departments including Radiation Oncology, Medical Oncology, Biochemistry and Biotechnology Geriatric Medicine, etc. They delivered lectures in 11 CME programmes, participated in panel discussions and presented educational videos. 12 lectures were delivered in international and national conferences by the faculty. The faculty and residents presented 6 papers in international and 5 in national conferences. The department was involved in 7 research projects and 16 collaborative research projects. One collaborative research project was completed during the year. 26 research papers were published in various national and international medical journals. The department started 3 new clinics—Thoracic oncology, Hepatobiliary pancreatic and Genitourinary. A new OPD started on Thursday mornings. The department provides major and minor operation facilities to cancer patients. Faculty
participated in community services by giving advice to ostomates, giving public lectures and presentations in
media such as All India Radio and Doordarshan. The faculty members were involved as members of editorial
boards, reviewer of research papers and members of national and international bodies.

EDUCATION

Anaesthesiology
IRCH Seminar Every Monday and Thursday at 8.15 a.m.
Unit Seminar Every Monday 8–9 a.m.
Unit Journal Club Every Saturday at 11 a.m.
Unit Radiology conference Every Saturday at 9 a.m.

Laboratory Oncology
Laboratory Oncology provides morphology, myeloma and flowcytometry training to residents from pathology
and laboratory medicine. In addition, residents from medical oncology and pediatrics also receive training.
Short term training is given to MSc students from various colleges in India.

Medical Oncology
Undergraduate
Number of lectures/seminars allotted and taken Seminars 2, Lectures 2
Hours per week/year spent in clinical teaching 6 hours per semester
demonstrations/tutorials

Postgraduate
Hours per week spent in clinical teaching 6 hours per week
Number of postgraduate students writing theses Chief guide: 3 (DM), Co-guide: 6 (MD)
Number of postgraduate students 12 (DM)

DM programme
Medical Oncology is running a DM programme under which there are 13 regular students.

PhD training
Two PhD students are pursuing their work in various aspects. Two have been awarded PhD in this year and
one student is currently enrolled.

Medical Physics
The Department of Medical Physics imparted training and education regarding physics of medical imaging,
radiation protection, radiation dosimetry physics and quality assurance tests in medical imaging to the students
of MD Radiology, MBBS, BSc (Hons.) Nursing and BSc (Hons.) Radiography. The Department gave training
to a trainee Ms. Deepa Atri, ESI Hospital, Basaidarapur for one month. Medical Physics Unit also has 4 PhD
students undergoing PhD course presently.

Radiodiagnosis
Department held various academic activities including postgraduate teaching sessions, radio-conferences,
clinical combined rounds and other interdepartmental team meetings, where junior and senior residents
enthusiastically participated.

Radiotherapy
The department is involved in Undergraduate, Post graduate, BSc Nursing and PhD teaching programmes. Dr
GK Rath worked as a faculty from AIIMS for the Government of India’s Pan-African telemedicine project
and conducted Telemedicine Lectures for African Countries. Short-term training was given to 23 doctors from
different centres in the country.

Surgical Oncology
Undergraduate teaching: The faculty was involved in undergraduate teaching by giving didactic lectures and
by participating/moderating seminars on oncological topics.
Post graduate teaching: The faculty was involved in teaching and training of 12 surgical oncology senior
residents, 5 Mch surgical oncology students, DM medical oncology residents and MD radiotherapy junior
residents by giving didactic lectures, moderating seminars, journal clubs, etc., and clinical teaching during ward rounds and in special cancer clinics of IRCH. Dr Shukla and Dr Deo acted as Co-guide and Co-supervisors in DM medical oncology thesis; MD radiation oncology thesis and PhD students from different department of BRA IRCH and AIIMS.

Para clinical teaching/training: The faculty was involved in the teaching of the BSc nursing students. Two short term trainees attended the department, Dr Shamita Chatterjee from Kolkata for period of two weeks in Breast Cancer Surgery and Dr Nitin Leekha from Thiruananthapuram attended for a period of one month, w.e.f. 1 February 2013.

One long term trainee Dr Manju Govil is attending the department for a period of one year, w.e.f. 1 February 2013.

CMEs/Workshops/Symposia/National and International conferences
Organised by department

Anaesthesiology
1. Organized 12th Foundation Course on Palliative Care for Medical Practitioners and Nursing Staff treating cancer patients in and around Delhi, in February 2013 at Dr B.R.A IRCH, AIIMS, New Delhi, India.
2. Organized ‘IAPC certificate course in Palliative Care’ in the month of June and November 2012, at Dr B.R.A IRCH, AIIMS, New Delhi, India.


Delhi Cancer Registry
1. Organized a Workshop on Cancer Registration System in AIIMS, New Delhi, 12 January 2013 and coordinated a session (N. Manoharan).

Laboratory Oncology

Radiotherapy
1. Organized the ‘Workshop on cancer registration’, at All India Institute of Medical Sciences, New Delhi, on 12 January 2013.
2. DBT sponsored Expert Group Meeting and Brain Storming on Application of Nanotechnology in Cancer Therapy, 4–5 March 2013, Ramalinga Swamy Board Room, AIIMS, New Delhi.

Lectures delivered

Anaesthesiology
Sachidanand Jee Bharati: 3

Laboratory Oncology
Rajive Kumar: 2  Ritu Gupta: 3  Sanjeev Kumar Gupta: 2

Medical Oncology
Lalit Kumar: 7  Atul Sharma: 10  Sameer Bakhshi: 13

Medical Physics
Pratik Kumar: 7

Radiotherapy

Radiodiagnosis
Sanjay Thulkar: 4  Chandrashekhara SH: 1  Manisha Jana: 3
Devasenathipathy Kandasamy: 1

Surgical Oncology
N.K. Shukla: 3  S.V.S. Deo: 8  M.D. Ray: 1  Oral Papers/Posters presented: 33
RESEARCH
Funded projects
Anesthesiology
Ongoing
1. Evaluation of the effect of rhythmic breathing process—Sudarshan Kriya and Pranayam (SKP) on pain perception among advance stage cancer patients having pain, Sushma Bhatnagar, Neeta Kumar, Central Council for Research in Yoga and Naturopathy, Department of Ayush, 2010–12, Rs 20 lakhs.
3. A randomized, comparative, clinical study to evaluate the efficacy and safety of oral transmucosal fentanyl citrate versus oral morphine in patients with breakthrough pain. Seema Mishra. Troikaa Pharmaceuticals, 6 months, 2012, Rs 0.50 lakhs.

Completed

Delhi Cancer Registry
Ongoing
1. A study on methodology of population based cancer registries in India – A collaborative research project of International Agency for Research on Cancer, Lyon, France (IARC) and International Association of Cancer Registries (IACR) and Tata Memorial Center, Mumbai.
2. Hospital Based Cancer Registry.

Laboratory Oncology
Ongoing
1. Prognostic relevance of DNA methylation in chronic lymphocytic leukemia. Ritu Gupta, DBT, 3 years, Rs 50.25 lakhs.
2. Th17 cells in pathobiology of multiple myeloma. Ritu Gupta, DST, 2 years Rs 20.23 lakhs.
3. Molecular and immunological basis of biological heterogeneity in chronic Lymphocytic Leukemia. Ritu Gupta, DBT, 3 years, Rs 19.46 lakhs.
4. Towards a comprehensive molecular score in CLL. Ritu Gupta, AIIMS, Rs 10 lakhs.
5. Natural Killer and T-lymphocyte Subset Analysis in Multiple Myeloma. Ritu Gupta, ICMR.

Completed
1. HIF-1α as regulator of angiogenesis in multiple myeloma- Funded by Indian Council of Medical Research. Natural Killer and T-lymphocyte Subset Analysis in Multiple Myeloma. Ritu Gupta, ICMR.

Medical Oncology
Ongoing
4. Global study to assess the addition of Bevacizumab to carboplatin and paclitaxel as first line treatment of epithelial ovarian cancer fallopian tube carcinoma or primary peritoneal carcinoma. Lalit Kumar, ROSIA study (Roche), 2011–2014.
5. To Evaluate the effect of Metformin versus placebo as an Add-on Therapy in patients with recurrent epithelial ovarian cancer receiving chemotherapy: A double blind randomized controlled clinical trial. Lalit Kumar, ICMR, New Delhi, 2012–13.


14. Randomized Controlled Trial Comparing modified Gemcitabine + Oxaliplatin (mGEMOX) to Gemcitabine+Cisplatin in Management of Unresectable Gall Bladder Cancer. Atul Sharma, 2010– till date.

15. To study the gene expression profile of advanced Gall Bladder Cancer. Atul Sharma, AIIMS, 2011.

16. Treatment and Characterization of Acute Lymphoblastic Leukemia in Children, Adolescents and Young Adults. Sameer Bakhshi, Network of Cancer Treatment and Research and Sir Ratan Tata Trust, Ongoing (2005 onwards).


**Completed**


3. A pilot study of efficacy of Lactobacillus CD2 lozenges in preventing high-dose chemotherapy induced oral mucositis in patients undergoing hematopoietic stem cell transplantation. Atul Sharma.


**Medical Physics**

**Ongoing**


Radiodiagnosis

Ongoing
1. Pediatric lymphoma: Whole body MRI versus 18F FDG-PET/CT for staging and post-treatment evaluation: Manisha Jana, Research Section, AIIMS.

Radiotherapy

Ongoing
2. BCIRG 006 – A Multicentric Phase III randomized trial comparing doxorubicin and Cyclophosphamide followed by Docetaxel (AC→t) with Doxorubicin and Cyclophosphamide followed by Docetaxel and Trastuzumab (Herceptin) (AC→TH) and with Docetaxel, Carboplatin and Trastuzumab (TCH) in the Adjuvant treatment of node positive and high risk node negative patients with operable Breast cancer containing the HER2 alteration. PK Julka, Aventis, 2004 onwards, Rs 1.62 lakhs.
3. A Phase 1/2, Modified Dose Escalation, Open Label Trial to Determine the Therapeutic Effect and Safety of INCB007839 Combined with Trastuzumab in Patients with Previously Untreated HER2 Positive Metastatic Breast Cancer. PK Julka, , Siro, since 2008, Rs 15 lakhs.
4. A randomized, double-blind, placebo-controlled, multi-centre phase 3 study of Denosumab on Prolonging Bone Metastasis-Free survival in Men with Hormone-Refractory prostate Cancer. PK Julka, Quintiles, since 2007, Rs 9 lakhs.
5. Prognostic significance of circulating tumor cells in locally advanced breast cancer patients. PK Julka, DST, since 2011, Rs 23 lakhs.
6. Adjuvant tamoxifen long against short (ATLAS) – Multi centre international trial, Oxford, UK. (Surgical Oncology, Medical oncology and Radiation Oncology). –ATLAS.
8. A pilot study to evaluate the tumoricidal effect of antiviral agents and herbal formulations in addition to radiotherapy in HPV positive carcinoma cervix cell lines. Haresh KP. AIIMS intramural research grant, since 2013, Rs 5 lakhs.

Completed

Departmental projects

Medical Oncology

Completed
1. Analysis of clinical characteristics, prognostic factors, and treatment of adult Acute Myeloid Leukemia.

Medical Physics

Ongoing
3. Development of new luminescence material for dosimetry purpose.
5. Characterization of kidney stone using dual energy CT scanner.

Radiodiagnosis

Ongoing
2. Ultrasound guided thoracocentesis using pigtail catheter with or without pleurodesis in the palliation of recurrent/refractory malignant pleural effusions.
3. Role of shear wave elastography as an adjunct to B-mode ultrasonography of breast masses.
4. Role of perfusion CT in pancreatic pathology.
5. Role of Pefusion-CT in evaluation of Non-Small Cell Lung Carcinoma in Patients undergoing Chemotherapy.
6. Impact of supervised weight loss secondary to Bariatric surgery (LSG) and/or lifestyle modifications on fat distribution of Indian adult obese patients.
7. Comparison of CT and MRI with diffusion weighted imaging in evaluation of response to chemoradiotherapy in gall bladder carcinoma.
8. Imaging and Intervention in arteriovenous fistulas for hemodialysis.
9. MR neurography in upper limb peripheral neuropathies.
10. Diffusion weighted MRI in retinoblastoma.

**Completed**
1. Effect of postnatal steroid therapy on appearance of external genitalia in girls with congenital adrenal hyperplasia.

**Radiotherapy**

**Ongoing**
1. Neoadjuvant chemotherapy and concurrent chemoradiotherapy followed by targeted therapy in locally advanced ca cervix, a phase II study.
2. Phase II randomized controlled trial comparing neoadjuvant chemotherapy followed by radical radiotherapy vs. neoadjuvant chemotherapy followed by hypofractionated radiotherapy concurrent with chemotherapy in locally advanced non small cell lung cancer (except adenocarcinoma).

**Completed**
1. Randomized controlled trial of accelerated fractionation radiotherapy (6 fractions per week) versus concurrent chemoradiotherapy in locally advanced head and neck squamous cell carcinoma.
2. Comparison of early clinical outcome in carcinoma cervix after radiotherapy: Conventional vs intensity modulated radiotherapy (IMRT).
3. High dose rate versus Pulse dose rate brachytherapy in carcinoma cervix.
4. Phase II randomized study comparing concurrent chemoradiotherapy versus neoadjuvant chemotherapy followed by chemoradiation in locally advanced carcinoma esophagus.
5. Randomized trial comparing postoperative radiotherapy vs. postoperative chemoradiation in oral cavity carcinoma.
6. Comparative study of treatment outcome in Glioblastoma patients with 6 cycles of adjuvant chemotherapy versus 12 cycles of adjuvant chemotherapy with temozolomide and molecular basis of resistance based on EGFR, MIB-1, P53 mutations.

**Surgical Oncology**

**Ongoing**
2. Oncoplastic Breast Surgery – Prospective evaluation of patient profile and outcome.
3. Assessment of Skin involvement in Breast cancer patients with T4b lesions.
4. Prophylactic antibiotics in surgical oncology patients.
5. Sentinel Lymph Node Biopsy of oral cancer patients using dye and gamma probe.
7. Study to assess the effect of prophylactic low molecular heparin in patients of pelvic maligna

**Collaborative projects**

**Anesthesiology**
1. Molecular Determinats of Response to opioids in cancer patients: Indian Scenario (Hematology).
2. Nature and frequency of spiritual problems and concerns faced by patients of the pain clinic. (Department of Theology, University of Ghent, Belgium).
Medical Oncology

Ongoing
1. Prognostic relevance of DNA methylation in chronic lymphocytic leukemia (Biotechnology).
3. Molecular and immunological basis of biological heterogeneity in CLL (Biotechnology).
4. EPC as biomarker of disease activity in multiple myeloma. (Biotechnology).
5. To study the molecular biology of multiple myeloma (Biotechnology).

Completed
1. EPC as biomarker of disease activity in multiple myeloma. Atul Sharma, DBT (Laboratory Oncology).
2. To study the molecular biology of multiple myeloma. Atul Sharma, DBT (Laboratory Oncology).

Medical Physics

Ongoing
1. In vitro studies to explore strategies for extended utilization of donor corneal tissues (Medical Physics Unit and RPC of Ophthalmology).

Completed
1. Patient radiation dose determination in RF ablation procedure for tachycardia (Medical Physics, Cardiology and Cardiac Radiology).

Radiodiagnosis

Ongoing
1. Phase II randomized controlled trial comparing neoadjuvant chemotherapy followed by radical radiotherapy versus neoadjuvant chemotherapy followed by hypofractionated radiotherapy concurrent with chemotherapy in locally advanced non small cell lung cancer (except adenocarcinoma) (Radiotherapy).
2. Expression of angiogenic phenotypes (VGEF and microvessels density) in Ewing’s sarcoma family of tumors (ESFT) (Pediatric Surgery).
3. Role of magnetic resonance imaging and spectroscopic methods in evaluation of prostate cancer (NMR).
4. Assessment of therapeutic response of radiolabeled anti CD20 antibodies $^{131}$Iodine Rituximab and/or $^{90}$Yttrium Rituximab in diffuse large B cell non Hodgkin lymphoma (Nuclear Medicine).
5. Characterization and dosimetric evaluation of thermoluminescent phosphors (Medical Physics).
6. The application of 4D imaging for modeling the internal motion and deformation of lungs for use in radiotherapy treatment planning (Radiotherapy).
7. A randomized, double blind, placebo controlled, phase 3 study to assess the efficacy and safety of weekly Farletuzumab (MORAb-003) in combination with carboplatin and taxane in subjects with Platinum sensitive ovarian cancer in first relapse (Medical Oncology).
10. Evaluation of clinicopathologic, treatment outcome and prognostic factors in patients with soft tissue sarcoma (Medical Oncology).
11. Evaluation of clinicopathological features, prognostic factors and treatment outcome of osteosarcoma patients (Medical Oncology).
12. To correlate hepatic Duplex sonography in patients of biliary atresia with portal pressure, serum nitric oxide levels and liver histopathology (Pediatric Surgery).
13. Low dose chemotherapy (metronomic therapy) versus best supportive care in progressive and/or refractory pediatric malignancies: a double blind placebo controlled randomized study (Medical Oncology).
14. Assessment of the efficacy of laparoscopic approach for appendicectomy and orchiopexy across the pediatric age and size spectrum (Pediatric Surgery).
15. Influence of genetic polymorphisms, clinical and biochemical parameters in determining susceptibility to nonalcoholic fatty liver disease in Indian overweight adolescents (Pediatrics).
16. Neurocognitive and physical outcomes of infants with low birth weight and perinatal asphyxia at 2 years of age (Pediatrics).

Radiotherapy

Ongoing
1. Percutaneous Radiofrequency Ablation in painful bone lesions (Radiodiagnosis and Radiotherapy).
2. Evaluation of Curcumin in the management of advanced cancer cervix. (Radiotherapy, Gynecology, Biochemistry and Pathology).
3. Randomized study of preoperative short course radiotherapy (25 Gy) Vs. preoperative concurrent radiotherapy (45 Gy) and chemotherapy followed by Surgery in rectal cancer (Radiation Oncology, Surgical Oncology, Medical Oncology, Pathology, Radiodiagnosis).
4. National Retinoblastoma Registry-Delhi site, Dr RP Centre, AIIMS, A collaborative study under ICMR fund, New Delhi, India.

Surgical Oncology

Ongoing
2. To evaluated microsatellite instabilities in different chromosomes in Indian female breast cancer patients. (Surgical Oncology and Biosciences, Jamila Millia Islamia, New Delhi).
3. Molecular analysis of Brother of the regular of imprinted sites (BORIS) and CTCF gene in Indian Female Breast Cancer Patients. (Bio-sciences, Jamia Millia Islamia and Surgical Oncology).
4. Phenotypic and Functional characterization of TH helper-17 (TH 17) cells in patients with oral squamous cell carcinoma and evaluation of their antitumor activity (Biotechnology and Surgical Oncology).
5. Role of D Dimer and other coagulation profile in correlation with lymph node metastasis in operable breast cancer. (Laboratory Medicine and Surgical Oncology).
6. Role of CT scan and MRI in the evaluation of locally advanced Oral cancer. (Surgical Oncology and Radiodiagnosis).
7. Molecular Evaluation of p 21 WAF -1 gene in Indian Female Breast Cancer Patients (Surgical Oncology and Bio Sciences, Jamia Millia Islamia).
8. Molecular basis of tobacco associated oral carcinogenesis. (Biochemistry and Surgical Oncology).
9. An open label, non randomized phase II trial of oxaliplatin, docetaxel and capecitabine in advanced esophageal and gastric adenocarcinoma Protocol 0701 (Medical Oncology, Surgical Oncology and Radiation Oncology).
10. A randomized, open label multicenter study of single agent larotaxel (XRP9881) at 90 MG/M2 every 3 weeks compared to continuous administrative of 5-FU for the treatment of patients with advanced pancreatic cancer previously treated with a gemcitabine-containing regimen (Medical Oncology and Surgical Oncology).
11. Clinical significance of TC21/R-Ras2 over expression in Oral Cancer (Biochemistry and Surgical Oncology).
12. A Pivotal trial to determine the efficacy and safety of AP23573 when administered as maintenance therapy to patients with Metastatic soft tissue or bone sarcomas. (Medical Oncology and Surgical Oncology).
13. An Asia pacific non randomized, open – label phase II study evaluating the safety and efficacy of FOLFIRI plus cetuximab (Erbitux) or FOLFOX plus cetuximab in patients with KRAS wild type metastatic colorectal cancer (APEC study) (Medical Oncology and Surgical Oncology).
14. Functional and phenotypic characteristic of Natural killer T cell and dendritic cells in oral cancer. (Biotechnology, Surgical Oncology).
15. Functional characterization of differentially expressed proteins in Head and Neck cancer. (Biochemistry and Surgical Oncology).
16. Translating Head and Neck Cancer Markers into diagnostic Assays – an Indo-Canadian research project (Biochemistry, Surgical Oncology and Chemistry, York University Canada).

**Completed**

1. Molecular Analysis of cytokine genes in Indian Female Breast Cancer patients (Surgical Oncology and Biotechnology Jamia Millia Islamia)

**PUBLICATIONS**

Journals: 125  Abstracts: 38  Chapters in Books: 12

**PATIENT CARE**

<table>
<thead>
<tr>
<th>Total bed strength</th>
<th>182</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical oncology</td>
<td>78</td>
</tr>
<tr>
<td>Radiation oncology</td>
<td>37</td>
</tr>
<tr>
<td>Surgical oncology</td>
<td>61</td>
</tr>
<tr>
<td>Palliative care unit</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total OPD attendance 91100**

New Patient’s Registered 9059  Revisits82041  

**Details of various OPDs/Clinics**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the OPD/Clinic</th>
<th>New Patient Registered</th>
<th>Revisits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1.</td>
<td>Adult Medical Oncology</td>
<td>527</td>
<td>405</td>
</tr>
<tr>
<td>2.</td>
<td>Adult Lymphoma Leukemia</td>
<td>17</td>
<td>08</td>
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<tr>
<td>3.</td>
<td>AML/HL</td>
<td>57</td>
<td>30</td>
</tr>
<tr>
<td>4.</td>
<td>ALL/CML</td>
<td>121</td>
<td>67</td>
</tr>
<tr>
<td>5.</td>
<td>Breast Cancer</td>
<td>27</td>
<td>504</td>
</tr>
<tr>
<td>6.</td>
<td>Bone and Soft (Tissue)</td>
<td>137</td>
<td>80</td>
</tr>
<tr>
<td>7.</td>
<td>Chemotherapy Evaluation</td>
<td>03</td>
<td>–</td>
</tr>
<tr>
<td>8.</td>
<td>Familial Cancer</td>
<td>–</td>
<td>01</td>
</tr>
<tr>
<td>9.</td>
<td>Gastrointestinal</td>
<td>371</td>
<td>280</td>
</tr>
<tr>
<td>10.</td>
<td>Gynaecology–A</td>
<td>–</td>
<td>142</td>
</tr>
<tr>
<td>12.</td>
<td>Gynaecology–C</td>
<td>–</td>
<td>190</td>
</tr>
<tr>
<td>13.</td>
<td>Genitourinary and Gynae</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>14.</td>
<td>Head and Neck (Surgery) - A</td>
<td>271</td>
<td>67</td>
</tr>
<tr>
<td>15.</td>
<td>Head and Neck (ENT) - B</td>
<td>856</td>
<td>148</td>
</tr>
<tr>
<td>16.</td>
<td>Hepatobiliary and pancreatic</td>
<td>59</td>
<td>44</td>
</tr>
<tr>
<td>17.</td>
<td>Lung cancer</td>
<td>95</td>
<td>40</td>
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<tr>
<td>18.</td>
<td>NHL/MM/CLL</td>
<td>124</td>
<td>69</td>
</tr>
<tr>
<td>19.</td>
<td>Ophthalmic tumour</td>
<td>06</td>
<td>02</td>
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<tr>
<td>20.</td>
<td>Paediatric Medical Oncology</td>
<td>245</td>
<td>108</td>
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<tr>
<td>21.</td>
<td>Paediatric Lymphoma Leukemia</td>
<td>122</td>
<td>33</td>
</tr>
<tr>
<td>22.</td>
<td>Paediatric (Surgery)</td>
<td>69</td>
<td>44</td>
</tr>
<tr>
<td>23.</td>
<td>Pain relief</td>
<td>231</td>
<td>179</td>
</tr>
<tr>
<td>24.</td>
<td>Pain and palliative care (RT-II)</td>
<td>–</td>
<td>01</td>
</tr>
<tr>
<td>25.</td>
<td>Paediatric palliative care</td>
<td>02</td>
<td>01</td>
</tr>
<tr>
<td>26.</td>
<td>Radiotherapy</td>
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<td>886</td>
</tr>
<tr>
<td>27.</td>
<td>Rehabilitation</td>
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<td>08</td>
</tr>
<tr>
<td>28.</td>
<td>Surgical Oncology</td>
<td>224</td>
<td>235</td>
</tr>
<tr>
<td>29.</td>
<td>Thoracic Oncology</td>
<td>113</td>
<td>70</td>
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<td>30.</td>
<td>Transplant</td>
<td>21</td>
<td>10</td>
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<tr>
<td>31.</td>
<td>Urology Malignancy</td>
<td>248</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>5011</td>
<td>4048</td>
</tr>
</tbody>
</table>

Total admissions 30009  Regular 5853  Short/Day-Care 24156

Total discharge 29506  Regular 5514  Short/Day-Care 23992

AIIMS 2012-2013/ 262
Total deaths 321
Operation Theatre Services 6825 Major 1014 Minor 5811
Electrocardiogram (ECG) 2821
OPD procedures (Treatment Room 15) 4230
OPD chemotherapy (Treatment Room 15) 11553
Males 8083 Females 3164 Male child 228 Female child 78

Geographical distribution of patient's according to their place of residence

<table>
<thead>
<tr>
<th>Place</th>
<th>Total</th>
<th>Place</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>7</td>
<td>Assam</td>
<td>35</td>
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<tr>
<td>Arunachal Pradesh</td>
<td>4</td>
<td>Bihar</td>
<td>1243</td>
</tr>
<tr>
<td>Chandigarh</td>
<td>6</td>
<td>Chhattisgarh</td>
<td>21</td>
</tr>
<tr>
<td>Delhi</td>
<td>2829</td>
<td>Daman and Diu (UT)</td>
<td>5</td>
</tr>
<tr>
<td>Gujarat</td>
<td>2</td>
<td>Goa</td>
<td>1</td>
</tr>
<tr>
<td>Haryana</td>
<td>954</td>
<td>Himachal Pradesh</td>
<td>39</td>
</tr>
<tr>
<td>Jammu and Kashmir</td>
<td>115</td>
<td>Jharkhand</td>
<td>111</td>
</tr>
<tr>
<td>Kerala</td>
<td>7</td>
<td>Karnataka</td>
<td>2</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>117</td>
<td>Maharashtra</td>
<td>8</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>2</td>
<td>Manipur</td>
<td>24</td>
</tr>
<tr>
<td>Mizoram</td>
<td>4</td>
<td>Nagaland</td>
<td>6</td>
</tr>
<tr>
<td>Orissa</td>
<td>94</td>
<td>Punjab</td>
<td>64</td>
</tr>
<tr>
<td>Pondicherry</td>
<td>2</td>
<td>Rajasthan</td>
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<tr>
<td>Sikkim</td>
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<td>Tripura</td>
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<tr>
<td>Uttar Pradesh</td>
<td>2666</td>
<td>Uttaranchal</td>
<td>358</td>
</tr>
<tr>
<td>West Bengal</td>
<td>53</td>
<td>Other countries</td>
<td>37</td>
</tr>
</tbody>
</table>

Grand Total = 9059

Laboratory Oncology Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemogram (Hb/TLC/Platelets each)</td>
<td>55565</td>
</tr>
<tr>
<td>Peripheral Blood Smear (PBS)</td>
<td>6319</td>
</tr>
<tr>
<td>Bone marrow aspiration (BM)</td>
<td>3107</td>
</tr>
<tr>
<td>Cytochemistry</td>
<td>835</td>
</tr>
<tr>
<td>Serum protein electrophoresis (SPE)</td>
<td>3123</td>
</tr>
<tr>
<td>Immunofixation (IFX)</td>
<td>212</td>
</tr>
<tr>
<td>Urine electrophoresis (UE)</td>
<td>469</td>
</tr>
<tr>
<td>APAAP</td>
<td>43</td>
</tr>
<tr>
<td>Fine needle aspiration cytology (Lymph node)</td>
<td>9</td>
</tr>
<tr>
<td>Cytospin (CSF and pleural fluid)</td>
<td>480</td>
</tr>
<tr>
<td>ESR</td>
<td>1700</td>
</tr>
<tr>
<td>Serum free light chain (SFLC)</td>
<td>354</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>89644</td>
</tr>
</tbody>
</table>

Medical Physics Services

1. Number of blood bags irradiated 392
2. Quality Assurance Test Done on X-Ray Machines 2018
3. Quality Assurance Test Done on Film Processor at Dr BRAIRCH, AIIMS 271
4. Quality Assurance Test Done on Film Processor at Radiology (Main) 569
5. Radiation Output Measurements in X-Ray Units 372
6. Quality Assurance Test Done on Film Processor at AIIMS 256
7. Radiation Protection Survey Measurements 15
8. Advise in Inadvertent Exposure to Pregnancy 8

**Total** 3901
Radiodiagnosis Services

<table>
<thead>
<tr>
<th>Service</th>
<th>5419</th>
<th>Special Investigation (BA,I)</th>
<th>270</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.T. Scan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doppler</td>
<td>275</td>
<td>Ultrasound</td>
<td>5878</td>
</tr>
<tr>
<td>Intervention</td>
<td>970</td>
<td>X-rays (Routine)</td>
<td>13860</td>
</tr>
<tr>
<td>Mammography</td>
<td>1298</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>27970</td>
<td></td>
<td></td>
</tr>
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</table>

Medical Oncology

<table>
<thead>
<tr>
<th>Category</th>
<th>New Cases (CTE+LL)</th>
<th>Old Cases (CTE+LL)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Cases (CTE+LL)</td>
<td>1936</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Cases (CTE+LL)</td>
<td></td>
<td>46821</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48757</strong></td>
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<table>
<thead>
<tr>
<th>Services</th>
<th>24156</th>
<th>11553</th>
<th>5853</th>
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</thead>
<tbody>
<tr>
<td>Total chemotherapy in Day Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPD chemotherapy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission (Ward)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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Medical Oncology Diagnostic and Therapeutic procedures

<table>
<thead>
<tr>
<th>Procedure</th>
<th>936</th>
<th>1889</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Bone marrow biopsy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pleural Tapping</td>
<td>90</td>
<td>Skin Biopsy</td>
<td>3</td>
</tr>
<tr>
<td>Intra Thecal therapy with CSF</td>
<td>1968</td>
<td>Catheterization/Removal</td>
<td>31</td>
</tr>
<tr>
<td>Other supportive services</td>
<td>567</td>
<td>Suturing/Removal</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total OPD procedures</strong></td>
<td><strong>5506</strong></td>
<td></td>
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Medical Oncology Laboratory Services

<table>
<thead>
<tr>
<th>Procedure</th>
<th>12829</th>
<th>1533</th>
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</tr>
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<tbody>
<tr>
<td>Haemogram</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDP stored</td>
<td>3032</td>
<td>No. of infusions performed</td>
<td>143</td>
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</table>

Cytogenetics

<table>
<thead>
<tr>
<th>Procedure</th>
<th>497</th>
<th>133</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection of Philadelphia chromosome</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For chimerism</td>
<td>4</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Procedure</th>
<th>36</th>
<th>133</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryopreservation of PBSC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viability of stem cells</td>
<td>125</td>
<td>CD34 count of stem cells</td>
<td>84</td>
</tr>
<tr>
<td>CD3 count of stem cells</td>
<td>18</td>
<td></td>
<td></td>
</tr>
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</table>

Polymerase chain reaction

<table>
<thead>
<tr>
<th>Procedure</th>
<th>294</th>
<th>285</th>
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</tr>
</thead>
<tbody>
<tr>
<td>RT-PCR for detection of p210 and p190 translocation in CML (qualitative)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RQ-PCR for detection of p210 and p190 translocation in CML (quantitative)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Procedure</th>
<th>69</th>
<th>107</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening of Flt-3 Mutations in AML</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peripheral blood stem cells harvest</td>
<td>111</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Procedure</th>
<th>107</th>
<th>232</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage of peripheral blood stem cells (PBSC) at 4°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELISA for aspergillosis detection</td>
<td>232</td>
<td></td>
<td></td>
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<tr>
<td>Granulocyte harvest</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plasma exchange</td>
<td>1</td>
<td></td>
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Radiotherapy services

<table>
<thead>
<tr>
<th>Procedure</th>
<th>63677</th>
<th>172058</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cases on Radiotherapy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cases on Brachytherapy</td>
<td>609</td>
<td>Treatment Planning and Simulations</td>
<td>4111</td>
</tr>
<tr>
<td>2D and 3D distribution</td>
<td>975</td>
<td>Compensators</td>
<td>317</td>
</tr>
<tr>
<td>Shielding blocks, immobilization devices, moulds</td>
<td>2262</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiation Review clinic</td>
<td>3767</td>
<td>Number of cases on chemotherapy</td>
<td>11535</td>
</tr>
<tr>
<td>Number of injections</td>
<td>67340</td>
<td>RFA</td>
<td>7</td>
</tr>
</tbody>
</table>

Anesthesiology Services

Facilities available in the Department

1. ICU facilities for postoperative patients.
2. Pre-anesthetic checkup, Pain and Palliative Care Clinic is run four times in a week in addition to the anaesthesiology and critical care work.
3. Home support to patients with advanced malignancies by NGOs and keeping monthly meeting with them to know follow up reports.
4. Providing critical care to patients of Radiotherapy, Medical oncology and Surgical oncology.
5. Facility for Pediatric radiotherapy.
6. Anaesthesia for minor paediatric oncology procedures such as Bone marrow biopsy, Central line insertion, Bone marrow harvesting and others.
7. Facility for Paediatric radiological procedures under anaesthesia, Radio frequency ablation for liver, lung, and breast carcinoma.
8. Scrambler Therapy.

**Medical Oncology Clinical Services**
- Two Adult Medical Oncology Clinic and one LL Clinic is running in a week. (Professor Lalit Kumar)
- Two Adult Medical Oncology Clinic, one GIC, one LL clinic and two Head and neck clinic in a week (Dr Atul Sharma)
- Two Pediatric Medical Oncology Clinic, one Pediatric Surgery clinic, Bone/Soft Tissue, Opthal tumor clinic and one Ped LL Clinic in week (Dr Sameer Bakhshi)

Two Adult Medical Oncology Clinic, two Breast Cancer Clinic and one LL and lung Cancer Clinic in a week (Dr Ajay Gogia)

**Community Service**

**Dr G.K. Rath** wrote an article on cancer in Rajasthan Patrika October 2012 and participated in the Swasth Bharat Programme on cancer related problems in Doordarshan on 10 November 2012

**Dr P.K. Julka** participated in the following Television/Radio Programmes
5. Causes, Prevention and Treatment of Cancer at All India Radio, 7 November 2012.
7. Causes, Symptoms and Treatment of Brain Tumors at FM Rainbow, 8 June 2012.

**Surgical Oncology services**

**Facilities available**
1. **Minor Operation Theatre**: Diagnostic and minor therapeutic procedures including Lymph node biopsy, punch/trucut biopsy, excision of Skin/Oral tumours, soft tissue tumours, feeding jejunostomy, colostomy, insertion of Hickman’s catheter/chemo ports for long term chemotherapy are available in the Minor OT.
3. **Major Operation Theatre**: Facilities available for all major cancer Surgeries including radical resection and reconstruction of tumors involving head and Neck, GI tract, Breast, Bone and Soft tissue, Gynaecological malignancies and Thoracic tumors. Advanced reconstructive surgical procedures.

In addition advanced state of art technologies like LASERS, CUSA, Harmonic Scalpel, Surgibone, Vesalius, Thoracoscopy and Intra Operative Radiotherapy are also available.

**Community services**
1. NK Shukla gave a radio talk organized by All India Radio on 11 December 2012.
2. SVS Deo participated in a Doordarshan Programme – ‘Health show on Cancer Awareness’ and in a telemedicine educational activity for Pan-African network.
<table>
<thead>
<tr>
<th>Staff/Faculty</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>36</td>
</tr>
<tr>
<td>Resident Doctors</td>
<td>66</td>
</tr>
<tr>
<td>Technical Staff (Radiotherapy, Laboratory, Oncology, MRT, OT, Radiodiagnosis, etc.)</td>
<td>143</td>
</tr>
<tr>
<td>Nursing Staff</td>
<td>196</td>
</tr>
<tr>
<td>Stores Staff</td>
<td>6</td>
</tr>
<tr>
<td>Ministerial Staff</td>
<td>21</td>
</tr>
<tr>
<td>Secretarial Staff</td>
<td>5</td>
</tr>
<tr>
<td>Group ‘D’ Staff</td>
<td>79</td>
</tr>
<tr>
<td>Daily wages</td>
<td>2</td>
</tr>
<tr>
<td>P. T. S. G.</td>
<td>7</td>
</tr>
<tr>
<td>Outsourced Sanitation Staff</td>
<td>129</td>
</tr>
<tr>
<td>Outsourced Security Staff</td>
<td>76</td>
</tr>
<tr>
<td>Outsourced Data Entry Operators</td>
<td>15</td>
</tr>
</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Anaesthesiology

Dr Sushma Bhatnagar was nominated as Expert by WHO for ImPACT Mission to Khartoum Sudan; received ‘IASP Award for Excellence in Clinical Research or Practice and/or Policy Changes in Pain Management in the Developing World’, at the 14th World Congress on Pain; received an award for outstanding abstract presentation in 1st Global Conference on Peri-operative care in November 2012 at MD Anderson Cancer Center, Houston, Texas; member of Organizing Committee of 1st International Conference on Opioids, at Boston, USA; Member of the Development of Implementing Framework for Palliative Care Across India. Appointed by Ministry of Health and Family Welfare, Govt. of India; Faculty for Training-of-Trainers in Palliative Care Programme by Asia Pacific Hospice Palliative Care Network; is an Editorial Board Member of World Journal of Anaesthesiology (2012–15) and Annals of Palliative Medicine (2012–15). Chief Editor of Indian Journal of Palliative Care; Faculty for Training-of-Trainers in Palliative Care Programme by Asia Pacific Hospice Palliative Care Network.

Dr Seema Mishra was invited as chairperson for the session on Cancer pain at ISSPCON, 1–3 February 2013, Nagpur, Maharashtra; Invited as Examiner for DNB practical examination at AFMC (Armed Force Medical College), 17–20 October 2012, Pune, India.

Dr Nishkarsh Gupta was awarded certificate of excellence for paper entitled, ‘Comparative evaluation of intraperitoneal bupivacaine: Pethidine combination and bupivacaine for postoperative pain relief after laparoscopic cholecystectomy’. This paper was also adjudged as one of the three best papers published in the ‘The Ganga Ram Journal’ during 2012.

Laboratory Oncology


Ritu Gupta chaired a session on Chronic Lymphoproliferative Disorders, National Hematology Update-IX (April 8, 2012) at AIIMS, New Delhi, India

Medical Oncology

Professor Lalit Kumar chaired a session on ‘Molecular Biology of stem cells and cancer’, 3rd International Conference on Stem cells and Cancer, 30 October 2012; Chaired a session on ‘Next Revolution in Genetics and Genomics – Applications in Health and Disease’, International Conference, Dr RML Hospital, New Delhi, 27 January 2013; Member, Task Force on Cancer, Department of Biotechnology, Government of India; Expert Committee on Nanomedicine: ICMR; Project review committee, CSIR; Dean’s Committee, AIIMS; Ethics Committee to review projects related to Oncology, Dharmshila Cancer Hospital, Delhi; Ethics
Committee on Stem cell Research, CCSM (KGMC) University, Lucknow; Scientific Advisory Committee, Cancer Institute (WIA), Adyar, Chennai; **Examiner** for DSc, The Tamil Nadu Dr MGR Medical University, Chennai (2012); PhD – NIMS, Hyderabad (2012); DM, Medical Oncology for the Tamil Nadu Dr MGR Medical University, Chennai (Madras), Nizam’s Institute of Medical Sciences, Hyderabad; National Board (DNB) in Medical Oncology; **Editor**, Journal of Cancer Research and Experimental Oncology (JCREO): An International open access journal; **Member**, Editorial board (Clinical Cancer Research section), Cancer Medicine.

**Sameer Bakhshi** was Member, Screening Committee to screen concepts on Nano Biotechnology, Department of Biotechnology, Government of India, Ministry of Science and Technology, Hyderabad, 7–8 June 2012; ICMR Sarcoma Task Force, ICMR, ICMR Headquarters, New Delhi, 3 August 2012; Expert member for Childhood Leukemia meeting, organized by The International Agency for Research on Cancer (IARC), World Health Organization (WHO), Lyon, France, 20–22 February 2013; Member, DBT expert group meeting and brainstorming on application of nanotechnology in cancer therapy, organized by Department of Biotechnology, Government of India at All India Institute of Medical Sciences, New Delhi, 4–5 March 2013; Section Editor of Indian Journal of Pediatric 2011; Chaired a session on ‘Symposium on Lymphoma’ in ‘National Hematology Update – IX’, Department of Hematology, AIIMS, 7–8 April 2012.

**Medical Physics**

**Pratik Kumar** was nominated to sign the document on behalf of MoHFW as per procedure laid down by AERB for establishment of Department of Nuclear Medicine at six AIIMS like institutions under PMSSY; Expert at Rajasthan Public Service Commission, Ajmer for selecting faculty of Medical Physics; Examiner in theory and practical by University of Delhi for MSc Medical Imaging Technology course at UCMS, New Delhi; Member, Technical Advisory Committee, Delhi State Cancer Institute (DSCI), Govt. of NCT of Delhi, Delhi; External expert at Deptt. of Physics and Astrophysics, Delhi University for upgradation of JRF to SRF; Member, Ionising Radiation Imaging and Radiotherapy Equipments Sectional Committee MHD-18, Bureau of Indian Standards (BIS); Referee for proposals submitted to Biotechnology Industry Research Assistance Council (BIRAC), an enterprise of Govt. of India and Department of Biotechnology; Guest faculty for PG Diploma course in Radiological Physics, Guru Gobind Singh Indraprastha (GGSIP) University, Delhi; Member, Specification Committee of RT equipment at Lady Hardinge Medical College, New Delhi; Technical expert for selection of Associate Professor of Medical Physics at DSCI, Delhi; Chaired a session at 1st International Conference on Occupational and Environmental Health, organized by OHS-MCS and Department of Community Medicine, MAMC, New Delhi; External examiner for practical and viva-voce, GGSIP University for PG DipRP examination; External expert for Indian Railway Cancer Institute, Varanasi for RT tender selection committee; Member, IAEA Tecdoc Report No. 1641 on Patient Dose Optimization in Fluoroscopically Guided Interventional Procedures; Editor, Medical Physics Chronicle; Member of the Editorial Board of Journal of Medical Physics; Member of Electro-medical Equipment Sectional Committee, BIS, New Delhi; Referee for Journal of Medical Physics; Question setter for IGNOU, Delhi for B.Sc. in Medical Imaging Technology course; Member, board of trustee, Association of Medical Physicists of India (AMPI).

**Radiotherapy**

**Professor G.K. Rath** was nominated by Ministry of Health and Family Welfare as Chief representative of Govt of India to IARC Governing council, Lyon, France; Nominated by the Department of Atomic Energy (DAE) as the Member, Atomic Energy Regulatory Board (AERB), Govt of India; Odisha platinum Jubilee Award 2012, Paul Harris Fellow of the Rotary Foundation of Rotary International. Faculty for the ICON-ESMO meeting at Vienna, Austria; Member Scientific Advisory Committee ICON; Member, Technical Resource Group (Advisory group) on NPCDCS, Ministry of Health and Family Welfare, Govt of India; Chairman of the selection committee for the post of Scientist D (Medical) at NCDIR, ICMR, Bangalore; Chairman of Technical Committee to purchase a linear accelerator at RCC, Thiruvananthapuram; Chairman for the steering committee cum Research area panel on cancer at NCDIR, ICMR; Chairman, Scientific Advisory Committee (SAC) of National Centre for Disease Informatics and Research (NCDIR), Bangalore; Chairman, the Project Review and Steering Group (PRSG) of the Department of Information Technology (DIT), Govt. of India for the project ‘Design and Development of Multileaf collimator for use in Linear Accelerators; Chairman, the PRSG of the DIT for the project entitled ‘Development of Oncology Management system for RCC, Thiruvananthapuram being implemented by the Centre for Development of Advanced Computing (C-DAC), of the Ministry of Communications and Information Technology,
Government of India; Chairman, the PRSG of the DIT on ‘Design and development of Electronic Portal Imaging Device (EPID) for Radiation Therapy’ being carried out by CSIO (Central Scientific and Industrial Organization), Chandigarh and TSG integration, New Delhi; Chairman, the ICMR Task force Project on ‘Breast Cancer and Malignant Brain Tumors’. Chairman, the Steering Committee of NCRP (National Cancer Registry Programme), ICMR; Chairman, the ICMR task force on ‘Cancer Management Guidelines’; Chairman, the Ethics Committee, Institute of Cytology and Preventive Oncology (ICPO), ICMR; Chairman, the Expert Committee constituted by the Ministry of Health and Family Welfare, Government of India for the establishment of a National Cancer Institute (NCI) under AIIMS at Jhajjar, Haryana.

**member of the following expert committees/bodies:** Delegated by the Govt. of India for the inspection of Mizoram State Cancer Institute to help them plan their endeavor to improve infrastructure; Expert for the selection committee to the selection of Professor and Associate Professor in Radiation oncology at the Dr Ram Manohar Lohia Institute of Medical Sciences, (RML) Lucknow; The External Technical Expert for the purchase of Brachytherapy Machine for Cancer Care Center, Sidhpur, Gujarat; Visited the Acharya Tulsi Regional Cancer Treatment and Research Institute, Bikaner, to discuss about the project on ‘Development of an Atlas of Cancer in Punjab State and also Hospital Based Cancer Registry’; Examiner for PhD Viva, at Manipal University; Member of the National Advisory Committee, Annual Conference of the Indian Association of Cancer Research, IACR 2013; Member of the committee to develop the protocol for the ‘multi-institutional pilot study to evaluate capability of infrared thermography of breast to demonstrate breast cancers with clinical, mammographic and pathological correlation’ at Navi Mumbai; Member of the ICMR Task force meeting of esophageal cancer at Bangalore; Member of the National cancer Grid meeting at Tata Memorial Center, Mumbai; Member of the Technical assessment committee for the procurement of equipments of Dr B Borooah Cancer Institute, Guwahati; Special Invitee for the task force meeting on cancer biology of DBT at New Delhi; Member, Scientific Committee of Regional Cancer Centre, Thiruvananthapuram; Member Carcinogenesis Foundation of India; Chairman, Task force project on ‘Screening of cancer in three districts of Himachal Pradesh’, ICMR, New Delhi; Chairman, PRSG meeting to review the progress of the project ‘Medical Image Analyser for Cervical Cancer’ submitted by CDAC, Thiruvananthapuram, RCC, Thiruvananthapuram and IIT, Kharagpur; Member, PRSG meeting for transfer of technology for 6 MV Medical linac and review of following linac related projects: establishment of facility for batch fabrication of linac tube and linear accelerator machine; design and development of dual photon energy and multiple electron energy; development and deployment of 6 MV medical linac for cancer treatment (phase II) being implemented at SAMEER, Mumbai; Member of the meeting to identify a user hospital for the 4th machine in the JV Phase II project of SAMEER, Mumbai. Member of Scientific Advisory Committee of the Regional Medical Research Center (RMRC), Dibrugarh; Member of the Technical Advisory Committee (TAC) for finalization of Technical specifications for equipments for DSCI Govt of NCT, Delhi; Member of the Project Review Committee of North East (PRC-NE) of ICMR; External examiner for MD (Radiotherapy) at Tata Memorial Hospital, Mumbai; External examiner for MD (Radiotherapy) at NIMS, Hyderabad; Governing Bodies of four Regional Cancer Centres (Acharya Tulsi Regional Cancer Centre, Bikaner, Kamla Nehru Memorial Cancer Centre, Allahabad, Acharya Harihari Regional Cancer Centre, Cuttack, and Regional Cancer Centre, Agartala); Governing Body of Delhi State Cancer Institute (DSCI), Govt of NCT, New Delhi; Governing Body of the Bhagwan Mahavir Cancer Center, Patna; Safety Review Committee for Application of Radiation (SARCAR), Atomic Energy Regulatory Board (AERB), Anushakti Nagar, Mumbai, Govt. of India; Academic Senate of the Manipal University, Manipal; President of the Cancer Research Foundation of India; Member, Indian Cancer Winner’s Association; Member, Project Review Committee, Oncology (PRC Oncology), Indian Council of Medical Research, New Delhi; Member, Standing Committee on Radiotherapy Development Programme, Dte GHS, Ministry of Health and Family Welfare, Govt. of India; Member, SAG (Scientific Advisory Group), ICMR; Member, Indo American Cancer Association; Member, Forum for Breast Protection; Member, Anti Cancer Trust; Member, The sub group of Ministry of Information and Technology, Govt. of India to review the progress of the Jai Vigyan project, Ministry of Communication and Information Technology, Govt. of India on the development and deployment of 6 MV Medical Linear Accelerator; Member, Cancer foundation, Delhi; Project Review Committee on Working Group of Medical Electronics, Ministry of Information Technology, Govt. of India; Scientific Advisory Committee of three Institutes (a) Gujarat Cancer and Research Institute, Ahmedabad, (b) Institute of Pathology, ICMR and (c) Institute of Cytology and Preventive Oncology, ICMR.

**had the following editorial responsibilities:** Advisory Editor of Journal Academy of Hospital Administration; Member of Editorial Board of Indian Journal of Chest Diseases and Allied Sciences; Indian Journal of Cancer; International Journal of Biosciences and Technology; Journal of Contemporary Brachytherapy; South Asian Journal of Cancer; Consulting Editor, Journal of Cancer Research and

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Professor P.K. Julka received ‘Padma Shri’ award, 2013; Head of Delhi Cancer Registry, under National Cancer Registry Programme; Administrative Incharge of Records, Dr BRA-IRCH, New Delhi; Central Public Information Officer (CPIO), Dr BRA-IRCH, New Delhi; Chairman of Store Purchase Committee, Dr BRA-IRCH, New Delhi.

Member of ICMR High Powered Committee Meeting, New Delhi; Member, ICMR High Powered Committee Meeting on Cancer Projects for XII Plan, New Delhi; Member, ICMR High Powered Committee Meeting to Evaluate Research Projects, New Delhi; Member of PhD Doctoral Committee on New Growth Factors in Breast Cancer, New Delhi; Member, Delhi Cancer Registry Meeting, AIIMS, New Delhi; Member of GGSIP University Meeting on Granting Equated Teaching Designations to Ram Manohar Lohia Hospital Staff Doctors, New Delhi; Member of GGSIP University Meeting on Equated Teaching Designations to Safdarjung and Ram Manohar Lohia Hospital, New Delhi; Member of Selection Committee Meeting on Equated Teaching Designations to Affiliated Safdarjung and Ram Manohar Lohia Hospitals, GGSIP University, New Delhi; Member, Advisory Body Meeting of Chittaranjan Cancer Institute, Kolkata at MOHFW, New Delhi; Member, ICMR ‘High Grade NHL’ Guideline Committee Meeting, AIIMS, New Delhi; Chairperson for the GGSIP University Medical Admission Meeting.; Task Force Meeting for Developing the ICMR Guidelines on Colorectal Cancer, Tata Memorial Hospital, Mumbai; Editorial Board of Journal of Cancer Research and Therapeutics.

Expert for Selection of Prof. and Asst. Prof., Radiotherapy at NEIGREMS, Shillong; CSIR Interview for Sr. Research Associate, New Delhi; Selection of Sr. Residents- RT, AIIMS, New Delhi; Nominated Member of Selection Committee Meeting at Delhi Cancer Institute, GTB Hospital, New Delhi; Member of Specification Committee Meeting for procuring the Linear Accelerator, CT Simulator and Brachytherapy at ILBS, New Delhi; Member of Expert Committee for Finalizing the Specifications of Linear Accelerator, CT Simulator and Brachytherapy at ILBS, New Delhi; Expert for Selection of Candidates for PG Diploma in Radiological Physics at GGSIP University, New Delhi.

Examiner for Chairman, MD Radiotherapy Examination at AIIMS, New Delhi; Examiner for MD Radiotherapy, SMS Medical College, Jaipur; Examiner for MD Radiotherapy, MD University, Rohtak; Examiner for MD Radiotherapy, Safdarjung Hospital, GGSIP University, New Delhi.

Inspected Bara Hindu Rao Hospital, New Delhi for MLT-Radiotherapy Course; Rajiv Gandhi Cancer Institute, New Delhi for MLT-Radiotherapy Course; Examiner for MD Radiotherapy, SMS Medical College, Jaipur; Examiner for MD Radiotherapy, MD University, Rohtak; Examiner for MD Radiotherapy, Safdarjung Hospital, GGSIP University, New Delhi.

Felicitated as a Padma Awardee by Maulana Azad Medical College Old Students (MAMCOS), New Delhi, 31 March 2013.

Chairperson, Lung Cancer Symposium on Targeted Therapies, New Delhi, 30 March 2013; Plenary Session at Asia Pacific Neurooncology (ASNO) Meeting, Mumbai, 23 March 2013; Indo-US Meeting on Thoracic and GI Cancers, ILBS, New Delhi, 6 March 2013; SPC Meeting at Dr BRA-IRCH, AIIMS, New Delhi, 19 February 2013; Scientific Symposium on Rectal Research at RGCON, New Delhi, 17 February 2013; Scientific Symposium on Clinical Cancer Research at IACR Cancer Conference, Patel Chest Institute, New Delhi, 13 February 2013; Scientific Symposium on RCC, New Delhi, 8 February 2013; Chairperson for a Scientific Symposium on NSCLC, New Delhi, 19 May 2012; Seminar on Gene Expression Profile in Head and Neck Cancer, New Delhi, 2 February 2013; Debate on IGRT, ASTRO Course, New Delhi, 14 October

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2012; ICON Meeting at ESMO, Vienna, 29 September 2012; Scientific Symposium on Adjuvant Therapy in Breast Cancer, New Delhi, 14 July 2012; Participated in a Meeting on Cancer Research, AIIMS, New Delhi, 21 February 2013; Participated in Convocation at GGSIP University as Member of Academic Council, New Delhi, 3 December 2012; Participated in ESMO Meeting, Vienna, 29 September–2 October 2012; Chief Guest at World Cancer Day Programme, New Delhi, 4 February 2013; Chief Guest for Cancer Awareness Programme at Mirpur Institute of Medical Sciences, Rewari, 20 May 2012.

**Dr DN Sharma** was elected as Joint Secretary of the Indian Brachytherapy Society.

**Surgical Oncology**

**Professor N.K. Shukla** was reviewer for Journal of Indian Association of Medical and Pediatric Oncology, Indian J of Surgery, Indian J of Cancer, Otorhinolaryngology; attended National Cancer Congress, Dharamsheela Hospital, New Delhi, 19–20 January 2013, and chaired a session on Breast Cancer.

**Dr S.V.S. Deo** was invited as an International Collaborating faculty for breast cancer trials by Oxford University, UK; invited by MD Anderson Cancer Center, Houston, USA, to deliver a grand round lecture. invited as an Expert Selection committee member for NEIGRIMS Shilling Faculty selection and MCh examiner, BHU, Varanasi; was appointed as Chair – Breast Cancer Trial during the National Cancer Grid Meeting, held at Tata Memorial Hospital, Mumbai; elected as a Council member and teaching faculty of ‘Breast Surgery International’ of International Society of Surgery, Switzerland.

**Dr Durgatosh Pandey** was invited to become a founder member of the Lung Cancer Consortium Asia; member of ICMR task force on ‘Review of guidelines for management of cancer’, in Lung Cancer subcommittee;

**Dr Dilip Mudulay** was awarded a travel grant by the organizing committee of European Breast cancer Congress to attend the 8th EBCC Meeting, Vienna; was awarded developing Nations Travel Award for the ESMO: 14th World Congress on Gastrointestinal Cancer, 27–30 June 2012, Barcelona, Spain.
Dr Rajendra Prasad Centre for Ophthalmic Sciences continues to be the first major re-accredited WHO Collaborating Centre for Prevention of Blindness (PBL) in the South East Asian region since 1973. Professor Rajvardhan Azad was elected as President of Asia Pacific Academy of Ophthalmology. We have achieved new innovative advanced surgical procedure for ‘Endoilluminator assisted sclera buckling surgery’ and ‘Endovitreal resection of choroidal melanoma with vortex ligation’. A new eye donation centre has been started at Deen Dayal Upadhayay Hospital with the support of National Eye Bank, Dr RP Centre, AIIMS, New Delhi. The Centre has been recognized by Ministry of Health and Family Welfare for dispensing of corneal preservative media to all government Eye Banks in India. Two community-based major projects like Vision Delhi Project and Sightsavers innovation project have been launched. In Vitro and In Vivo Multispectral Optical Imaging System (PhotonIMAGER) for research has been established at Department of Ocular Biochemistry. New Pharmaceutics and Pharmacology research laboratory facilities have been established at Department of Ocular Pharmacology. The faculty members of the Centre were invited for several guest lectures and as panelists and chairs at various national and international events. The Centre was active in clinical care, teaching of residents, trainees and fellows. During this period there was a lot of research activity and many research papers were presented in national as well as international scientific conferences by the PhD scholars, Residents and Faculty members.
EDUCATION
Undergraduates  Post graduates  Paraclinical
MBBS 42  MD 30 (passed)  BSc (H) Ophthalmology 36
PhD 23  JR. Ophthalmology 111

Short and long term training
11 short term trainees and 11 ophthalmologists from various parts of the country were trained in different fields of specialization.

CME
The faculty of the Centre participated in various scientific forums, 192 lectures delivered including key note addresses, and have presented 119 papers/posters. During the year the centre organized following Conferences/Seminars/Workshops.
1. RPC Update 2012  28–29 April 2012
2. 71st Annual Conference of All India Ophthalmological Society and 28th Asia–Pacific Academy of Ophthalmology Congress at Hyderabad International Convention Centre (HICCC), Hyderabad International Trade Exhibition (HITEX), Hyderabad
3. RPC Update 2013  10 March 2013
4. Glaucoma Awareness Camp  16 March 2013
5. Training on Conducting Trachoma survey  28 March 2013
6. Trachoma Rapid Assessment and Trachoma prevalence surveys

RESEARCH
Funded projects
Ongoing
1. Sightsavers Phase II RPC National Project for ROP capacity building at 8 centres in India.
2. An exploratory, randomized study assessing the efficacy and safety of OZURDEX implant alone Vs. OZURDEX implant plus laser in patients with visual impairment due to macular edema secondary to branch vein occlusion (BRVO).
3. ICMR Task Force Project entitled ‘National Retinoblastoma Registry’.
4. ICMR Task Force Project on The Epidemiology of Anophthalmia and/or Microphthalmia in Children aged 0–5 years in selected districts of Bihar.
5. A 12 month, Phase III, Randomized, Double masked multicentre, active controlled study to evaluate the efficacy and safety old two different dosing regimens of 0.5 mg ranibizumab vs. verteporfin PDT in patients with visual impairment due to choroidal neovascularisation secondary to pathological myopia.
6. Stem Cell-ICMR project: ‘Use of Autoogous bone marrow derived stem cell for rehabilitation of patients with dry age related macular degeneration and retinitis pigmentosa’.
7. Genotype determination of Acanthamoeba spp. from amoebic keratitis and CNS infections and evaluation of PCR assay vis. a vis. conventional methods for rapid diagnosis.
8. Developing quality control parameters and dispensing MK Media for corneal transplant preservation for Indian eye banks.
9. Evaluation of the possible modalities to enhance the ocular kinetics of an anti cancer agent in rabbits for it’s utilization in the treatment of retinoblastoma.
11. Evaluation of factors associated with success of mitomycin augmented trabeculectomy among primary adult and juvenile glaucomas in India.
12. A Multicentre, patient – masked, safety extension study to evaluate the biodegradation of the brimonidine tartrate posterior segment drug delivery system.
13. Role of micro RNA-200 family in ocular malignancies.
14. Sentinel Surveillance Unit project.
15. National Surveillance Unit project Primary Eye Care Primary Eye Care facilities in west Delhi.
16. Impact of UV radiation and environmental changes on eye health.
17. Reach in Programme.

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18. Comprehensive Primary Eye Care Services in Rural areas of Delhi.
19. Vision Delhi project on refractive error Developing a cost-effective model for community based screening of diabetic retinopathy in urban slums of Delhi.
22. Role of stratifin in OSSN and its correlation with other tumor suppressors.
25. Evaluation of role of cultivated oral mucosal epithelial cells in patients with bilateral acute ocular burns as compared to amniotic membrane transplantation. Multi-institutional project AIIMS and PGIMER (Chandigarh).
26. Factors associated with severity at presentation of juvenile onset primary open angle glaucoma.
27. Phenotype-genotype correlation among patients with juvenile onset primary open angle glaucoma.
28. Exome sequencing based detection of novel and causal mutation(s) associated with juvenile onset open angle glaucoma.
29. Tear analysis in ocular graft versus host disease.
30. Circulating stem cells in preterm infants: correlation with the development of retinopathy of prematurity. 
31. Vascular endothelial growth factor and insulin-like growth factor-1 levels in the preterm infants: correlation with retinopathy of prematurity.
32. Genetic polymorphisms of cytochromes P450 and glutathione-S-transferase and the risk of primary open angle glaucoma and primary angle closure glaucoma in North Indian population.
33. Immunohistochemical detection of cell division cycle (CDC25) proteins in retinoblastoma.
34. Role of HMG proteins in intraocular malignant childhood tumors.
35. Role of stratifin in ocular squamous cell neoplasia and its correlation with other tumor suppressors.
36. Immunohistochemical detection of oestrogen and progesterone receptors in sebaceous cell carcinoma of the eyelid.

**Completed**

1. Development of small interfering RNAs (siRNAs) for inhibition of Enterovirus 70 and Coxsackievirus A24 viruses causing Acute Hemorrhagic Conjunctivitis.
2. Phenotypic molecular and ultrastructural study of coagulase negative staphylococci and their biofilms in device related infections.
3. Evaluation of calcium dobesilate for various ocular pharmaceuticals conditions.
5. A 3-Year, Phase-3, multicenter, masked randomized, sham controlled trial to assess the safety and efficacy of 700 µg dexamethasone posterior segment drug delivery system (DEX PS DDS) applicator system in the treatment of patients with diabetic macular edema.
6. Implication of microbial biofilms in chronic rhinosinusitis and orbital cellulites.
7. The development of a potential biopolymer to serve as an alternative substrate of human amniotic membrane for ex vivo expansion of corneal epithelial stem cells.
8. Malignant tumor of the eye and orbit-varied clinical profile, role of tumor markers in management.
10. Role of polo-like kinase proteins in retinoblastoma – An immunohisto-chemical study. Correlation between clinical features, imaging characteristics and histopathological findings in advanced intraocular retinoblastoma.
12. Phenotypic characterization of limbal epithelial cells culture on amniotic membrane.
13. Impact of Grief counselor versus trained nurses in increasing and sustaining eye donation in institutional setting: An Operational Research.
14. Confocal microscopy analysis of the cornea in chronic glaucoma patients on long term medical therapy.
15. Assessment of magnitude and progression of myopia in school going children in Delhi.

**Departmental projects**

**Ongoing**

1. Comparison of RetCam assisted fluorescein angiography vs. gonioscopy for early detection of angle neovascularization in proliferative diabetic retinopathy.
2. Correlation of visual acuity with integrity of foveal photoreceptor layer using SD-OCT and multifocal ERG in patients of diabetic macular edema.
3. Comparison of anti-VEGF agents in angiogenesis in a rabbit model.
4. Comparison of video angiography with standard angiography in retinal disorders.
7. Comparison of large spot laser vs. standard spot laser for treating retinopathy of prematurity.
8. Comparative evaluation of predictors for success in macular hole surgery varying gas mixtures (18% C3F8, 25% SF6) for managing minimal gauge dye enhanced.
10. Anatomical and visual outcomes of posterior segment trauma requiring vitreoretinal surgery.
11. Role of autologous bone marrow derived stem cells in retinitis pigmentosa and age related macular degeneration.
13. Conventional (532nm) laser versus sequential laser (posterior subtenon triamcinolone followed by laser) in macular edema secondary to branch retinal vein occlusion.
14. Eleminum and Glutathione levels in ROP.
15. Modulation of organic cationic transporters for the intraocular penetration of drugs.
16. Isolation and evaluation bioactive compounds from marine origin (with special reference to angiogenic property).
17. Prediction of ocular toxicity using OMR paradigms in gold fish.
18. Development of topical estrogen or androgen receptor modulator for postmenopausal dry eye using computer aided drug design.
20. Correlating clinical features at baseline and after control of IOP in glaucomatous eyes.
21. Estimation of rate of progression and projected life time risk of blindness among JOAG patients.
22. Determinants of optic disc morphometry among JOAG patients.
23. Retinotopic correlation of optic nerve head and automated perimetry.
24. Optic disc morphometry among eyes with BRVO.
25. Morphometric evaluation of the disc in BRVO eyes using confocal scanning laser ophthalmoscope.
26. Correlation of visual acuity with integrity of diabetic macular edema.
27. Profile and outcome in endophthalmitis.
28. The causes and anatomical-visual outcomes of vitreo retinal surgery in paediatric retinal detachment.
29. Vitreomacular traction surgery outcome.
30. To study the effect of intravitreal injections of anti-VEGF agents and steroids on foveal ganglion cell layer and vitreoretinal interface.
31. Silicone sling surgery for congenital ptosis: tarsal tunnel technique vs. suture fixation.
32. To evaluate the changes of retinal nerve fibre layer and optic nerve head after pascal panretinal photocoagulation using optical coherence tomography.
33. Chemordection failure in retinoblastoma – A clinical and histopathological risk factors.
34. Study of oral rebamipide in management of dry eye.
35. Expression of cell cycle regulatory proteins in ocular surface squamous neoplasia.
36. Molecular analysis of mitochondrial genes associated with tumorigenesis in retinoblastoma.
37. Epithelial-mesenchymal transition (EMT) in sebaceous carcinoma of the eyelid – an immunohistochemical and molecular study.
39. Expression of stem cell markers in RB and their clinicopathological correlation.
41. Role of diffusion weighted MRI in RB.
42. Conjunctival autofluorescence as a marker of ultraviolet radiation exposure in pterygium.
43. Study on awareness and health seeking practices about common eye conditions in urban slums of Delhi.
44. Community based epidemiological study on corneal opacities.
45. Epidemiological study of diabetic retinopathy in north India.
46. MRI evaluation of chronic hip pain.
47. Role of digital breast tomosynthesis as an adjunct to full field digital mammography (FFDM) in the diagnosis of breast lesions.
48. To ascertain the role of sheer wave elastography as an adjunct to B-mode ultrasonography in characterisation of breast masses.
49. Evaluation of cultivated mucus membrane in reconstruction of anophthalmic contracted socket.
50. Molecular studies and expression of cell cycle regulatory proteins in ocular surface squamous neoplasia.
51. Clinico-investigative profile of patients with thyroid associated ophthalmopathy at a tertiary eye centre.
52. Skin grafting in cicatricial ectropion – suture vs. fibrin glue. Role of fine needle biopsy in orbital and periorbital lesions.
53. Clinical profile of patients with pediatric epiphora in tertiary eye care centre.
54. Role of FNAC in diagnosis of orbital and peri-orbital lesions.
56. Evaluation of focal consolidation and systemic chemoreduction in management of intraocular retinoblastoma.
57. Clinicoepidemiologic profile of patients presenting with orbital and/or peri-orbital trauma to a tertiary care centre.
58. Comparison between silicone and porous polyethylene orbital implants in patients undergoing enucleation.
59. Experimental study on ocular penetration of drugs used for retinoblastoma by using non-invasive iontophoretic technique.
60. Sight life Delhi eye banking pilot project.
61. Study of death to prevent time and its impact on utilization of donor corneas.
62. Study of corneal changes in mechanically ventilated trauma patients.
63. Evaluation of tear film lipidomics in selected ocular surface disorders.
64. Analysis of the expression of mucins and antiangiogenesis markers in human oral mucosal epithelial cells (OMEC) on using mycophenolate mofetil (MMF) and bevacizumab (BVCZ) in vitro.
65. Molecular characterization of Steven Johnson Syndrome Ocular Sequelae.
66. Isolation, expansion and characterization of corneal limbal epithelial cells.
67. Ocular surface evaluation in chronic glaucoma.
68. Randomized control trial to compare the efficacy of pterygium excision and conjunctival autograft with fibrin glue and with autologous blood.
69. Clear lens extraction in Chronic PACG.

**Completed**

1. Comparison of 20G and 25G PPV for rhegmatogenous RD.
2. Comparison of pascal photocoagulation and diode laser for treatment of diabetic retinopathy.
5. Ocular surface evaluation in allogenic hematopoetic stem cell transplant patients.
7. Correlation between baseline intraocular pressure and histopathology of trabecular meshwork.
8. Clinical, histopathological and genetic characterization of corneal endothelial dystrophies.
12. Evaluation of modified levator plication vs. fascia lata sling for congenital severe ptosis.
13. Lateral eyelid rotation flap for reconstruction of full thickness eyelid defects.
14. Role of fine needle biopsy in orbital and periorbital lesions.
15. Immunohistochemical and molecular studies of Wnt/Beta catenin signaling in Sebaceous cell carcinoma of the eyelid.
17. Regulation of apoptosis in human retinoblastoma.
18. Conjunctival DCR using Medpor coated tube.
20. PCR in acanthamoeba keratitis.
21. To evaluate the efficacy of motorized diamond burr in polishing corneo-scleral bed after pterygium excision with conjunct autograft with glue.
22. Collagen crosslinking in infectious keratitis.
23. Corneal tomography in pterygium.

**Collaborative projects**

**Ongoing**
1. Quantification of plasma antitubercular drug levels in pediatric population.
2. Evaluation of rhythmic process of Surdershan Kriya Pranayam on cancer patients for pain management.
3. Development of the method for the quantification of neuropeptidors from brain microdialysate in rats.
4. Development of new LC-MS/MS method for the determination of lipids from patients suffering from diabetic retinopathy.
5. Quantification of A2E from the cadaveric eyes.
7. Strategies for extending utilization of donor corneal tissues for corneal transplantation by harnessing their full clinical potential.
9. Evaluation of cortical brain activation and visual pathway in cases of acute optic neuritis by functional MRI and DTI.
10. Role of magnetic resonance imaging and spectroscopic methods in the evaluation of early prostate cancer.
11. Hepatic left lobe liver volume as an indicator of adiposity and related metabolic abnormality in patients with NAFLD MD.
12. Study of non-alcoholic fatty liver disease and coronary artery disease in Asian Indians.
15. Role of PET CT in evaluation of lacrimal gland neoplasms.
16. Accuracy of sonographically measured splenic volume compared to splenectomy specimen.
17. Evaluation of possible modalities to enhance the ocular kinetics of anti-cancer agents and their anti-angiogenic effect for their potential application in retinoblastoma.
19. A study of factors affecting tissue and organ donation in medico legal cases at tertiary care hospital.

**Completed**
1. Genetic polymorphisms of vascular endothelial growth factor and risk of 'Threshold' retinopathy of prematurity.
2. Epidemiology, pathogenomics and system biology of A flavus infections in India - an integrative approach.
3. Determination of plasma levels of morphine and its metabolites and correlation with its pharmacodynamics.
4. Evaluation of vitreous humor as a marker fluid in the autopsy drug level analysis.
5. Evaluating the correlation of serum levels of morphine and its metabolites on pain in cancer patients.
7. Evaluation of bioactive components from algae.
8. Culture of limbal stem cells for ocular surface reconstruction in stem cell deficiency diseases.
9. Serial ultrasonic evaluation and its clinicopathological correlation in retinoblastoma patients undergoing hemoreduction and focal treatment or enucleation.
10. Pilot study to evaluate chemotherapy in stage 3 RB as per the IRSS.
11. Clinical correlation of imaging findings in congenital neuropathic strabismus.

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15. Randomized control trial using carboplatin 750mg/m² and 560 mg/m² for ocular salvage in group C and D retinoblastoma.
16. Isolation, expansion and characterization of oral mucosal epithelial stem cells.
17. Detection of cancer stem cells in retinoblastoma by flow cytometry.

PUBLICATIONS
Journals: 93 Abstracts: 4 Chapters in books: 27 Books: 3

PATIENT CARE

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Indoor admissions

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Operations

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Other figures

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<td>Average OPD attendance per working day</td>
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<td>Average surgeries per working day</td>
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<td>POG</td>
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<td>KM</td>
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<td>AR</td>
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<td>IOL Master</td>
<td>1679</td>
<td>CP</td>
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<td>Ocular Microbiology</td>
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<tr>
<td>Samples processed</td>
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<td>Bacterial culture and sensitivity</td>
<td>10142</td>
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<tr>
<td>Fungal culture</td>
<td>3240</td>
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<tr>
<td>Specimens processed for cytology</td>
<td>820</td>
<td></td>
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<tr>
<td>Specimens processed for viral antigen detection and PCR</td>
<td>80</td>
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<tr>
<td>Specimens processed for Chlamydia</td>
<td>221</td>
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<td>Antigen detection</td>
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<tr>
<td>Culture for acanthamoeba</td>
<td>73</td>
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<tr>
<td>Specimens processed for acanthamoeba PCR</td>
<td>52</td>
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<td>Specimens processed for conjunctivitis</td>
<td>18</td>
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<td>Specimens processed for microsporidia</td>
<td>3</td>
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<tr>
<td>Specimens processed for mycobacteria</td>
<td>11</td>
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<td>Grand total</td>
<td>14660</td>
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<td>Ocular Pathology</td>
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<td>Total number of Investigations</td>
<td>69825</td>
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<td>Blood: Total leucocyte count, differential leucocyte count,</td>
<td>40852</td>
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<td>peripheral blood smear, erythrocyte sedimentation rate, bleeding time/clotting time</td>
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<td>Urine</td>
<td>10296</td>
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<td>Histopathology, Cytopathology and Research</td>
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<td>Ocular Biochemistry (Clinical Chemistry)</td>
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<tr>
<td>Total number of samples (apart from research)</td>
<td>11050</td>
<td></td>
</tr>
<tr>
<td>Indoor</td>
<td>9612</td>
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<tr>
<td>Outdoor</td>
<td>1438</td>
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</table>
Ocular Pharmacology and Pharmacy
Free drugs (vials) supplied through ocular pharmacy including media  1,61,812

Community Ophthalmology
1. Eye Care Services in Slums
Primary eye care clinics  17
Slums covered for primary eye care services  36
Attendees at PEC centres in slum clusters  27,959
Refraction carried out in PEC centres in slum clusters  13,608
   Patients referred to R.P. centre  4,404
   Patients operated  1,145
   Subsidized spectacles issued in slums  43,533

2. Training events and health education events
Volunteers Training Programmes organized  25
Volunteers Trained  250
Eye Health Education Events  43
Participants in the Health Education events  12,75

3. Reach-in-programme for cataract surgery in rural and remote areas
Adult screening camps organized  19
People examined  5,143
Patients referred to R.P. centre  751
Patients operated at R.P. centre  722
Follow-up camps organized  33
Patients examined in follow-up camps  10,65

4. School eye screening programme
School covered under SES programme  13
Teachers trained under school vision screening programme  10
Children screened  5,080
Children prescribed spectacles  467
Children issued spectacles  256

Rehabilitation services
Blind patient counseled for rehabilitation services with other activities  40

National Eye Bank
<table>
<thead>
<tr>
<th>Category</th>
<th>New patients registered</th>
<th>Waiting list on 31.3.2013</th>
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</thead>
<tbody>
<tr>
<td>Children below 6 years of age</td>
<td>88</td>
<td>0</td>
</tr>
<tr>
<td>Children between 6–12 years and adults</td>
<td>462</td>
<td>0</td>
</tr>
<tr>
<td>with blindness in both eyes</td>
<td></td>
<td></td>
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<tr>
<td>Adults with visual impairment in both</td>
<td>83</td>
<td>0</td>
</tr>
<tr>
<td>eyes</td>
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<tr>
<td>Adult with blindness in one eye</td>
<td>565</td>
<td>311</td>
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AWARDS, HONOURS AND SIGNIFICANT ACHIEVEMENTS
Professor R.V. Azad is Honorary Physician to President of India, 2013; President, Asia Pacific Academy of Ophthalmology, 2013; delivered Fourth Nawab Arastu Yar Jung Bahadur Memorial Oration in Art, Science and Commerce of Medical Education (India) at L.V. Prasad Eye Institute, Banjara Hills, Hyderabad, 2013; Chief Guest at Update on ‘Role of anti VEGF in Diabetic Macular Edema’ Deen Dayal Upadhyaya Hospital, Delhi, March 2013; Chief Guest, Allergan Academic Achievers Award and Erudio-2012, January 2013; President, Asia Pacific Ophthalamic Trauma Society, 2012; International Advisor, State Key Laboratory in Ophthalmology (SKLO) Zhongshan Ophthalmic Centre, Guangzhou, China, 2012; Honorary Professor at Sun Yat-Sen University, Guangzhou, China, 2012; Advisor (Ophthalmology) – Ministry of Health and Family Welfare, Government of India, 2012; Chairman – International Relation Committee, All India Ophthalmological Society, 2012; Bangalore Ophthalmic Society Oration, Bangalore, 24 June 2012; Chief
Guest, National CME 2012 by the U.P. State Ophthalmological Society at Hotel Country Inn and Suite, Sahibabad, Ghaziabad, September 2012; Dr Aroop Midya and Dr Meenakshi Midya Memorial ACOIN Award 2011 by the Association of Community Ophthalmologists of India at H.V. Desai Eye Hospital, Pune, November 2012; Guest of Honour, Inaugural function, Golden Jubilee Annual Conference of the Bihar Ophthalmological Society, Patna, November 2012; Chair Executive, Chairman and Invited Speaker at 3rd World ROP Congress, Shanghai, China, October 2012; President, Ophthalmic Research Association (since 2011); Director, WHO Collaborating Centre for Prevention of Blindness (since October 2011); Chairman, Technical Committee for upgradation of Rajendra Nagar Super-speciality Eye Hospital, Patna, Bihar, 16–18 May 2012; External Examiner: Conduct the MD/MS Practical Examination at Government Medical College and Hospital, Punjab University, Chandigarh, 22 May 2012; Appointed Member, Faculty of Medicine, IMS (Department of Ophthalmology), Banaras Hindu University, Varanasi, 2009–12; Expert, Interviews for faculty post in Bhopal Memorial Hospital and Research Centre, New Delhi, November 2012; Co-Chairman, Postgraduate Medical Education Committee appointed by the Board of Governors, Medical Council of India, New Delhi, since 30 August 2011; Chairman, Ophthalmic Education and Certification Committee, Asia Pacific Academy of Ophthalmology (since 2010); Member Reviewers Committee, Indian Council of Medical Research (ICMR); Reviewer: BioMed Central Ophthalmology, London; Ophthalmic Surgery Laser and Imaging; Indian Journal of Ophthalmology; Journal of American Association Pediatric Ophthalmology and Strabismus; Clinical and Experimental Ophthalmology; British Medical Journal Ophthalmology; Indian Journal of Pediatrics; Acta Ophthalmologica; Advisor, Editorial Board, Delhi Journal of Ophthalmology; Section Editor, Retina – Indian Journal of Ophthalmology; Section Editor, Surgical Retina-Asia Pacific Journal of Ophthalmology (since 2011); Editor, Open Journal Ophthalmology, 2012; Editor, International Journal of Pharma Medicine and Biological Sciences, 2012; Editor, Ocular Surgery News APAO (OSN), 2012; Chief Executive Editor, Ophthalmology World Report; Chairman, Committee to develop the idea and plan to host nation-wide competition for UG and PG students of medical schools in India (since 2011); Chairman, committee to fix the cleaning charges of J.L. Auditorium, foyer, quadrangle lawn, Biophysics Lawn, etc.; Chairman, Sub committee for considering proposal to be put up before hospital affairs committee at AIIMS, New Delhi (since 2011); Chairperson, Hospital Management Board, AIIMS, New Delhi (since 2011); Chairman, AIIMS House Allotment Committee, AIIMS, New Delhi (since 2009); Member, Deans Committee, AIIMS, New Delhi; Member, AIIMS Fund Allocation and Annual Budget committee, New Delhi; Regional Secretary, SAARC Academy of Ophthalmology (since 2006); Chairman, Expert Committee established for Rajendra Nagar Super Specialty Hospital for Eye, by the State Health Society, Bihar (since 2008); Chairman, Credential Committee and Council Member, Asia Pacific Vitreoretinal Society (since 2009).

Professor Y.R. Sharma was Scientific reviewer – Ophthalmology (AAO), (since 2006); American Journal of Ophthalmology (since 2007); Indian Journal of Ophthalmology (since 1990); Journal of Clinical Ophthalmology and Research – 2012; Scientific Reviewer - Free papers on surgical Retina, APAO-AIOS, 2012; Scientific Reviewer, DBT, 2012; Expert, DBT (Biotech Consortium India Limited (BCIL), Management Agency (SMA) of the scheme.)

Professor Atul Kumar was nominated as Expert on Advisory Panel in the Discipline of Ophthalmology (Advisory Panel, Expert Member) NAMS, 2012; Awarded DMA award for excellence in Ophthalmic service ‘Vishishth Chikitsa Rattan Award’, July 2012; Delivered ‘Retina Foundation Oration’ at the Gujarat Ophthalmic Society meeting, September 2012; Awarded Dr P.N. Sinha Gold Medal Oration at ‘Swarnjyoti’ on Golden Jubilee celebrations of Bihar Ophthalmic Society Conference, November 2012; Guest Speaker at the Asia Pacific Vitreoretinal Society Meeting, Hong Kong, December 2012.

Professor J.S. Titiyal was awarded Professor B.P. Kashyap oration award (extramural lecture, Jharkhand Ophthalmological Society Conference ‘JHOSCON’), December 2012, Ranchi; awarded Dr Rustom Ranji Oration for outstanding work in the field of Ophthalmology, ‘Past Present and Future of Lamellar keratoplasty’, 36th Annual Conference of Andhra Pradesh Ophthalmological Society. Guntur (AP), October 2012; Selected member of Joint Working Group (JWG) of Indo-US vision research programme with the Department of Biotechnology (DBT) and National Eye Institute, USA, conferred by Govt. of India Ministry of Science and Technology Department of Biotechnology (DBT).

Professor Radhika Tandon was Member, Committee constituted for inspection for advising hospital registration to perform cornea transplantation facilities, DGHS, Nirman Bhavan, New Delhi: Saroj Hospital.
and Heart Institute, Delhi; Vasan Eye Care Hospital, Pusa Road, New Delhi; Guru Teg Bahadur Hospital, Dilshad Garden, New Delhi; awarded Complimentary certificate of Recognition, Who’s Who in the World, July 2012; awarded Cambridge Certificate for outstanding health professional and a worthy recipient; Elected as International Member, American Academy of Ophthalmology, California; Member, Strabismological Society of India, February 2013; Member, Education Subcommittee for preparation of Result Framework Documents (RFDs), AIIMS; Member, Foundation day committee, Dr R.P. Centre, AIIMS, 10 March 2013; Member, Committee-Meeting, Website for National Organ and Tissue Transplantation Organization and Formats for National Registry for various organs and tissues Committee Room, Nirman Bhavan, DGHS, New Delhi, 4 March 2013; Judge for the session to judge papers (Free paper – Cornea) (Dr T.P. Agarwal Trophy) 64th Annual Conference DOS, 12–14 April 2013, New Delhi.

Dr Sanjay Sharma was Vice President, Delhi Chapter of IRIA, 2012; Treasurer, Indian Society of Vascular and Interventional Radiology (ISVIR), November 2011–February 2013; Organising Secretary, AIIMS-MAMC-PGI CME course on 29–30 March 2013, on Recent Advances and Applied Physics in Imaging; Treasurer, Breast Biopsy Education Programme organised by All India Institute of Medical Sciences in New Delhi, 9–10 October 2012; External Expert: Member, Expert Committee for formulating Standard Treatment Guidelines by DGHS, Ministry of Health, February 2013; Member, Expert Committee for conducting workshop for DNB (Radiodiagnosis) Exam (MCQ review and validation), 28 June 2012, NBE Office at Dwarka, New Delhi; External expert, DGHS for procuring the 3.0 T MRI m/c and 800mA X Ray m/c at RML Hosp. December 2012–March 2013; Member, Indian Delegation representing Indian Society of Vascular and Interventional Radiology (ISVIR) for 10th Scientific meeting of the Chinese Society of Interventional Radiology (CSIR 2012) and Global Embolisation Symposium and Techniques (GEST 2012 plus), Nanjing, China, 31 October–3 November 2012.

Dr Tanuj Dada was appointed Secretary General, International Society Glaucoma Surgery; Associate Advisory Board, World Glaucoma Association.


Dr Bhavna Chawla was Invited Faculty at World Ophthalmology Congress, 2012; Awarded ‘AIIMS Excellence Award’ in research 2012; Awarded Narsing A. Rao Award and Gold Medal by All India Ophthalmology Society, 2012.

Dr Parijat Chandra was reviewer Journal of Postgraduate Medicine (since 2004); Indian Journal of Ophthalmology (since 2005); Eye (since 2009); Journal of Clinical Ophthalmology and Research (since 2012); Moderator, Current Management of Diabetic Retinopathy Session. Annual Conference of Delhi Ophthalmological Society 6–8 April 2012, Delhi; Judge, Video Session – Mid-Term conf. of Delhi Ophthalmic Society 27–28 October 2012; Organizer – RPC – Sightsavers National ROP Summit, July 2012 Delhi; Scientific Programme Coordinator; Member, International Programme Committee and Member, International Scientific Committee, World ROP Congress, Shanghai, 14–16 October 2012.

VISITING SCIENTISTS
1. Ms. Caroline Harper, CEO, Sightsavers
2. Mr. Martin, Trustee, Sightsavers International
3. Prof James Chodosh, Ophthalmology, Harvard Medical School
4. Dr. Sahar, Director of Cornea and Refractive Surgery Services
5. Tim Schotman Tim Schotman, Chief Global Officer, Sight Life
6. Dr Audrey Rostov, Corneal Surgeon, Seattle, USA
7. Mr Manoj Gulati, Country Director, Sight Life, USA
### 10.5 Jai Prakash Narayan Apex Trauma Centre

**Chief**  
M.C. Misra

**Additional Medical Superintendent**  
Sanjeev K. Bhoi

**Additional Professor**  
Kamran Farooque (Orthopaedics)

<table>
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<tr>
<th>Department</th>
<th>Associate Professors</th>
<th>Forensic Medicine</th>
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<tr>
<td>Anaesthesiology</td>
<td>Babita Gupta</td>
<td>Sanjeev Lalwani</td>
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<td></td>
<td>Chhavi Shawney</td>
<td>Adarsh Kumar</td>
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<td>Laboratory Medicine</td>
<td>S. Arul Selvi</td>
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<td>Deepak K Gupta</td>
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<td>Sumit Sinha</td>
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<td>GD Satyarthee</td>
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<td>Atin Kumar</td>
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<td>Biplab Mishra Sushma</td>
<td>Amit Gupta</td>
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<td>Subodh Kumar</td>
<td>Maneesh Singhal</td>
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<td>Assistant Professor</td>
<td>Naveen Yadav</td>
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<td>Anaesthesiology</td>
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<td>Cardiology</td>
<td>Neeraj Parakh</td>
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**HIGHLIGHTS**

Jai Prakash Narayan Apex Trauma Centre, AIIMS, continued to be leader in providing quality patient care services, research, teaching and training. All the faculty and staff members are working actively in providing quality care to the victims of trauma. A Total number of 57004 patients visited casualty in year 2012–13. Among these 5254 patients were admitted. A total of 31216 patients attended follow up OPD. A total number of 5773 patients were operated upon. With augmented strength of faculty and staff the number of patients treated at JPNATC has also increased significantly.

Beside involvement in the undergraduate and postgraduate teaching at AIIMS, the faculty members are actively involved in providing short term and long term training to the medical and paramedical staff of various hospitals and agencies of the country. These are also given training on newer methodology for management of trauma patients including ATLS Protocols, BECC, AUTLS, etc. To update the knowledge interactive seminars, CMEs, Symposium, Conferences have been organized.

A total of about 78 research papers have been published in national and international journals. Faculty members are also involved in various research projects and have also presented papers based on the research conducted by them in various national and international forums. Based on research several inputs aiming to reduction of incidences of trauma morbidity and mortality have been suggested to policy makers.
Use of information technology in patient care related services, installations of newer equipment related to patient care, addition of facility of dialysis, HDU, PAC clinic are the other highlights of functioning of JPNATC.

EDUCATION
Training
Faculty of JPNATC is regularly involved in providing short term/elective training/clinical observer for students from India and abroad. During the year 2012–13 number of students visited for training at JPNATC is as under:

**Short term training:** 3 students
**Elective Training:** 34 students from Korea, Austria, Afghanistan, Hungary, Singapore, Australia, Germany, USA, Malaysia, UK, Maldives and Switzerland
**Clinical Observer:** 5 students from Canada, Bangladesh, USA and UAE

TEACHING
Faculty members of JPNATC were regularly involved in teaching and training programmes organized for undergraduate students, postgraduate students, senior residents, nurses, paramedical staff, and OT technicians.

INNOVATIVE EDUCATIONAL ACTIVITIES
1. Special training programs were organized for CRPF personnel on ‘Abdominal and thoracic trauma’ on 27 July 2012.
2. Special training courses on ‘Operative Laparoscopy – Basic and Advanced’ (10 in number), ‘Laparoscopic Suturing Skills’ (3 in number), ‘Laparoscopic Colorectal Surgery’ (2 in number), ‘Laparoscopic Hernia Surgery’ (6 in number) were organized (Course Director – Dr MC Misra).
5. Management of Acute Wounds in ED (MAWE), 4 May 2012, JPNATC, AIIMS, New Delhi. (Dr Biplab Mishra – Organizer and Course Director).
6. Advanced Trauma Life Support (ATLS) course, 31 May to 2 June 2012, Indian Institute of Emergency Medical Services, Kottayam, Kerala. (Dr Biplab Mishra, Course Director).
7. Advanced Trauma Life Support (ATLS) course, 1 November 2012, Apex Medical Academy, Ahmedabad, Gujarat (Dr Biplab Mishra, Course Director).
10. Management of Acute Wounds in ED (MAWE), 28 September 2012, JPNATC, AIIMS, New Delhi. (Dr Biplab Mishra – Organizer and Course Director).
11. Management of Acute Wounds in ED (MAWE), 9 October 2012, JPNATC, AIIMS, New Delhi. (Dr Biplab Mishra – Organizer and Course Director).
12. DEMEX (Delhi Emergency Mangement Exercise) for Delhi Govt doctors at JPNATC, AIIMS, 29 November–1 December 2012 (Course Director – Dr Sushma Sagar).
13. AIIMS KISS (Keep It Simple Sonography) course for Neurosurgeons held in Nepal (November 2012) and Delhi (December 2012) (Programme Director – Dr Deepak Aggarwal).
14. AIIMS Ultrasound Trauma Course (AUTLS) and held courses in various parts of India and abroad (Nepal and Iran) during 2012–13 (Programme Director – Dr Deepak Aggarwal).
15. AIIMS BECC course and held in various parts of India during 2012–13 in partnership with NHRM (National Rural Health Mission). (Course Director – Dr Deepak Aggarwal).
16. Public awareness lectures on Brain tumor awareness April 2012 at AIIMS (Dr Deepak Gupta).
17. Public awareness lectures on Pediatric neurosurgical disorders 1 November 2012 at AIIMS (Dr Deepak Gupta).
18. AIIMS BECC Program for Sri Lankans, 3–13 December 2012 (Programme Director – Dr Sanjeev Bhoi).
19. Advanced Ultrasound Trauma Life Support Courses (AUTLS), JPNATC, AIIMS, 9–10 December 2012. (Program Director – Dr Sanjeev Bhoi)

20. Advanced Ultrasound Trauma Life Support Courses (AUTLS), JPNATC, AIIMS, 14–15 December 2012. (Programme Director – Dr Sanjeev Bhoi)

CMEs/Workshops/Symposia/National and International conferences Organized


3. 5th Annual Conference of Indian Society of Trauma and Acute Care (ISTAC), International Conference and workshop ‘TRAUMA 2012’, 22–25 November 2012. Delivered a Key note on ‘Advances in Trauma Management in 2012 and Beyond’ and participated during Case Scenario discussion as a panelist on 23 November 2012. (Dr MC Misra – Organizing Chairman).

4. Inaugural Advanced Trauma Life Support (ATLS) Course, held at LTM Medical College and Sion Hospital, Mumbai, 11–13 October 2012. (Dr MC Misra – Program and Course Director).

5. 2nd International Summit and Workshop on Cost – Effective and Meaningful Use of Technology In Emergency Healthcare (CEUTECH – 2012), 28–30 September 2012, organized by the Department of Information Technology and Emergency Department, JPNATC, AIIMS held at AIIMS. Chaired Plenary and Scientific Session on 28, 29 and 30 September 2012 and Panelist speaker on ‘Bottlenecks in having a World class ED and how to overcome them: JPNATC Experience. (Dr MC Misra – Organizing Chairman).

6. Consultative Workshop for Six AIIMS Directors for establishing the Department of Emergency Medicine and Computerization of the institutions, held at JPN Apex Trauma Centre, AIIMS, New Delhi on 22 September 2012. (Dr MC Misra – Convenor and Moderator).

7. 2nd Live operative workshop and symposium on Complex Spinal trauma, JPNATC, AIIMS, May 12–13, 2012 (Organizing Secretary – Dr Deepak Aggarwal).


10. Monthly DNA (Delhi Neurological Association monthly meeting at AIIMS): May 2012 (Organizer – Dr Deepak Gupta).

11. BRACHIALCON–AIIMS 2013, JPNA Trauma Centre, 8–10 March 2013. (Organizing Secretary - Dr Sumit Sinha).


14. Organizing Committee Member, Carcinogenesis 2012, International Conference of Carcinogenesis Foundation (USA); 19–22 November, 2012. PGIMER Auditorium, Dr RML Hospital, New Delhi. (Member, Organizing Committee, Dr Shilpa Sharma).

15. AIIMS Ultrasound guided regional anaesthesia workshop, 8 October 2012. (Co- Organizing Secretary-Dr Naveen Yadav)

16. 2nd International conference on interventional pain management 24-26 August 2012. (Member-Organizing Committee- Dr Naveen Yadav)

Papers (oral/poster) presented at conferences/CME and workshops: 118

Lectures delivered

<table>
<thead>
<tr>
<th>M.C. Misra: 40</th>
<th>Chhavi Sawhney: 1</th>
<th>Richa Sharma: 2</th>
<th>Sumit Sinha: 11</th>
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<tr>
<td>Vijay Sharma: 9</td>
<td>Vivek Trikha: 8</td>
<td>Biplab Mishra: 4</td>
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<td>Amit Gupta: 8</td>
<td>Subodh Kumar: 11</td>
<td>Sanjeev Lalwani: 10</td>
<td>Shivanand G: 10</td>
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</tbody>
</table>
RESEARCH
Funded projects
1. To study the reduction in intra- and postoperative analgesia requirement and the quality of recovery after intraoperative intrathecal morphine in patients with pelvic acetabular injuries undergoing stabilization, Chhavi Sawhney, 2012–13 AIIMS Funds, Rs 3.20 lakhs.
2. To study the cerebroprotective effects of Dexmedetomidine in patients undergoing epilepsy surgery – A biomarker guided study. Ashish Bindra, AIIMS, 2013, Rs 3 lakhs.
7. To study the safety and efficacy of intravenous estrogen as therapeutic adjunct for treatment of hemorrhagic shock patient presenting to the emergency department of a level I Trauma Centre. 2012. Sanjeev Bhoi, ICMR, Rs 36.36 lakhs.
8. Development of Wound Registry at Trauma Centre, AIIMS, Maneesh Singhal, AIIMS, 2012–13, Rs. 1 lakh.
9. To compare the effectiveness of VAC (Vacuum Assisted Closure) therapy to conventional treatment of Amputation stump. Sushma Sagar. AIIMS, 2012–13, Rs.1 lakh.
11. Proposal for the establishment of a cadaveric dissection facility at the Jai Prakash Narayan Apex Trauma Centre, All India Institute of Medical Sciences, New Delhi, India. ICMR, 2012–17, Rs 5.36 crores.
14. Molecular and epidemiological study of Streptococcus pyogenes at a tertiary care hospital of north India. Purva Mathur, ICMR, 2009–12, Rs 17.06 lakhs.
19. Molecular Epidemiology of Carbapenemases at a level 1 Trauma Centre of India. Purva Mathur, DST, 2012–15, Rs 23.58 lakhs.
20. Role of Autologous bone marrow mononuclear stem cells in children with neurological deficits due to polio infection Shilpa Sharma, DBT, 2009–12, Rs 15.36 lakhs.
22. Phase II multicentre, open label dose confirmation study of interstitial $^{131}$-chTNT 1bMoAb (COTARA) for the treatment of glioblastoma multiforme (at first relapse), Peregrine Pharmaceuticals, Texas, USA. Deepak Gupta, 2007–14, Rs 30 lakhs.


27. Association of cytokines – IL 6, IL 10, IL 18 and TNF α in acute coronary syndrome. Arulselvi S, ICMR, 2010–12, Rs 1.18 crores.


30. Sericin based value added finishes for Medical garments and Sportswear. Sushma Sagar, DBT, 2012–15, Rs 45 lakhs.


32. Role of human umbilical cord blood stem cells and neural stem cells in neuronal regeneration and functional restoration: A comparative study in male adult rats with acute spinal cord injuries (Rapid Young Investigator scheme 2011), DBT, 2011–14, Rs 30.20 lakhs.

33. A Randomized Placebo controlled trial (Factorial design) of Progesterone with or without hypothermia in subjects with acute severe traumatic brain injury. DBT, 2011–14, Rs 25.87 lakhs.

**Departmental projects**

**Ongoing**

**Surgery**
1. Emergency General Surgical Admissions: Prospective Institutional experience in Non-Traumatic Surgical Acute Abdomen (NTSAA).
2. Retrospective and prospective analysis of magnitude and severity and outcome of pelvic fracture at a level 1 trauma centre.
3. Multi-detector CT scan evaluation of retroperitoneal solid organ injury with limited MRI correlation.
4. To study magnitude, severity, outcomes of peripheral vascular injuries in a Level 1 trauma centre.
5. To evaluate the role of mandibular fixation plates for rib fracture stabilization in patients sustaining blunt chest injury.
6. Prospective randomised controlled trial of early versus late tracheostomy in critically ill trauma patients.

**Radiodiagnosis**
1. Role of MDCT in Evaluation of Traumatic Liver Injuries.
4. Pre-operative Embolization of Bone Tumors.
5. US and MR evaluation of peripheral neuropathies of upper extremity.
6. Role of perfusion CT in pancreatic pathology.

**Neuroanaesthesia**
1. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial.
2. Cardiovascular complications after traumatic spinal cord injury.

**Laboratory Medicine (Pathology and Blood Bank)**
1. Identification of circulating procoagulant markers in traumatic brain injury patients and their involvement in development of Early Trauma Induced Acute Coagulopathy.
Microbiology (Laboratory Medicine)
1. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of post-trauma complications.

Neurosurgery
1. Serum IL-6 as potential bio-marker for intracranial pressure elevation in isolated head injury patients.
2. Oxidative DNA damage and total Oxidant status in mild traumatic brain injury.
3. Epidemiology of head injury and spinal cord injury at integrated level 1 trauma centre in India.
4. Integrated online portal for AIIMS trauma Centre: Potential to improve patient’s satisfaction and care on the ground.
6. A Phase II randomized double blind placebo controlled dose finding safety and tolerability trial of XY-2405 as a treatment for traumatic brain injuries
7. Brain trial (Bradykinin B2 receptor antagonist in Neurotrauma): A multicentric randomized trial by London school of Hygiene and Tropical medicine.
8. DECRA trial (Decompressive craniectomy in severe head injury): A multicentric Randomised trial being conducted in USA.
9. CRASH2 trial: A Multicentric Randomised trial by London school of Hygiene and Tropical medicine.
10. Randomized Evaluation of Surgery with Craniectomy for Uncontrollable Elevation of Intra- Cranial Pressure (RescueICP study) – international, multicentre, prospective, randomized, controlled trial on the role of decompressive craniectomy in management of severe traumatic brain injury.
11. Topical Airway Anesthesia for awake fibreoptic intubation in cervical spine injury patients. Comparison between nerve blocks and nebulised 4% lidocaine.
12. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis.
14. Molecular epidemiology and automated tracking of Ventilator Associated Pneumonia caused by carbapenem resistant Acinetobacter baumannii in intensive care units at a level 1 Trauma Care Centre.

Completed Surgery
1. Prospective randomized controlled blinded study to evaluate the effect of short term focused training programme in laparoscopy on operative room performance of surgery residents.
2. Retrospective and Prospective evaluation of magnitude, severity and outcome of complicated soft tissue injuries in a Level I- trauma centre.
3. Retrospective and prospective study to evaluate the role of laparoscopy in patients with abdominal trauma at Level I trauma centre.
4. To study the complications of splenectomy in patients undergoing early splenic artery ligation.
5. Study to evaluate the effect of training program involving animal models/tissues on operative room performance of general surgery residents.
7. The feasibility of management of occult pneumothoaces without intercostal drainage tube.

Forensic Medicine
1. Study of medico-legal factors in promoting organ donation.

Radiodiagnosis
1. Role of perfusion CT in predicting outcome in mild head injury.
2. MDCT evaluation of solid retroperitoneal organ injuries in blunt abdominal trauma with limited MRI correlation.
3. Intra-arterial chemotherapy (neoadjuvant) in patients with advanced laryngeal and hypo-pharyngeal cancer.

**Laboratory Medicine (Pathology and Blood Bank)**
1. Cholesterol levels on admission day as determinant of development of MOF/ VAP PI.
3. Applicability of transfusion scores in determining transfusion requirement of trauma patients.
4. Auditing platelet usage among head injury patients in a tertiary trauma care centre and study on incidence and clinical factors influencing platelet refractoriness.

**Neurosurgery**
1. Traumatic Brachial Plexus Injuries – Analysis of Surgical Outcomes.
2. Functional and cognitive recovery after severe traumatic brain injury: A cross-sectional study at a tertiary trauma care centre.
3. Role of Simvastatin in prevention of vasospasm and improving functional outcome after aneurysmal Sub-arachnoid hemorrhage: A Prospective Randomized Double blind Placebo controlled trial.

**Collaborative projects**

**Completed**
1. Retrospective and prospective analysis of magnitude, severity and outcome of chest trauma at a Level I trauma centre (Surgery, Radiodiagnosis and Anaesthesia).
2. Retrospective and prospective analysis of magnitude, severity and outcome of hepatobiliary and pancreatic trauma at a Level-I trauma centre (Surgery, Radiodiagnosis and Gastroenterology)
3. A Prospective Randomized Controlled Trial of Laparoscopic vs Endoscopic Drainage of Pseudocyst of Pancreas (Surgery, Radiology and Gastroenterology)
4. Analgesic efficacy of Transversus abdominis plane block for laparoscopic inguinal hernia repair in adult patients: a randomized controlled trial (Surgery and Anaesthesia)
5. Imaging and intervention in arteriovenous fistulas for hemodialysis (Surgery, Radiology and Nephrology).
6. To Study the outcome of AV fistula creation in CKD patients in a tertiary care. (Surgery, Nephrology and Radiology).
7. Clinical Relevance of Immune Associated Molecules in Live Related Donor Renal Transplantation’. (Surgery, Nephrology and Transplant Immunology).
8. Prospective randomized control study to compare long term outcome, chronic pain, quality of life and cost effectiveness following two techniques of mesh fixation – Non absorbable tackers versus absorbable tackers for laparoscopic mesh repair of incisional and ventral hernias (Surgery, Anaesthesia and Psychiatry).
9. A prospective randomized control trial comparing the outcome of the two modalities of treatment of gall stone disease viz. single incision laparoscopic cholecystectomy with standard 4 port laparoscopic cholecystectomy (Surgery, Anaesthesia and Radiology).
10. A prospective randomized comparison study of sexual function, testicular function and quality of life following laparoscopic totally extraperitoneal repair (TEP) and transabdominal preperitoneal (TAPP) inguinal hernia repair (Surgery, Radiology, Psychiatry and Reproductive Medicine).
12. Comparison of quality of life after single stage vs two stage management of patients with concomitant gall stones and common bile duct stones – A prospective randomized control trial (Surgery, Radiology, Gastroenterology, Psychiatry and Community Medicine).
13. A Prospective Study to Compare the Outcomes after Primary Laparoscopic Exploration of Common Bile Duct and Laparoscopic Exploration following Failed Endoscopic Stone Extraction in Patients with Concomitant Gall Stones and Common Bile Duct Stones (Surgery, Community Medicine, Radiology and Gastroenterology).
14. To study the expression of Interleukin 10 in patients with breast cancer and its correlation with stage, histological grading and hormone receptor status (Surgery and Pathology).
15. A prospective study of quality of life and correlation of blood levels of tacrolimus to graft function and adverse effects of tacrolimus in post renal transplant patients (Surgery, Nephrology and Psychiatry).
16. To study the effect of intravenous fluids used during intraoperative period on coagulation profile using TEG (Anesthesia and Lab Medicine).
17. Costing of CSSD and Laundry services at JPNA Trauma Centre. (Surgery and Hospital Administration).
18. Comparative Prospective and retrospective study of clinical and Radiological outcomes in Arthodesis of knee versus Arthroplasty following excision of malignant and aggressive bone tumors (Radiodiagnosis and Orthopaedics).
19. Prospective Randomized controlled study of role of thromboprophylaxis with low molecular weight heparin versus aspirin plus intermittent compression device in Indian patients undergoing total hip and knee Arthroplasty. (Radiodiagnosis and Orthopedics).
20. Evaluation of injury pattern and results of medical and surgical treatment in cases with traumatic and iatrogenic facial nerve injury (Radiodiagnosis and Otorhinolaryngology).
21. Clinico-pathological study of antral mucosal changes in patients with ethmoidal polypi (Radiodiagnosis and Otorhinolaryngology).

Ongoing
1. MDCT in acetabular Fractures (Radio Diagnosis and Orthopedics).
2. MDCT in ACL reconstruction (Radio Diagnosis and Orthopedics).
3. Comparison of single stage versus two stage treatment of patients with common bile duct stones and gall stones – a randomized controlled study. (Radio Diagnosis and Surgery).
4. Retrospective and prospective evaluation of magnitude, severity and outcome of traumatic hepatobiliary and pancreatic injuries in a level 1 trauma centre. (Radio Diagnosis and Surgery, JPNATC).
5. Effect of N-Acetylcysteine on Oxidative stress, endothelial dysfunction and carotid intimal media thickness in chronic peritoneal dialysis patients – An open labeled randomized trial (Radio Diagnosis and Nephrology).
6. Evaluation of progression of carotid artery intimal media thickness in chronic kidney disease patients not on dialysis and its correlation with endothelial dysfunction and biochemical parameters (Radio Diagnosis and Nephrology).
7. A cross-sectional study to know the prevalence of upper gastrointestinal disorders in spinal cord injury patients (Radio Diagnosis and Physical Medicine and Rehabilitation).
8. Randomized controlled trial of Radiofrequency ablation versus percutaneous acetic acid therapy for the treatment of small hepatocellular carcinoma. (Radio Diagnosis and Gastroenterology).
9. Randomized control trial of Trans arterial chemoembolization (TACE) versus TACE plus oral chemotherapy in the treatment of Unresectable Hepatocellular carcinoma. (Radio Diagnosis and Gastroenterology).
10. Randomized control trial of Trans arterial chemotherapy (TAC) versus Oral chemotherapy in the treatment of Unresectable Hepatocellular carcinoma. (Radio Diagnosis and Gastroenterology).
11. Randomized Control Trial of N-Acetyl cysteine in Prevention of Renal Failure in Hepatocellular Carcinoma patients undergoing Trans arterial Chemotherapy and Trans arterial Chemoembolization. (Radio Diagnosis and Gastroenterology).
12. Randomized control trial of Oral chemotherapy versus supportive therapy in the treatment of Unresectable Hepatocellular carcinoma. (Radio Diagnosis and Gastroenterology).
14. Prognostic value of serially estimated serum procalcitonin in multiple trauma victims with and without head injury (Microbiology and Neuroanaesthesia).
15. Prospective, randomised comparison of efficacy and safety of thoracic epidural analgesia with bupivacaine and opioid in two different concentrations versus intravenous two drug analgesia in thoracic trauma. (Surgery and Anaesthesia).
16. Costing of OT services at JPNA Trauma Centre. (Surgery and of Hospital Administration).
17. Role of MDCT in Evaluation of Traumatic Liver Injuries (Radiodiagnosis).

PUBLICATIONS
Journals: 73  Abstracts: 3  Chapters in books: 4
## PATIENT CARE

### Radiodiagnosis

#### Details of investigations

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<thead>
<tr>
<th>Name of Investigations/Special procedures</th>
<th>Number</th>
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<tbody>
<tr>
<td><strong>Routine X-rays</strong></td>
<td></td>
</tr>
<tr>
<td>• OPD</td>
<td>7,774</td>
</tr>
<tr>
<td>• Indoor</td>
<td>3,721</td>
</tr>
<tr>
<td>• Casualty</td>
<td>47,742</td>
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<tr>
<td>• Portable</td>
<td>22,297</td>
</tr>
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<td><strong>Total</strong></td>
<td>81,534</td>
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<tr>
<td><strong>Fluoroscopic studies</strong></td>
<td>219</td>
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<tr>
<td><strong>Ultrasound</strong></td>
<td>15,454</td>
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<tr>
<td><strong>CT</strong></td>
<td>17,632</td>
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<tr>
<td><strong>Digital subtraction angiography(DSA)</strong></td>
<td>112</td>
</tr>
<tr>
<td><strong>MRI</strong></td>
<td>1044</td>
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<tr>
<td><strong>Grand Total</strong></td>
<td>1,15,995</td>
</tr>
</tbody>
</table>

### LABORATORY MEDICINE

Total tests done in Laboratory medicine = 10,38,694

#### Haematology

- Haemoglobin 43,124
- Differential count 28,534
- RBC 43,124
- MCHC 43,124
- RDW 43,124
- Retic count 13,173
- RBC Morphology 1,883

Total 4,42,034

#### Coagulation

- PT 29,825
- TT 923
- Thromboelastography (TEG) 2,234

Total 63,733

#### Clinical pathology

- Urine routine and microscopy 4,374
- CSF microscopy 2,483

Total 10,466

Total done in haematology section 5,13,193

#### Biochemistry

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<th>Commodity</th>
<th>Number</th>
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</thead>
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<td>Sugar</td>
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<tr>
<td>Creatinine</td>
<td>38,045</td>
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<tr>
<td>Phosphorous</td>
<td>25,100</td>
</tr>
<tr>
<td>Sodium</td>
<td>37,924</td>
</tr>
<tr>
<td>Total bilirubin</td>
<td>25,417</td>
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<tr>
<td>Total protein</td>
<td>22,113</td>
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<tr>
<td>SGOT</td>
<td>21,175</td>
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<tr>
<td>ALP</td>
<td>20,768</td>
</tr>
<tr>
<td>Amylase</td>
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<tr>
<td>LDLD</td>
<td>1,418</td>
</tr>
<tr>
<td>VLDL</td>
<td>1,418</td>
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<tr>
<td>CRP</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 38,045

AIIMS 2012-2013/ 290
Lipase     11  CK-MB     20  
CSF Sugar     1,618  CSF Protein    1,618 
Peritoneal fluid protein 112  Peritoneal fluid sugar 108  
Urine sugar    115  Urine protein    112 
Drain fluid amylase 27  Urinary sodium 10 
Urinary potassium 10  Urinary calcium 80  
Urinary creatinine 80  Serum osmolality 20

ABG
PO2          10,535  PCO2          10,535 
PH           10,535  H+            10,535 
Potassium (K) 10,535  Sodium (Na) 10,535  
Calcium (Ca)  10,535  Cl            10.535

Total done in biochemistry section 4,98,599

Microbiology
Culture   12198  Bacterial identification 3408  
Antibodies sensitivity 3408  HIV serology 944  
Hepatitis B serology 932  Hepatitis C serology 931  
Hospital infection surveillance culture 3389  Serum procalcitonine 137

Total done in microbiology section 25,347

Histopathology
Specimen processed 688  No. of blocks 1117  
Total No. of slides 1585  

Stains
Hematoxylin and Eosin 1337  Acid Fast Bacilli staining 130  
Periodic acid and Schiff’s staining 44  Silver Methenamine staining 33  
PAP staining 30  VVG stain 7  
Masson trichrome 4  
Total stains done 1585

FORENSIC MEDICINE
1. 937 Medicolegal Postmortem performed at JPNATC  
2. Casualty Services: The department continued to provide round the clock coverage to the casualty in complicated medico-legal cases.  
3. Court attendance by the faculty/residents of the department – as expert witness  
4. Clinical Forensic Medicine-Involved in cases referred by honourable courts, CBI and other investigating agencies.  
5. Medical Toxicology – In process of developing toxicology laboratory facilities.

MEDICAL SOCIAL WORK UNIT
1. A total of 322 exemptions for unknown, unattended, poor patients having BPL ration card and poor patients not having BPL was done. The department wise exemptions done (October 2012–March 2013) was as below.

<table>
<thead>
<tr>
<th>Department</th>
<th>Inpatient</th>
<th>Outpatient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total exemptions</td>
<td>Amount (Rs)</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>101</td>
<td>7,21,492</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>19</td>
<td>2,68,575</td>
</tr>
<tr>
<td>Surgery</td>
<td>18</td>
<td>5,18,000</td>
</tr>
<tr>
<td>Neuro-anesthesiology</td>
<td>1</td>
<td>1,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>139</strong></td>
<td><strong>15,09,567</strong></td>
</tr>
</tbody>
</table>

1. To strengthen documentation of exemption process of payment for poor patients (not having BPL ration card) a proforma for ‘socio-economic assessment’ has been developed.
2. 281 unknown/unattended patients were rehabilitated. Of these, 242 were sent to their homes and 39 were rehabilitated to various shelter homes.
3. To document the process of rehabilitation of unknown/unattended patients a set of proforma has been designed by the MSW Unit which is being used to bridge the communication gap between MSW Unit and Wards.
4. 66 corneas were donated in coordination with MSW Unit from August 2012 to March 2013.
5. Blood Donation Camps were organized in coordination of MSW Unit and 321 units of blood were collected. Blood replacement counseling is being done by the MSW Unit with support of a counselor of JDSKS NGO.
6. Draft exemption guidelines have been developed to standardize the exemption process.
7. In a multidisciplinary team of Amputation Clinic (recently started) the MSW Unit is playing crucial role in the rehabilitation of the amputee patients by arranging funds for the prosthesis and looking for avenues of vocational training wherever required.
8. Counseling and guidance was provided to 12 patients, i.e. Grief and bereavement counseling, Marital discord, Vocational counseling, etc.
9. The process of verification of bills for reimbursement has been streamlined with active role of MSSO. 120 Patients bills were verified.
10. MSW Unit is coordinating with various Govt. Agencies/Schemes for arranging funds for the poor patients, i.e., National Illness Assistance Fund, Health Minister’s Discretionary Grant, PM Relief Fund, etc.
11. Liaisoned with various Government and NGOs for better patient welfare activities, i.e., Deen Dayal Upadhyaya Institute for Physically Handicapped, Bhagwan Mahavir Viklang Sahayata Samiti, DNipCare, Kiwanis Artificial Limb Centre, etc.
12. Free medicines and aid/appliances were provided to the poor patients, i.e., Wheel Chairs (40), walking aids/appliances (18), Suction Machine (23), Air/Water Mattresses (17), Commode Chairs (5), Steam Inhaler (3), Splint (2) and Metallic Tube (10) with the support of SAPNA NGO.

Medical Record Section, JPNATC
The complete statistical data is as under.

I. Total bed strength of facility 186
   Ward beds 120
   ICU beds 3rd floor 20
   Total functional beds 176
   Ward beds 144
   ICU beds 3rd floor 12
   ICU beds 2nd floor 16
   Triage 30

II Statistics at a Glance
   Total Casualty Attendance 57004
   Average per day 156
   Total Admissions 5254
   Average admissions per day 14
   Average length of stay 11 days
   Total follow-up OPD cases 31216

III Total Cases in Casualty 57004
   Males 43430
   Females 13574
   MLC 25993
   Non MLC 31011

IV Total follow-up OPD Cases 31216
   New 12455
   Old (Re-visit) 18761
   Males 24548
   Females 6668
   Specialty-wise break-up
   Orthopaedics 17868
   Neurosurgery 6127
   Surgery 7221

V Total Admissions 5254
   Specialty-wise break-up
   Orthopaedics 1691
   Neurosurgery 1686
   Surgery 1870
   Emergency Medicine 7

VI Total operations performed 5773
   Specialty-wise break-up
   Major 5290
   Minor 483
   Orthopaedics 2240
   Surgery 2137
<table>
<thead>
<tr>
<th></th>
<th>Neurosurgery</th>
<th>Urology</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VII Total Deaths</strong></td>
<td>1339</td>
<td>57</td>
<td>959</td>
</tr>
<tr>
<td>Brought Dead Cases</td>
<td>328</td>
<td></td>
<td>344</td>
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<tr>
<td>Deaths after 48 Hours</td>
<td>287</td>
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<td>344</td>
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<tr>
<td>Net Death Rate</td>
<td>6%</td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>Bed Occupancy Rate</td>
<td>86%</td>
<td></td>
<td>30%</td>
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</table>

Central Registration and Emergency Reception

By virtue of its location, the CRC initiated and undertook the function of Emergency Reception of JPNATC. Approximately 400–500 enquiries are attended daily at first hand and about 90% of these are sorted out at this level. It is providing information regarding patient care; follow up, organizational structure, hospital administration and related services to patients, relatives/attendants, police, media and general public. The result of successful disposal of most of the enquiries at this level is that other sections are spared of facing these enquiries directly thus saving their precious manpower, man-hour and disruption of work thereby smoothing the whole function. Satisfaction of majority of visitors query at the entrance itself reduces the rush and crowd inside Trauma centre thus helping in better management of all existing facilities. CRC at present is functioning as a Multifunctional emergency Reception with three separate dedicated counters for (a) round the clock casualty registration (b) round the clock wards/ICU admission (c) inquest apers clearance counter.

Follow-up OPD Registration Counter

In addition to improvements introduced last year regarding queue management system; a single window system of disposal was done for Certification of Medical/ Fitness and Reimbursement claims. Evening OPD for all concerned specialties was also started in current year of reporting.

Main Medical Records Division

In addition to above, Medical Record Section (MRS) of JPNATC which is the first Govt. Hospital that has started Online Registration of Deaths at NDMC since year 2008, is running successfully and also coordinating the amendments pertaining to deceased after due legal procedure. This year MRS introduced ICD-10 coding of all deaths reported at JPNATC. About 6000 case sheets/records were coded including backlog. MRS is regularly disposing of summons from various Hon’ble Courts in Delhi as well as other neighbouring states. There was huge increase in number of summons from previous year and total 1979 (Within Delhi – 1830 and Outside Delhi – 149) summons were disposed off during this period. MRS is also handling various Insurance Policy matters of patients who attended JPNATC in both case whether alive or dead. Total 69 such cases were disposed off during this period. During the preceding year MRS has entertained police requests for issuing X-rays; and coordinating for collection of X-rays from Radio-diagnosis unit and handing over to police. Total 938 such cases were disposed off during this period. MRS is furthermore involved in issuing information (for assistance/ compensation, etc.) to Delhi State/ Central Govt. pertaining to the patients/victims attended JPNATC during the year. The replies of questions raised under Right to Information Act 2005 by various applicants, were also provided by MRS in 35 cases. MRS has provided the basic framework as well as continuous inputs to computer facility; so as to computerize whole registration process in a phased manner. The custody of 16,000 electronic MLCs lying with Police Post JPNATC after introduction have been taken in a phased manner. Retrieval of case files for faculties/residents/nursing staff/lab staff/computer facility as and when requested was done for 15126 cases (3615 for research + 11511 for scanning).
### Blood donation complex

<table>
<thead>
<tr>
<th>Month</th>
<th>Donors screened</th>
<th>Donor Bled</th>
<th>Replacement donors</th>
<th>Voluntary donors</th>
<th>Voluntary donor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Women</td>
<td>Men</td>
<td>Total</td>
</tr>
<tr>
<td>April</td>
<td>939</td>
<td>816</td>
<td>13</td>
<td>710</td>
<td>723</td>
</tr>
<tr>
<td>May</td>
<td>910</td>
<td>804</td>
<td>1</td>
<td>719</td>
<td>720</td>
</tr>
<tr>
<td>June</td>
<td>792</td>
<td>715</td>
<td>4</td>
<td>603</td>
<td>607</td>
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<td>July</td>
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<td>763</td>
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<td>653</td>
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<td>1022</td>
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<td>606</td>
<td>590</td>
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<td>Feb</td>
<td>727</td>
<td>656</td>
<td>3</td>
<td>559</td>
<td>562</td>
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<tr>
<td>Mar</td>
<td>737</td>
<td>646</td>
<td>3</td>
<td>506</td>
<td>509</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>10496</strong></td>
<td><strong>9410</strong></td>
<td><strong>39</strong></td>
<td><strong>7357</strong></td>
<td><strong>7396</strong></td>
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Voluntary blood donation camps 7
Voluntary blood donors 201

### Component separation laboratory*

<table>
<thead>
<tr>
<th>Month</th>
<th>Pack RBC prepared</th>
<th>Fresh Frozen Plasma prepared</th>
<th>Platelets prepared</th>
<th>Cryoprecipitate prepared</th>
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</thead>
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<tr>
<td>Apr</td>
<td>816</td>
<td>764</td>
<td>625</td>
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<td>802</td>
<td>727</td>
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<td>Oct</td>
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<td>Mar</td>
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<td><strong>9410</strong></td>
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* Quality control of blood and components: 1% of all units

### Infectious marker laboratory and donor counselling

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AIIMS 2012-2013/ 294
Mar | 680 | 1 | 682 | 13 | 678 | 8 | 708 | 3 | 658 | Nil
Total | 9696 | 30 | 9758 | 145 | 9713 | 78 | 9959 | 51 | 9455 | 1

Total donors reported and counseled 61
Total donors referred to VCTC 7

**Grouping laboratory**

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**EMERGENCY ISSUE COUNTER**

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**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

Professor M.C. Misra delivered ‘Silver Jubilee MASICON Oration’, Association of Surgeons of India, Nagpur Chapter, 2012–13, Installation and CME 8 April 2012, on Epidemic of the 21st Century: Capacity Building to Improve Trauma care in India; delivered Prestigious Col. Sangham Lal Oration, 52nd Annual Conference of National Academy Of Medical Sciences (India), The Tamil Nadu Dr M.G.R. Medical University, 12–14 October 2012. Oration titled ‘Trauma: An Epidemic of the 21st Century: Capacity building to improve trauma care in India: Part – II: Changing trends in the management of blunt Abdominal Trauma, 13 October 2012; Chairman, Surgical Dressings and Disposable Products Sectional Committee MHD16, Bureau of Indian Standards. Meeting on 17 January 2013 New Delhi.; Nominated by Director, PGIMER, Chandigarh, to a Committee to look in to the death of a patient at PGIMER, Chandigarh following crush injury on 17 July 2012; Chaired Meeting of Authorization Committee for unrelated Kidney transplantation; Visiting Professor (National) to ‘The Tamil Nadu Dr M G R Medical University, Chennai; Nominated, Chairman of Departmental Promotion Committee (DPC) for the post of Operation Theatre Assistant (OTA); Chairman, Selection Committee for selection of Operation Theatre Assistant (OTA); Guest of Honour during
Inaugural Function of CME on ‘Connected with Trauma: Response, Recovery and Research’, King George Medical University, Lucknow (UP), India, 4 August 2012; Guest of Honour, Installation ceremony, President of Rotary Club, Safdarjung, Delhi, 20 July 2012; Visiting Professor, University of Michigan, 24–27 June 2012; Guest of Honour, Inaugural Ceremony of Live Workshops organized at JPN Apex Trauma Centre, 15 April 2012, in association with Indian Society of Cutaneous Surgery, International Society of Dermatologic Surgery; Chief Guest, Association of Surgeons of India, Ghaziabad Branch, CME, 15 April 2012, and delivered a talk on ‘I always do TEP repair’; Chief Guest, Inaugural Function of First National CME and Hands-on Workshop on ‘Intracranial Pressure Monitoring’, Division of Neurosurgery, JPN Apex Trauma Centre, AIIMS, 15 April 2012; Nominated for Membership Advisory Panel, Surgery for advising Credentials Committee, National Academy of Medical Sciences, New Delhi for selection of candidates for Membership of Academy for year 2012; Chief Guest, Association of Surgeons of India, Nagpur Chapter, during Installation Ceremony 2012–13, and CME, 8 April 2012; Member, Selection Committee, for the Selection of Assistant Professor of Surgery, AIIMS, 1 April 2012; Guest of Honour during Inaugural Function of 4th Cadaveric Workshop on Hip Arthroplasty, Department of Orthopaedics, AIIMS, 31 March–1 April 2012.

Dr Sanjeev Lalwani was Awarded Fellowship of International Medical Sciences Academy; Awarded Fellowship of Royal Society of Medicine (UK); Awarded Fellowship of Academy of Forensic Medical Sciences (UK); Member of Project team of NETS received Scroll of honour from German Collaborator; Reviewer, Indian Journal of Criminology and Criminalistics; Chaired Session, CEUTEH-2012, organized by JPNATC AIIMS, New Delhi 29 September 2012; Chaired Session, ‘Medico-legal issue’, EMCON 2012, 7 November 2012, Annual Conference of SEMI, Max Hospital, Delhi.

Dr Arulselvi S received ‘INDO–US Academician and Researcher of the year 2012 award’ from His Excellency Governor of Maharashtra, Mr K. Sankaranarayanan, in the inauguration (26 October 2012) of 8th annual INDUS EM summit 2012 held simultaneously with 7th annual assembly of the academic counsel for emergency and trauma and 2nd annual meeting of Indian network of critical illness and injury translational trial experts (INCIITTE), 27 October 2012.

Dr Deepak Aggarwal was awarded the prestigious ‘Tata Innovation Fellowship’ by DBT for a 3 year period, wef 2013 of Rs 22.5 lakhs.

Dr Sumit Sinha was Founder Member and Secretary of Indian Society OF Peripheral Nerve Surgery; Reviewer for British Journal of Neurosurgery, British Medical Journal, Molecular and Biochemical Parasitology, Sultan Qaboos University Medical Journal, Journal of Neurological Surgeons Society of India and was Associate Editor, Indian Journal of Neurotrauma.

Dr Vivek Trikha was Assistant Editor of Indian Journal of Orthopaedics for 2012–14.

Dr Biplab Mishra was Joint Secretary; Indian Society of Trauma and Acute Care (ISTAC), Member: Association for Trauma Care of India (ATCI); Fellow: International College of Laparoscopic Surgeons (ICLS); Member, Indian Hernia Society (IHS), Association for Trauma Care of India (ATCI), Association of Surgeons of India (ASI) and American College of Surgeons (ACS).

Dr Sushma Sagar was Awarded Fellowship of American College of Surgeons, USA (FACS) 2012; Awarded Fellowship of College of Laparoscopic Surgeons Society (FCLS) 2012; Awarded Woman of Substance Award on International Women’s Day, 8 March 2013, by Parvatiya Sanskritik Sansthan, Delhi; Awarded DST (Department of Science and Technology) Travel Fellowship to present papers at SAWC Fall 2012 (Symposium on Advancement of Wound Care, Baltimore, USA, 12–14 September 2012; Awarded Research Poster Review and Critique at Symposium on Advanced Wound Care Fall 2012 at Baltimore, MD, USA (Sept 2012) for the poster; Does involvement of wound care nurse improve patient satisfaction and wound healing: An experience from level 1 trauma centre, India; Executive member Indian Society of Peripheral Nerve Surgery; Member core teaching faculty group of National Institute of Disaster Management (NIDM); Member committee for formulating First Responder Guidelines for National School Safety Program at NIDM (2012).

Dr Amit Gupta was awarded the Dr Kini Memorial Oration – 2012 of the Indian Association of Traumatology and Critical Care (A section of Association of Surgeons India); Awarded Fellowship of
American College of Surgeons, USA. September 2012; Awarded the Short Term Visiting Fellowship from University of Michigan, Ann Arbor, MI, USA for advancements in trauma care as collaborative between University of Michigan Medical School and JPN Apex Trauma Centre, AIIMS. June–July 2012; Awarded the Fellowship of the International College of Laparoscopic Surgeons (FCLS), 2012; Member Board of Studies. Department of Simulation Medicine, SRM University, Tamil Nadu, India. 2012; Member: World Association of Disaster and Emergency Medicine (WADEM) 2012–13; Executive Member: Academic Council for Emergency and Trauma (ACET). Indo–US Emergency and Trauma Collaborative. A collaborative between Division of Emergency Medicine, AIIMS; Division of Emergency Medicine, USF, USA and State University of New York Downstate, New York, USA. – 2010–15

**Dr Subodh Kumar** was awarded Fellowship of American College of Surgeons, USA (FACS) 2012; Awarded Fellowship of College of Laparoscopic Surgeons Society (FCLS) 2012; Member of core group for preparing National Guidelines for Pre-Hospital Trauma Care and Management of Trauma Victims – Developed under World Health Organisation and Government of India; Technical expert nominated by HSCC, Ministry of Health, Govt. of India for up-gradation of Hospitals in Myanmar. 2012; Technical expert nominated by HSCC, Ministry of Health, Govt. of India for upcoming Trauma Centre at Kathmandu, Nepal as an initiative of Bharat-Nepal Maitry. 2012; Member Core Committee (Training): To train newly recruited paramedics of Centralized Accident and Trauma Services (CATS) Government of National Capital Territory (NCT) of Delhi in Pre-Hospital trauma Life Support course. 2012–2013

**Dr Maneesh Singhal** received the Dr S. Radhakrishnan Medical Teachers Award on 5 September for contribution in field of teaching; Awarded Fellowship of College of Laparoscopic Surgeons Society (FCLS) 2012; Selected for ICMR International Fellowship for Young Bio-Medical Scientists, 2012–13 for a fellowship at Michigan, USA to study advanced wound care practices with use of skin substitutes, tissue engineering and regenerative medicine techniques; Received Fellowship of the International College of Laparoscopic Surgeons (FCLS, March 2012; Founder Member and Joint Secretary: Indian Society of Peripheral Nerve Surgery; Member and Treasurer: Indian Society of Trauma and Acute Care (ISTAC); Reviewer: Journal of Cutaneous and Aesthetic Surgery; Editorial Board Member: Advances in Wound Care; External Examiner for Mid Term Examination of DNB Candidates.

**Dr Shilpa Sharma** was awarded the James Lister Fellowship 2012 by the British Association of Pediatric Surgeons for attending the 49th BAPS/EUPSA Conference, Rome, 13–16 June 2012; awarded a Prize in Test paper during Workshop on ‘How to Write Research Grant Proposal’, CEU, AIIMS, 31 July 2012.

**Dr Naveen Yadav** became Life Member Indian Society of Neuroanaesthesiology and Critical care.

**Dr Niraj Kumar** became Life Member Indian Society of Neuroanaesthesiology and Critical care.

**Dr Navdeep Sokhal** became Life Member Indian Society of Neuroanaesthesiology and Critical care.

**COMMUNITY SERVICES**

Professor M.C. Misra

I. was invited by DoorDarshan News New Delhi to participate as an Expert on
1. 8 January 2013 for a Discussion on ‘Road Accidents’ during a Live Phone-in programme ‘Total Health’.
2. 30 December 2012 for a Discussion on ‘Delhi Gang Rape and issues related to Safety of women’ during a Live News programme.
3. 27 December 2012 for a Discussion on ‘Delhi Gang Rape Victim’s Health’ during a Live News programme.
4. 21 October 2012 on ‘Breast Cancer’ during a Live Phone in programme ‘Total Health’.
5. 10 June 2012 for a Discussion on ‘Increasing Road Injuries’ during a Live Phone in program ‘Total Health’.

II. was invited by DoorDarshan National New Delhi to participate as an Expert
1. for discussion on 57th Institute Day about ‘Akhil Bhartiya Ayurvigyan Sansthan’s (AIIMS’s) role in the country to fulfill the aspirations of the public on 25 September 2012 during Live National News.
2. for discussion on ‘Swasth Bharat’ ‘Medical Aids in Accidents’ on 18 August 2012.
3. for live discussion on ‘Swasth Bharat (Healthy India)’ ‘Gallbladder stones’ on 8 November 2012.
III. was invited by ‘Lok Sabha TV’ New Delhi to participate as a Guest Expert
1. for the Live programme entitled ‘Lok Manch’ at ‘Lok Sabha TV studios’, New Delhi, 29 December 2012 and a Discussion on ‘Safety and Dignity of Women’.
2. for the programme entitled ‘Insight’, 9 October 2012 and a Discussion on ‘Healthcare for all, Clinical Trials, Healthcare Resources, Regulation on Private Hospital for displaying rates of various procedures and cost in response to a litigation and observation by supreme court’. Programme was telecast on 9 October 2012.
3. for the Live Phone-In programme entitled ‘Gender Discourse’ and for a Discussion on ‘Blood Donation by Women in India’. Programme was telecast on 14 June 2012.
4. for the programme entitled ‘Insight’ at ‘Lok Sabha TV studios’, New Delhi, 22 April 2012 and for a Discussion on ‘One Year Compulsory Rural Posting of Young Medical Graduates’. Programme was telecast on 22 April 2012.
5. for the Live programme entitled ‘Lok Manch’ on 27 April 2012 and for a Discussion on ‘Grameen Swasthya (RURAL Health)’.

IV. Invited for a live Chat on FM Rainbow All India Radio, New Delhi, as a Technical Expert, broadcast on 17 October 2012 for a Discussion on ‘Accidents and Emergencies’ on the occasion World Trauma Day.
V. Invited by INDIA NEWS (Hindi) as Guest Expert to discuss the problem of ‘SNORING’ during a Live Telecast on 30 September 2012.

Dr Shilpa Sharma
1. Operated 22 cases in a surgical camp for poor patients at Barabanki, UP among the 500 cases operated there, 22–24 January 2013.

ADDITIONAL FACILITIES CREATED
1. HDU
2. PAC Clinic
3. Neuroanesthesia critical care
4. Bedside dialysis in TC-2 ICU for acute kidney injury following trauma.
10. 6 National Drug Dependence Treatment Centre

Professor and Chief
Rajat Ray

Professors
Raka Jain
Rakesh Lal

Additional Professor
Anju Dhawan

Associate Professors
Sonali Jhanjee
Atul Ambekar

Assistant Professors
N Kaw
Prabhu Dayal
Raman Deep Pattanayak
Ravindra Rao
Jai Singh Yadav
Ashwani K. Mishra
Gauri Shanker Kaloiya
Yatan Pal S Balhara
Rachna Bhargava

Scientists
Anita Chopra
Hem Sethi

HIGHLIGHTS
NDDTC continues to be the WHO Collaborating Centre on Substance Use (2012–16). During 2012–13, the Centre made definite progress with regard to treatment, training and research in the area of drug abuse. A total of 80,257 patients were seen (5701 new patients and 74,556 old patients) in regular OPD, 3 community clinics and 3 speciality clinics. The NDDTC laboratory is equipped for investigations related to drugs of abuse (19 types of addictive substances), biochemistry, haematology and HIV screening. The faculty of the centre acted as a resource person in various training programmes conducted by organizations like National AIDS Control Organisation (NACO), the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), State Council for Education Research and Training (SCERT), CHILDLINE, India, etc. Faculty delivered invited talks in national and international meetings. Many faculty members served as technical experts in national and international organizations and held key positions in national and international professional bodies and on editorial boards of prestigious journals. Several faculty members received professional honours and awards. Currently, national and international agencies are funding 12 ongoing research projects in the centre. They contributed a number of articles in peer reviewed national and international journals and books/chapters in books/reports. Faculty members have contributed to development of the Clinical practice guidelines for opioid dependence and inhalant use disorders (first such guideline for India) for the Indian Psychiatric Society.

EDUCATION
Undergraduate
MBBS students are posted for a day in the centre during their Psychiatry posting.

Postgraduate
Residents doing MD (Psychiatry) are posted at the centre for 6 months.

PhD and Postgraduate teaching
- Journal discussion: Weekly*
- Seminar: Weekly*
- Case Conference: Weekly*
- Faculty/Staff presentation: Weekly*
- CCR and CGR two in every semester*
- Seminars: Weekly (at NDDTC, GZB)

*Joint activities of the Department of Psychiatry and the Centre
NDDTC offers PhD in Addiction Psychiatry.

CMEs/Workshops/Symposia/Training courses/National and International Conferences Organised by the Centre
1. Annual Day Symposium on Capacity Building in the Management of Substance Use Disorder, NDDTC, AIIMS, Ghaziabad, 16 April 2012.
2. Meeting for the launch of Methadone Maintenance Treatment (MMT) at NDDTC, AIIMS, New Delhi, 14 July 2012.
5. Training Programme at National Institute of Mental Health and Neurosciences (NIMHANS) under the activity ‘National Capacity Building of Medical Professionals on Treatment of Substance Use Disorders,’” NIMHANS, Bangalore, October 2012.
7. Two-day training of research investigators under the project entitled ‘An assessment of pattern, profile and correlates of drug use among adolescents in India,’ Aizawal (1–2 May 2012), Pune (26–27 November 2012), Kerala (13–14 December 2012), and New Delhi (April 2012 and December 2012).
8. Under the GFATM project, 12 training courses for medical doctors and nurses, programme managers, counsellors, data managers and NGO staff were organized by NDDTC (as the Nodal RTTC) to support capacity building of medical staff as well as those providing Opioid Substitution Treatment (OST) of various states of India (25–29 June 2012, 9–13 July 2012, 6–10 August 2012, 30 October–4 November 2012, 26–30 November 2012, 17–21 December 2012, 18–22 December 2012, 28 January–1 February 2013, 14–16 February 2013, 20–21 February 2013, 11–15 March, 2013, and 18–22 March 2013). Of the 12 training courses 10 were conducted at New Delhi and 2 at Bhubaneswar and Raipur.

Lectures delivered
Rajat Ray: 3   Raka Jain: 4   Rakesh Lal: 6   Anju Dhawan: 13
Rizwana Quraishi: 1

RESEARCH
Funded projects
Ongoing
4. Efficacy of Varenicline for smokeless tobacco use, Raka Jain, Sonali Jhanjee, Veena Jain, R Schnoll (University of Pennsylvania), National Institute on Drug Abuse (NIDS), NIH, USA, 3 years, 2011–14, Rs 69 lakhs.

AIIMS 2012-2013/ 300

**Completed**


**Departmental projects**

**Ongoing**

3. Addressing alcohol use at a workplace settings: Indian Oil Refinery, Digboi, Assam.
4. Enhancing the services for substance use disorders in the tribal areas of the country (District drug de-addiction programme).
5. Assessment of biochemical and haematological profile of opioid dependent patients receiving Buprenorphine/Buprenorphine–naloxone Combination.
7. A retrospective cohort study of predictors of outcome among opioid dependents on naltrexone treatment at a tertiary care substance use disorder treatment centre.
8. A urinalysis based evaluation of cannabis use among opioid dependent subjects maintained on buprenorphine: A retrospective study.
9. A comparative study of pathways to care among alcohol and opioid dependent individuals seeking help at a tertiary care center and a community clinic.
10. Substance use profile of treatment seeking middle aged adults at a tertiary care substance use disorder treatment centre in northern part of India over five successive years through analysing database on Drug Abuse Monitoring System (DAMS).
11. Association of drug use pattern with vulnerability and service uptake among injecting drug users.
12. An appraisal of compliance and retention of injecting drug users in the service uptake of opioid substitution therapy.
17. Cue induced craving in heroin dependent men.
18. To assess substance use and its association with strength and difficulties, peer group and family related factors in the students of two schools in Delhi.
19. Cue induced craving in adolescent inhalant users: a functional magnetic resonance imaging (fMRI) study.
20. Assessment of effect of sweet tastants on cue related craving recently detoxified alcohol dependent subjects.
22. Family and genetic study of specific reading disorders.
23. Assessment of biochemical measures in adolescent inhalant users.
24. Computer assisted cognitive behaviour therapy for adolescents with depression.

**Completed**

1. Effect of nitric oxide synthase inhibitor L-NNA on sensitization to the operant decrement produced by naloxone in morphine treated rats.
3. High risk behaviors in in-patients with alcohol-dependence and opioid-dependent IDUs: relationship with personality.
4. Assessment of psychiatric co-morbidity in inhalant using children.

AIIMS 2012-2013/ 301
5. Managing Alcohol Use in Diverse Workplace Settings.

**Collaborative projects**

**Ongoing**

1. Impact of a package of intensive smoking-cessation interventions versus recommended, basic smoking-cessation advice on outcomes in smear-positive patients with pulmonary tuberculosis; a randomised controlled trial (Medicine).

**Completed**

1. A pilot study of feasibility and efficacy of brief intervention compared with simple advice when linked to the brief ASSIST for substance use disorders in primary health care and community settings (WHO Collaborating Centre, University of Adelaide).
2. Study to explore transition to injecting drug use by opioid users in North India (SPYM, Regional Resource and Training Centre - North, MoSJ and E).
4. Capacity building needs assessment of IDU TIs in India (UNODC-ROSA).
5. Curriculum development for preventive Psychiatry: Global survey of current medical school curricula (Section of Preventive Psychiatry and Section of Education in Psychiatry of World Psychiatric Association).
6. Study on depression among elderly persons in rural area of Ballabgarh (Centre for Community Medicine).
7. Comparative appraisal of data collection methods and related epidemiological models for smoking, drinking and tobacco chewing among adolescent children in India (Biostatistics).

**PUBLICATIONS**

Journals: 46   Abstracts: 8   Chapters in Books: 20

**PATIENT CARE**

**General Information**

| Total no. of beds | 50 |
| General Ward beds | 50 |

**OPD Attendance (NDDTC, Trilokpuri Community, Mobile Clinic, Sundar Nagri, Methadone Clinic, Sundar Nagri)**

| Admission (Day Care, In-Patients) | 982 |
| Discharges | 976 |
| Average % of Bed Occupancy | 66% |
| Admission Charges Exempted | 250 |

**Investigations**

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<thead>
<tr>
<th>Biochemistry laboratory</th>
<th>n</th>
<th>Haematological investigations</th>
<th>n</th>
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<tr>
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<td>25320</td>
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<td>HIV investigations</td>
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**Drug Screen Laboratory**

<table>
<thead>
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<tr>
<td>Morphinne Test</td>
<td>3021</td>
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<tr>
<td>Buprenorphine Test</td>
<td>3084</td>
</tr>
<tr>
<td>Test</td>
<td>Codeine Test</td>
</tr>
<tr>
<td>n</td>
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**OPD and Specialty Clinics Attendance (NDDTC)**

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<th>Old Cases</th>
<th>Total</th>
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<tr>
<td>5242</td>
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<td>41552</td>
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<tr>
<td>Specialty Clinics</td>
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<tr>
<td>a Tobacco use cessation Clinic</td>
<td>56</td>
<td>746</td>
<td>802</td>
</tr>
<tr>
<td>b Adolescent Clinic</td>
<td>10</td>
<td>24</td>
<td>34</td>
</tr>
<tr>
<td>c Dual Diagnosis Clinic</td>
<td>77</td>
<td>339</td>
<td>416</td>
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<tr>
<td>A. Total</td>
<td>5385</td>
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<tr>
<td>B. Trilokpuri Community Clinic</td>
<td>139</td>
<td>20037</td>
<td>20176</td>
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<tr>
<td>C. Mobile Clinic, Sunder Nagri, Delhi</td>
<td>13</td>
<td>11271</td>
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<tr>
<td>D. Methadone Clinic, Sunder Nagri, Delhi</td>
<td>164</td>
<td>5829</td>
<td>5993</td>
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<tr>
<td>Grand Total: A+B+C+D</td>
<td>5701</td>
<td>74556</td>
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<tr>
<td>Drug Test</td>
<td>Quantity</td>
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<tr>
<td>Naltrexone Test</td>
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<td>Pentazocine Test</td>
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<td>Inhalents</td>
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**Total number of drugs tested in urine**: 24450

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Rajat Ray** continues to be member of the prestigious International Narcotics Control Board (INCB); Chairperson of the WHO working group on the Classification of Substance Use Disorder (ICD-10 Revision) and the Expert Committee for development of the National Drug Demand Reduction Policy, MoSJandE; member, expert group on development of guidelines for pain management among pediatric population (WHO), the International Advisory Board of Mental Health and Substance Use – Dual Diagnosis; and is on the Editorial Board of the International Journal of Drug Science, Policy and Law.

**Professor Raka Jain** chaired the session of ‘Forensic Psychiatry, Toxicology’ in the 4th International Conference on Legal Medicine, Medical Negligence and Litigation in Medical Practice (IAMLE) and 4th International Conference on Current Trends in Forensic Sciences, Forensic Medicine and Toxicology, Thiruvananthapuram, 25-27 January 2013; member of the selection committee for admission to MSc, Ph.D combined degree programme and as an examiner for PhD thesis in biomedical sciences for University of Delhi; peer reviewer for Indian Journal of Medical Research and Nicotine and Tobacco Research; member of National Advisory Board for the IAMLE 2013.

**Professor Rakesh Lal** served as Temporary Advisor to WHO for the ‘Biregional Workshop on Building Capacity for Reducing Harmful Use of Alcohol at the Country Level with the NCD Prevention and Control (Bangkok, Thailand, 22–24 October 2012). He chaired the working group on ‘Corrective Measures including Treatment and Rehabilitation: Adequacy and Effectiveness of Existing Programmes for Children’ and ‘Need for Strengthening by way of having more Regional Resource and Training Center (RRTC)s, Anti-retroviral Therapy (ART) Counselling Centres and Centres dedicated to Professional Counselling’ for National Commission for Protection of Child Rights (Aizawl, 17–18 December 2012); helped coordinate the NACEN Workshop on Extent and Pattern of Drug Use for Law Enforcement Officials from Bhutan (September 2012), and the Orientation Programme for Baba Saheb Nursing College; edited five manuals for training of health professionals working in the field of substance use disorders for the NDDTC, AIIMS.

**Dr Anju Dhawan** is member of the Working Group on Drug Abuse and Addiction among Children constituted by NCPCR; expert reviewer on Ketamine as a Member of the WHO Expert Advisory Panel on Drug Dependence – Abuse Liability Evaluation (35th Expert Committee Meeting on Drug Dependence, WHO); peer reviewer for addiction; made quality assurance visits to the following hospitals implementing methadone maintenance treatment: Civil Hospital Kapurthala, Civil hospital Bathinda, and RIMS Imphal; resource person for capacity building and assessing impact of psycho-social intervention on substance using children accessing Childline – 24 hour help line for children in distress.

**Dr Atul Ambekar** was course coordinator under the (GFATM) project for 12 training courses for medical doctors and nurses, programme managers, counsellors, data managers, NGO staff of various states, organized by NDDTC, AIIMS as Nodal RTTC to support capacity building of medical staff and those providing opioid substitution treatment (OST); member of the following national/international bodies: National Technical Resource Group – IDU (NACO), Reference Group to United Nations on HIV and IDU (United Nations, Vienna), Delhi IDU Forum (Government of NCT of Delhi), Technical Working Group for Drafting National AIDS Control Programme – Phase IV (IDU TI) (NACO), Academic Committee of State Training and Resource Centre, School of Social Work, University of Delhi (under Delhi State AIDS Control Society), International Research Advisory Committee (RAC) of the Community Action on Harm Reduction (International HIV/AIDS Alliance); member of the editorial board of the International Journal of Drug Policy and the Journal of Mental Health and Human Behaviour.

**Dr Yatan Pal Singh Balhara** is member of Early Career Psychiatrist Council and Education Committee of World Psychiatric Association (2011 onwards); Board of Councilors and Education Committee of the International Society for Bipolar Disorders (2011 onwards); contributed to the First Indian Recommendations for Best Practice in Insulin Injection Technique (Forum for Injection Techniques, India), National Guidelines.
on Psychosocial Management of Diabetes in India (Endocrinological Society of India), Consensus Guidelines on Male Sexual Dysfunction (ALLIANCE group), and Clinical Practice Guidelines on Management of Postmenopausal Osteoporosis (Indian Menopause Society); awarded for an Outstanding Article by Indian Chest Society (National Conference of the National College of Chest Physicians, Bhubaneswar, 18 November 2012) and for the Best Paper in the 20th Annual Conference of the Delhi Diabetic Forum (31 March 2012–1 April 2012); Assistant Editor of News and Views, a Newsletter published by NDDTC, Section Editor (Psychiatry) for the Journal of Medical Nutrition and Nutraceuticals (JMNN) and Section Editor (Addiction Psychiatry), ASEAN Journal of Psychiatry; member, editorial board of Journal of Social Health and Diabetes, the International Journal of Clinical Cases and Investigations, the Journal of Mental Health and Nursing, the Journal of Mental Health and Human Behaviour, and the Internet Journal of Medical Update; and a peer reviewer for various national and international journals; conducted quality assurance visits to OST centre at SPYM and District Hospital, Sonipat under the Global Fund Round 9 IDU-HIV project for NDDTC, AIIMS.

Dr Raman Deep Pattanayak was awarded membership of National Academy of Medical Sciences (NAMS); Honorary Associate Editor of Journal of Mental Health and Human Behaviour; resource person for capacity building and assessing impact of psycho-social intervention on substance using children accessing Childline-24 hour help line for children in distress.

Dr Ashwani K. Mishra is member, Editorial Board for International Journal of Biosciences and Technology and scientific reviewer for British Medical Journal (BMJ) Open, and Indian Journal of Medical Research (IJMR).

Dr Gauri Shanker Kaloiya chaired a scientific session in the International Seminar on Psychology of Trauma held at Jamia Millia Islamia, New Delhi (13–14 March 2013).

Dr Rachna Bhargava was Organizing Secretary, 29th Annual Conference of Indian Association of Clinical Psychologists held at AIIMS (17–20 February 2013); chaired the Free Oral Paper Session in the International Conference of Applied Psychology, Lahore (16–18 December 2012).

The National Drug Dependence Treatment Centre continues to be the WHO Collaborating Centre on Substance Use (2012–16). In 2012, NDDTC AIIMS was designated as the Nodal Regional Technical Training Centre (Nodal RTTC) under the project ‘Hifazat’, being implemented with support from Global Fund for AIDS TB and Malaria, by the Emmanuel Hospital Association in collaboration with NACO, GOI. As a part of National Drug Abuse Control Programme, NDDTC works closely with the DDAP, MoHFW, NACO, MoSJandE, Department of Revenue, Ministry of Finance, WHO (SEARO/HQ-Geneva) and UNODC. The centre initiated methadone maintenance programme in India at 5 sites namely – Civil Hospital, Kapurthala; Civil Hospital, Bathinda; King Edward Memorial (KEM) Hospital, Mumbai; Regional Institute of Medical Sciences (RIMS), Imphal; and NDDTC, AIIMS, New Delhi (the coordinating centre). The centre launched a web portal https://www.alcoholwebindia.in/, which is the first of its kind in any developing country. It provides information regarding problem alcohol use to general public, professionals and policy makers as well as provides on line screening and self-help intervention for those affected by harmful/hazardous drinking. The centre published 9 manuals for training of various cadres of health professionals in substance use disorders, with the support of the Department of Revenue, MoF, GOI.

The centre has also contributed to the development of draft National Policy On Prevention of Alcoholism and Substance Abuse and Rehabilitation (now National Drug Demand Reduction Policy), an initiative by MoSJandE), the WHO global strategies to reduce harmful use of alcohol – National and Regional Response, and quality assurance indicators on OST-supported by NACO and DIFID. The centre also assisted WHO in the Revision of ICD-10, Substance Use Disorder Section (Chair: Prof Rajat Ray) and activities of the International Narcotics Control Board-INCQ (Prof Rajat Ray).

VISITING SCIENTISTS
1. Members of the working committee of the NCPCR.
3. H.E. Juan Alfredo Pinto, Ambassador, Govt. of Columbia in India, along with Mrs. Soraya Caro, Ms. Cristina Albertin (Representative, UNODC-ROSA) and Ms. Isheeta Sumra (Communications Officer, UNODC (29 August, 2012)).
<table>
<thead>
<tr>
<th>Department</th>
<th>Position</th>
<th>Name</th>
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<tr>
<td>Neuroanaesthesiology</td>
<td>Professor (on leave)</td>
<td>Parmod K. Bithal</td>
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<tr>
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<td>Professor and Head</td>
<td>Arvind Chaturvedi</td>
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<td>Additional Professors</td>
<td>Rajendra Singh Chouhan</td>
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<td>Mihir Prakash Pandia</td>
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<td>Associate Professor</td>
<td>Girija Prasad Rath</td>
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<td>Hemanshu Prabhakar</td>
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<td>Assistant Professors (JPNATC)</td>
<td>Gyaninder Pal Singh</td>
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<td>Kapil Dev Soni</td>
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<td>Neurology</td>
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<td>M.V. Padma Srivastava</td>
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<td>Manjari Tripathi</td>
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<td>Vinay Goyal</td>
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<td>Achal Srivastava</td>
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<td>Rohit Bhatia</td>
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<td>Associate Professor</td>
<td>Mamta Bhushan Singh</td>
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<tr>
<td></td>
<td>Assistant Professors</td>
<td>Deepti Vibha</td>
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<td>Deepa Dash</td>
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<tr>
<td>Clinical Neuro-Psychology</td>
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<td>Ashima Nehra</td>
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<td>Neuro-pathology Professor</td>
<td>Chitra Sarkar</td>
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<tr>
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<td>Associate Professor</td>
<td>Vaishali Suri</td>
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NEUROANAESTHESIOLOGY

HIGHLIGHTS
Anaesthetic management for 2933 neurosurgical procedures (Elective 2071; Emergency 862) and 538 neuroradiological procedures (395 diagnostic; 143 therapeutic) was performed. More than 3000 patients were managed in ICU. A total of 2239 patients (1859 new and 380 old) were seen in Pre-Anaesthesia Check-up (PAC) clinic OPD A total of 924 patients (163 new and 761 old) were seen in pain clinic OPD (406 were treated with nerve blocks).

Three candidates were awarded DM (Neuroanaesthesiology) degree. Two new candidates joined DM course. Eight postgraduate students and 12 senior residents from other departments received neuroanaesthesia training.

Fifteen research projects (2 funded, 13 departmental) completed while 20 research projects (3 funded, 17 departmental) were going on. In addition, 2 collaborative projects were going on.

Fourteen conferences (5 international, 9 national), 7 workshops and 2 symposia were attended (29 lectures delivered and 8 papers presented) by faculty and a senior resident. Seven workshops were conducted
by the department faculty. Six scientific sessions were chaired by the faculty in different conferences. Faculty and residents published 18 articles (15 international, 3 national in scientific journals. Two abstracts published in international journals. Two chapters in books were written by the faculty. Two scientists from USA visited the department. One faculty was nominated in editorial board of an international scientific journal.

Two faculty members continued to be general secretary and treasurer of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC) respectively. Two from the faculty were in board for certification of brain death in AIIMS. Two new facilities were started in JPNATC.

Three awards (2 for presentations in conference and 1 for a published article) were won. Two new facilities were started in JPNATC.

EDUCATION
Postgraduate teaching
Eight (8) MD Anaesthesiology students from the main department received neuroanaesthesiology training in the department, as an integral part of their curriculum.

Twelve Senior Residents (8 from Department of Anaesthesiology, AIIMS, and 4 from Department of Anaesthesiology, Dr BRAIRCH received training in Neuroanaesthesiology for variable periods as a part of interdepartmental rotation on mutual exchange basis.

Thrice a week (Mondays, Tuesdays, Saturdays) Seminars, Journal club and case presentations (for one hour at a time) were organized as a part of departmental teaching programme.

Short-term training
Seven MD (Anaesthesiology) students from Lady Hardinge Medical College received neuroanaesthesia training between 17 July 2012 and 31 August 2012.

CME
Conferences, Seminars, Workshops
Organized by the department
1. Dr Hemanshu Prabhakar conducted workshop on ‘Transcranial Doppler in Neurosurgical patients’ in ISNACC 2013, 8 February 2013, BHU, Varanasi.
2. Dr A. Bindra conducted Basics of Mechanical ventilation’, Workshop on Mechanical Ventilation in TRAUMA 2012, 23 April 2012, JPNA Trauma Centre, New Delhi.
4. Dr Keshav Goyal conducted workshop on ‘Trouble- shooting the ventilator’ at Basic mechanical ventilation workshop, 22 November 2012, at JPNATC, New Delhi.
5. Dr Kapil Dev Soni conducted skill stations on ‘Bedside lung ultrasound in emergency’ – AIIMS–ACCP.
6. Pulmonary and critical care ultrasound workshop in collaboration with American College of Chest Physician, All India Institute of Medical Sciences, New Delhi, 12 and 14 of December 2012.
7. Dr Kapil Dev Soni conducted workshop ‘The Pump-Cardiac Ultrasound in Trauma, Advances Ultrasound trauma life support courses (AUTLS)’, JPNATC AIIMS, 9–10 December 2012 and conducted workshop ‘The Pump-Cardiac Ultrasound in Trauma, Advances Ultrasound Trauma life support course (AUTLS)’, organized at JPNATC AIIMS, 14 –15 December 2012.

Lectures delivered
Arvind Chaturvedi: 2  M.P. Pandia: 3  G.P. Rath: 5  Hemanshu Prabhakar: 4
Gyaninder P. Singh: 2  Ashish Bindra: 3  Keshav Goyal: 1  Kapil Dev Soni: 9

Oral/poster presentations: 7

RESEARCH
Funded projects
Ongoing

AIIMS 2012-2013/ 307
3. To study the cerebroprotective effects of Dexmedetomidine in patients undergoing epilepsy surgery – A biomarker guided study. Ashish Bindra, AIIMS, January 2013–till date, Rs 3 lakhs.

**Completed**

2. Coagulation abnormalities following aneurysmal subarachnoid hemorrhage during perioperative period as detected by ROTEM thromboelastography (TEG). Hemanshu Prabhakar, ICMR, 2011–12, Rs 3.88 lakhs.

**Departmental projects**

**Ongoing**

1. Prognostic value of serially estimated serum procalcitonin in multiple trauma victims with and without head injury.
2. Intraoperative use of dexmedetomidine in large vascular Meningiomas.
3. Cardiovascular complications after traumatic spinal cord injury.
5. A retrospective analysis of anaesthetic implications of patients undergoing deep brain stimulation surgery.
6. Comparison of intraoperative brain condition and postoperative recovery between sevoflurane and desflurane in supratentorial surgery.
7. Postoperative pulmonary complications in postsurgical patients for cervical spinal cord/spine pathology.
8. Effect of Tranexamic Acid on Intraoperative Blood Loss and Transfusion Requirements in Patients Undergoing Excision of Intracranial Meningioma.
9. Comparison of two infusion doses of dexmedetomidine to alleviate stress response during tracheal extubation.
10. Factors predicting outcome of acromegalic patients undergoing pituitary surgery.
12. Sitting position for paediatric neurosurgery – A retrospective analysis.
14. Perioperative course of patients undergoing transsphenoidal pituitary surgery via endoscopic versus microscopic technique-A retrospective analysis.
17. Perioperative complications in patients in elderly age group undergoing cervical spine surgery.

**Completed**

2. A retrospective review of patients undergoing deep brain stimulation (DBS) surgery.
5. Effect of Nitrous oxide in patients undergoing supratentorial craniotomy as assessed using S-100β, CR-P and IL-6.
6. Postoperative complications in paediatric patients undergoing craniotomy.
7. A study comparing effects of 20% mannitol and 3% hypertonic saline on intracranial pressure and systemic haemodynamics.
10. Anaesthetic management and postoperative outcome in patients of Moya-Moya disease.
11. Effect of intraoperative dexmedetomidine on postoperative recovery profile children undergoing surgery for spinal dysraphism.
13. Comparison of intubation success with Mcintosh blade videolaryngoscope using stylet or bougie in patients undergoing neurosurgical procedures.
Collaborative projects

Ongoing
1. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial (University of Manitoba, Winnipeg Canada).

PUBLICATIONS
Journals: 17 Abstracts: 2 Chapters in books: 2

PATIENT CARE
Pre-Anaesthesia Check-up (PAC) Clinic
A total of 2239 patients (1859 New and 380 Old) were seen in the OPD.

Peri-operative Anaesthetic Care
1. Neurosurgical operations (Total – 2933) = Elective (2071) + Emergency (862)
2. Neuroradiological procedures (Total – 538) = Diagnostic (395) + Therapeutic (143); Under General Anaesthesia 445 patients whereas 93 patients under Monitored Anaesthesia Care.

Neuro-Intensive Care Unit
About 3000 patients (Neurosurgical and Neurological) were admitted.

Pain clinic
A total of 924 patients (163 new and 761 old) were seen in the OPD and 406 of them were treated with nerve blocks in the operation theater.

New Facilities
1. High dependency unit started in JPN Apex Trauma Centre.
2. Bed side dialysis facility started in Tc2 ICU for acute kidney injury patients following trauma.

Community service
1. Dr Kapil Dev Soni as course faculty in – AIIMS Basic Emergency Care Course; delivered lectures on varied topics for medical and non medical personnel including paramedics, staff nurses, college students, teachers, etc.
2. Dr Kapil Dev Soni was part of workshop on trauma in Guwhati for disaster management and preparedness GMEX (Guwahti Medical Emergency Exercise), Guwahti, 30 October 2012, NDMA.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor Arvind Chaturvedi took charge of Head, Department of Neuroanaesthesiology in July 2012; nominated a Member Board of Studies (Neuroanaesthesiology) at Banaras Hindu University (BHU) Varanasi; Selected as Examiner of PDCC Neuroanaesthesia in BHU, Varanasi; Reviewer of Journal of Anaesthesiology and Clinical Pharmacology (JOACP); member of Staff council AIIMS, member of Store and purchase committee CN Centre, AIIMS and Hospital Transfusion committee CN Centre AIIMS; Chaired, prestigious Prof.Gode oration during 14th National Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC 2013), 8–10 February 2013, BHU, Varanasi; Chaired a session in 2nd International Conference on Inerventional Pain Management and Pain Certificate Review Course, AIIMS, New Delhi, 24–26 August 2012. Chaired a session in 2nd International Conference on Recent Advances in Anaesthesiology (INCRRAA) and 5th SAARC Critical Care Conference, 5–7 October 2012, New Delhi; Chaired a session in Trauma 2012 Conference, organized by JPNA, AIIMS, New Delhi, 23–25 November 2012.

Dr R.S. Chouhan chaired a scientific session in Annual Conference of Indian Society of Anaesthesiology (ISA), 26–30 December 2012.

Dr G. P. Rath chaired a scientific session in 13th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC), 8–10 February 2013, Varansi; member, Editorial Board, World Journal of Anesthesiology.

VISITING SCIENTISTS
1. Dr Paul Hertz, Assistant Professor of Clinical Anesthesiology, University of Illinois, Chicago, USA visited and delivered a lecture in the department
2. Dr Sergio D Vergese, Chief, Department of Neuroanesthesia, Ohio State University Medical Centre, USA visited and delivered a lecture in the department.

**NEUROLOGY**

**EDUCATION**

**Undergraduate teaching**
All faculty members were actively involved in the UG training programme in UG lectures, seminars and clinical teaching during their posting in wards. Few UG students are also involved in conducting short-term research work under the guidance of the department faculty. BSc Nursing lectures were regularly taken as per schedule.

**Postgraduate teaching**
The department of Neurology has 18 DM Neurology residents. DM Pediatric neurology residents are regularly posted for training. MD Medicine and Psychiatry residents are posted periodically for training purposes. The department runs regular teaching in the form of detailed case presentations on rounds, weekly seminars, journal club, and clinical case discussions.

Dr Garima Shukla initiated a unique educational activity for DM Neurology and other specialty students, called the AIIMS Sleep Clinics, under which various puzzling cases of sleep disorders are discussed in an educative format.

Dr Mamta B Singh conducts regular (~ once a month) ‘Epilepsy Basics’ interactive orientation classes with physicians serving in remote, rural areas. She has covered 7 rural destinations in the last one year.

**CME/Workshop**
**Organised by the department**
1. Organized workshop on ‘How to Write a Research Grant Proposal’ at Ramalingaswamy Board Room, AIIMS for AIIMS faculty, 31 July 2012 (Kameshwar Prasad).
2. Organized Research Methods Seminar on topic ‘Confidence Interval in Interpretation of Clinical Trials’, 10 April 2012 AIIMS, New Delhi (Kameshwar Prasad).
3. Organized ‘First International Conference for Evidence Based Healthcare’, New Delhi, 6–8 October 2012 (Kameshwar Prasad).
4. Organized a 2 day Workshop on EEG Source localization, by invited guest faculty, Dr Richard Burgess, MD, PhD, Epilepsy Centre, Cleveland Clinic, Ohio, USA, 21–22 September 2012, Neurosciences Seminar Room, AIIMS, New Delhi (Garima Shukla).
7. Organized a workshop on ‘Difficult to treat obstructive sleep apnea’ Dr Robert Thomas, 12 April 2012, Neurosciences Seminar Room, AIIMS, New Delhi (Garima Shukla)
8. Organized workshops on Stroke and Multiple Sclerosis (Rohit Bhatia).

**Lectures delivered**
Madhuri Behari: 9      Kameshwar Prasad: 16      Manjari Tripathi: 40      Garima Shukla: 21
Rohit Bhatia: 6

**Papers Presented at conferences:** 27
RESEARCH
Funded projects
1. Neuro-mapping of motor, speech and cognitive functions in Parkinsonism, Madhuri Behari, DBT, 3 years, Rs 42.5 lakhs.
2. Randomized multicenter double blind placebo controlled dose comparison study to determine the efficacy and safety of BG 00012 in subjects with relapsing and remitting MS, Madhuri Behari, Biogen Idec, 24 months, Rs 40 lakhs.
3. Study of efficacy and safety of BG 00012 in subjects with RRMS-extension study. Madhuri Behari, Biogen Idec, 5 years, Rs 30 lakhs.
4. Randomized, multicentric, double blind placebo controlled study of safinamide fixed dose in early PD. Madhuri Behari, MercSereno, 24 month, Rs 10 lakhs.
5. Long term controlled study to evaluate the efficacy of safinamide as add on therapy in PD patients with motor fluctuations. Madhuri Behari, MercSereno, 2 years, Rs 30 lakhs.
6. Open label trial to study the efficacy of human MSC transplantation in advanced PD. Madhuri Behari, Reliance Life Sciences, 3 years, Rs 15 lakhs.
7. Study to determine the long-term efficacy of safinamide in PD patients. Madhuri Behari, MercSereno.
9. Double blind randomized controlled trial to study the efficacy and safety of NT201 in adult spasticity. Madhuri Behari, 2 years.
10. Intravenous autologous bone marrow derived stem cell therapy for patients with acute ischemic stroke: A multi-institutional project. Kameshwar Prasad, DBT.
11. Central Database Management Facility. Kameshwar Prasad, DBT.
12. Capacity Building on Stroke Biology. Kameshwar Prasad, DBT.
15. Comparison of effects of administration of bone marrow mononuclear cells (BMMNCs) in combination with melatonin versus BMNCs alone in middle cerebral artery occlusion model of stroke in rats. Kameshwar Prasad, DBT.
17. An International multi centre, open parallel group, prospective, randomized, controlled trial to determine the effectiveness of treatment with continuous positive airways pressure (CPAP) in addition to standard care in reducing cardiovascular (CV) severe obstructive sleep apnea (OSA) Manjari Tripathi, 5 years, Monash University, Australia.
18. Validation of a rapid diagnostic method for the detection of HLA allele and its association with cutaneous drug reactions in persons with epilepsy. DBT. Manjari Tripathi.
20. Development and validation of a comprehensive clinical and neuropsychological test battery for use in Indian context for patients with vascular cognitive impairment (VCI)-ICMR, Manjari Tripathi.
21. Correlation of Electrophysiological States and Hemodynamic changes during simultaneous EEG-fMRI in Intractable Epilepsy’, DBT, Manjari Tripathi.
23. Randomized controlled clinical trial to evaluate prophylactic properties of Ayurvedic Treatment Protocol in refractory and chronic migraine patients. Ipca Laboratories, Manjari Tripathi.
24. Radio-Surgery or Open surgery for Epilepsy Trial (ROSE), NIH, Manjari Tripathi.
25. Center for Excellence (COE) for Difficult to Treat Epilepsy. DBT, Manjari Tripathi.
26. Prospective randomized 12-week controlled study of visual field change in subjects with partial seizures receiving pregabalin or placebo. Pfizer, Manjari Tripathi.
29. Role of candidate genes in vascular cognitive impairment, mild cognitive impairment and Alzheimer’s disease: defining the common genetic markers and pharmacogenetics. Manjari Tripathi.
30. Design of specific peptide activator of Sirtuin as potential therapeutic target for mild cognitive impairment (MCI) and Alzheimer’s disease (AD). Manjari Tripathi.
32. Automatic detections of non-convulsive seizures in scalp recorded electro encephalogram (EEG), DBT. Manjari Tripathi.
33. Effect of multitasking in progression of MCI to AD, CSI-DST. Manjari Tripathi.
34. Assessment of mutations in GABRG2 gene from microelectrocorticographically defined areas of hippocampus and amygdala in patients with MTLE with intractable epilepsy. DBT, Manjari Tripathi.
35. A study of quantitative EEG changes, cognitive functions and stress in mild cognitive impairment and Alzheimer’s disease, AIIMS. Manjari Tripathi.
38. FIST Programme, Stroke and Sleep Disorders, MV Padma, Manjari Tripathi, Garima Shukla, 5 years, Rs 94.5 lakhs.
39. To evaluate the response in the obstructive sleep apnea (OSA) parameters after distraction of the mandible in temporomandibular joint (TMJ) ankylosis patient with obstructive sleep apnea: A hospital –based study. 3 years, Rs 32 lakhs, Garima Shukla
40. To determine and search the role of persistent viral infection in patients of monomelic amyotrophy (MMA). AIIMS, Deepti Vibha.

Departmental projects
1. Inflammatory markers in CSF and serum of patients with SSPE and effect of treatment.
2. Clinical profile and natural history of PD at a single tertiary care hospital..
3. Translation and validation of non-motor symptom questionnaire n Hindi in PD patients.
5. Spectrum of NMS in PD patients at a tertiary care center.
6. Complementary and Alternative Medicines in PD.
7. Prescription pattern of TBM among AIIMS faculty.
8. RLS in SCA..
9. CSF Testosterone levels in MND patients.
11. Olfactory functions in familial PD patients and their first degree relatives.
12. Treatment cost of PD in India.
15. Evaluation of sexual function in PD and the urological dysfunction in PD, with correlation of urological parameters prospective study.
17. Effect of refractory epilepsy and controlled epilepsy versus controls on circadian sleep rhythm (using actigraphy watch and proforma).
18. Role of sleep in the localizing value of video-EEG in patients with refractory focal epilepsy.
19. Sleep efficacy and its effect on cognitive function in intractable epilepsy patients before and after surgery.
20. Corneal health in PD patients undergoing treatment with amantadine.
22. AED adverse Drug reactions and effects on trace metals.
23. Comparison of seizure semiology elicited through caregiver history, home video and Video EEG.
25. Efficacy of modified atkins diet versus ketogenic diet in children with refractory epilepsy aged 1 year to 18 years, 2012.
27. Impact of sleep on localizing value of video EEG in patients with refractory focal seizures- a Prospective Video polysomnography- EEG study.
28. Study of memory, Executive function and language performance in Refractory epilepsy.
29. Obstructive sleep apnea in patients with first ever stroke versus those with refractory hypertension: Search for common pathogenic mechanisms.
30. To study the clinical, demographic and treatment profile of patients with multiple sclerosis.
31. To study the seasonal and diurnal variation of stroke.
32. Outcomes of surgical interventions in acute stroke.
33. Predictors of stroke in patients with Rheumatic Heart Disease.
34. To study the long term outcome of patients undergoing decompressive hemicraniectomy for malignant MCA infarctions.
35. To study biomarkers of stroke recovery and correlation with TCMS in patients with stroke.
36. Restorative therapy with autologous mononuclear and mesenchymal stem cells in chronic stroke: a clinico-functional correlative evaluation.
37. Knowledge and understanding of anticoagulation win patients on oral anticoagulation therapy.
38. To study the difference in knowledge in patients with stroke and risk factors for stroke.
39. Feasibility, patient acceptability and efficacy of follow-up by phone in epilepsy patients – A Randomized Controlled Study.
40. Effect of an AED holiday in the EMU on subsequent seizure frequency after reinstituting the drugs in medically refractory epilepsy patients- a Prospective Observational Controlled Study.
41. Validation of a phone application for the diagnosis of epileptic seizures in a rural Indian population – A Cross-sectional survey.

Collaborative projects

Ongoing
2. ENOS: Efficacy of Nitric Oxide in Stroke – A prospective, international, multicentre, randomised, parallel-group, blinded, controlled, collaborative, factorial trial to investigate the safety and efficacy of treatment with transdermal glyceryl trinitrate, a nitric oxide donor, and of stopping or continuing prior antihypertensive therapy, in patients with acute stroke. (Medical Research Council, UK)
3. Genetic basis of ischaemic stroke in an Indian population. (UK–India Education Research Initiative, British Council, UK)
4. Knowledge and understanding of anticoagulation win patients on oral anticoagulation therapy. (Nursing).
5. To study the difference in knowledge in patients with stroke and risk factors for stroke. (Nursing).
6. To evaluate the impact of a teaching programme on tracheostomy care. (Nursing).
7. To evaluate the impact of a teaching program on prevention of complications after stroke. (Nursing).
8. Improvement of quality of life and glycemic control in diabetes mellitus with rhythmic breathing (Sudarshan Kriya Yoga and Pranayam) in addition to standard treatment of diabetes. (Endocrinology)
9. A study to assess the bone health and knowledge of osteoprotective measures in persons with epilepsy with a view to develop an teaching module suggesting osteoprotective measures. (Nursing)
10. Electrophysiological Abnormalities and acquired neuromuscular weakness in severe sepsis and its impact on outcome: A prospective study (Medicine)
11. Bone Health in Patients with Juvenile Myoclonic Epilepsy on Antiepileptic drugs (Medical Endocrinology)
12. Is nurse-led epilepsy follow up clinic a feasible option for India? (Nursing)
13. Reproductive health in WWE: A case-controlled descriptive study (Nursing)

PUBLICATIONS
Journals: 75 Abstracts: 5 Chapter in Books: 8

PATIENT CARE
Dr Manjari Tripathi
1. Invited to submit a proposal for a National epilepsy program by the Ministry of Health which has now moved to the Planning Commission.

2. Started a rural outreach program (iREAP: Indian Rural Epilepsy Awareness Program) to be modelled as a pilot study to start a National Program for epilepsy which has completed 2 years of existence.

3. Developed GEMIND; Guidelines for Epilepsy Management in India (Indian Epilepsy Society) as a core founding member, practice guidelines for physicians.

4. The ETP- Epilepsy Teaching Programme with the mission of teaching and reducing education gap in epilepsy among PHC and GPs.

5. Volunteer network for families with dementia for support of caregivers by the ARDSI–Delhi.

Dr Mamta B. Singh
Community services/camps, etc. Mamta held one 2-day rural epilepsy screening and awareness session every month in a remote rural location. In the last one year, 7 camps were organized at (i) Betul, MP (5,6 May 2012); (ii) Katni, MP (21, 22 July 2012); (iii) Raipur, Chhattisgarh (1,2 Dec 2012); (iv) Sagar, MP (Dec 22,23 2013); (v) Biyavra, MP (Jan 19, 20, 2013); (vi) Naksalbari WB (Feb 16,17 2013); and (vii) Gopalpur, Orissa (26, 27 April 2013)

AWARDS AND HONOURS AND SIGNIFICANT EVENTS
Professor M. Behari organized World Parkinson’s Disease day for Parkinson’s disease patients on 8 April 2012. Expert in the live show ‘Total Health’ telecast on DD NEWS on Parkinson’s disease.

Professor Kameshwar Prasad was nominated by the Bihar Shatabdi Utsav Aayojan Samiti (BSUAS) for a Vishisth Bihari Samman to be conferred by Hon’ble Chief Minister of Bihar 18 March 2012, New Delhi; Member of the WSO (World Stroke Organization) Global Quality Working Group, 2013; Attended the BMJ’s International Editorial Advisory Board Meeting, London, 21–22 March 2013; attended Cochrane Stroke Group Editors’ Meeting, 19 April 2012, Edinburgh, UK; Founding Board Member, International Society for Evidence-Based Healthcare; Nominated as a member of the Expert Group to study the Health Effects of Mobile Technology constituted by Ministry of Health and Family Welfare, Govt. of India; Nominated expert for Standing Selection Committee meeting for Faculty post (Neurology) at NEIGRIHMS, Shillong; Nominated Member of the Postgraduate Medical Education (Super-speciality) Committee of the Medical Council of India; Member, International Advisory Committee, Asia Pacific forum for quality improvement in healthcare; Member, Infectious Diseases and ARI Review Group of the International Cochrane Collaboration; Member, International Clinical Epidemiology Network; Member, Task Force on Chronic Disease Biology of DBT; Member, Executive Council of Assam University, Silchar (2010–13); Member, Technical Advisory Group to IndiaCLEN Health Research Capacity Building Initiative; Director, Clinical Epidemiology Unit, AIIMS, New Delhi; Member, Executive Council of Pandit Bhagwat Dayal Sharma University of Medical Sciences, Rohtak; Editor, Edinburgh-based Cochrane Stroke Group and Amsterdam-based Cochrane ARI Group; Editorial Board Member –Practical Neurology – a British Medical Journal publication; Cochrane ARI Review Group, Australia; Neurology India, Annals of Indian Academy of Neurology; Participated in 14th Joint Annual Conference of Indian Epilepsy Association and Indian Epilepsy Society, organized by Epilepsy Association of Hyderabad, 8–10 February 2013.

Dr Manjari Tripathi Chief author – Autoimmune encephalitis awarded best poster in DNACON-2013; Awarded Anandi Bai Joshi award for Medicine in Third IRDS awards 2012; Co and chief author in the awarded poster entitled ‘Triggering factors of seizures in people with epilepsy’; 13th Annual Conference of Indian Epilepsy Association and Indian Epilepsy Society ECON 2012; Member, Medical Sciences Research Committee for Council of Scientific and Industrial Research (CSIR), 2013; Member of the group in the development of ‘National Guidelines on Obstructive Sleep Apnea’ for the diagnosis of OSA, under the auspices of Department of Health Research, Ministry of Family and Health Welfare, Govt. of India 2013; Chairperson Session for the Symposium of Myopathy-2, International Workshop on Nerve Muscle Disorders, G.B. Pant Hospital, New Delhi, 22 February 2013; Session ‘Point counter Point’ Epilepsy Surgery, 15th Annual DNAcon, 15th Annual Conference of Delhi Neurological Association and Annual Neuronurses Update, New Delhi, 17 February 2013; Session at the IV Childneurocon, 4th National Conference of Association of Child Neurology, 16 February 2013; Introducer of the topic CNS bugs and stroke at the presidential oration session, Tropicon 2013, NEDFI House, Guwahati, 2 February 2013; Convener and chairperson, ‘Symposium on epilepsy for Neurologist and Neurosurgeons’, NEUROCON 2012, Gurgaon, Haryana, 21 December 2012; Session for ‘MRI-PET: the next step in multi-modal imaging’, NEUROCON

Dr Garima Shukla Organized the Sleepcon 2013, (Annual Meeting of the Indian Sleep Disorders Association); Appointed ‘Member, Editorial Board of the prestigious journal, ‘Sleep Medicine’; Publication in ‘Sleep Medicine’ was a winner of the Elio Lugaresi WASM Award for Sleep Medicine, 5th World Congress on Sleep Medicine, Valencia, Spain; Chief Guide for paper submitted by Shaily Singh, to the 30th International Epilepsy Congress, Montreal, June 2013, awarded the 30th IEC Travel bursary award; Appointed a part time councilor at skill development Centre (SDC) of PGDGM Programme; Nominated by the DGHS for formulating the national epilepsy control Programme; Member of the advisory board of the Indian Academy of Clinical Medicine Journal; Representative of the Indian Epilepsy Society (IES) to the ASEPA and the EEG Board Examination from India, 2011–15.

Dr Rohit Bhatia Coauthored a paper in prestigious Lancet Neurology Journal; Co-editing and authoring a textbook on ‘The Clinical Practice of Multiple Sclerosis’, in process; National Coordinator for International GBS outcome study by Rotterdam Group; 3rd Best Paper Award, Indian Academy Neurology 2012 for the thesis work of DM resident as a chief guide; Collected data on Hospital Based Registry on Multiple Sclerosis for two years as a chief guide for DM thesis. Co-Organising the First International Conference on the theme of ‘Heart and Stroke’, to bring together two specialities for holistic stroke care in Nov 2013; Invited as an abstract reviewer for the annual International Stroke conference by the prestigious American Heart Association for a period of three years; Continuing as a Executive Member of Indian Stroke Association; Organized public awareness programmes with information in all leading newspapers on Stroke diagnosis and prevention and comprehensive management of Multiple sclerosis.

Dr Mamta B Singh Received 2012 American Academy of Neurology International Scholarship; Award for the 64th Annual Meeting of AAN, New Orleans, LA, April 2012. Founder Member of the Global Health Section of the American Academy of Neurology; Received 2012 Prof Peter and Jytte Wolf Award for Baltic Sea Epilepsy Summer School, Rostock, Germany July 2012; Invited by the AAN Media Experts Programme as a disorder-related expert on behalf of the American Academy of Neurology in the field of Epilepsy; Invited by the Association of Indian Neurologists in America (AINA) to deliver a talk during the 64th Annual Convention of the AAN at New Orleans, LA, April 2012; On the Editorial board of Epileptology: Facts and Controversies (Elsevier); Invited to join an international academic group for the study of Epilepsies with External Modification of Ictogenesis (EpExMo); Awarded International League Against Epilepsy (ILAE) award to attend the 10th European Congress of Epilepsy, London, October 2012.

VISITING SCIENTISTS
1. Richard Burgess MD, PhD, Epilepsy Center, Cleveland Clinic, Cleveland, Ohio, USA
2. Christian Guillemannult, MD, Stanford University Center for Sleep disorders
3. Robert J Thomas, MD, Beth Israel Deaconess Medical Center
4. Jerome Chin Lecturer, Global Health, School of Public Health University of California, Berkeley, USA.

NEURO-PSYCHOLOGY

HIGHLIGHTS
In the last one year a separate Specialized Clinic: Cognitive Disorders and Memory Clinic (‘CD’ and ‘M’ Clinic) (by the Departments of Neurology and Clinical Neuro Psychology) on every Wednesday mornings has been started.
EDUCATION
• Plan Course Curriculum, IIT Jodhpur, course on Clinical Psychology 2012
• Institute of Behavioural Sciences, Gujarat Forensic Sciences University, Meeting for approval for MSc Neuropsychology Syllabus, May 2013.
• Amity University M.Phil Programme, external examiner, 2013.

CMEs/Workshops/Symposia/National and International conferences
NACIACP: 39th National Annual Conference of Indian Association of Clinical psychologists, AIIMS, 18-20 February 2013.

Lectures delivered: 11
Papers presented: 18

RESEARCH
Funded projects
Ongoing

Collaborative projects
Completed
2. The Effects of Positive, Negative and Neutral Affect on Cognitive Functions and Associated Psychological Stress Response. (DBT, Physiology and Clinical Neuropsychology).

Ongoing
1. Effects of Yoga Shri Vivek practice on Mild Cognitive Impairment patients and normal Ageing: balancing the nervous system (Neurology).
2. Indian adaptation and validation of a recently developed executive functions test – Jansari Assessment of Executive Functions (JEF) test for ‘adult, chronic neurological populations’ that includes Epilepsy, Traumatic Brain Injury (TBI), Mild Cognitive Impairment (MCI), Dementia and Stroke populations. (Cognitive Science Research Initiative (CSI), Neurology).
3. Oxidative DNA damage and total Oxidant Status in Mild Traumatic Brain Injury. (Neurosurgery)
6. Study of the changes in sleep architecture, melatonin levels and metabolic abnormalities on F-18 Fluorodeoxyglucose Positron Emission Tomography (FDG-PET) in persons with Mild Cognitive Impairment (MCI) progressing to Alzheimers type dementia (AD). (CSI, Neurology, Nuclear Medicine).

PUBLICATIONS
Journals: 3 Chapters in Books: 4

PATIENT CARE
Neuropsychological assessment, interpretation and therapy of various Neurosurgical and Neurological patients. It included patients of Head injury, Stroke, Parkinson’s, Dementia, Epilepsy, Referrals for Psychiatry Ward/OPD. Work also included practical neuropsychological assessment/evaluation including clinical diagnosis, comprehensive interview; behavioural observations, assessment with series of neuropsychological tests, interpretation, report writing neuropsychological formulation including cerebral impairment, severity of injury and disability; neuropsychological retraining including basic function approach to improve the
functional skills improving basic pre morbid functions of persons daily life; neuropsychological reorganization including compensation for the deficit when deficient function can neither be reorganized nor restored, clinic based therapy; home based therapy. OPD work of 4–5 hours/day. There were 4 OPD/week and the fifth by appointment (Clinical Neuro Psychology) while a special Cognitive Disorders and Memory Clinic on Wednesday Mornings which is run by Departments of Neurology and Clinical Neuropsychology, Neurosciences Center, AIIMS. Teaching of MBBS and Nursing Students. Guiding thesis/theses and research. First step towards planning of research work to be done was formulated.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Dr Ashima Nehra started Cognitive Disorder and Memory Clinic (CD and M Clinic) and Neuropsychological Rehabilitation (NR), a new registry under Departments of Neurology and Clinical Neuropsychology. She was Organizing Secretary: 39th National Annual Conference of IACP at AIIMS, New Delhi. She was visiting faculty, Gujarat Forensic Sciences University. She is an executive committee member of the Neuropsychological Society of India. She is a member ethics committee of Indian Association of Clinical Psychologists and member editorial board of the Indian Journal of Clinical Psychology, 2012–14

NEUROPATHOLOGY

EDUCATION
CMEs/ Seminar/Workshops

Lectures delivered: 13 Oral/poster presentations: 37

RESEARCH
Funded projects

Completed
1. Angiogenesis in astrocytic tumors of the brain: A clinicopathological study with special reference to expression of vascular endothelial growth factor (VEGF), and hypoxia inducible factor (HIF) – 1 alpha and correlation with vascular morphometric parameters and tumor infiltrating inflammatory cells. Chitra Sarkar, ICMR, 2009–12, Rs 21 lakhs (approx).
2. Hypoxia and p53-HIC1 axis in stemness of glial tumors and cell lines. Chitra Sarkar, DBT, 2009–12, Rs 50.5 lakhs.

Ongoing
1. Genomic and functional approaches to decipher the role of a large imprinted miRNA cluster in glioblastoma multiforme. Chitra Sarkar, Department of Biotechnology, 2012–15, Rs 50 lakhs (approx.).

Departmental projects

Completed
1. Clinicopathological study of CNS AT/RT.
2. Clinicopathological study of pineal tumors.

Ongoing
1. Subtyping of medulloblastomas by immunohistochemistry
2. MGMT methylation in hemangiopericytomas
3. Expression of histone markers in gliomas
4. MGMT methylation in gliosarcoma
5. Study of Limb Girdle Muscular Dystrophy (LGMD) Patients in Indian Population Using Calpain-3, Dysferlin and Sarcoglycan Protein Analysis.
7. Study of Tuberous Sclerosis Complex and Upregulation of WNT pathway in Subependymal Giant Cell Astrocytomas and Cortical Dysplasia.
8. Study of Human Telomerase Reverse Transcriptase (hTERT) and Stem Cell Markers Expression in Ependymomas -Correlation with Apoptotic and Proliferative markers.
10. Analysis of genetic alterations in meningiomas.

Collaborative projects

Completed
1. Oxygen concentration, p53 axis and stemness characteristics of glial tumor cell lines (Biochemistry)
2. Expression of Notch signaling molecules, Epithelial Mesenchymal Transition (EMT) markers and HIF-1 alpha in Glioblastoma Multiforme (Biochemistry).

Ongoing
1. Methylation profiling of pediatric GBMs (Indian Institute of Science, Bangalore).
2. CHIP-Sequencing in Gliomas (IGIB, Delhi).

PUBLICATIONS

Journals: 23

PATIENT CARE

Neuropathology Surgical Specimens 2356 Frozen Sections 243
Muscle biopsies
Total number received 374 Muscle enzyme histochemistry 1266
Muscle immunohistochemistry 2281
Immunohistochemistry 6472
Diagnostic Fluorescent in situ hybridization 180
Electron Microscopy
Specimen received 1234 Specimen processed 982

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Chitra Sarkar received AIIMS Excellence Award for notable contribution in research at AIIMS for the paper entitled ‘Molecular profile of oligodendrogliomas in young patients. Neuro Oncol. 2011;13:1099–106’; Delivered Presidential Oration in the Annual Conference of the Asian Society of Neuro-Oncology; Delivered Subhadra Dayananda Rao Oration in the NIMHANS, Bangalore; Nominated Member of the Council of the Indian Academy of Sciences for the triennium 2013–15; Member of the Selection committee, NIMHANS, Bangalore. She was the symposium Coordinator for Neuro-oncology symposium in IACR and Neuropathology symposium in ASNO.

Awards to Students

Dr Mukund Sable received H D Tandon award for best poster entitled ‘Limb girdle muscle dystrophy type II A (calpainopathy) with rimmed vacuoles’ (Mukund Sable, Mehar C. Sharma, Vaishali Suri, Rohit Bhatia, Shefali Gulati, Chitra Sarkar Department of Pathology, neurology and paediatrics) at Delhi Chapter Meet of IAPM (DAPCON 2013), AIIMS, New Delhi.
Dr Prerna Jha received the first prize for the paper entitled ‘Genome wide promoter methylation in pediatric Glioblastoma’, Annual Conference of Indian Society of Pediatric Neurosurgery Neuropedicon 2012 Dr Aanchal Kakkar received the Herbert Krause Gold medal for the paper entitled ‘Meningeal hemangiopericytoma – a clinicopathological, immunohistochemical and molecular genetic study, with emphasis on MGMT (O6 – methylguanine- DNA methyltransferase) promoter methylation status’, 61st Annual Conference of Neurological Society of India ‘ Neurocon 2012’, New Delhi. Dr Rakesh Gupta received the first prize for the poster entitled ‘Study of chromosome 9q, notch pathway regulators and tenascin C in ependymomas’, annual conference of DNA (DNACON 2013), New Delhi. Dr Suvendu Purkait received the third prize for the oral presentation entitled ‘Cyclin dependent kinase 2A (CDKN2A) deletion in pediatric versus adult GBMs’, Annual Conference of DNA (DNACON 2013), 17 February 2013.

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NEURORADIOLOGY

EDUCATION
Undergraduate Teaching
Faculty of the department undertakes didactic lectures and seminars for undergraduate students of the Institute.
DM Neuroradiology course started in July 2001. Three candidates are registered for this course presently.

Short Term Training
Two faculty members, one from SCTIMST and another from Airforce Hospital had short term training in this department this year. Senior residents/junior residents from Neurology, Neurosurgery, Neuroanaesthesia, have rotational postings in this department. MD (Radiodiagnosis) and BSc (Radiography) students from the department of Radiodiagnosis have rotational posting in this department.

Continuing medical education
Lectures delivered
N.K. Mishra: 3 Shailesh B Gaikwad: 14 Ajay Garg: 11

RESEARCH
Funded projects
1. Efficacy of Imaging assessment of Neoangiogenesis and permeability to Pre-operatively Grade Cerebral glioma, Intramural grant-research project.

Departmental projects
1. Correlation of Imaging finding with clinical presentation in patients of primary central nervous system vasculitis
2. Imaging biomarkers of angiogenesis and the micro vascular environment in high-grade gliomas with perfusion MR imaging and diffusion tensor imaging with image guided biopsy corroborartion.

Collaborative projects
1. Randomized Two Arm Parallel Group Clinical trial to evaluate efficacy of trans-sphenoidal microscopic/endoscopic surgery using high field intra-operative magnetic resonance imaging guided resection as compared to two dimensional fluoroscopic guidance in extent of tumor resection in Non-functioning Pituitary macro-adenoma
2. Prediction of Motor Recovery in Upper Limb through parameters obtained from Clinical Assessment, Diffusion Tensor Imaging (DTI) and Transcranial Magnetic Stimulation (TMS) in patients with Acute Ischemic Middle Cerebral Artery (MCA) Stroke.

PUBLICATIONS
Journals: 15

PATIENT CARE
Procedures
Digital subtraction angiography 550 Interventional procedures 109
MRI 2470 CT routine 9533
Mobile CT 1684 Image guided/CT guided study 199
Emergency CT 9587 CT Angio 93
HRCT 18 Stereotactic biopsy 26
Gamma Knife 58 Chemical Angioplasty and Thrombolysis 18
Ultrasound 2030 Plain X-rays OPD/indoor 22807
Pvt. Case reporting 3254
Total 52436
AWARDS AND HONOURS

Professor N.K. Mishra was awarded Gold Medal, 15th Annual Conference of the Indian Society of Vascular and Interventional Radiology (ISVIR), 14–17 February 2013, Coimbatore.

Dr Shailesh B Gaikwad, was elected President of Indian Society of Neuroradiology, 15th Annual Conference of Indian Society of Neuroradiology (ISNR), 22–25 September 2012, Shillong, Meghalaya; Secretary of Indian Society of Vascular and Interventional Radiology, 15th Annual Conference of Indian Society of Vascular and Interventional Radiology (ISVIR), 14–17 February 2013, Coimbatore.

NEUROSURGERY

HIGHLIGHTS
This year was full of Academic activities and education oriented year. During the year overall development of Department occurred with various academic and patient care activities.

1. Establishment of new cell and electrophysiology laboratory and molecular biology laboratory is under process at Center for Epilepsy research funded by Department of Biotechnology, Ministry of Science and Technology this year. AIIMS.
2. Microneurosurgery skill lab for training neurosurgeons under FIST, DST.
3. Magnetoencephalography (MEG) facility is going to establish at NBRC in collaboration with COE, AIIMS funded by Department of Biotechnology, Ministry of Science and Technology this year.
4. 14th Annual AIIMS Microsurgery Workshop, attended by over 200 delegates.
5. 2,470 emergency procedures, 3,366 elective procedures and 40,927 patients seen in OPD, 398 patients admitted for gamma knife procedures. A total of 55 papers published and 12 ongoing projects.

EDUCATION
MCh programme: Post MS – 3 years, Post MBBS – 6 years
PhD programme
Visiting Fellows: During the period various distinguished fellows attended the Department of Neurosurgery, for observation from India and abroad.
Experimental Lab: Fully functional for microneurosurgery and neuroendoscopic training.

CMEs/Workshops/Symposias/National and International Conferences
Organized by department
1. Neurological society of India along with First Indo-German neurosurgical friendship meeting, Annual Congress, 2012.
2. AIIMS KISS (Keep It Simple Sonography) course for Neurosurgeons, Nepal, November 2012, and Delhi December 2012. Programme Director: Dr Deepak Agrawal.
3. AIIMS Ultrasound Trauma Course (AUTLS) held courses in various parts of India and abroad (Nepal and Iran) during 2012–13, Course Director: Dr Deepak Agarwal.
4. AIIMS BECC course and held in various parts of India during 2012–13 in partnership with NHRM (National Rural Health Mission) Course director: Dr Deepak Agarwal.
5. 2nd Live operative workshop and symposium on Complex Spinal trauma, JPNATC, AIIMS, 12–13 May 2012. Organising secretary: Dr Deepak Agrawal.

Lectures delivered
B.S. Sharma: 8
Sarat Chandra: 5
Sachin Anil Borker: 6

RESEARCH
Funded projects
4. Assessment of mutations in GABRG2 gene from microelectrocorticographically defined areas of hippocampus and amygdale in patients with MTLE with intractable epilepsy, P Sarat Chandra, DBT, 2010–13, Rs 39 lakhs.
5. Study of PAX1 gene mutations in patients with Chiari 1 malformation (CIM) associated with syringomyelia and other bony Craniovertebral junction anomalies, P Sarat Chandra, AIIMS, 2012–14.
7. fMRI and simultaneous EEG for localizing the epileptogenic focus in patients with intractable epilepsy, P Sarat Chandra, DBT, 2011–continuing, Rs 17 lakhs.

Departmental projects

Ongoing
1. Serum IL-6 as potential bio-marker for intracranial pressure elevation in isolated head injury patients.
2. Oxidative DNA damage and total Oxidant status in mild traumatic brain injury.
3. Epidemiology of head injury and spinal cord injury at integrated level 1 trauma center in India.
4. Integrated online portal for AIIMS trauma centre: Potential to improve patients’ satisfaction and care on the ground.

Collaborative Projects
1. Centre of Excellence to be commissioned as a National facility for difficult to treat epilepsy (AIIMS and NBRC), P Sarat Chandra, DBT, 2011–continuing.

PUBLICATIONS

Journals: 45 Chapters in books: 8

PUBLIC AWARENESS/ MEDIA PUBLICATION

B.S. Sharma
1. DD News, Total Health, Sunday, Backache, 2013
2. DD News, Total Health, Sunday, Road traffic accidents, 2012

Sarat Chandra
1. AIIMS doctors cure a seven year old girl’s rare laughing epileptic disorder, Article published in Hindustan Times in June 2012.
3. 15 minute surgery for carpal tunnel using endoscopy, Article in Hindustan Times, 3 September 2012.
4. DD News Total health Epilepsy Surgery.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor B.S. Sharma was President (Elect), Delhi Neurological Association; President (Elect), Neurotrauma Society of India; Secretary, Cerebrovascular Society of India.

Professor P. Sarat Chandra is Chief Editor, Neurosurgery Scan, Publisher: Wolter Kluwers; Chief Editor, Indian Journal of Neurosurgery (IJN), Publisher: Wolter Kluwers. ISSN-2277-954X; Editorial board, Journal of Krishna Institute of Medical Sciences University (JKIMSU), ISSN-2331-4261; Executive member, Indian Epilepsy Society; Executive Member Secretary General, Asian Epilepsy Surgery Society; Member: GEMIND: Guideline for epilepsy management, India; Core committee member, National Tuberculosis programme; Editor in Chief, Indian Journal of Neurosurgery (IJN); Executive member and Life member, Neurological Society of India (NSI); Faculty 1000 of ILAE (International League Against Epilepsy); Member of Penry epilepsy Alumni (wake forest university, USA); Member of Committee for Improvement of standards of research activities of medical education by Ministry of Health and Family welfare. Published the following Patient...
information handbooks: (i) Taking Care of Your Back: The ‘HEAL’ programme’ Patient information handbook published in collaboration with CMET AIIMS; (ii) Guidelines for patients with neck pain: The ‘HEAL’ programme’: Patient information handbook published in collaboration with CMET AIIMS; (iii) Patient/Caregiver Information Booklet’ Patient information handbook of epilepsy.


Dr Sachin Anil Borkar Assistant Webmaster for ‘Neurological Society of India (NSI)’ website for the year 2012.

PATIENT CARE
The department has 2 units with a general neurosurgical ward under each unit [35 × 2 beds]. There are 2 ICUs with 23 beds. There are now 4 elective ‘state of art’ operating theatres available on the 7th floor of the CN tower and two exclusive operating theatres are in the Trauma Centre. The ‘brain suite’: intraoperative MRI with neuronavigation, is the process of installation in the first floor and three more elective operating rooms are available of the CN centre. World class facility for neurosurgery is offered to include all specialities: vascular surgery, epilepsy surgery, minimally invasive cranial and spinal neurosurgery, pediatric neurosurgery, functional neurosurgery, tumor surgeries, skull base surgeries and complex spine surgeries. All operating rooms are optimally equipped with operating microscopes, high speed pneumatic Drills, CUSA, cell saver, neuronavigation, neuroendoscopes, electrophysiology and EEG monitoring.

<table>
<thead>
<tr>
<th>OPD cases</th>
<th>New cases</th>
<th>10470</th>
<th>Old cases</th>
<th>21545</th>
<th>Total cases</th>
<th>32015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatric cases</td>
<td>New cases</td>
<td>2600</td>
<td>Old cases</td>
<td>6312</td>
<td>Total cases</td>
<td>8912</td>
</tr>
<tr>
<td>Gamma knife treatment</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of elective surgeries</td>
<td>3366</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of surgeries in trauma centre</td>
<td>2470</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of surgeries</td>
<td>5856</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11.1 B.B. Dikshit Library

Chairperson
Chitra Sarkar

Vice Chief Librarian
H.K. Prasad

Timings and Membership
The library is open round the clock (24 hours) on all days of the week including Sundays and holidays w.e.f. 1 August 2003. It has 2507 regular members and an average of 330 readers visit the library every day.

Services
The library continues to extend the following services to the users. These services have been optimized and updated.

1. **Books Alert Service**: This is a monthly service; it facilitates listing of new books, monographs and pamphlets added to the library in a particular month.
2. **Periodical Alert Service**: This is a fortnightly service; it facilitates listing of new periodicals received in the library during the previous fortnight.
3. **Interlibrary Loan Services**: With several local libraries are being maintained to help users procure documents that are not available in the library.
4. **Reprographic Services**: The library has three machines to meet the photocopying needs of readers, viz. two WC5638 and one WC 7242 Colour of Xerox India Ltd. During the year 21,297 pages were photocopied on payment.
5. **CD-ROM Printout Services**: During the year 4,148 pages pertaining to articles and other useful literature were printed as per requirements of the readers on payment.

Book Bank
It continues to serve undergraduates and interns. The total membership is 92. The book bank has more than 2,735 books, which are issued on a long-term basis to students.

Audiovisual Section
The library has four colour television sets and four video cassette recorders. The number of video cassettes available in the library is 308. This section also has four audio cassettes playback decks and 109 audio cassettes.

CD-based Services
The library has a collection of 1066 CD ROMs of different digital books/journals. It can be used by the readers within the library. Different encyclopedias and dictionaries are also available on CD-ROMs.

Library Automation
The library has a centralized server with 16 terminals, ten laser printers and one network laser printer. The house keeping operation of the library (viz. acquisition, cataloguing, serial control) has been automated. The library is using a commercially available software package named LS-Premia.

Computerized Thesis Search
About 6,166 theses received so far in the library can be retrieved through a computer search. Information about each thesis such as author, title, department, guide’s name, co-guides and other bibliographical details have been fed into the computer.

Print and Online Journals
The library subscribed to 788 journals in various field of health sciences; 436 online along with their print version; 125 for online version only; and 22 print version journals have been subscribed exclusively for the National Drug Dependence Treatment Centre (NDDTC), Ghaziabad. The online versions are accessible in the campus area through internet/Wi-Fi facility of the Institute.
Online Public Access Catalogue (OPAC)
Almost all documents can be retrieved through computers; 6,166 theses received so far in the library can be retrieved through OPAC. The searchable databases (through OPAC) include video cassettes, audio cassettes and compact disc. Six online public access terminals are placed in the lobby at the entrance of the library where users can search bibliographic databases and find specific information online. Information about the journals and its recent arrivals can also be retrieved through Web-OPAC.

Internet
The facility is available in the library from 10 a.m. to 10 p.m. from Monday to Friday and till 8.30 p.m. on Saturdays. Eighteen nodes are available to the users.

New addition
The library added 301 new books, 139 bound volumes of journals, 25 pamphlets/reports, 289 new theses and now has a total of 72,430 books, 69,223 bound journals and 17,282 pamphlets/reports.

Conferences and publications
1. Mr. Jahangir Khan and Mr. M.K. Vishwakarma presented a paper titled ‘The role of medical librarian in Global Health Initiatives in AIIMS: An overview’, National Convention of Medical Library Association of India (MLAI) 2012, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), Shillong, Meghalaya, 12–14 December 2012.
2. Mr. Rakesh Rawat, Mr. Jahangir Khan and Mr. M.K. Vishwakarma presented a paper titled ‘Users expectation and satisfaction with Wi-Fi network services in B.B. Dikshit Library (AIIMS): A case study’, National Convention of Medical Library Association of India (MLAI) 2012, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), Shillong, Meghalaya, 12–14 December 2012.
11.2 Cafeteria

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>R.S. Shukla (Deputy Director, Administration)</td>
</tr>
<tr>
<td>Faculty in-charge</td>
<td>O.P. Kharbanda</td>
</tr>
<tr>
<td>Accounts Officer</td>
<td>A.K. Sharma</td>
</tr>
<tr>
<td>General Manager</td>
<td>S.K. Kaushik</td>
</tr>
<tr>
<td>Deputy General Manager</td>
<td>K.K. Sharma</td>
</tr>
</tbody>
</table>

**AIMS AND OBJECTIVES**
The cafeteria was established in 1972 to provide wholesome food, prepared in healthy hygienic condition at reasonable prices to the Institute employees. Cafeteria is being run on ‘No Profit No Loss basis’, without any financial assistance from the Institute for equipment, furniture, utensils and other basic requirements.

**MANAGEMENT COMMITTEE**
A Management Committee is constituted by Director, AIIMS for policy decisions that pertain to the Cafeteria from time to time. The members were:

- Deputy Director (Administration) - Chairperson
- Dr S. Rastogi - Member
- Dr V.K. Paul - Member
- Senior Financial Advisor - Member
- Financial Advisor - Member
- Superintending Engineer - Member
- Accounts Officer, Cafe - Member
- Chief Dietician - Member
- Representative of RDA - Member
- Representative of Officer Association - Member
- Representative of Nurses Union - Member
- Representative of Karamchari Union - Member
- Representative of FAIMS - Member
- Dr O.P. Kharbanda - Member Secretary
- Shri S.K. Kaushik General Manager, Cafe - Member

**SERVICE FACILITIES**
The cafeteria runs 7 units for services to about 10,000 employees of the Institute. These are:

1. Main Cafeteria (24-hour service) situated near Jawahar Lal Nehru Auditorium.
2. Main Operation Theatre Cafeteria situated on 9th floor of Main hospital.
3. CN Centre Cafeteria situated on 2nd floor of the Centre.
4. Dr R.P. Centre OT Cafeteria situated on 5th floor of the Centre.
5. Centre for Dental Education and Research
6. Dr B.R. Ambedkar IRCH
7. Faculty room Cafeteria situated near Main Cafeteria.
In addition cafeteria provides hospitality services to all higher officers and faculty members on day-to-
day requirement, as well as special requirements for important meetings, organized at the Institute.

STAFF STRENGTH
There are 95 employees in the Cafeteria on regular as well as adhoc/temporary status/ contractual basis. Catering services are also provided to official meetings, conferences and symposia held the Institute.

ANNUAL TURNOVER
The total turnover of the Cafeteria is approximately Rs 2 crore 58 lakhs.

DEVELOPMENT ACTIVITIES
1. Several changes were made in the Cafeteria during the past year. These included extended facility at CNC Cafeteria, complete renovation with good ambience, new equipment was installed and new items added to the daily menu.
2. Lots of improvements were made to the ambience in the faculty room, resulting in an many-fold increase in users. Overall, faculty members appreciated the new facilities.
3. New food items/service introduced.
4. New additional eatables like Mini Pizza, Hot Dog, Paneer Kulcha, Rawa Idly, Sprout Idly and Dhokla were introduced.

FUTURE PLANS
There is a proposal for construction of multistory Cafeteria which will be equipped with latest technology to maintain healthier, hygienic conditions in the cafeteria and to cater to the needs of employees of the Institute.

Cafeteria services have been extended by establishing independent cafeteria at the AIIMS Outreach OPD, Badsa village, Jhajar, Haryana, which was appreciated by all category of staff.
During 2012–13, animals were maintained in the facility (rodents, sheep and non-human primates, i.e. monkey). The various activities of this unit are categorized as follows.

**Small Animal (Rodents)**
The following rodents (average/months) were maintained throughout the year.
1. Rats (Wistar) 736
2. Rats (Sprague Dawley) 212
3. Mice (Swiss) 434
4. Rabbits (New Zealand) 070
5. Guinea Pigs (Dunkin Hartley) 065

A total of 3423 small animals (rat, mice, rabbit and guinea pig) were supplied to various departments and a number of animals were sold to sister institutions in Delhi and outside Delhi including 45 rats, 100 mice, 9 rabbits and 85 guinea pigs.

**Large Animal Facility (Sheep)**
The sheep colony housed 2 sheep for research work of the Microbiology department.

**Non Human Primate (Monkeys)**

*Census report*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of monkeys on 1 April 2012</td>
<td>16</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>06</td>
</tr>
<tr>
<td>Deaths</td>
<td>Nil</td>
</tr>
<tr>
<td>Total number of monkeys on 31 March 2013</td>
<td>10</td>
</tr>
</tbody>
</table>

**Breeding programme**
All monkeys were carried out in open run. Non-human primates have five indoor runs which are used to provide exercise to all the monkeys housed in the monkey runs.

**Rehabilitation facility**
A programme for rehabilitation of monkeys was started in 2000. All monkeys used for a period of three to five years of experiments, and old monkeys were also put in open run. Most of these monkeys were permanently rehabilitated (after experiments) to animal welfare organizations as per instructions from the CPCSEA. Six monkeys were rehabilitated to Sanjay Gandhi Animal Care Centre, Raja Garden, New Delhi with the permission of CPCSEA (Ministry of Environment and Forests, Government of India) on 10 May 2012.

Non-human Primates (monkey) has five indoor runs for physical exercises to 10 monkeys.

**Clinical procedures done**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Sample collected</td>
<td>20</td>
</tr>
<tr>
<td>Physical Examination, TB Test and weight</td>
<td>20</td>
</tr>
<tr>
<td>Hematology and Biochemistry</td>
<td>20</td>
</tr>
<tr>
<td>X-Ray</td>
<td>10</td>
</tr>
</tbody>
</table>
Experimental surgery
25 surgical procedures were done by various departments on animals in the facility. These include Surgery, Biomedical Engineering Unit, Neurosurgery, Paediatric surgery, Laboratory medicine, Biotechnology, Stem Cell facility and Pathology.

Institutional Animal Ethics Committee
The Institutional Animal Ethics Committee (IAEC) cleared 68 projects on small animals (Rodents) of various investigators of Institute during the year.

Services provided
A departmental wing has been operational for maintaining animals belonging to the Departments of Microbiology, Biomedical Engineering, Biochemistry, Biotechnology, Reproductive Biology, Anatomy, Psychiatry, Pathology, Laboratory Medicine, Stem Cell facility, Neurology and Neurosurgery. This facility housed the following animals: Sprague Dawley rats 30, Rats 95, Mice 330, Rabbits 33 and Guinea pigs 3.

The facility provided laboratory facilities to various investigators, viz. vacuum drying of sera and storage of serum samples, haematology, clinical biochemistry, microscopic investigation and X-ray facility.

Educational programme
2. Dr P.K. Yadav, Senior Veterinary Officer participated in the Fifth International Conference by Laboratory Animal Scientists Association (LASA), India, ‘Laboratory Animal Medicine and Management’, 7–9 February 2013, Hotel Fortune Select Manohar, Begumpet Exit Road, Begumpet, Hyderabad.
3. Dr P.K. Yadav, Senior Veterinary Officer was invited as a guest lecturer in National Institute of Animal Welfare, Ministry of Environment and Forest for conducting one week and two week training programme on animal welfare and to deliver a lecture on ‘Care, breeding and Management of Laboratory Animals’.
4. Dr P.K. Yadav, Senior Veterinary Officer participated in two day training on the CPCSEA Norms and Guidelines at NIAW, Ballabhgarh, 15 –May 2012.
5. Dr P.K. Yadav, Senior Veterinary Officer, Mr Jasbir, Laboratory Attendant and Mr Dhananjay Kumar, Animal House Attendant, helped in ‘Animals in Minimally Invasive Surgery Training Centre, Department of Surgical Disciplines, AIIMS’.
11.4 Central Workshop

Faculty Coordinator
Shashi Kant

Chief Technical Officer
Adarsh Kumar Sharma

Senior Technical Officer
Kalu Ram

The strength of Group B and C staff in Central Workshop is as under:

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical officer</td>
<td>7</td>
</tr>
<tr>
<td>Technician (Grade I)</td>
<td>6</td>
</tr>
<tr>
<td>Technician (Grade II)</td>
<td>10</td>
</tr>
<tr>
<td>Workshop Assistant</td>
<td>2</td>
</tr>
<tr>
<td>Khalasi</td>
<td>6</td>
</tr>
<tr>
<td>Store Clerk (UDC)</td>
<td>1</td>
</tr>
<tr>
<td>Assistant (NS)</td>
<td>1</td>
</tr>
</tbody>
</table>

HIGHLIGHTS
The Central Workshop is engaged in the repair and the maintenance of various equipment used for medical education, scientific research and hospital services. It also provides modifications of instruments according to the needs of departments as well as undertakes new fabrication jobs.

There are various sections in the Central Workshop to cater the above mentioned services. Each section is headed by a Technical Officer with supporting staff. It has the following sections:

- Electronic section
- Electrical section
- Refrigerating section
- Mechanical section – I and II
- Fine Instrument Section
- Painting, Upholstery, and Carpentry section

REPAIR AND MAINTENANCE
The Central Workshop carries out repair and maintenance of all types of equipment including blood pressure instruments, electrosurgical unit, ECG machine, infusion pump, multi-parameter monitors, defibrillators, patient warmer, OT table, refrigerators, ice machine, cold labs, water chiller, cryostat, deep freezer, UV spectrophotometer, electronic weighing machine, audiometer, ultrasound therapy unit, OT light, tissue processor, cold centrifuge, microscope, needle destroyer, water bath, X ray view box, OT care machine, suction machine, oxygen regulator, flow meter, servo stabilizer, boilers, hot plates, table top centrifuge, microwave ovens, incubators, S.S. drum, surgical instruments, and many more.

The Central Workshop also carries out repair and painting jobs of all hospital furniture such as patient beds, patient trolleys, patient lockers, intravenous stands, instrument trolleys, loading trolleys, wheel chair, side screen, bed side Locker, push carts, etc.

During the year 2012–13, the Central Workshop attended a total number of 7075 repair jobs.

FABRICATION AND GUIDANCE
In spite of gradually increasing load of repair and maintenance activities, Central Workshop has been able to help in the research activities of the Institute with design and fabrication of useful gadgets as per specifications provided by the departments.

Twenty-three different Jobs (total 246 items) have been fabricated by the Central Workshop during 2012–13 which include Tr. Tube, Stilette, Fibre Board, Hammer Cap, Handle for Surgical Equipment, Perpex Box, View Box, Cylinder stand, CPAP Connector, Chick Cages, ‘S’ Hook, Gel cast tray, Head Impact Cap, Bend Cutter, Shea set holder, Plastic Mould, OT Table leg holder, OT Table side support, Tunneller, Bone punch handle, PCNL roll, Weight pouch, OT Table mattress, Belt with hook, etc.

SHORT-TERM TRAINING
The Department is actively involved in providing guidance and imparting short term training (4–6 weeks) to Diploma/undergraduate students of various engineering colleges.

Students from Government Polytechnic, Hissar (Haryana), CRR Institute, and Technology (Delhi) and Kasturba Polytechnic for Women (Delhi) have been provided short term training during the year.
11.5 Computer Facility

**Professor in-charge**

P. P. Kotwal

**Systems Analysts**

S.N. Ragu Kumar

Satish Prasad

Sushil Kumar Meher

**Senior Programmers**

Sanjay Gupta

S.P. Singh

Vinay Pande

Hari Shankar

**Programmers**

Tripta Sharma

Sanjeev Kumar

Shyamal Barua

Ankita Saini

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**EDUCATION**

**Postgraduate**

Computer programming classes covering both theory and practical aspects were conducted for postgraduate students of Department of Biotechnology and College of Nursing.

**Undergraduate**

A three-month course on basics of computers, internet, Windows applications, computer-aided learning, database, etc. was conducted for first year students of BSc (Hons) Nursing. A computer course was conducted for students of BSc Nursing (Post-certificate).

**Continuing medical education**

Members of the facility participated and delivered lectures in continuing medical education programmes, symposia, international and national conferences.

**SERVICES**

**Hospital computerization**

Under the e-Hospital project of NIC/NICSI the following modules were implemented at main hospital AIIMS and various centres in collaboration with Computer Facility.

- **The OPD modules implemented are** OPD registration and appointment at Main OPD, and at the following department/centres OPD: Paediatrics, Medicine, PMR, Pulmonary Medicine, CDER, R.P. Centre, Cardiology, Neurology and Neurosurgery, Geriatric Medicine and Skin.

- **Admission,Transfer and Discharge (ADT) in Wards:** This has been implemented in 19 wards in Main Hospital (AB1, C5, D5, C1, D1, C2, D2, Pulmonary Ward, Rheumatology, NPW, OPW, AB2, AB4, D4, C7, AB6, D6, Geriatric, AB7), 10 wards in RP Centre (1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B, Private 2, Private 3).

- **Cash and Billing:** The billing module has been implemented at Main Cash Counter, New Private Ward Building (GF) and Main Cash Counter, RAK OPD (GF), RP Centre and Center for Dental Education and Research.

- **Casualty:** Main Casualty, Emergency Building, RP Center Casualty registration is computerized.

- **Inventory Management System (receipt+issue of items) has been implemented in** Main hospital, CNC, CDER, RPC, etc. It includes all stores like Crystalloid store, Medicine and Drug store, General store, Stationary and printing, Surgical store, Linen store. Sub-stores are maintained at the ward level. It covers 19 wards in Main Hospital Building (AB1, C5, D5, C1, D1, C2, D2, Pulmonary ward, Rheumatology, NPW, OPW, AB2, AB4, D4, C7, AB6, D6, Geriatric, AB7) and 10 wards in RP Centre (1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B, Private 2, Private 3).

- **Employees Health Scheme** (EHS) is computerized.
Software developed in-house

- **Dr B.R. Ambedkar IRCH:** Continuous maintenance and enhancement of in-house developed modules for IRCH is done like New Case Registration, Old Case Registration, In-patient Registration, Day Care Appointment System, Drug Authorization Software, Billing, Cheque Printing Facility, Lab Request/Collection software tool, Lab Reporting, Discharge report for Radiotherapy, Medical Oncology, Day Care, Pain Clinic, Drug Authorization Software for Day Care and Medical Oncology department.

- **CN Centre:** The modules implemented/maintained are discharge report of Neurosurgery; OT Store inventory; ORBO Donor Form.

- **RP Centre:** The modules implemented/maintained is Histology and Cytology pathology reporting.

- **Raj Garhia Vishram Sadan (Three Vishram Sadans).** This module was developed and provided continuous support to the end user for smooth functioning of room reservation and billing.

- A total of more than 2000 AIIMS employees have been imparted hands on training to use their respective modules of e-Hospital software.

Outreach OPD, Jhajjar (Haryana) AIIMS

The computerization of OPD at Jhajjar was started in September 2012 for OPD registration for Surgery, Medicine, ENT, Obstetrics & Gynaecology, Paediatrics, Psychiatry, Orthopaedics and Ophthalmology departments. On an average 200 patients are registered daily in the OPD.

Administration

- Under the e-governance project of government, Computer Facility along with NIC/NICSI implemented the e-Office project in all the sections of administration/Finance/Engineering/IRCH/CDER and a few departments.
- More than 500 AIIMS employees have been imparted hands on training to use of e-Office software.
- Developed (in house) and implemented the computerized Annual Property Return (APR) software for Vigilance Cell.

IT infrastructure and Networking, Internet and Intranet management activities

1. Continued management of User Id based internet access system.
2. Continued management of Network based endpoint antivirus solution for network based PCs.
3. Facility Management for Wireless Networking: Continued implementation of support systems and call center for student support.
4. Continued management of webmail system.
5. Continued management of Unified Threat Management (UTM) and deployed for the security of computer networks and applications at gateway level antivirus, anti-spam, IPS, load balancing and content filtering.
6. Continued management of the wireless networking zones at around 18 hostel locations, created wifi zones for internet, information and online journals access to students and resident doctors. So far 1500 connections are provided.
7. Continued management of online access to journals subscribed by B B Dixit Library is enabled through VPN tunnel based access outside the Institute.
8. Continued management of ICU Neuro patient monitoring online to view the status of ICU patients anywhere outside the ICU.
9. Continued management of CT-6 ICU patient monitoring online to view the status of ICU patients anywhere outside the ICU.
10. Bilingual website creation process continued so far 35 departments have been translated into Hindi and hosted in the website.
14. Continued management of Wi-Fi zone at B.B. Dikshit Library for internet and online journal access for students.
15. The website of [www.aiims.edu](http://www.aiims.edu), [www.aiims.ac.in](http://www.aiims.ac.in) is being maintained in-house by the Computer Facility.
16. Internet facility for faculty and students was maintained 24x7 days on the AIIMS network at around 2500 nodes.
17. National Knowledge Network (NKN) lease line of 100 Mbps with capacity to extend upto 2 Gbps has been installed at Computer Facility from NIC. Nodes have been given to various lecture theatres and departments for information access through NKN.
18. Creation and maintenance of 900 email user accounts on aiims.ac.in domain.
19. The total number of visitors to AIIMS website was approx. 29 lakhs during 2012–13.
20. Maintenance of Web server, Proxy server, Mail Server and Antivirus server 24x7 days.
21. 224 new internet connections have been provided to faculty and staff of AIIMS.
22. Facility management and call maintenance for internet and network users complaints and resolution.
23. Continued management of technical coordination for online journal access and provision of journal access using internet and PC at the Duty rooms and common rooms for scholars and senior/junior residents.
24. VPN tunnel configured between AIIMS and FSS Chennai for CNC OPD cash card payment gateway.

- The total number of pages updated, created and uploaded on the AIIMS website are about 3000.
- The number of email users at aiims.ac.in are approximately 900.
- The number of tenders uploaded on http://tenders.gov.in & aiims.edu are approximately 1800.

Other facilities
The following facilities were maintained during the year:
1. Email and FTP facility
2. BBDL OPAC Services
3. Consultancy for Software, Hardware and Networking

PUBLICATIONS
Abstracts: 2     Chapters in Books: 1

SIGNIFICANT EVENTS
Mr S.N. Ragu Kumar and Hari Shanker conducted Orientation Programme for the newly selected SR, JR, MBBS students and faculty of AIIMS

Mr Satish Prasad was the Database administrator of the Administrative LAN (Novel Netware server) which caters to the Administration and Finance. Maintained software for AIIMS Finance. Course Coordinator and teaching faculty of MSc, BSc and Post-certificate of Information Technology classes of Nursing College; Took classes of IT of ‘Disaster Management course’ for Indian Red Cross Society (Master’s course affiliated to IP University).

Mr S.K. Meher was the course coordinator of MBiotech computer classes. Took classes for MBiotech, MSc (Nursing). Invited as expert member of the Project Review Group (PRG) on Health Account Scheme website being developed under the ICMR Task force study. Prepared a project report for requirement and implementation of IT in CRHSP, Ballabgarh. Supervised procurement/implementation of new telemedicine equipment in Telemedicine department. Conducted orientation program for MBBS students. Reviewer, Journal of Biomedical Informatics (JBI) and American Association of Medical Informatics. Elected Organizing Secretary for triennial conference for Asia Pacific Association of Medical Information in 2014 being organized by Indian Association of Medical Informatics.

Mr Vinay Pande studied and designed the web enabled Asset Management System (Computers and Peripherals) Software for AIIMS (at development stage); One of the administrators for File Tracking System (FTS) and eOffice implementation at AIIMS; took MSc, BSc Inf. Technology and Medical Informatics classes of Nursing College, AIIMS; took classes of IT in Disaster Management and Cyber Terrorism for Indian Red Cross Society (Masters course affiliated to I.P. University).
11.6 Electron Microscope Facility

Officer in-charge
Shashi Wadhwa

Additional Professor
Taposh K. Das  T.C. Nag

Technical Officer
Sandeep Arya

EDUCATION
1. Twelve MBiotech students of Department of Biotechnology, AIIMS, received two-week training, 23 August to 5 September 2013 (as part of their first semester cell biology practical course).
2. Four PG anatomy students attended the E.M. course from 22 February to 29 March 2013 (only on Fridays).

CME
1. The 28th National Training Programme in Electron Microscopy for Scientific Investigators was held from 29 October to 10 November 2012. Eighteen candidates from different parts of the country participated in this training programme. In all, 13 lectures were delivered by Professor Shashi Wadhwa, Dr Taposh K. Das and Dr T.C. Nag to the participants of the above training programme.
2. The 19th National Training Programme in Electron Microscopy for Technical personnel was held from 4 to 16 February 2013. Twelve candidates from different parts of the country participated in this training programme. In all, 11 lectures were delivered by Professor Shashi Wadhwa, Dr Taposh K. Das and Dr T.C. Nag.
3. The summer training course in Electron Microscopy for technical persons was held from 14 May to 23 June 2012. Four candidates were trained in sample processing, microtomy, CPD, sputter coating, TEM and SEM viewing and routine maintenance of microscopes.

RESEARCH

Funded projects

Ongoing
3. Morphological and biochemical changes in neonatal chick retina following exposure to variable photoperiods. TC Nag, DST, 3 years, 2013–16, Rs 33.6 lakhs.

Completed
1. Cellular localization of markers of oxidative stress in aging human retina. TC Nag, AIIMS, 2 years, 2010–12, Rs 2 lakhs.

Departmental projects

Ongoing
1. Correlation between autophagy and apoptosis in ischemia-reperfusion injury model by middle cerebral artery occlusion in rat brain.
2. Light-induced retinal degeneration in neonatal chicks.
3. Ultrastructural changes of the human choroidal vessels with aging.

Collaborative projects

Ongoing
1. A study to establish the role of T-helper 17 (Th-17) cells in the Asian Indian arthritis patients (Orthopaedics).

**Completed**
1. Effect of amyloid-beta on the morphology and protein profile of the rat hippocampus.
2. Phenotypic, molecular and ultrastructural studies of coagulase negative *Staphylococcus* sp. and their biofilm in device-related infections (R.P. Centre).

**PUBLICATIONS**

**Journals:** 6

**PATIENT CARE**

**Special laboratory facilities**

During the year, special laboratory facilities provided for research and patient care are as follows:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Facility</th>
<th>User number</th>
<th></th>
<th>Specimens analysed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>External</td>
<td>Internal</td>
<td>External</td>
<td>Internal</td>
</tr>
<tr>
<td>1.</td>
<td>Transmission Electron Microscope</td>
<td>199</td>
<td>317</td>
<td>1371</td>
<td>1632</td>
</tr>
<tr>
<td>2.</td>
<td>Scanning Electron Microscope</td>
<td>21</td>
<td>51</td>
<td>124</td>
<td>326</td>
</tr>
<tr>
<td>3.</td>
<td>Immuno-electron Microscopy</td>
<td>23</td>
<td>25</td>
<td>54</td>
<td>46</td>
</tr>
</tbody>
</table>

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Dr Taposh K. Das** delivered lectures at TERI University, Vasant Kunj, New Delhi, 18 and 20 April 2012, on ‘Routine techniques in Electron Microscopy’ and ‘Advanced techniques in Electron Microscopy’; Invited to attend the technical committee meeting for the purchase of a table top SEM, as technical expert on 7 May 2012, at Ch. Charan Singh University, Meerut; Attended the technical committee meeting on 3 September, 21 November, and 7 December 2012, as an external expert for the purchase of a 200kV TEM at NII, New Delhi; Checked the PhD thesis of Ms Pooja Rawat from IMTECH Chandigarh and conducted PhD viva-voce Exam on 25 March 2013; delivered lecture on ‘Application of Electron Microscopy in Medical Science Research’, 5th Refresher Course in Medical Sciences, BHU, Varanasi, 26 February 2013.

**Dr T.C. Nag** delivered a talk at National Seminar on ‘Recent applications in life science research’, at ABN Seal College, Cooch Behar, West Bengal, 8–9 December 2012; reviewed manuscripts from European Journal of Histochemistry.
The AIIMS has several halls for residents with a capacity of over 1200 single/double rooms, about 200 married accommodations and 388 accommodations for nursing students/staff nurses. These are spread over different hostels and residences in the AIIMS Main Campus, Masjid Moth, A.V. Nagar, Transit Accommodation and the JPNATC Hostel (Raj Nagar).

### RESIDENCES

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Hostel</th>
<th>Location</th>
<th>Single room</th>
<th>Double/Three/ Guest rooms (with 2 beds)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I (Charak)</td>
<td>Main Campus</td>
<td>62</td>
<td>3×2=6</td>
<td>68</td>
</tr>
<tr>
<td>2.</td>
<td>II (Jivak)</td>
<td>Main Campus</td>
<td>55</td>
<td>2×2=4</td>
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<tr>
<td>3.</td>
<td>III (Sushruta)</td>
<td>Main Campus</td>
<td>70</td>
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<tr>
<td>4.</td>
<td>IV (Madhava)</td>
<td>Main Campus</td>
<td>53</td>
<td>7×2=14</td>
<td>67</td>
</tr>
<tr>
<td>5.</td>
<td>V (Nagarjuna)</td>
<td>Main Campus</td>
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<td>5×2=10</td>
<td>62</td>
</tr>
<tr>
<td>6.</td>
<td>VI (Vagbhatta)</td>
<td>Main Campus</td>
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<td>7×2=14</td>
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<tr>
<td>7.</td>
<td>VII (Ashwini)</td>
<td>Main Campus</td>
<td>108</td>
<td>4×2=8</td>
<td>117</td>
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<td>8.</td>
<td>VIII (Bharadwaj)</td>
<td>Main Campus</td>
<td>108</td>
<td>1×2=2</td>
<td>111</td>
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<tr>
<td>9.</td>
<td>RPC-I (Dhanwantri)</td>
<td>Main Campus</td>
<td>72</td>
<td>–</td>
<td>73</td>
</tr>
<tr>
<td>10.</td>
<td>MMRDH (Single)</td>
<td>Masjid Moth</td>
<td>154</td>
<td>–</td>
<td>160</td>
</tr>
<tr>
<td>11.</td>
<td>JPNATC</td>
<td>Raj Nagar</td>
<td>57</td>
<td>–</td>
<td>59</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>943</strong></td>
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</table>

### Married Quarters

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<tr>
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<th></th>
<th></th>
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</thead>
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<tr>
<td>1.</td>
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<tr>
<td>2.</td>
<td>MMRDH</td>
<td>Masjid Moth campus</td>
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<td>42</td>
<td>42</td>
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<tr>
<td>3.</td>
<td>A.V. Nagar.</td>
<td>A.V. Nagar</td>
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<td>80</td>
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<tr>
<td>4.</td>
<td>F.T.A.</td>
<td>A.V. Nagar</td>
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<tr>
<td>5.</td>
<td>JPNATC</td>
<td>Raj Nagar</td>
<td>6</td>
<td>06</td>
<td>06</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>194</strong></td>
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</table>

### Ladies Hostels

<p>| | | | | | |</p>
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<thead>
<tr>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>IX (Saraswati)</td>
<td>Main Campus</td>
<td>62</td>
<td>16/1/1/0</td>
<td>1 102</td>
</tr>
<tr>
<td>2.</td>
<td>X (Pravati)</td>
<td>Main Campus</td>
<td>91</td>
<td>0/0/1/1</td>
<td>1 101</td>
</tr>
<tr>
<td>3.</td>
<td>RPC-II (Lakshmi)</td>
<td>Main Campus</td>
<td>20</td>
<td>13/0/0/0</td>
<td>1 47</td>
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<tr>
<td>4.</td>
<td>Ladies Hostel XI</td>
<td>Main Campus</td>
<td>–</td>
<td>15/0/0/0</td>
<td>– 30</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>280</strong></td>
<td></td>
</tr>
</tbody>
</table>
New Nurses Hostel, Masjid Moth

1. Nursing Students Masjid Moth 160 90/4/0/0 2 354
2. Staff Nurses Masjid Moth 34 34
Total 388
Grand Total 1,805

The AIIMS follows a policy of zero tolerance towards ragging in the Hostels. For this purpose, an anti-ragging cell has been created and the wardens and security personnel are ready to guide and support any student with a complaint or inconvenience.

INFRASTRUCTURE ADDED

1. New hostels: Because of acute shortage of rooms for students/residents, the Hostel Committee organized several meetings with the administration and Engineering section to expedite construction of the New Hostel block in the Masjid Moth area. Presently, 3 towers are under construction with a total of 350 rooms. Another block is under active consideration. The New Hostel blocks are expected to be ready by December 2013.

2. Upgradation of existing rooms: Professor N.K. Mehra has been concerned about facilities provided to the residents/students in various hostels. Accordingly, it was decided to renovate all existing rooms in a phased manner. To begin with, a model room has been prepared in Hostel No. 7 with inbuilt almirahs, cupboards, wash basin and new electrical fitting and flooring. This will significantly improve the living standards of residents and provide a more congenial environment for their studies.

3. Additional rooms for students (Ladies hostel): During the past few years, the number of lady students entering the MBBS, BSc and MSc courses has more than doubled as compared to earlier years. To meet this increasing demand, additional rooms will be added in the coming year to the undergraduate ladies hostels.

4. Renovation activity: During the year, several renovation activities have been undertaken. These include road widening, provision of separate parking for two wheelers and for cars, New Hostel office in Ashwani Hostel (Hostel No.7), electric wiring and various toilets.

   The main entry road of the Gents Hostel has been widened with tiled flooring on both sides with lawn adjoining. The postgraduate gents hostel has been aesthetically landscaped with stone cuts and new floor tiles. A barricade has been put up in front of Hostel No. 7 to restrict entry of vehicles. A dedicated parking zone has been earmarked for vehicles with separate sign boards made for two wheelers and cars. The hostel messes have been planned for upgradation and TV rooms in hostels have been renovated and provided with LED TVs and Godrej sofas.

5. Hostel office: The most important work done during the year has been construction of a New Hostel Office at Hostel No.7 complete with all facilities. It is air conditioned with separate cabins/cubicles for the wardens and a dedicated cashier room. The Office of the Superintendent of Hostels is attached to the Hostel Section for better coordination.

   A visitor room has been added with attached bathroom on the ground floor in Hostel No. 7 for convenience of visiting parents/guardians.

6. Safety and Security measures: All Gents Hostels from I to VIII have been provided with appropriate gates for better security. Round the clock Security Guards have been posted in all hostels for safety of the residents. The Institute has provided cab facility for female residents on late evening duties who stay within a radius of 5 km of the AIIMS campus. A Grievance cell (email ID aimshostelgrievance@gmail.com) has been in operation in Room No. 13 in Gents Hostel complex. Faculty from the Department of Psychiatry is on duty from 5.30 p.m. to 6.30 p.m. (Monday to Friday) to address grievances of the students.

7. Messes: New co-operative mess guidelines have been introduced for the first time in the Hostels. An independent mess committee comprising of various categories of students in each of the hostels guides the general working of the messes, including their upgradation.

FUTURE PLANS

1. Infrastructure
   a. Construction of additional hostels and hiring of off campus accommodation is an utmost priority, as at present more than 400 students are on the waiting list. Further, since the strength of the nursing
students has increased appreciably over the years, additional rooms have been planned in the New Nurses Hostel in Masjid Moth area.
b. All the UG and PG rooms in Hostel No. I to XI will be renovated fully as per the model room norms. This will be done in a phased manner beginning with postgraduate hostels.

2. **Hostel café:** As there is no 24×7 café for residents in the hostel complex, it has been planned to renovate the existing Hostel V café in the Gents hostel with modern kitchen and dining facilities. This will serve as a nodal point for informal student–faculty interaction.

3. **Guest room:** All guest rooms in various hostels will undergo renovation with full amenities to be used by parents/guardians of the students on short visits.

4. **Hostel rule book:** The Hostel committee has undertaken the task of revising the Hostel rule book with complete information on duties and responsibilities of the students and residents and allotment rules.
Members of Institute Ethics Committee

1. Professor J.P. Wali, Former Professor, Department of Medicine, AIIMS  
   Chairman
2. Professor S.S. Sidhu, Former Head, Department of Dental Surgery, AIIMS  
   Member
3. Dr D.R. Saini, Principal, Delhi Public School, R.K. Puram, New Delhi  
   Member
4. Dr Vijay Kumar, Scientist ‘F’ DDG (Sr. Grade), ICMR, New Delhi  
   Member
5. Sh. Mukul Gupta, Sr. Advocate, Ex-SLC, AIIMS  
   Member
6. Dr A.M. Khan, Head, Department of Social Sciences National Institute of Health and Family Welfare, Munirka, New Delhi  
   Member
7. Professor Shashi Wadhwa, Dean (Academic), AIIMS  
   Member
8. Professor Y.K. Gupta, Head, Department of Pharmacology, AIIMS  
   Member
9. Professor A.B. Dey, Department of Medicine, and Professor Incharge (Research), AIIMS  
   Member
10. Professor Peush Sahni, Head, Department of GI Surgery, AIIMS and Editor, NMJI  
    Member
11. Professor Praveen Aggarwal, Head, Department of Emergency Medicine, AIIMS  
    Member
12. Professor Ravinder Kumar Batra, Department of Anaesthesiology, AIIMS  
    Member
13. Dr Rakesh Yadav, Sub-Dean (Academic), AIIMS  
    Member
14. Professor Renu Saxena, Head, Department of Haematology, AIIMS  
    Member Secretary

Dr Rani Kumar retired in April 2012 and Dr Shashi Wadhwa, Dean Academics, became a member of Ethics Committee.

Members of Institute Ethics Sub-Committee

1. Dr Ravinder Kumar Batra, Professor of Anaesthesiology  
   Chairman
2. Dr Renu Saxena, Professor & Head, Haematology  
   Member
3. Dr Arvind Bagga, Professor of Paediatrics  
   Member
4. Dr Shashi Kant, Professor of Centre for Community Medicine  
   Member
5. Dr Kalpana Luthra, Additional Professor of Biochemistry Dr Ashok Kumar, Prof. Obst. & Gynae, MAMC, New Delhi  
   Member
6. Dr Praveen Aggarwal, Professor of Emergency Medicine  
   Member
7. Dr Anurag Srivastava, Professor of Surgery  
   Member
8. Dr Radhika Tandon, Professor of Ophthalmology  
   Member
9. Dr Manju Vatsa, Principal, Coll of Nursing  
   Member
10. Dr S.B. Gaikwad, Professor of Neuroradiology  
    Member
11. Dr Ravinder Goswami, Sub-Dean (Research)  
    Member
12. Dr Naval Kishore Vikram, Associate Professor of Medicine  
    Member
13. Dr G. Karthikeyan, Additional Professor of Cardiology  
    Member
14. Dr Rakesh Yadav, Sub-Dean (Acad.) & Additional Professor of Cardiology  
    Member–Secretary

EDUCATION
Lectures delivered
Renu Saxena: 2  Ravinder Kumar Batra: 5

Meetings
The number of meetings of Institute Ethics Committee was as follows:
Institute Ethics Committee: 12  Institute Ethics Sub-Committee for Thesis and Dissertation: 12

Number of projects reviewed by the Institute Ethics Committee
New projects: 490  Old projects: 124
Number of thesis reviewed by Institute Ethics Sub-Committee

In addition, the Institute Ethics Committee continued to receive notifications of serious adverse reactions, serious adverse events, six monthly progress report and completion report, etc.

The Institute Ethics Committee’s Standard Operating Procedures (SOPs) were modified as per the need and made available on the AIIMS website.

SIGNIFICANT EVENTS
The Institute Ethics Committee was registered with DCGI and FWA.
HIGHLIGHTS
In response to the need for addressing faculty development in the context of overall functioning of AIIMS, CMET emphasised faculty development and skill enhancement of various health professionals across the Institute. Orientation workshops were held for 90 newly inducted faculties, 76 resident doctors of AIIMS, in two batches each, besides 15 newly joined interns. A ten-day residential workshop was conducted by AIIMS for the fresh MBBS batch of students in collaboration with a management consultant organization, Centre for Research and Education for Social Transformation (CREST). A total of 34 Workshops/Symposia were organized during the year for Senior/Junior residents, Pool Officers, and PhD students on issues such as scientific writing, informational retrieval in health sciences and making effective presentations using media. CMET faculty were involved in important national initiatives such as, National Knowledge Commission, Steering Committee for establishment of National Health Portal, Expert Committees of Medical Council of India related with Undergraduate/Postgraduate Medical Education besides designing curriculum for Bachelor of Rural Healthcare (BRHC) course.

EDUCATION
CMEs/Workshops/Symposia National and International Conferene
A total number of 32 workshops were held during the year 2012–13 as per details below. The residential workshop for the fresh MBBS batch of students in collaboration with CREST was followed by a two-day sensitization workshop for the mentoring faculty belonging to basic science disciplines. Two workshops were organized for the senior faculty of AIIMS on Leadership and Management of Procurement.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Title</th>
<th>Target group</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Faculty Orientation Programme Part I</td>
<td>New faculty</td>
<td>22 May 2012</td>
<td>61</td>
</tr>
<tr>
<td>2.</td>
<td>Faculty Orientation Programme Part II</td>
<td>New faculty</td>
<td>20 July 2012</td>
<td>29</td>
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<tr>
<td>4.</td>
<td>Workshop for Faculty Mentors from Basic</td>
<td>Teacher Mentors</td>
<td>31 July–1 August</td>
<td>30</td>
</tr>
<tr>
<td>Sciences Departments, AIIMS</td>
<td>2012</td>
<td>2012</td>
<td></td>
<td></td>
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<tr>
<td>---------------------------</td>
<td>------</td>
<td>------</td>
<td></td>
<td></td>
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<tr>
<td>5. Orientation Programme Residents of AIIMS Part I</td>
<td>New residents</td>
<td>3 September 2012</td>
<td>20</td>
<td></td>
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<tr>
<td>6. Orientation Programme Residents of AIIMS</td>
<td>New residents</td>
<td>12 September 2012</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>7. Effective Teaching through Microteaching</td>
<td>Faculty</td>
<td>1 November 2012</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>8. Managing procurement and purchase</td>
<td>Faculty</td>
<td>29 November 2012</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>9. Effective Communication with patients and health team</td>
<td>All Residents</td>
<td>6 December 2012</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>10. Training of Group D employees of AIIMS (Batch I and II)</td>
<td>Group D employees</td>
<td>17–21 December 2012</td>
<td>78</td>
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<tr>
<td>11. Effective use of media and e-learning</td>
<td>All Residents</td>
<td>27 December 2012</td>
<td>71</td>
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</tr>
<tr>
<td>12. Scientific writing, literature search, tips for publishing</td>
<td>Faculty</td>
<td>3 January 2013</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>13. Information Retrieval using Internet and Bibliography Management</td>
<td>Resident, Sr. Residents, PhD students, Pool Officers</td>
<td>29 January 2013</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>14. Professionalism and Ethical Behaviour</td>
<td>All Residents</td>
<td>31 January 2013</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>15. Designing Effective Presentation</td>
<td>Nursing students</td>
<td>31 January 2013</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>16. Animation in Power point</td>
<td>Nursing students</td>
<td>1 February 2013</td>
<td>23</td>
<td></td>
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<tr>
<td>17. Tools for Scientific writing in MS word</td>
<td>Resident, Sr. Residents, Ph.D. students, Pool Officers</td>
<td>5 February 2013</td>
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<tr>
<td>18. MCQs and Item Analysis</td>
<td>Faculty</td>
<td>7 February 2013</td>
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<tr>
<td>19. Information Retrieval using Internet and Bibliography Management</td>
<td>Resident, Sr. Residents, PhD students, Pool Officers</td>
<td>8 February 2013</td>
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<td>20. CMET–NMJI workshop on Writing a Research Paper</td>
<td>Resident, Sr. Residents, PhD students, Pool Officers</td>
<td>11–12 February 2013</td>
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<td>21. Orientation program for Interns</td>
<td>Interns of AIIMS</td>
<td>14 February 2013</td>
<td>15</td>
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<td>22. Tools for Scientific Writing in MS word</td>
<td>Resident, Sr. Residents, PhD students, Pool Officers</td>
<td>15 February 2013</td>
<td>54</td>
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<tr>
<td>23. Information Retrieval using Internet and Bibliography</td>
<td>Nursing students</td>
<td>21 February 2013</td>
<td>24</td>
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<tr>
<td>24. Tools for Scientific Writing in MS word</td>
<td>Nursing students</td>
<td>22 February 2013</td>
<td>18</td>
<td></td>
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<tr>
<td>25. Designing Effective Presentation</td>
<td>Resident, Sr. Residents, PhD students, Pool Officers</td>
<td>26 February 2013</td>
<td>57</td>
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<tr>
<td>26. Leadership and Management of change</td>
<td>Faculty</td>
<td>28 February 2013</td>
<td>39</td>
<td></td>
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<tr>
<td>27. Organizing Workshop</td>
<td>Nursing students</td>
<td>28 February 2013</td>
<td>24</td>
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In addition CMET provided logistic and technical support for 18 CMEs (53 days) organized by other departments.

Workshops/Symposium organized at National level.
- Dr K.K. Deepak was a resource person for the workshop on undergraduate and postgraduate curriculum in Medical Physiology Workshop, 25–26 February 2013, Jodhpur, AIIMS.
- Dr K.K. Deepak was co-convener for Curriculum Implementation Support Programme (CISP) workshop for faculty of the Regional Centres, 3–4 May 2012, in Medical Education Technology Cell of Medical Council of India, Delhi.
- Dr O.P. Kharbanda was convenor of a Dental Educators workshop on ‘Changing paradigm in Dental Education’, Dr Ramalingaswami Board Room, 15 September 2012.
- Mr Yogesh Kumar, Educational Media Generalist along with Dr Ashima Nehra, Neuro Psychologist, CNC, conducted a pre conference workshop on ‘Effective Communication Building Skills’, 39th National Annual Conference of the Indian Association of Clinical Psychologist, 17 February 2013, CMET, AIIMS.
- Mr Yogesh Kumar, presented a demo lecture on ‘Bibliography Management’, ‘An insight into Orthodontic Post Graduate Examination’, 10 February 2013, Department of Orthodontics, Jamia Milia Islamia, New Delhi.

Lectures delivered
K.K. Deepak: 6  B.V. Adkoli: 42  Yogesh Kumar: 17

Oral papers/Posters presented: 3

PUBLICATIONS
Abstracts: 1  Chapters in Books: 2

SUPPORTIVE ACTIVITIES
Media Production

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<th>Media related job</th>
<th>Output/quantity produced</th>
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</tr>
<tr>
<td>X-ray, specimen, gel</td>
<td>5634</td>
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<tr>
<td>Scanning of images (slides, photos, documents)</td>
<td>637</td>
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<tr>
<td>Video recording and editing</td>
<td>192</td>
</tr>
<tr>
<td>Designing/printing of large format posters</td>
<td>1794 + 481 small prints (A4, A3 size)</td>
</tr>
<tr>
<td>On Screen presentations</td>
<td>262</td>
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</tbody>
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Designing and Formatting
1. Designed and formatted Abstract Book for the SEARAME NCHPE 2012, PSG Institute of Medical
2. Designed and formatted Manual on Gynaecologic Oncology, Department of Medical Oncology, IRCH, AIIMS.

**Educational Material for Nurses**

*Module/leaflets (3)*
Designing and formatting for module/leaflets of students of MSc Nursing: (i) Stoma care, (ii) Girl and puberty, and (iii) Counselling women with epilepsy.

*Production of video films (2)*
Training films for nurses/patients explaining the problems and care of particular issues, along-with dos and don'ts during the care: (i) Tracheotomy care and (ii) Endotracheal suction.

**Exhibitions organized**

CMET played a key role in organizing 57th Institute Day Exhibition, 25–27 September 2012, the theme of which was ‘AIIMS contribution to Health Care’. The Exhibition included hundreds of posters video/live demonstrations besides skits and role plays. The exhibition was inaugurated by the Hon’ble Union Minister for Health, and was attended by a large number of general public.

**AWARDS, HONOURS and SIGNIFICANT EVENTS**

**Professor K.K. Deepak** was awarded Dr B. K. Anand Oration 2011–12 by National Academy of Medical Sciences (NAMS) in the field of Medical Education. He delivered an oration on ‘Medical Education: A Re-evaluation of Current Problems and Possible Way Ahead’; Member, The Raj Bhasha Committee, Hindi Section, AIIMS; Judge, Hindi Section, AIIMS; External Expert, expert committee meeting on Curriculum Development for Physiology, Jodhpur, AIIMS; Member, Project Review Committee for Intramural Funding, AIIMS; Convener, Equivalence Sub-Committee, MCI, Dwarka; Member, Ad-hoc undergraduate assessment screening committee, MCI; Member, Medical Board, Academic section, AIIMS; Member Teaching schedule committee for UG, AIIMS.

**Dr B.V. Adkoli** served as faculty for joint conference of the South East Asian Regional Medical Education and National Conference of Health Professionals (SEARAME-NCHPE-2012), PSG Institute of Medical Education and Research, Coimbatore, 6–7 September 2012; Editor, Abstract book of the conference; Member, Expert Committee, Medical Council of India for framing curriculum of Bachelor of Sciences Community Health, BSc (CH) course; Member, Steering Committee for launching National Health Portal, appointed by Ministry of Health and Family Welfare, Government of India; Accredited Educator, by American College of Surgeons for conducting Instructor’s course for Advanced Trauma Life Support (ATLS); Participated in National Initiative on Allied Health Services (NIAHS), Public Health Foundation of India (PHFI), 21 December 2012.
12. Publications

Journals


90. Bal S, Bhatia R, Menon BK, Shobha N, Puetz V, Dzialowski I, et al. Time dependence of reliability of noncontrast computed tomography in comparison to computed tomography...


112. Barwad PW, Ramakrishnan S, Seth S, Bhargava B. Rescue alcohol septal ablation in sepsis with multiorgan failure. *Indian Heart J* 2012;**64**:588–90.


263. Damle NA, Bal C, Sahoo M, Jain T, Mishra A. 'Hockey stick' sign on 99m Technetium pertechnetate thyroid scan. *Indian J Endocrinol Metab* 2012; 16(6): 1056–.


549. Joshi P, Thukral A, Joshi M, Deorari AK, Vatsa M. Comparing the Effectiveness of Webinars and Participatory learning on essential newborn care (ENBC) in the class room in terms of acquisition of knowledge and skills of student nurses: a randomized controlled trial. *Indian J Pediatr* 2013;80:168–70.


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Kothari SS. Letter regarding article, "Echocardiography screening for rheumatic heart disease in Ugandan schoolchildren?”. *Circulation* 2012;126:e477.


AIIMS 2012-2013/ 377


912. Pandey D. Suspension of the tongue to the digastric tendon following resection of the anterior mandibular arch for oral cancer prevents postoperative tongue fall and avoids the need for tracheostomy. *Indian J Cancer* 2012;49:11–4.


933. Pattanayak RD, Sagar R, Jain R. Perceived health risks, attitude and readiness to quit tobacco among euthymic bipolar disorder patients in regular contact with mental health services: an exploratory study from India. *J Ment Health* 2012; 21(1): 83-90.


936. Pattanayak RD, Sagar R. Liaison psychiatry: The way forward: *J Ment Health Behav* 2012; 17: S1-S3.


948. AIIMS 2012-2013/ 385


the prognostication of gliosarcoma.


1393. Tomar AK, Sooch BS, Singh S, Yadav S. Quantification studies in human seminal plasma samples identify prolactin inducible protein as a plausible marker ofazoospermia. *Biomarkers* 2012; 17: 545-51.


1442. Yadav JS, Tripathi MN, Kaur S, Singh TB. Comparative efficacy of antiepileptic drugs and lacosamide in patients with epilepsy due to an underlying brain lesion. Dysphrenia 2013 Feb 12. [Epub ahead of print].


Abstracts


49. Deepak KK, Gupta SK, Kumar Y, Adkoli BV. Extending professional education to health workers at grass root level: an experience from All India Institute of Medical Sciences, India, Proceedings of International Conference on Medical Education AMEE 2012 held at Lyon, Franc, 25-29 Aug 2012 pp 47.


Conference of the National Trauma Research Institute, 18-19 November 2011, Melbourne, Victoria, Australia.


86. Jain KG, Mohanty S, Bose S, Singh H, Ray AR, Airan B. Culture and Differentiation of Mesenchymal Stem Cells into Osteoblasts over Chitosan Based Biocomposite Scaffold For Bone Tissue Engineering. Keystone Symposia (Regenerative Tissue Engineering and Transplantation) (Z3) 1st held on April-6th April, 2012 Breckenridge, Colorado, USA.


129. Mathew M, Kondru S, Gupta A, Jhakal A, Sagar S, Mishra B, *et al*. Uninformed and improper inter hospital transfers: Urgent need to plug the gaps in order to improve trauma systems in India. Abstracted in proceedings of Fifth Annual Conference of Indian Society for Trauma and Acute Care- Trauma 2012, AIIMS, Delhi.


137. Mohanty S, Bose S, Bhargava B, Airan B. Evaluation of transcription factors and chromatin remodeling complex responsible for contraction in cardiomyocytes derived from human bone marrow mesenchymal stem cells. 10th annual meeting of international society for stem cell research (ISSCR), Yokohama, Japan, 13th -16th June, 2012.


183. Shakti Kumar Gupta. A study of waiting time in the emergency of a Tertiary Care Hospital in India. Prehospital and Disaster Medicine, PDM 28(1), May,2013


186. Shakti Kumar Gupta. Critical Review of the centralized Accident and Trauma Services (CATS) in New Delhi, India. Prehospital and Disaster Medicine, PDM 28(1), May,2013

187. Shakti Kumar Gupta. Learnings from a Massive Fire in a Tertiary Care Hospital in India. Prehospital and Disaster Medicine, PDM 28(1), May,2013

188. Shakti Kumar Gupta. Mobile Health Units: Way Forward in Mass Casualty Events. Prehospital and Disaster Medicine, PDM 28(1), May,2013

189. Shakti Kumar Gupta. Profile of patients visiting an Apex Trauma Centre in India. Prehospital and Disaster Medicine, PDM 28(1), May,2013


211. Singhal M, Sagar S, Mishra P, Sokhi K. Infra Red Laser in Chronic Wound Healing abstracted in proceedings of 6th Annual Translational to Clinical (T2C) Regenerative Medicine Wound Care Conference March 14-16,2013 Columbus,Ohio,USA.


**Chapters in books**


155. Primary Ovarian Failure. In ESI Text Book of Endocrinology Published 2012.


171. Renu Saxena, Narendar Tejwani, Monica Sharma Diagnostic approach to microcytosis for Hematology Today 2013.Editor Dr MB Agarwal.


181. Seema Tyagi; Sonal Jain: Platelet function tests in genetic and acquired bleeding disorders for Hematology Today 2013. Editor Dr MB Agarwal


220. Tripathi M, Deepti Vibha. Epilepsy and movement disorders. Under Published Edited by Dr Ashok Kumar, Dept.of Neurology, IGIMS. 2013.


Books
10. DeGruchy's Clinical Hematology. Editors Dr. R. Saxena, Dr HP Pati, Dr M. Mahapatra. 2013 Wiley publishers
The Institute gets grants under the Heads ‘Plan’ and ‘Non-Plan’ from the Government of India, Ministry of Health and Family Welfare. Plan grants are also received for National Drug Dependence Treatment, separately. Besides, extramural grants are also received from various external funding agencies such as ICMR, DST, CSIR, WHO, UNICEF, DBT, etc. for various research projects. Plan and Non-Plan grant received from the Government of India and other agencies are further allocated to superspecialty centres/departments/research section as per their projections/requirements.

The Finance division of the Institute monitors/controls the expenditure against the above funds/budget by obtaining monthly expenditure from the respective centres/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 and payment to contractors/suppliers. While making payments, all checks prescribed by Government of India are exercised by the respective DDOs. Financial advice is also being rendered by the Finance division whenever required.

All the above works are executed by Financial Advisor, Finance & Chief Accounts Officers (F&CAOs)/Accounts Officers under overall control of Senior Financial Advisor.
# RECEIPT & PAYMENT ACCOUNT

FOR THE YEAR 2012-2013

## OPENING BALANCES

<table>
<thead>
<tr>
<th>Receipts Item</th>
<th>Amount (₹)</th>
<th>2012-13</th>
<th>2011-12</th>
</tr>
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<tr>
<td>A Cash at bank</td>
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<td>i) (a) AIIMS (MAIN)</td>
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<td>B CASH IN HAND (IMPREST)</td>
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<td>i) Allims (Main)</td>
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<td>ii) Scheme Cell</td>
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<td>C AMOUNT LYING UNDISBURSED</td>
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<td>64128212</td>
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<tr>
<td>i) AIIMS (MAIN)</td>
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<td>322179</td>
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<tr>
<td>ii) FDRs</td>
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<td>322179</td>
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<tr>
<td>iii) Institute Research Grant</td>
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<td>4121000</td>
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## PAYMENT

<table>
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<td>ii) Non-Plan</td>
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<tr>
<td>ii) Transfer from receipts of Allims (Main)</td>
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<td>B C.N. Centre</td>
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<td>i) Plan</td>
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<td>ii) Grant in Aid General</td>
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<td>ii) Non Plan</td>
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<td>C N.D.D.T.C.</td>
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<td>ii) Non Plan grant for National Service Scheme</td>
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<tr>
<td>iii) Institute Research Grant</td>
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<td>4121000</td>
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</table>
### G DEPARTMENT OF GERIATRIC MEDICINE

| a) Cash at bank | 36954889 | 0 |

### H CUSTOM DUTY A/C

| a) Cash at bank | 323820525 |

### I PDA A/C

| a) Cash at bank | 6819584 |

### 2 GRANTS FROM GOVT. OF INDIA

#### a) PLAN

- i) Capital Assets (New) 100000000 50000000
- ii) Grant in Aid Salary 11168000
- iii) Grant in Aid General 42300000 20500000
- iv) Non-Plan 34500000 46600000

#### b) Non-Plan

- i) Grant in Aid Salary 42300000 20500000
- ii) Grant in Aid General 195000000
- (c) Transfer from receipts of AIIMS (Main) 20000000 20000000

### J.P.N. APEX TRAUMA CENTRE

#### Plan

- i) Capital Assets (New) 150000000 158900000
- ii) Grant in Aid (General) 459000000 804700000
- iii) Grant in Aid (Salary) 545148000

#### Non-Plan

- i) Grant in Aid Salary 5800000000
- ii) Grant in Aid General 2087000000

### G CENTRE FOR DENTAL EDUCATION & RESEARCH

#### a) PLAN

- i) Capital Assets (New) 17677000 6000000
- ii) Grant in Aid (General) 41523000 42962000
- iii) Grant in Aid (Salary) 41055000

#### b) Non-Plan

- i) Capital Assets (New) 920000000 2464500000
- ii) Grant in Aid General 1659000000 518000000
- iii) Grant in Aid Salary 3330000000 2645000000

#### c) N.D.D.T.C.

| 119185000 | 90000000 |

### 3 Miscellaneous Receipts

| 362680234 | 250076174 |

### 4 Hospital Receipts

| 168907902 | 126446267 |

### 5 Interest

| 205356243 | 166972091 |

### 6 Licence Fee

| 34160635 | 23076241 |

### 7 Tuition Fee

| 26433805 | 22658306 |

### 8 Employees Health Scheme (EHS)

| 41051636 | 36062621 |

### 9 Pot Fund

| 227150 | 28740 |

### 10 Employees Insurance Scheme

| 11959635 | 15700661 |

### 11 GPF

| 410074915 | 390137488 |

### 2 ADMINISTRATIVE EXPENDITURE

#### AIIMS (MAIN)

| 3 AIIMS (Main) |
| 556077558 | 413065126 |

### 3 Material & Supply (Non-Plan)

| 1417192399 | 1106674133 |

### 4 Office Contingency

| 556077558 | 413065126 |

### 5 Repair and maintenance of Machinery & Equipment

| 25812831 | 26774871 |

**AIIMS 2012-2013/ 434**
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<tr>
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<th>Description</th>
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<th>2013-2014</th>
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<td>Outside recoveries</td>
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<td>Security Deposits/Earnest Money</td>
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<td>Caution Money</td>
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<td>15</td>
<td>Leave Salary &amp; Pension contribution</td>
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<td>16</td>
<td>Recoverable Advances</td>
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<td>a) Car</td>
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<td>b) Scooter/Motor Cycle</td>
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<td>c) Bicycle</td>
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<td>5980</td>
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<td>d) H.B.A.</td>
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<td>e) Computer</td>
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<td>f) Festival</td>
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<td>2629675</td>
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<td>Post Partum Programme</td>
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<td>400000</td>
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<td>Grants received for specific purpose</td>
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<td>Appendix-A</td>
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<td>ii) Add undisbursed for 2011-2012 paid now</td>
<td>197351</td>
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<td>iii) Less undisbursed for 2012-2013</td>
<td>61475</td>
<td>773684412</td>
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<td>19</td>
<td>Schemes</td>
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<td>ii) Grants transfer from A.I.I.M.S.</td>
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<td>Non-Plan</td>
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<td>iii) Direct received</td>
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<td>Miscellaneous Donations</td>
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<td>New Pension Scheme</td>
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<td>23</td>
<td>Cochlear Implant Patient</td>
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<td>Maintenance of buildings</td>
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<td>Employees Insurance Scheme</td>
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<td>Recoverable Advances</td>
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<td>b) Scooter/Motor Cycle</td>
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<td>d) House Building Advance</td>
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<td>i) Appendix-A</td>
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<td>Furniture &amp; Fixture</td>
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<td>ii) Spares &amp; Accessories</td>
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<td>d) Expenditure of Urology against IRCH receipts</td>
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<td>e) Building Construction</td>
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AIIMS 2012-2013/ 435
<table>
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<td>(a) Shri Sai Vishram Sadan</td>
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<td>(b) MTNL for cable lying in A.V Nagar</td>
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<td>25</td>
<td>Janani Suraksha Yojana (JSY)</td>
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<td>Received from IRCH under (Plan) for Urology</td>
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<td>Custom Duty deposited by Trauma Centre</td>
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<td>UNDCP Grant</td>
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<td>Unspent balance (Construction Advance Received) from HSCC</td>
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<td>Scholarship from Ministry of Tribal Affairs</td>
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### Advance Payments

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v) Hitachi Homes for p/o split A/c (minor work) 204423
w) Hitachi Homes for WTC units (minor work) 196328
x) HSCC for Dining Hall (Oversight) 132500000
y) HSCC for renovation of CNC -CCU ward (major work) 30000000
z) HSCC for renovation of laundry & OPD (major work) 22400000
aa) HSCC for consultancy fee (major work) 24700000
ab) E.E. Delhi Water Services Division (major work) 55100000
ac) Sidwal Refregration for p/o A.C. (major work) 165363
ad) Hitachi Homes for p/o AC (major work) 1172959
ae) LG Elect. For p/o AC (major work) 3289004
af) Inderprastha Gas Limited (minor work) 841610
ag) LG Elect. For p/o AC (minor work) 274618
ah) Usha Int'nal for p/o AC (minor work) 331120
ai) Universal Comfort for p/o AC (minor work) 539474

17 Security Deposit/
Earnest Money
(i) Refund against the receipts upto the year 2011-12 39458726
(ii) Pertains to 2012-13 4065665 43524391 47934764

18 Outside recoveries 482572675 395397593

19 Miscellaneous Donations

AIIMS 2012-2013/ 437
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AIIMS 2012-2013/ 438
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AIIMS 2012-2013/ 439
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AIIMS 2012-2013/ 440
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AIIMS 2012-2013/ 441
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51 Posudurex Allergan International 58860 216641 51 Posudurex Allergan International 61 207000
52 PVDVRT Study 52 PVDVRT Study 53 Reliance Relinatra 53 Reliance Relinatra 691356 667386
54 ROP Macugen 54 ROP Macugen 55 ROP Workshop 55 ROP Workshop 660000 56 RTI 56 RTI 101700
57 Sight Saver 57 Sight Saver 58 SSMI-VFA 872953 674000 58 SSMI-VFA 694253 667386
59 Symposium Workshop 59 Symposium Workshop 60 Treatment of Dry eye Allergan International 60 Treatment of Dry eye Allergan International
61 Prevalence of dry eye 207000 61 Prevalence of dry eye 207000 101700
62 WHO Malaysia 80400 455600 62 WHO Malaysia 20118 455600
63 WHO Gujarat Survey 63 WHO Gujarat Survey 64 WHO-SEIND 64 WHO-SEIND
65 WHO Short term training 24900 148500 65 WHO Short term training 173400 66 Ozurdex Project 360000 180000
67 Diabetic Retinopathy in Urban slum of Delhi (DRUSD) 5778867 (DRUSD) 4099808
68 GNEC (Guru Nanak Eye Centre) 68 GNEC (Guru Nanak Eye Centre) 25000 25000
69 Study Drug (DE-109) 160000 69 Study Drug (DE-109) 177830
70 Vision Delhi -PEC 1733422 70 Vision Delhi -PEC 579953
71 ROP Services 1353188 71 ROP Services 407103
72 Comprehensive Primary Eye care Services (CPECS/DJJS) 646000 72 Comprehensive Primary Eye care Services (CPECS/DJJS) 218027
V NIAF 83900 5 83900 5
VI Hospital Receipts including various kits 160148617 147015616 6 160148617 147015616
VII Interest on Recoverable Adv. 2216 170522 7 35340481 32796569
VIII Misc. Receipts 589499 1815142 8 589499 1815142
IX AIMMS Recoveries Received 104816997 94624196 104816997 94624196
X Outside Recoveries Received 35340481 32796569 35340481 32796569
XI Interest on CLTD 15926718 24387210 15926718 24387210
XII RECOVERABLE ADVANCE XII RECOVERABLE ADVANCE
a) Car 101740 a) Car
b) Scooter 15784 b) Scooter
c) Cycle 219965
d) H.B.A. 12000
e) Computer
XIII RECOVERABLE ADVANCE
a) Car 3417
b) Scooter
3417
c) Cycle
3417
d) H.B.A.
3417
e) Computer
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**Closing Balance**

- a) Cash at Bank: 102443276
- b) Cash in hand (Imprest): 20000

**Poor Patient A/C**

- Cash/Bank: 369870
- Imprest: 332390

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**Cardio-Thoracic & Neuro Sciences Centre (C)**

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**Building maintenance**

- 29213265
- 28200134

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b) Amt Sent to PAO (E.I.S.)  | 1560 | 132906584 | 107474672

Amount Sent to PAO (E.I.S.)  |          |          |          |

Pot Fund  | 34680 | 35540    |

Water charges  | 994057 | 552023    |

Institute Recovery (Computer Advance)  | 7900 | 27971    |

NACO Fund  | 400000 | 99900    |

Institute Recovery (Scooter Advance)  | 5520 | 5060    |

Institute Recovery HBA  | 29892 | 22000    |

Transport Charges  | 1374 | 0        |

PM Relief Fund  | 504824 | 0        |

Institute Rec (Festival Advance)  |          | 2500     |

AIIMS 2012-2013/ 446
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AIIMS 2012-2013/ 447
## N.S. Centre

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## CLOSING BALANCES

### A.CASH AT BANK

#### i) C.N. Centre

- **Balance**: 5981079
- **Opening Balance**: 103302133

#### ii) C.T. Patient A/c

- **Balance**: 1218507
- **Opening Balance**: 53823111

- **Balance**: 100000000
- **Opening Balance**: 170000000

#### iii) Angiography A/c

- **Balance**: 32215235
- **Opening Balance**: 54339147

- **Balance**: 59800000
- **Opening Balance**: 19800000

#### iv) Gamma Knife Patient A/c

- **Balance**: 42283799
- **Opening Balance**: 16353119

- **Balance**: 70000000
- **Opening Balance**: 19730000

#### v) Neuro Surgery Patient A/c

- **Balance**: 22117646
- **Opening Balance**: 16888680

- **Balance**: 15900000
- **Opening Balance**: 15900000

### B.C.N. Centre

#### i) Imprest

- **Balance**: 47000
- **Opening Balance**: 41000

#### ii) Cash in Hand with cashier

### D.POOR PATIENT ACCOUNT

#### i) N.S. Centre

- **Cash at Bank**: 132907
- **Opening Balance**: 133123

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### Sub-total (C)

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<td>2989491</td>
</tr>
<tr>
<td>Medical Oncology</td>
<td>3455807</td>
<td>2546411</td>
</tr>
<tr>
<td>RT Revolving Funds</td>
<td>2786818</td>
<td>6976699</td>
</tr>
<tr>
<td>Maintenance of Building</td>
<td>11914903</td>
<td>10812820</td>
</tr>
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**Dr. B.R.A. INSTITUTE ROTARY CANCER HOSPITAL (D)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount 1</th>
<th>Amount 2</th>
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<tr>
<td>Pay &amp; Allowances</td>
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<td>Festival Advance</td>
<td>273750</td>
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<td>Contingency Bills</td>
<td>3834619</td>
<td>2989491</td>
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<td>Medical Oncology</td>
<td>1497848</td>
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<td>RT Revolving Funds</td>
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<td>6976699</td>
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<td>Maintenance of Building</td>
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<td>10812820</td>
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AIIMS 2012-2013/ 448
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<thead>
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<td>Plan</td>
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<td><strong>8</strong> Computer Advance Recoveries</td>
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<td>d) Salary Plan</td>
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<td>b) Miscellaneous</td>
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**CLOSING BALANCE**

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<tr>
<th>Account</th>
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<tr>
<td>A Cash at Bank</td>
<td>6501558</td>
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<td>B Poor Patient Account</td>
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<td>C Patient Treatment Account</td>
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<td>b) FDRs</td>
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<td>D HMCPF Account</td>
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Sub-Total (D)                       | 952989074 | 777538030 |

**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)**

**OPENING BALANCES**

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
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<tbody>
<tr>
<td>A Cash at bank</td>
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<td>b) UNDCP</td>
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<td>4 UNDCP A/C receipt incorrectly deposited</td>
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**Institute Recovery**

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<thead>
<tr>
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<tr>
<td>1 GPF Subscription &amp; Advance</td>
<td>8874216</td>
<td>8048251</td>
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<tr>
<td>2 Conveyance</td>
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<tr>
<td>3 HBA</td>
<td>66876</td>
<td>66840</td>
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<td>4 Licence fee</td>
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<td>84273</td>
</tr>
<tr>
<td>5 Officer Association</td>
<td>2160</td>
<td>2200</td>
</tr>
<tr>
<td>6 EIS</td>
<td>48310</td>
<td>43360</td>
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<tr>
<td>7 EHS</td>
<td>322300</td>
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**Institute Recovery Remitted**

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<td>1 GPF Subscription &amp; Advance</td>
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<td>2 Conveyance</td>
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<td>4 Licence fee</td>
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<td>84273</td>
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<td>5 Officer Association</td>
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<td>7 EHS</td>
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AIIMS 2012-2013/ 450
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<thead>
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<th>Item</th>
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<tbody>
<tr>
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<td>9  Faculty Club</td>
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<td>10 One day salary contribution</td>
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**Outside Recovery**

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<tr>
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<tbody>
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<td>1  Income Tax</td>
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<td>2  LIC</td>
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<td>3  Court Rec.</td>
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<td>4  Society</td>
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<td>3246763</td>
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<tr>
<td>5  TDS</td>
<td>88220</td>
<td>53522</td>
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<tr>
<td>6  Labour cess</td>
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**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.) (UNDCP PROJECT)**

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<tr>
<th>Item</th>
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<tbody>
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<td>2  ii) less refunded</td>
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<td>2  Miscellaneous Receipt</td>
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**National Drug Dependence Treatment Centre (N.D.D.T.C.) (UNDCP Project)**

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<td>4  c) Court Recovery</td>
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<td>154496</td>
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<tr>
<td>5  d) TDS</td>
<td>88220</td>
<td>53522</td>
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<tr>
<td>6  e) Society</td>
<td>4002626</td>
<td>3246763</td>
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<td>7  f) Labour cess</td>
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**Miscellaneous Receipt**

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<td>3  b) Refreshment</td>
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<td>4  c) Accommodation charges</td>
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<td>6  e) Printing Charges</td>
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<td>7  f) Transportation</td>
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<td>8  g) Postage</td>
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**Refund to WHO**

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**Transfer to NDDTC**

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**Inacorrectly deposited in NDDTC transferred bank account**

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**Advance**

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**Bank Charges**

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**CLOSING BALANCES**

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<td>2  ii) UNDCP</td>
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Sub-Total (E) 152709039 121070766
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2 Grant-in-Aid

- Creation of Capital Assets (New)
  - Amount: 150000000
  - Bank: 158900000
- Grant-in-Aid (General)
  - Amount: 459000000
  - Bank: 804700000
- Grant-in-Aid (Salary)
  - Amount: 545148000

3 Other Receipts

- Hospital Receipt
  - Amount: 8344503
  - Bank: 8098590
- Security refund from NDMC
  - Amount: 2700000
- Interest on TDR
  - Amount: 10885071
  - Bank: 15907532
- Security deposit (EMD)
  - Amount: 2430751
  - Bank: 310000
- Festival Advances Recoveries
  - Amount: 55500
  - Bank: 39150

4 Machinery & Equipment

- 267648581
  - 208603969

- Material & Supply
  - 267648581
  - 208603969

- Miscellaneus Receipt Machinery & Equipment
  - 17096392
  - 1509741

- Miscellaneous Receipt (PT A/C, ATLAS/other Transferable Dues)
  - 17096392
  - 1509741

5 Refunds

- Security Refunds
  - Amount: 6965000
  - Bank: 3888000

- Security deposit (EMD)
  - Amount: 13052035
  - Bank: 3525050

6 Closing Balances

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Sub-Total (F) 1251852792 1023301305

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<td>5000</td>
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1 Grant-in-Aid

- Amount: 17677000
  - Bank: 6000000

- Revenue General
  - Amount: 41523000
  - Bank: 42962000

- Security Deposit
  - Amount: 2430751
  - Bank: 310000

- Interest on STDR
  - Amount: 133519
  - Bank: 8800

- Hospital Receipt
  - Amount: 1545450
  - Bank: 1517180

AIIMS 2012-2013/ 452
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Financial Advisor  
Senior Financial Advisor  
DIRECTOR

AIIMS 2012-2013/ 453
### ALL INDIA INSTITUTE OF MEDICAL SCIENCES

#### INCOME AND EXPENDITURE ACCOUNT

FOR THE YEAR 2012-2013

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**PLAN**

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**EXCESS OF INCOME OVER EXPENDITURE**

Dr. R.P. Centre 67239478

**EXCESS OF EXPENDITURE OVER INCOME**

Dr. R.P. Centre 12460851

**Sub-Total (B)** 850027901 747414423

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### CARDIO-THORACIC & NEURO SCIENCES CENTRE (C)

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**Grant-in-Aid**

(i) Plan (Revenue General) 169904000 47651177

(ii) Transfer of fund from Patient Account for consumables 9915466

(iii) Non-Plan 125000000 107006500

**Revenue Receipts**

(a) Hospital Receipts 42887980

(b) Amount received from outside patients 167032

(c) Amount due 2012-13 810631 43531579 34958608

**Misc. Receipts**

3 8575354 9933823

**Rent Charges/ Licence Fee**

4 1150300 922483

**Refund & Recoveries**

5 2553422 1419213

**Interest**

6 16014659 20925401

**Dr. R.P. Centre** 67239478

**Dr. R.P. Centre** 12460851

**Sub-Total (B)** 850027901 747414423

**AIIMS 2012-2013/ 456**
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AIIMS 2012-2013/ 457
### Excess of Income Over Expenditure

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### Dr. B.R.A. Institute Rotary Cancer Hospital

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- 336325500
- 283883913

#### Expenditure of TA/DA

- 6749453
- 2584133

#### Material & Supply

- 202594128
- 180078844

#### Maintenance of Building

- 11914903
- 10812820

#### Outsourcing

- 24316914
- 18528948

#### Contingency Expenditure

- 3834619
- 2989491

#### Repair & Maintenance of Mach. & Equip.

- 10075662
- 12491605

#### Comprehensive Annual Maintenance Contract of Machinery & Equipment

- 27203399
- 17172166

#### Salary Plan

- 11168000

#### Sanitation (BVG)

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**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.) (UNDCP PROJECT)**

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**EXCESS OF INCOME OVER EXPENDITURE**

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**EXCESS OF EXPENDITURE OVER INCOME**

| Sub-Total (E) | 121558611 | 91614497 | 121558611 | 91614497 |

AIIMS 2012-2013/ 459
## J.P.N. APEX TRAUMA CENTRE (F)

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### EXCESS OF INCOME OVER EXPENDITURE

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## CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)

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### EXCESS OF INCOME OVER EXPENDITURE

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### EXCESS OF EXPENDITURE OVER INCOME

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Senior Financial Advisor:  
DIRECTOR:  

AIIMS 2012-2013/ 460
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**Recoverable Advances**
- i) Car 541662 1235461
- ii) Motor Cycle-Scooter 916423 1100576
- iii) Bicycle 124411 132311
- iv) Computer Advance 2523726 2823419
- v) House Building Advance 9670718 12119401
- vi) Festival 2646750 2106250

**Outside Recoveries**
- 10

**Employee Insurance Scheme**
- 11

**Furniture & Fixture (AIIMS)**
- a) Upto 2011-12 1411376
- b) During 2012-13
- c) Furniture condemned During 2012-13 536190 875186 1411376

**Machinery & Equipment**
- a) AIIMS (MAIN)
- b) During 2012-13
- i) Machinery & Equipment 272340033
- ii) Spares & Accessories 107801859
- c) Equipment received during 2012-13 399300436
- d) Machinery Condemned during 2012-13 95645728
- e) Adjustment of custom duty during 2012-13 1606701
- f) Computerisation 16601114 6852719039 6150714624

**AIDS**
- 820600

**NACO**
- 820600
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**Machinery & Equipment purchased**

- **A** Material & Supply (Non-Plan)
  - (i) Upto 2011-12
  - (ii) During 2012-13
  - (iii) Less Material & Supply received

- **B** For Foreign purchase of Machinery & Equipment (PLAN)
  - (i) Upto 2011-12
  - (ii) During 2012-13
  - (iii) Less equipment received

- **C** Advance payment to P&AO for purchase of Building Material
  - (i) Upto 2011-12
  - (ii) Adjustment during 2012-13

- **D** Temporary Contingent Advance
  - (i) Upto 2011-12
  - (ii) During 2012-13
  - (iii) Adjustment during 2012-13 of previous year

- **E** Private Firms for stores
  - (i) Upto 2011-12
  - (ii) during 2012-13

- **F** Secretary, NDMC for security for electric connection

- **G** P & AO (for procurement of stores)
  - (i) Upto 2011-12
  - (ii) During 2012-13

**AIIMS 2012-2013/ 463**
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### Notes
- **H** Custom duty for Machinery & Equipment
  - i) Upto 2011-12 235127153
  - ii) Add during 2012-13 0
  - iii) Less adjustment/receipt during 2012-13 10000000
  - iv) Less adjustment during 2012-13 1606701 13352042 235127153
- **I** For Books & Journals
  - i) Upto 11-12 57292139
  - ii) Add during 12-13 4638922
- **J** National Informatics Centre Services Inc for computerisation
  - i) Upto 11-12 95293333
  - ii) Add during 12-13 1777253 97070586 95293333
- **K** Central Public Works Department, SJHPD for Nallah
  - i) Upto 11-12 50000000
  - ii) Adjustment during 12-13 50000000 0 50000000
- **L** Central Public Works Department, SJHPD for Dr. Hostel
  - 1181250 1181250
- **M** Central Public Works Department, SJHPD for construction of sub-station
  - 5000000 5000000
- **N** M/s Delhi Metro Rail Corporation
  - i) Upto 11-12 60000000
  - ii) Adjment during 12-13 60000000 60000000
- **O** New Delhi Municipal Corporation for augmenting L.T-Line in Eastern & Western Campus
  - 1275550 1275550
- **P** New Delhi Municipal Corporation
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AIIMS 2012-2013/ 467
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<td>b)</td>
<td>During 2012-13</td>
</tr>
<tr>
<td>i)</td>
<td>Transport Office</td>
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<td>ii)</td>
<td>Hospital Store</td>
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<td>c)</td>
<td>Less Vehicles condemned during 12-13</td>
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<td>During 2012-13</td>
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<td>c)</td>
<td>Vehicle condemned during 12-13</td>
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<td>b)</td>
<td>During 2012-13</td>
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<tr>
<td>c)</td>
<td>Amount recovered during 2012-13</td>
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AIIMS 2012-2013/ 471
### POOR PATIENT A/C

1. **AIIMS (Main)**
   - **a) Opening Balance**
     - i) Cash/Bank: 1685917
     - ii) FDR's: 1202610
   - **b) Receipts**
     - i) Grants: 942217
     - ii) Interest: 68565
     - iii) Payments: 99473
   - **c) Closing Balance**
     - i) Cash/Bank: 2597226
     - ii) FDR's: 1202610

### PATIENT TREATMENT ACCOUNTS

1. **AIIMS**
   - **a) Opening Balance**
     - 91464066
   - **b) Receipts**
     - (i) Grants: 78575055
     - (ii) Interest: 3870917
     - (iii) Payments: 67592171
     - (iv) Bank Charges: 11281
   - **c) Closing Balance**
     - (i) Grants: 91316376
     - (ii) Interest: 14990210

### HOSTELS

#### Security Deposits

- **1**
  - Upto 2011-12: 2579280
  - receipts during 2012-13: 1470000
  - less refunds during 2012-13: 1219500

### DEPARTMENT OF GERIATRIC MEDICINE

#### (i) Amount payable to

- **1**
  - Machinery & Equipment (store)
    - i) upto 2011-12: 38263518
    - ii) during 12-13: 58325581

### DEPARTMENT OF GERIATRIC MEDICINE

- (i) Machinery & Equipment: 301846

---

**AIIMS 2012-2013/ 472**
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<tr>
<th>AIIMS (Main)</th>
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<th>(ii) Furniture</th>
<th>59331</th>
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### PD ACCOUNT

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### EXCESS OF INCOME OVER EXPENDITURE

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Sub-Total (A) 21423444783 18382482739

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### RECOVERABLE ADVANCES

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AIIMS 2012-2013/ 473
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### NPCB Eye Camp Godda Jharkhand

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### Pharmacokinetic Quinacrine

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### Posudurex PS/DDS Allergan International

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**VI NIAF**

- **i)** Upto 11-12: 1257776
- **ii)** Rec. during 12-13: 83900
- **iii)** Exp. during 12-13: 68235, 1273441, 1257776

AIIMS 2012-2013/ 479
### VII NPCB

- **i)** Upto 11-12: 827
- **ii)** Rec. during 12-13: 0
- **iii)** Exp. during 12-13: 0, 827, 827

### VII Security deposits

- **i)** Upto 11-12: 1851000
- **ii)** Rec. during 12-13: 4576000
- **iii)** Exp. during 12-13: 5000, 6422000, 1851000

### IX A.I.I.M.S. Remittance

- **Upto 11-12:** 215790
- **Rec. during 12-13:** 0, 215790, 215790

### X Outside Recoveries

- **Upto 12-13:** 11288
- **1 Cash:** 332390, 369870, 332390
- **2 Receipts:**
  - i) Interest: 14724
  - ii) Donation: 208350
  - iii) Misc Receipts
  - iii) Payments: 185594
- **3 Closing Balance:** 369870, 332390

### XI Excess of Income Over Expenditure

- **i)** Upto 11-12: 110269125
- **ii)** Less Excess of Expd over income during 12-13: 12460851, 97808274, 110269125

| Sub-Total (B) | 1790743319 | 1470638607 | 1790743319 | 1470638607 |

**CARDIO-TORACIC & NEURO SCIENCES CENTRE (C)**

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| Cash at Bank | 5981079 | 103302133 |

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<td>ii) During 2012-13</td>
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<td>iii) Receipt during 2012-13</td>
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<td>ii) During 2012-13</td>
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<td>iii) Receipt during 2012-13</td>
<td>8058431</td>
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<tr>
<td>i) During 2012-13</td>
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</tr>
<tr>
<td>ii) Less expenditure</td>
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**POOR PATIENT A/C**

1. N.S. Centre
   a) Cash/Bank | 133123 |
   b) Donations | 1784  |
   c) Payments  | 2000  |
   d) Closing Balance | 133123 |

**C.T. PATIENT A/C**

1. Fixed Deposits | 100000000 | 170000000 |
2. Cash at Bank   | 1218507   | 53823111  |

**ANGIOGRAPHY PATIENT A/C**

1. Sh. Dal Chand Verma, Cashier | 3245441 |
2. Fixed Deposits | 59800000 | 19800000 |
3. Cash at Bank   | 32215235 | 54339147 |
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<thead>
<tr>
<th><strong>GAMMA KNIFE PATIENT A/C</strong></th>
<th><strong>GAMMA KNIFE PATIENT A/C</strong></th>
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<tbody>
<tr>
<td></td>
<td>1 Fixed Deposit</td>
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<td>NEURO SURGERY PATIENT A/C</td>
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<td>2 Cash at bank</td>
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<tr>
<td></td>
<td>22117646</td>
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<td>16888680</td>
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<td><strong>EXCESS OF INCOME OVER EXPENDITURE</strong></td>
<td><strong>EXCESS OF EXPENDITURE OVER INCOME</strong></td>
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<tr>
<td>1 C.N.C.</td>
<td>1 C.N.C.</td>
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<tr>
<td>a) upto 12-13</td>
<td>i) upto 2011-12</td>
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<td>over income 12-13</td>
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<td>i) Upto 2011-12</td>
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<td>ii) During 2012-13</td>
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<td>ii) less excess of expenditure</td>
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<td>over income during 12-13</td>
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<td>5 NEURO SURGERY PATIENT A/C</td>
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<td>ii) During 12-13</td>
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<td><strong>Sub-Total (C)</strong></td>
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<tr>
<th><strong>Dr. B.R.A. INSTITUTE ROTARY CANCER HOSPITAL (D)</strong></th>
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<tbody>
<tr>
<td>1 Capital Grant</td>
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<tr>
<td>b) During 2012-13</td>
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<td>1 Cash at Bank</td>
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<td>2 Revenue General (Plan)</td>
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AIIMS 2012-2013/ 483
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<th>Revenue General (Plan)</th>
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<tr>
<td>d) Less Machinery &amp; Equipment condemned during 12-13</td>
<td>1705085454</td>
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<tr>
<td>e) Less Furniture condemned during 12-13</td>
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<td>a) Upto 2011-12</td>
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<tr>
<td>b) During 2012-13</td>
</tr>
<tr>
<td>c) Adjustment of advances (LCs) During 2012-13</td>
</tr>
<tr>
<td>d) Add adjustment of CDA/PDA</td>
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<tr>
<td>e) Less Machinery &amp; Equipment condemned during 12-13</td>
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<table>
<thead>
<tr>
<th>Computer Advance</th>
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<tbody>
<tr>
<td>(i) Upto 2011-12</td>
</tr>
<tr>
<td>(ii) During 2012-13</td>
</tr>
<tr>
<td>(iii) Less recoveries dg 12-13</td>
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</table>

<table>
<thead>
<tr>
<th>Computer Advance</th>
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<tr>
<td>(iv) During 2012-13</td>
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<tr>
<td>(v) Upto 2011-12</td>
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<table>
<thead>
<tr>
<th>House Building Advance</th>
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<tbody>
<tr>
<td>Upto 2012-13</td>
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</table>

<table>
<thead>
<tr>
<th>Car/Scooter Advance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 2011-12</td>
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<table>
<thead>
<tr>
<th>House Building Advance</th>
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<tbody>
<tr>
<td>During 2012-13</td>
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<table>
<thead>
<tr>
<th>EMD &amp; Security Deposit</th>
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<tbody>
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<td>(i) During 2012-13</td>
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<table>
<thead>
<tr>
<th>Car/Scooter Advance</th>
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</thead>
<tbody>
<tr>
<td>Less recoveries dg 12-13</td>
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<table>
<thead>
<tr>
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<tr>
<th>Vehicle</th>
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<td>a) Upto 2012-13</td>
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AIIMS 2012-2013/484
# Furniture & Fixture

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<td>c) Less furniture condemned during 12-13</td>
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# Advance payment to Custom Duty & PDA Account

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<th>Amount</th>
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<tbody>
<tr>
<td>(i) Upto 2011-12</td>
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<tr>
<td>(ii) Add during 2012-13</td>
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<td>(iii) Less Custom Duty adjusted during 2012-13</td>
<td>2473628</td>
<td>20016640</td>
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# Festival Advance

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<td>i) Upto 2011-12</td>
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<table>
<thead>
<tr>
<th>Account</th>
<th>Opening Balance</th>
<th>Closing Balance</th>
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<tbody>
<tr>
<td>Poor Patient A/c</td>
<td>3455807</td>
<td>3455807</td>
</tr>
<tr>
<td>Patient Treatment A/c</td>
<td>41663018</td>
<td>41663018</td>
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Dr. B.R.A.I.R.C.H.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Cash/Bank</td>
<td>4216628</td>
<td>3455807</td>
</tr>
<tr>
<td>b) Receipts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Grants</td>
<td>732487</td>
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<tr>
<td>ii) Interest</td>
<td>661782</td>
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<tr>
<td>iii) Payments</td>
<td>633346</td>
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<td>iv) Misc Payments</td>
<td>102</td>
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<td>c) Closing Balance</td>
<td>4216628</td>
<td>3455807</td>
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<table>
<thead>
<tr>
<th>Account</th>
<th>Opening Balance</th>
<th>Closing Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Patient A/c</td>
<td>4216628</td>
<td>3455807</td>
</tr>
<tr>
<td>Patient Treatment A/c</td>
<td>41703962</td>
<td>41663018</td>
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Dr. B.R.A.I.R.C.H.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Amount</th>
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<tbody>
<tr>
<td>a) Cash/Bank</td>
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<td>3455807</td>
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<tr>
<td>b) Short term investment</td>
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<tr>
<td>c) FDR</td>
<td>6000000</td>
<td>6000000</td>
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<tr>
<td>i) Grants</td>
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<td>ii) Cheque Cancelled</td>
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<td>iii) Dly. Interest</td>
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iv) Interest
v) Payments 49584594
vi) Miscellaneous Payments 154007

c) Closing balance
i) Cash/Bank 41703962 41663018
ii) Short term investment
iii) FDR's 6000000 6000000

**HMCPF A/c**

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<th>Refund Charge</th>
<th>Cheque cancelled</th>
<th>Payment</th>
<th>Misc.</th>
<th>EXCESS OF INCOME OVER EXPENDITURE</th>
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<td>725164</td>
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**EXCESS OF INCOME OVER EXPENDITURE**

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<th>Description</th>
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<td>During 2012-13</td>
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Sub-Total (D) 176051592 1652460492

**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)**

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<td>Institute Recovery</td>
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<td>Upto 2012-13</td>
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<td>Security Deposit</td>
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<tr>
<td>Upto 2011-12</td>
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<tr>
<td>Upto 2012-13</td>
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<td>Transferable to UNDCP</td>
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<td>EHS payable during 12-13</td>
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<td>b) During 2012-13</td>
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<td>a) Upto 2011-12</td>
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<td>b) During 12-13</td>
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<td>c) Less Mat.&amp; Supply Recvd. during12-13</td>
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**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.) (UNDCP PROJECT)**

- Opening balance: 464680
- TA Adv Outstanding: 34000
- Training Advance Outstanding: 3809250
- Accommodation Advance Outstanding: 100000
- Amount receivable from NDDTC: 632
- Advances: 140000
- Closing Balance: 2260019

**EXCESS OF INCOME OVER EXPENDITURE**

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<tr>
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<td>ii) Dg. 12-13</td>
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<td>iii) Less Grant refunded to Min. of Health &amp; F.W.</td>
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<td>2 N.D.D.T.C. (UNCDP Project)</td>
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<td>ii) During 12-13</td>
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Sub-Total (E) | 188396853 | 186150673 |   |   | 188396853 | 186150673 |   

AIIMS 2012-2013/ 487

**Opening balance**: 464680

**Closing Balance**: 2260019

**Sub-Total (E)**: 188396853

**Closing Balance**: 2260019
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<td>(Min. of Power as per MOU)</td>
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<td>(iii)</td>
<td>Less Refund dg 2012-13</td>
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AIIMS 2012-2013/ 489
Note:
1. The accounts have been prepared on actual Receipt and Expenditure basis.
2. No depreciation on Machinery & Equipment, vehicles etc. has been provided as the Institute is fully funded by the Govt. of India.
3. A statement showing the expenditure made by various Project Investigators during 2012-13 is attached at Appendix-A-I. It may be mentioned that on completion of Research Projects, the equipments are either returned to the funding agencies or used in the Departments.
5. The amount shown under four patient Accounts viz. C.T. Patient A/c, Angio Patient A/c, N.S. Patient Account and Gammaknife Patient A/c on the asset side of the Balance Sheet represents the amount as "Excess of Income over Expenditure" and the same is invested in term deposits. The amount is accumulated during the previous years on introduction of package charges in the year 1995. Package was introduced for convenience of patients and to ensure that quality products are used at reasonable rates. The package rates included service charges and ICU charges which were approved by Standing Finance Committee and ratified by Governing Body. Later on it was decided not to levy such charges from the patients and was withdrawn in the year 2000. During that period (1995-2000) accumulated balance amount and also the earned interest were invested in term deposit. A part of the interest only has however been utilised for treatment of poor patients as is reflected in the Receipt & Payment Account. The accumulated balance has not been utilised during the previous years in the absence of a guideline regarding its utilisation. Issue regarding the utilisation of accumulated balances on account of user charges and interest thereon was discussed in the Standing Finance Committee meeting held on 11.11.2010, wherein it was decided that all the Centres will prepare their sub-budget (from the financial year 2011-12 onwards) indicating the amount proposed to be utilised out of accumulated balances available under patient account before the consolidated budget for the Institute is prepared. The same was ratified by the Governing Body on 27.11.2010. Accordingly, C.N. Centre has utilised Rs. 6.14 crore out of the accumulated balances available under CT patient A/c for the current financial year 2012-13.
6. During the year 2011-12 an amount of Rs. 10.21 crores was utilised towards the payment of manpower under Oversight Committee. The same was asked for from the Ministry. Ministry had noted the requirement and had assured that the amount of Rs. 10.21 crore will be allocated to the Institute by the end of the financial year. However, no such allocation was made by the Ministry during 2011-12. Since the salary to the officials appointed against Oversight Committee was being paid regularly during the financial year, the requirement was met from the balances available with the Institute. However, Ministry has released Rs. 10.20 crore during the financial year 2012-13 to meet out the liability of 2011-12.
7. Committee on Management on Finances at AIIMS had recommended that Revolving/Patient Funds may not remain open ended. Balances outstanding may be transferred to the General Revenue of the Institute leaving a 'start up' amount to meet initial costs of the services of the next cycle. The issue was discussed in the 197th meeting of the Standing Finance Committee held on 11.11.2010, and it was decided that after the close of Financial Year a start up amount sufficient to cater to two months requirement may be kept with the department concerned and excess fund be transferred to the respective main account of the Institute as normal Receipt. This was ratified by the Governing Body on 27.11.2010. Accordingly, a balance of Rs. 2075700/- and Rs. 15000000 has been transferred out of the accumulated balances of Revolving Funds & Gamma Knife Patient A/c to main account of the Institute as 'Receipt'.

Financial Advisor  Senior Financial Advisor  DIRECTOR

AIIMS 2012-2013/ 490
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**Appendix-A**

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**

**RESEARCH SECTION**

**STATEMENT SHOWING THE EXPENDITURE OF THE GRANT RECEIVED FOR THE VARIOUS RESEARCH PROJECTS FOR THE YEAR 2012-2013**

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212 BRNS,Mumbai
213 Centre for Chronic Diseases Control, New
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214 BRIDGES, USA
215 DRDE(Gwallior)
216 CANNeCTIN, Canada
217 LG Life Sciences India Pvt. Ltd.
218 Merck Pharmaceuticals Ltd.
219 Canadian Institutes of Health Research,
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220 St. Jude Medical Hong Kong
221
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222 Qiagen Inc.India
223 Ipca labortoris
224 Fondazione Angelo Bianchi Bonomi, MilanItaly
225 Zenotech
226 Pharmacosmos A/S, Denmark
227 National Information Centre
228 ROCHE Products(India) Pvt Ltd.
229 Hamilton Health Sciences Corporation,
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230 Smith & Nephew Health care pvt lt
231 BRISTOL MYER SQUIBB(BMS), USA
232 ST. Jude Medical India Pvt Ltd
233 Abbot health care pvt ltd.
234 Indian Heart Rhythm Society
235 Newcastle University, UK
236 Clinical Marketing Pvt Ltd
237 Torrent Pharmaceutical Ltd
238 Ministry of Earth Science
239 bigtec private limited
240 Piramal Healthcare Ltd
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(Smt. Basanti Dalal)
Financial Advisor

AIIMS 2012-2013/ 498
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(Smt. Basanti Dalal)

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**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**

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**Total** 7240007

(Smt. Basanti Dalal)

Financial Advisor

AIIMS 2012-2013/ 505
# Appendix C

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**

**STATEMENT SHOWING THE DONATIONS & INVESTMENT AS ON 31-03-13**

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(Smt. Basanti Dalal)  
Financial Advisor
Appendix-D

ALL INDIA INSTITUTE OF MEDICAL SCINECES
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<td>21</td>
<td>I.C.G.E.B. DR. T.P SINGH</td>
<td>444630</td>
<td></td>
<td>444630</td>
<td></td>
<td>444630</td>
</tr>
<tr>
<td>22</td>
<td>DR. VEENA KALRA</td>
<td>74682</td>
<td></td>
<td>74682</td>
<td></td>
<td>74682</td>
</tr>
<tr>
<td>23</td>
<td>LEVER CLINIC - GASTRO</td>
<td>2865</td>
<td></td>
<td>2865</td>
<td></td>
<td>2865</td>
</tr>
<tr>
<td>24</td>
<td>DR. N.P. GUPTA - UROLOGY</td>
<td>4982</td>
<td></td>
<td>4982</td>
<td></td>
<td>4982</td>
</tr>
<tr>
<td>25</td>
<td>DR. N. KOCHUPILLAI-POOR PATIENT</td>
<td>120000</td>
<td></td>
<td>120000</td>
<td></td>
<td>120000</td>
</tr>
<tr>
<td>26</td>
<td>PEAD. GENETICS</td>
<td>687547</td>
<td></td>
<td>3148775</td>
<td>3836322</td>
<td>3104625</td>
</tr>
<tr>
<td>27</td>
<td>MRS. USHA SHARMA</td>
<td>176600</td>
<td></td>
<td>176600</td>
<td></td>
<td>176600</td>
</tr>
<tr>
<td>28</td>
<td>MISC. RECEIPT</td>
<td>145540</td>
<td></td>
<td>145540</td>
<td></td>
<td>145540</td>
</tr>
</tbody>
</table>

**Total**

| 2955263 | 3148775 | 6104038 | 3104625 | 2999413 |
### APPENDIX - E

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**

**Details of Misc. Deposits as on 31.3.2013**

**2012-2013**

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>NAME OF THE DEPARTMENT</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Controller of Printing &amp; Stationary</td>
<td>16076</td>
</tr>
<tr>
<td>2</td>
<td>C.P.W.D. Shimla</td>
<td>70432</td>
</tr>
<tr>
<td>3</td>
<td>C.P.W.D.</td>
<td>7096</td>
</tr>
<tr>
<td>4</td>
<td>Delhi Municipal Corporation</td>
<td>33750</td>
</tr>
<tr>
<td>5</td>
<td>Indian Institute of Technology</td>
<td>4250</td>
</tr>
<tr>
<td>6</td>
<td>N.D.M.C.</td>
<td>173242</td>
</tr>
<tr>
<td>7</td>
<td>P. &amp; T. Circle Division</td>
<td>12796</td>
</tr>
<tr>
<td>8</td>
<td>Indian Telephone Industries</td>
<td>13344</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>330986</strong></td>
</tr>
</tbody>
</table>

(Smt. Basanti Dalal)
Financial Advisor
APPENDIX - F

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

Details of GPF Investment 2012-2013

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Balance of Investment as on 1.4.2012</td>
<td>3062169399</td>
</tr>
<tr>
<td>Investment during 2012-13</td>
<td>954712500</td>
</tr>
<tr>
<td>Add Closing Cash Book Balance</td>
<td>94780742</td>
</tr>
<tr>
<td>Investment matured during 2012-13</td>
<td>4111662641</td>
</tr>
<tr>
<td></td>
<td>660000000</td>
</tr>
<tr>
<td></td>
<td>3451662641</td>
</tr>
</tbody>
</table>

Details of NPS Investment 2012-2013

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Balance of Investment as on 1.4.2012</td>
<td>500000000</td>
</tr>
<tr>
<td>Investment during 2012-13</td>
<td>645000000</td>
</tr>
<tr>
<td></td>
<td>1145000000</td>
</tr>
<tr>
<td>Investment matured during 2012-13</td>
<td>995000000</td>
</tr>
<tr>
<td></td>
<td>150000000</td>
</tr>
<tr>
<td>Closing Cash Book Balance as on 31.3.2013</td>
<td>7613109</td>
</tr>
<tr>
<td></td>
<td>157613109</td>
</tr>
</tbody>
</table>

(Smt. Basanti Dalal)
Financial Advisor
## Receipts and payments of General Provident Funds of AIIMS for the year ending 31st March, 2013

<table>
<thead>
<tr>
<th>Receipts</th>
<th>Amount</th>
<th>Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash book Opening Balance</td>
<td>61154988</td>
<td>Withdrawal</td>
</tr>
<tr>
<td>Receipt (Sub/Rec)</td>
<td>641277912</td>
<td>Investment during the year 2012-13</td>
</tr>
<tr>
<td>Add Interest Received</td>
<td>238522061</td>
<td>Cash book closing Balance</td>
</tr>
<tr>
<td>Add Invest Maturity</td>
<td>660000000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1600954961</strong></td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

## Balance Sheet of General Provident Funds of the AIIMS as on 31st March, 2013

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>Amount</th>
<th>Assests</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Provident</td>
<td></td>
<td>Investment</td>
<td></td>
</tr>
<tr>
<td>Opening Balance</td>
<td>3123324387</td>
<td>Opening Balance</td>
<td>3062169399</td>
</tr>
<tr>
<td>Add Receipt during the year 2012-13</td>
<td>641277912</td>
<td>Add Investment during the year 2012-13</td>
<td>954712500</td>
</tr>
<tr>
<td>Add Interest received</td>
<td>238522061</td>
<td>Add cash Book Closing Balance</td>
<td>94780742</td>
</tr>
<tr>
<td></td>
<td>4003124360</td>
<td></td>
<td>4111662641</td>
</tr>
<tr>
<td>Less Withdrawal</td>
<td>551461719</td>
<td>Less maturity</td>
<td>660000000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3451662641</strong></td>
<td><strong>Total</strong></td>
<td><strong>3451662641</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Receipts</th>
<th>Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>51635038</td>
<td>43676088</td>
</tr>
<tr>
<td>May</td>
<td>53153910</td>
<td>60037021</td>
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<td>June</td>
<td>51965409</td>
<td>50607565</td>
</tr>
<tr>
<td>July</td>
<td>52995954</td>
<td>40254659</td>
</tr>
<tr>
<td>August</td>
<td>51681063</td>
<td>54815637</td>
</tr>
<tr>
<td>September</td>
<td>54883927</td>
<td>42607170</td>
</tr>
<tr>
<td>October</td>
<td>53051273</td>
<td>38817691</td>
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<tr>
<td>November</td>
<td>53290093</td>
<td>54830715</td>
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<tr>
<td>December</td>
<td>53379995</td>
<td>55333319</td>
</tr>
<tr>
<td>January</td>
<td>54473823</td>
<td>40755093</td>
</tr>
<tr>
<td>February</td>
<td>55239629</td>
<td>38649684</td>
</tr>
<tr>
<td>March</td>
<td>55527798</td>
<td>31077077</td>
</tr>
<tr>
<td></td>
<td>641277912</td>
<td>551461719</td>
</tr>
</tbody>
</table>

| Total Subscription Deposit       | 641277912 |
| Total Previous Balance           | 3123324387|
| Total Interest Paid              | 277621436 |
| Total Net                        | 4042223735|
| Total Withdrawal                 | 551461719 |
| **Grand Total**                  | **3490762016** |

(Smt. Basanti Dalal)
Financial Advisor

AIIMS 2012-2013/ 513
Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of All India Institute of Medical Sciences (AIIMS) for the year ended 31 March 2013

We have audited the attached Balance Sheet of All India Institute of Medical Sciences (AIIMS) as at 31 March 2013, the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 19 (2) of the Comptroller and Auditor General’s (Duties, Powers & Conditions of Service) Act, 1971 read with section 18 (2) of the AIIMS Act 1956. These financial statements are the responsibility of the AIIMS’ management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General 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/Comptroller and Auditor Generals’ 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 not been drawn up in the format approved by the Ministry of Finance.
   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 Overstatement of liability - Rs 5.81 crore: As per ‘Appendix A’ of the Annual Accounts (Research Section), there was a liability of Rs 48.08 crore as on 31 March 2013 on account of funds received from various agencies for research projects. This liability included an amount of Rs 5.52 crore accumulated over the years on account of administrative charges recovered from research projects. This amount being levied as administrative charges of AIIMS on the projects of other agencies was the income of AIIMS and there was no liability of AIIMS for this amount. But its depiction as liability resulted in overstatement of liability and understatement of income.

Similarly, R.P. Centre for Ophthalmic Sciences showed a liability of Rs 0.29 crore accumulated over the years on account of administrative charges recovered from research projects, which should have been treated as income of the year.

A.1.2 Understatement of liability under GPF - Rs 3.91 crore: As per Appendix F-1 of the Accounts, liability under GPF was of Rs 349.08 Crore. However, in the Balance Sheet this was shown as Rs 345.17 crore resulting in understatement of liability by Rs 3.91 crore.

B. Income & Expenditure Account
B.1 Income

B.1.1 Understatement of income - Patient Treatment Account: Funds received from various Departments/Organisations for treatment of their patients are deposited in Patient Treatment Account and the balance amount remaining unutilized is refunded to the concerned Department/Organisation at the end of the treatment. The fund under this head earns interest during the treatment period of the patient which is non refundable and as such is an income to the Institute.

AIIMS had earned interest of Rs 1.50 crore but this had not been included as income in the Accounts resulting in understatement of Income and overstatement of Liability by the like amount.
C. General

C.1 The unspent balance (I & E A/c) as on 31.03.13 in the accounts of National Drug Dependence Treatment Centre (NDDTC) of AIIMS was Rs 0.41 crore which was depicted as excess of income over expenditure instead of depicting it as liability. Further, NDDTC has shown unspent balance Rs 0.36 crore in its utilization certificate, but no liability for the same has been depicted in balance sheet.

C.2 AIIMS had capitalized the entire amount of Rs 261 crore received as capital grant from the Ministry of Health and Family Welfare under head ‘Capital Grants from Government of India’, irrespective of status of their utilization. The liability of unspent balance of Rs 49.92 crore, for which revalidation was sought during 2013-14, was not shown separately.

Similarly, the entire amount of grant received for creation of capital assets under Oversight Committee amounting to Rs 51.80 crore was also capitalised under head ‘Oversight Committee’ despite the fact that unspent balance of Rs 69.09 crore was available under this head (a total of Rs 131.26 crore was available under this head during 2012-13 which included unspent balance of 2011-12 amounting to Rs 79.46 crore). No separate liability for unspent balance was shown either in 2011-12 or 2012-13.

D. Grants in aid

The Institute is mainly financed from the grants of Government of India. During the year 2012-13 the institute received grants of Rs 1355.72 crore {Plan Rs 470.00 crore and Non-Plan Rs 788.70 crore, Oversight Committee (Plan) Rs 85.10 crore and Rs 11.92 crore (Plan) for National Drug Dependence Treatment Centre (NDDTC)}. It also had its own income of Rs 128.46 crore. The total plan expenditure was Rs 424.81 crore. The total non-plan expenditure was Rs 899.44 crore. The Institute received grants for various schemes for Rs 68.37 crore and incurred an expenditure of Rs 77.35 crore.

E. Management letter: Deficiencies which have not been included in the Audit Report have been brought to the notice of the Director, 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 and Expenditure Account and Receipts and Payments Account dealt with by this report are in agreement with the books of accounts.

vi. In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in Annexure 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 the All India Institute of Medical Sciences as at 31 March 2013; and

b. In so far as it relates to Income and Expenditure Account of the surplus for the year ended on that date

For and on behalf of the Comptroller and Auditor General of India

Date:31.10.2013
Place: New Delhi

Director General of Audit (Central Expenditure)
Annexure to Audit Report

1. Adequacy of internal audit system
The Institute did not have any internal audit manual.
The internal audit system of the Institute was not adequate. During 2012-13, only 35 units were audited, which was 25% of the total units, were audited by the internal audit wing of the Institute.

2. Adequacy of Internal Control System
The internal control system of the Institute was adequate

3. System of physical verification of fixed assets
The physical verification of fixed assets had not been conducted during 2012-13 and as such, the actual existence of fixed assets included in the accounts could not be assured.

4. System of physical verification of inventory
The physical verification of stationery, books and publications and consumable items was conducted for the year 2012-13.

5. Regularity in payment of statutory dues
As per the accounts, no statutory dues over six months were outstanding.
Replies to Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of AIIMS for the year ending 31 March 2013

A.1.1 Overstatement of liability - Rs 5.81 crore
As per the policy of the Institute, Administrative charges recovered from various projects shall not be treated as Institute’s receipt/income. All project grants received in the Institute are covered under the Head ‘Earmarked Fund’/‘Endowment Funds’. The Project accounts are separate from the Main Accounts of the Institute. So far as Institute’s Main Account is concerned, in these accounts, income & expenditure account is prepared whereas in Project Accounts, no Income and Expenditure account is prepared as it does not generate any income/revenue for the Institute. Further this policy is being followed from last 20 years in the Institute.

Accordingly the unspent balance including administrative charges of Rs 48.08 crore and Rs 0.29 crore in respect of Research Section and R.P. Centre for Ophthalmic Sciences respectively are correctly shown as liability in the Balance Sheet for the Financial Year 2012-13.

A.1.2 Understatement of liability under GPF - Rs 3.91 crore
The separate Receipt & Payment account has been prepared for GPF and transactions have not been routed through AIIMS (main) account. However, the understated liability of Rs 3.91 crore will be corrected in the current year accounts (Financial Year 2013-14). The observation has been noted for compliance in future.

B.1.1 Understatement of income - Patient Treatment Account
It is submitted that the interest amounting to Rs 1.50 crore earned up to 2012-13 in AIIMS Patients Treatment Accounts has already been transferred to the Institute’s Main Account in June 2013 (Copy enclosed as ‘Annexure A’). The interest for the year 2013-14 will be transferred to AIIMS’s Main account in due course. The point raised by the Audit has also been noted for compliance in future.

C.2 The amount received under the head creation of capital assets is incurred only on capital nature of items. The liability of unspent balance will be shown separately in the accounts of the financial year 2013-14. The observation has been noted for compliance in future.

D Grants in aid
Factual facts, hence no comments

Annexure to Audit Report

1. Adequacy of internal audit system:
The Internal Audit Manual has been prepared and will be implemented from the current financial year 2013-14 for internal audit of the Institute. Further target of internal audit of 35 auditee units have been achieved by internal audit wing of the institute despite shortage of manpower.

2. Adequacy of Internal Control System: No comments

3. System of physical verification of fixed assets:
The physical verification of the fixed assets for the financial year 2012-13 is being conducted during the current financial year 2013-14.

4. System of physical verification of inventory: The physical verification of stationery, books and publications and consumable items was conducted for the year 2012-13.

5. Regularity in payment of statutory dues: No comments